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TIAGO DA SILVA CARVALHO **Matriz para mapeamento do potencial
educativo de programas audiovisuais na
aprendizagem do Inglês**



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Matrix for mapping the educational potential of audiovisual content in learning English

Tese apresentada à Universidade de Aveiro para cumprimento dos requisitos necessários à obtenção do grau de Doutor em Multimédia em Educação, realizada sob a orientação científica do Doutor Pedro Alexandre Ferreira dos Santos Almeida, Professor Auxiliar do Departamento de Comunicação e Arte da Universidade de Aveiro e coorientação da Doutora Ana Jorge Balula Pereira Dias, Professora Adjunta da Escola Superior de Tecnologia e Gestão de Águeda da Universidade de Aveiro.

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palavras-chave

Plataformas digitais, *Business English*, conteúdo audiovisual, competências comunicativas, Inglês Língua Estrangeira.

resumo

A presente tese descreve o processo de desenvolvimento e teste de um protótipo de uma aplicação móvel direcionada a professores de Inglês Língua Estrangeira e aprendentes de *English for Specific Purposes / Business English*. Trata-se de um protótipo de uma plataforma colaborativa *online* que permite a partilha e mapeamento de conteúdo audiovisual. Este mapeamento também permite a pesquisa de conteúdo na mesma plataforma, para utilização em sala de aula ou para consumo em contextos informais.

Neste trabalho, descreve-se: i. como foram isoladas as vareáveis para construir a matriz que sustenta as tarefas de mapeamento e pesquisa, ii. como essa Matriz foi incorporada num Google Form para ser testada por um painel de peritos, iii. como foi construído o protótipo de alta-fidelidade, e iv. como esse protótipo foi testado e avaliado por uma amostra de utilizadores-alvo.

A metodologia aplicada neste projeto foi *Development-Research* e foram delineadas quatro fases distintas: 1. Construção da Matriz – através de um estudo exploratório da literatura e de plataformas e *software* de aprendizagem de línguas; 2. Validação da matriz por parte de um painel de peritos; 3. Incorporação da matriz num protótipo – utilizando ferramentas de prototipagem disponíveis gratuitamente *online*; 4. Uso experimental do protótipo por utilizadores-alvo. Com os dados recolhidos na fase 4 foi possível avaliar o potencial de implementação desta plataforma.

Os resultados do teste do protótipo mostram que, ao nível comportamental, este tipo de plataforma tem potencial para mudar os hábitos de pesquisa de conteúdo audiovisual por parte de ambos os grupos de utilizadores; ao nível das tarefas, estas são intuitivas e de simples execução; ao nível conceptual, a plataforma foi validada enquanto instrumento de auxílio ao processo de ensino e de aprendizagem e as funções de interação social foram igualmente validadas. Ainda assim, concluiu-se que as funções de gamificação pensadas necessitam de uma revisão.

Em síntese, uma plataforma desta natureza parece ser um instrumento de utilidade a outros ramos do ensino do inglês (como o *General English*), que pode gerar o desenvolvimento de mecanismos de inteligência artificial para mapeamento automático de conteúdo audiovisual, e o racional subjacente pode ser transferido para outras línguas estrangeiras.

keywords

digital platforms, business English, audiovisual content, matrix, communication skills, EFL, TESOL, prototype.

abstract

This thesis describes the process of developing and testing a prototype of a mobile application aimed at English as Foreign Language (EFL) teachers, as well as English for Specific Purposes / Business English learners. It is a prototype of an online collaborative platform that allows the sharing and mapping of audiovisual content. This mapping also allows for the search of content on the same platform, to use in-class or in informal contexts.

In this work the following steps are depicted: i. the identification of the variables included in the Matrix, which supports mapping and searching tasks, ii. how this Matrix was incorporated into a Google Form, to be tested by an expert panel, iii. the selection of the tools used to build the high-fidelity prototype, and iv. how this prototype was tested and evaluated by a sample of target users.

In terms of methodology, this project is a development-research work, in which four different phases were outlined: i. the construction of the Matrix – through an exploratory study of the literature, as well as language learning platforms and software; ii. the validation of the Matrix by an experts' panel; iii. the incorporation of the Matrix into a prototype – using prototyping freeware online tools; iv. the experimental use of the prototype by target users. With the data gathered in the latter, the potential of implementing such a platform was evaluated.

The results of the prototype trial show that, on a behavioral level, this type of platform has the potential to change the habits of searching for audiovisual content by both user groups; regarding the tasks, they are intuitive and simple to perform; on a conceptual level, the platform was validated as tool to support the teaching and learning process; the functions of social interaction tools were also validated. However, the planned gamification functions still need some review.

A platform of this nature can be a useful instrument to other TESOL branches (such as General English). It can generate the development of mechanisms of artificial intelligence for automatic mapping of audiovisual content and the underlying rationale can be transferred to other foreign languages.

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ACCRONYM LIST

| | |
|------|---|
| APPI | Portuguese Association of English Teachers |
| AVC | Audiovisual Content |
| BE | Business English |
| CEFR | Council of Europe's Common European Framework of Reference for Languages: Learning, Teaching, Assessment (Council of Europe) |
| CS | Communicative Skills |
| EFL | English as a Foreign Language |
| ESP | English for Specific Purposes |
| GE | General English |
| L2 | English as Second Official Language |
| MALL | Mobile Assisted Language Learning |
| OCP | Online collaborative platform(s) |
| TAP | Think-aloud protocol(s) |
| UGC | User-Generated Content |

INTRODUCTION

According to World Atlas (2018) the English language is the official language of 35 different countries, as well as one of the official languages of the European Union and United Nations – along with many other international organizations and businesses. Thus, it is thought as a second language all over the world, and countries like Sweden, Singapore, Argentina, Finland and Portugal are among the best speakers of English as a second language (Education First, 2015). Moreover, for economic, political and social reasons, English is the “*lingua franca of the modern globalized world*” (Crystal, 2011:1). In the current global context, English does appear to maintain a dominant position in the business world and thus assuming a chief role of language of communication in companies’ internationalization process. According to Cogo and Yanaprasart (2018:96, 99):

“An increasing number of companies are opening branches around the world and operating in different countries and businesses realities. This often involves a growing mobile workforce and the development of international teams. (...) the issue of work communication has been given some attention in communication studies. (...) In international business contexts, (...) English is now a requirement in globalized business and, even more, an essential aspect of business knowledge.”

Focusing on the economic reasons, and using the Portuguese business scenario as an example, one can see a trend of Portuguese businesses needing training in English to operate abroad for a wide array of reasons (Almeida, 2018). Among the main reasons are the strangulation of the national market, the need to increase a market quota and the need for national and international recognition (Almeida, 2018). The tendency for Portuguese businesses to internationalize has been growing steadily in between 2010 and 2014, and Europe is the main destination of the internationalization intentions (INDEG & IUL, 2014). According to INDEG & IUL (2014) Portuguese companies chose the UK, Poland, Germany and Romania as destinations to conduct their businesses in, and it seems logical to assume that, in this global communication context described by Crystal (2011), the main language of communication in these countries is English. In fact, the lack of English proficiency is an identified barrier to successful internationalization, as demonstrated by Cahen et al. (2016). These researchers concluded that the lack of English language knowledge, in all management levels, was hindering proper communication with international stakeholders (Cahen et al., 2016).

Communicating in the *lingua franca* for internationalization purposes also brings value to the country. Hence, the reason why Almeida (2018) inquired about the amount of incentives given to Portuguese companies by the state. This value translates into reputation for Portugal, as a country with a competitive business tissue, which internationalizes efficiently. The World Economic Forum (Schwab, 2018) measures this reputation and, in 2018, Portugal occupied the 34th place in the 2018's Global Competitiveness Index. In fact, the internationalization value for Portugal is reflected in the percentage of the Portuguese Gross Domestic Product (GDP) that derives directly from collection of taxes to companies that internationalized. The Portuguese GDP also benefits from the exports generated by internationalization and it has contributed positively to Portugal's GDP between 2010 and 2017, according to PORTDATA's (2018) aggregation of balances of the Portuguese import/export numbers.

Therefore, workers of companies operating on an international level feel the need to learn English, and more specifically, to communicate in their area of expertise. Even when a worker learns English in the early stages of their educational background, there comes a point when entering the job market demands for skilled communication for specific purposes in English. For this reason, global language school franchises like *British Council*¹, *Education First*² and *International House*³ offer English for Specific Purposes courses to supply the market's demand. English also assumes a highlighted position in the educational systems around Europe. However, learning is nowadays a lifelong process, which has to adapt to the continuous mutations and area interpenetrability of a very flexible job market. This implies regular adjustments to training needs. In the case of English, branches of English teaching and learning were developed to address concrete needs of the different scientific areas, which are referred to as English for Specific Purposes (ESP), a term firstly used by Barber (1962). Thus, learning ESP is now possible in public education contexts (schools and universities), private education contexts (language schools, in company training) and even in informal contexts (tandem events, self-learning).

Hutchinson and Waters (1987) state that the difference between ESP and General English (GE) is theoretically none, although, in the actual educational contexts, they are very different, i.e. the line between where GE courses and ESP courses appears to have become vague. Considering the context, one can infer that English as Foreign Language (EFL) teachers were trained to plan GE lessons. In this training, teachers also learned to plan ESP lessons according to GE courses lesson planning principles. In their practice, EFL teachers should be sensitive to the needs of

¹ See <https://www.britishcouncil.org/> - <https://www.britishcouncil.org/english/academics>.

² See <https://www.ef.edu/> - <https://englishlive.ef.com/en-us/online-english-courses/>.

³ See <https://ihworld.com/> - <https://ihworld.com/search/?Search=business&StartNodeId=&Updated=#results>.

their students – who had a specific purpose for learning English. The main difference, as one can conclude from Hutchinson and Waters (1987), is that ESP teachers are much more aware of the importance of needs' analysis, and, certainly, the developers of teaching materials think very carefully about the goals learners want to achieve. Perhaps this demonstrates the influence that the ESP approach has had on English teaching in general. The abovementioned *Specific Purposes* can be summarized into professional, academic, scientific, etc. and this thesis will address a professional branch of ESP related to business, i.e. *Business English* (BE).

BE is a branch of ESP that can be learned by both native and non-native speakers of English. According to Neeley (2012), BE promotes more efficient use of communication in a company setting, as native speakers learn how to communicate with non-native speakers, thus changing their communication behavior. As English is the *lingua franca* of the business world, BE courses are developed to teach/train the English language with the linguistic *corpus* that is used daily in business settings. This means that the vocabulary present in BE courses is related to finances, management, marketing, international trade, sales, etc., which according to Chujo and Utivama (2006), compose a sub-corpus of British National Corpus. An exploration of BE manuals (such as the ones explored in Carvalho et al., 2017) provides clarification about the importance of training particular communication skills like, for example, *talking the phone*, *presenting* or *networking*. In these manuals one can also find structural exercises in grammar items, and an even utilization of listening, reading, speaking and writing, i.e. the language communication skills. According to the Common European Framework of Reference for Languages (CEFR) – (Council of Europe, 2001) – “*Speaking*” and “*Writing*” are productive skills, whereas “*Listening*” and “*Reading*” are reproductive skills. Nunan (1991) states that a balanced training of these four skills is an essential practice of the Communicative language teaching method.

Therefore, considering the internationalization desire of companies, the role of English as *lingua franca* and the development of the BE branch, it is worthy to demonstrate how BE has contributed to the internationalization process of companies. A first example comes from studies conducted by Sonntag (2009) and Taylor and Bain (2005) about the Indian outsourcing industry, which is serving technology companies based in the UK and North America with a cheap and knowledgeable labor force who already speaks English. Another example of the importance of proper BE skills is given by Evans (2010) who concludes that the frequency with which Hong Kong professionals need to communicate in English increases with rank and experience. Rogerson-Revell (2007) also contributed to the study of BE's importance in the internationalization process by pinpointing issues that non-native English speakers are facing when confronted with meetings with other non-native speakers while working in international

organizations. A relevant contribution to this topic came from Kankaanranta and Planken (2010), who listed workers' opinions regarding using BE in their work-life. Among their findings is the workers' notion that

“without English the work cannot be done”, “English (...) is an international code (...) and used at work”, “the real-life practice that is the best school for learning to use” BE, “The English used to communicate ‘corporate’ information (...) was considered different (...) also clearly more challenging” Kankaanranta and Planken (2010:27-28)

The authors also isolated the importance of BE for international companies in the maintenance of successful commercial and professional relationships between management, headquarters, staff, clients and suppliers. A final example came from Hilal and Hemais (2003) who described the successful approach to internationalization adopted by Scandinavian companies. As the authors explain, Scandinavian companies internationalize slowly, firstly gaining experience on the local market to tackle issues like local economic policy, laws or local language – to tackle the latter, BE was the choice made by the likes of *IKEA* (Rask et al., 2010) or *Nokia* (Taavitsainen and Pahta, 2003) to expand to other European markets with a uniform language policy.

All the examples listed in the last paragraph frame the importance of BE in internationalization processes, namely in the sharing of knowhow, in the selection of global business teams, in indicating English proficiency when posting position requirements and in the importance of language proficiency in collaborative tasks. Govindarajan and Gupta (2001) stress the role of English in building effective global business teams when quoting *Goran Lindahl*, ABB's former CEO: Goran *“was explicit in referring to his company's official language as “poor English” to drive home the point that no one should be embarrassed to express an idea because of a lack of perfection in English”*. The ability to share knowhow by using BE in a multicultural environment is considered by Kankaanranta and Salminen (2013) as a worker's global communicative competence.

Therefore, BE learners range from high school students preparing to enter the job market, to university students and, as mentioned before, to adults, who work in the financial, economic or sales sectors, and who are in need to improve their communication proficiency in English using the vocabulary of these particular business settings. To satisfy this need BE learners enroll in courses, thus relying on formal educational contexts. There is also the option to learn BE autonomously in informal and non-formal educational contexts. Focusing on these autonomous learners in informal and non-formal contexts, researchers have pinpointed an array of tools at the learners' reach to become self-taught BE speakers: mobile apps, software, audiovisual

content, websites (both institutional and user-created), online collaborative platforms, audio courses and (e)books. From all these tools researchers like Wang et al. (2019), Silva (2010) and Nim (2009), pinpoint audiovisual and digital platforms as the ones with higher possibilities of success in informal contexts – but as a complement to type of formal training.

However, deciding what to recommend and how would that satisfy the needs of individual learners, who are characterized by their heterogeneity, is an unanswered question. Online platforms and television provide a massive supply of content in English, but the demand is too varied. In the same way that learning groups are characterized by their heterogeneity, AVC consumers are also very varied: different viewers mean different proficiency levels, different learning needs, different tastes, different moods, different schedules, etc. Therefore, the motivation underlying this research project came from a need identified during teaching practice, i.e., specifically while teaching BE to adult learners. The teacher was invariably asked to share Audiovisual Content (AVC), produced for entertainment purposes, to be used by the learners as a language learning tool in informal contexts. Thus, this was the question to which the teacher had no scientifically sustained answer, and it served as motto to embrace this study: would it be relevant to construct an aggregator of AVC, directed towards teachers and learners of BE, that could serve as a tool to aid the formal BE training? Would this platform have the potential to change learners and teachers' consumption and sharing habits?

Furthermore, the construction of a simple aggregator of AVC related to BE brought about content validation questions, namely, the quality of the content, the English level of the users, the adequacy of the content to train communicative skills, among others. Although it seemed clear that this aggregator would be embodied in a digital platform, there was a need to find a way to validate the content present in this platform. Thus, bearing in mind some of the main impacts of digital technology on language teaching/learning practices – like Computer Assisted Languages Learning (CALL) (Nim, 2009), Mobile Assisted Language Learning (MALL) (Grimshaw et al., 2017), Multi-User Virtual Environments (MUVE) for education (Chen, 2016), Online Collaborative Repositories/ Aggregators of teaching/learning material (Cargile and Harkness, 2015) – one continued this doctoral project by reviewing literature which crosscut the use of digital technology in teaching/learning processes. During this exploration, it was possible to identify some EFL lesson planning platforms, like www.onestopenglish.com; virtual learning environments like the ones that could be found in *Second Life*⁴, with language lessons being organized by groups; and even language learning mobile apps/web platforms with a

⁴ <https://www.secondlife.com>

collaborative philosophy, like *Duolingo*⁵. The upper mentioned researchers proved that these impacts of digital technology on formal and informal learning practices developed valid aids to support both teachers and learners. The same researchers also identified the importance of interaction and contribution from the community for the validation of content – by content, one refers to materials, tasks, extra activities, teaching methodologies suggestions and/or teaching approaches. Consequently, it was concluded that the proposed tool to support BE teaching/learning processes, in formal and informal, contexts needed to have a collaborative element. Moreover, considering the initial conception of this platform, it was decided to focus on opinions about using AVC in BE teaching/learning shared by EFL teachers and learners of BE.

The choice to aggregate AVC in this platform project stemmed from both a need from BE learners presented in a real educational context, but also from the confirmation that AVC is massively consumed for entertainment purposes via television sets, and online AVC repositories/ aggregators. As for the former, it was possible to confirm the massive presence of television – here considered as a means of entertainment in households – in a survey of the UK's television viewing conditions (Bbccouk, 2015). Moreover, even though it is a means of entertainment that seems consolidated, at the same time the industry has been developing new ways to reach its viewers, as one can see in the evolutions from analog to digital TV, Internet TV, Interactive TV, etc. As for the latter, Ericsson Consumer Lab. (2016) study identifies an evolution of the concept of 'watching television' by confirming that people dedicate more hours of their lives to the consumption of AVC on either television, computers or mobile devices, thus confirming an ongoing shift to mobile consumption of AVC. Researchers maintained an interest in the educational uses of AVC prompted by its massive presence in people's entertainment habits and its mobile nature. Several authors (Wei, 2014; Bahrani et al., 2014; İlin et al., 2013; Bahrani and Sim, 2012) put forth successful educational practices based on the use of AVC in several fields of education, thus motivating the pursuit of more information to understand how to address the learners' request for AVC to support their language learning.

To summarize, an identified need during teaching practice gave the moto to the conceptualization of an OCP to aggregate AVC based on the teaching/ learning needs of BE teachers and learners. This platform's collaborative level was inspired by other examples of the use of Web 2.0 tools to share, consult and validate the opinions of others. What this thesis will attempt to demonstrate is that a selected aggregation of audiovisual content (produced for entertainment or educational purposes), which is available online for free consumption, and

⁵ <https://www.duolingo.com>

presented in a specific digital platform, can lead to a change in habits of informal consumption of AVC, directed at teaching / learning of ESP. This is the abstract/ conceptual work that gave rise to the problem and the objectives of the study, which are to be described next.

1.1. THE PROBLEM AND OBJECTIVES OF THE STUDY

Given the conceptual idea of the OCP and comparing this conception with other platforms, it was possible to confirm the need for a space to be developed following the purposes outlined in the abstract conception of the OCP: this is a space where BE teachers and learners could, in a community, recommend/share/catalogue/search/validate AVC to support their teaching and learning processes. Furthermore, it seemed important that this space could be used to analyze AVC bearing in mind markers, i.e. assumptions expressed in the CEFR, in other digital collaborative educational platforms focused on language teaching/learning, and in other online AVC repositories. To present a proposal of such a space, this research project was drafted with the specific purpose of creating an OCP that could be a valuable resource in formal and informal learning scenarios, by integrating two primary functions:

1. to support crowd mapping of AVC using the CEFR, as well as the communication skills associated to BE, thus organizing and categorizing content; and
2. to serve as an online information repository for teachers and learners to use, when they need suggestions about which AVC suits users' teaching/learning needs.

With these goals in mind, this work builds on the following research objectives:

- to identify criteria to map AVC taking in account what are the CS related to BE – the guidelines of the CEFR; items learners value when consuming AVC as an informal learning aid; items teachers value when choosing AVC as a classroom aid; and the relevant meta-data for an AVC repository;
- to deconstruct the conceptual framework into measurable variables to map AVC and gather them in a Matrix;
- to test the Matrix with target-users, and, at the same time, collect information on how useful an OCP sustained on this Matrix would be for teachers and learners of BE;
- to embody the Matrix in an OCP prototype which would allow target-users to experience what it would be like to map AVC according to their educational needs, as well as search and consume AVC which was previously mapped by other users;

- to test the prototype with target-users, in order to confirm the behavioral changes, and, at the same time, collect information on how useful an OCP of this nature would be for their teaching learning habits.

1.2. STRUCTURE OF THE THESIS

This thesis divides into an introduction, six chapters plus and a conclusion, followed by references and appendixes. In this introductory section, the motivations for this study, the problem and the research guidelines that ground this research project are put forward. Afterwards, Chapter 1 consists of a literature review, framing the conceptual areas of this project and depicting the main points of the state of the art. On the one hand, it addresses areas such as EFL and BE didactics, AVC consumption for entertainment and learning purposes, as well as online, digital, and collaborative platforms to foster informal learning of EFL. On the other hand, it sets the theoretical framework for the creation of the OCP Matrix – i.e. software, platforms and collaborative practices; AVC selection and description; main target-users of the OCP.

With Chapter 1, it was possible to identify a gap in the literature to be addressed by this project, by recognizing that there was a clear need of an OCP that would satisfy all the stated needs. Chapter 2 is dedicated to the research methodology, and it subdivides in two parts. In the first, the selected methodology is justified, considering the nature and paradigm of the study. Taking this into account, in the second part, the four phases of the research are described. Chapter 3 describes the exploratory studies that led to the identification of the variables included in the Matrix and how it translated into a survey. In Chapter 4, the analysis of the data collected with a group of experts, which were asked to validate the Matrix is put forward. In Chapter 5, the embodiment of the Matrix in a high-fidelity prototype is described and, in Chapter 6, the analysis of quantitative and qualitative data, gathered after trial use of the prototype by the target users, is presented. This work ends with a conclusion section, in which the outcomes of the study's four phases are synthesized and integrated, the limitations of the research are pinpointed, and suggestions of future work are put forth.

CHAPTER 1: LITERATURE REVIEW

Chapter 1's purpose is to highlight some of the most relevant aspects, which will frame the present study in terms of context. As the goal of this study is to develop an OCP to aggregate AVC that will serve as teaching /learning support of BE teachers ad learners, this first introduction to the literature review will focus on explaining how these three fields have already created mutual connections, even though there appears not to be a platform that promotes a triple connection in the way that would serve the same purposes as the OCP this study intends to propose.

The initial approach to this study consisted in an exploratory study of software and digital platforms dedicated to the teaching/learning of EFL. These were:

- CALL software
 - The criteria to select CALL software to analyze in this study was i. the software had to be reviewed in the pcmag.com website; and ii. it had to be rated with 4 or more stars. Among the results were *Rosetta Stone*⁶, *Fluenz*⁷ and *Rocket Languages*⁸.
- MALL applications
 - The criteria to select MALL applications was i. user rating above 4,6 stars on *Google Play*⁹; ii. over 5 million registered downloads; iii. free of charge; and iv. used globally. The results include software like *Duolingo*, *LinguaLeo*¹⁰ and *Memrise*¹¹.
- CALL online and collaborative platforms
 - The criteria to select these was i. quoted in Stevens (2013); ii. structured syllabi for EFL; iii. directed to adults; and iv. providing at least four courses of EFL. Platforms like *Future Learn*¹², *Saylor.org*¹³, *Edx*¹⁴, *YouTube*¹⁵, *FluentU*¹⁶, and *Second Life*¹⁷ became object of exploration. Other platforms included in this

⁶ <https://www.rosettastone.com/>

⁷ <https://fluenz.com/>

⁸ <https://www.rocketlanguages.com/>

⁹ <https://play.google.com/store>

¹⁰ <https://lingualeo.com/>

¹¹ <https://www.memrise.com/>

¹² <https://www.futurelearn.com>

¹³ <https://www.saylor.org>

¹⁴ <https://www.edx.org>

¹⁵ <https://www.youtube.com>

¹⁶ <https://www.fluentu.com>

¹⁷ <https://secondlife.com>

analysis were www.onestopenglish.com, as it provides an example of a platform where teachers share EFL lessons and materials. Another platform which was crucial in this initial approach was www.imdb.com¹⁸, to explore the organization of a collaborative platform that aggregates information on AVC.

With the analysis of all these it was possible to find examples of common ground between three fields (Figure 1):

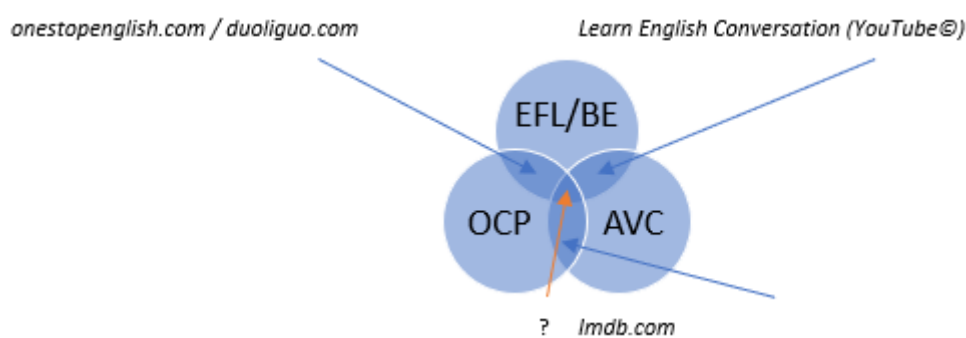


Figure 1 – Examples of common ground between the three fields

- www.onestopenglish.com and *Duoligo* are examples of OCP used to aid teaching and learning of EFL/BE, however these are mostly structural platforms and they do not use any AVC. Both platforms rely on user collaboration and validation and can be used to teach/learn English. However, they do not provide their users with AVC to help the teaching/learning process, and thus they do not invalidate the creation of this project's OCP.
- *YouTube* is an example of an open repository that can be used to consume AVC to support language teaching/learning. In *YouTube* users can find content directed specifically to EFL learning – e.g. the *YouTube* channel *Learn English Conversation*. *YouTube* also provides collaboration possibilities, namely using the comment tool. However, as concluded by Rebelo and Carvalho (2017), *YouTube* shows crucial limitations in the collaborative element, which make it inadequate to the purpose of the proposed OCP: i. the interaction tools in the platform do not provide validation of the AVC to be used as teaching/learning support material; ii. the quality of the comments is dubious as it is mostly closed comments that require no answer from the AVC producers or other users; iii. the producers/uploaders show little interest in promoting discussion about the content they upload. The authors conclude that these limitations make *YouTube* users treat the

¹⁸ (Internet Movie Database), is an online database of information related to world films, television programs, home videos and video games, and Internet streams, including cast, production crew and personnel biographies, plot summaries, trivia, and fan reviews and ratings.

platform as a repository and not an engaging collaborative platform that contributes with opinions and peer-validation of the uploaded content. Hence, without a valid collaborative peer-participation, *YouTube* does not invalidate the creation of this project's OCP.

- OCP and AVC – the informative website www.imdb.com is an example of this common ground between these two domains. It is a site, supported by its users, that focuses on AVC, providing information, user-ratings, cataloging, etc. Even though this site provides users with many collaborative elements, a rating system, a notification service, among other collaborative tools, it has no language teaching/learning functions. Therefore, it does not invalidate the purpose of this study.

With a defined framework of the fields of study, subchapter 1 will focus on the literature review that confirms the English language as *lingua franca*. The second subchapter is concentrated on learning EFL, and it will also include a section to clarify the current views distinguishing formal, informal and non-formal learning contexts. Subchapter three will focus on the consumption habits of AVC, and on confirming data about the use of English in the consumed contents. A final subchapter will provide the state of the art on practices of EFL teaching/learning with AVC, the elements that EFL learners value when consuming AVC for EFL autonomous learning. This last subchapter will conclude with an exploratory study of online AVC platforms used for autonomous EFL learning.

1. ENGLISH AS *LINGUA FRANCA*

English occupies a prime positioning in the context of global languages, therefore the amount of actual English speakers is a difficult number to determine, especially when one considers: English as a native language (ENL), English as Second Official Language (L2) and EFL. Moreover, there is still to consider the status of English as *lingua franca*. According to Crystal (2008) “*these days, (...) I am prepared to revise upwards again in the direction of 2 billion*”. English is the world's *lingua franca* because of:

1. the initial spread of the languages during the expansion of the British Empire, as elaborated by Kachru (1988);
2. the ascension of the USA as the leading Western superpower, as explained by Crystal (2012);
3. the evolution and globalization of the Internet, which required users to adapt to new forms of communication, thus altering the construct of the English language (Omoniyi, 2010);

4. the number of English learners spread on a worldwide scale, which can be confirmed by the sample of the Test of English as a Foreign Language (or TOEFL) takers (Test and Score Data Summary for TOEFL iBT® Tests, 2017); and

5. the evolution of Web 2.0 tools, which have been facilitating global online learning, information sharing, and communication (McAfee, 2006).

This expanding circle of English communicators has risen so much that it made Teaching English as a Second or Other Language (TESOL) a global business. It developed to a crowd that estimates to about two-thirds of the total English speaking population and created the foundations to transform English from a regional language to the *lingua franca*, i.e., the foremost language of communication in business, politics, conventions, media, Internet, and tourism. According to Cavalheiro (2015:89):

“Not only does it function as the default language of communication in many multilingual and multicultural settings, but its presence within national borders has also become established in a number of domains, such as in tertiary education, advertising, mass communication, the media, science and technology”.

Moreover, British Council’s annual report 2014/15 (Britishcouncilorg, 2015) states that 11.4 million people are learning English face-to-face and 24.9 million use the institution’s digital and social media for learning. Furthermore, both the UK and the USA were, at points in history, the economic centers of the world. Firstly, the UK created an empire after its grand Industrial Revolution then, after the Second World War, the USA confirmed its status as a superpower. This power created a mentality that *“many Native English speakers find it hard to fathom that there can be a serious alternative to English (...) Foreigners need to learn English, not the other way around”* (Crystal, 2005:1). It is no wonder that the countries that use English as a native language possess over 30% of the world’s economic power, which authors like Pennycook (2017) refer to as English *Linguistic Imperialism*.

The English language has been spreading across the globe, and it started even before the evolution created by the Internet. Until the 1990s, English was already a global language in its three variations: English as Native Language, L2 and EFL. Kachru (1988) presented a suggestion to perceive the English language *“in terms of three concentric circles representing the types of spread, the patterns of acquisition and the functional domains in which English is used across cultures and languages”* (Kachru, 1988:5). The inner circle of the model is fixed and includes the UK and four former colonies of the British Empire (the USA, Canada, Australia and New Zealand). In the outer circle, there are countries which were, and some still are, part of the Commonwealth

(like Nigeria, Sri Lanka, Kenya or Bangladesh). Finally, the extending circle, which, in this version, does not include European countries, but is composed by countries like Japan, Egypt, or Israel. It is interesting to apply the term “*extending*”, pointing out that this circle is supposed to grow in the future. This model will be used throughout this document, whenever the need to refer to these three particular groups arise.

Shifting the focus to the European context, more specifically within the European Union, the results presented on the Special Eurobarometer 386 (Eurobarometer, 2017:19, 21) underline the relevance of the English language, even on a continent that values different linguistic heritage:

“English dominates as the language that Europeans are most likely to be able to speak”;
“English is much more likely to be cited by respondents as the first, i.e., most fluent foreign language spoken (...). At a national level English is the most widely spoken foreign language in 19 of the 25 Member States where it is not an official language.”

As for Internet presence, English is the most used language on the Internet (Pennycook, 2017). This claim was sustained by a study from the Miniwatts Marketing Group. Using an unofficial measurement, the authors produced an updated estimate, dated from December 2017 which was able to place English as the most used language by the Internet users, i.e., more than 1.5 million users consult, produce and communicate in English on the Internet (MMG, 2017).

A reference should be given to the mass media and modern technologies since they have been playing a vital part in the spread of English by distributing popular culture (e.g., films, music, and television shows) and recent development of IT technologies – e.g., Internet TV, social networks and online gaming (Berns, 2007). As Cavalheiro (2015:14) puts it, “*The American mass media industry in particular (e.g., television, cinema, and the press) may have contributed to the dissemination of a set of cultural values praised by others*”.

The reasons that made English the global *lingua franca* can be seen from different perspectives. An expert in economics will list economic reasons, whereas an expert in sociology will find social motives. Linguists or anthropologists will also present their explanations, but most of these discussions on a global level will be in English. Our linguistic ability and variety are tangled with the growth of our modern world and, so far, it all points to a continuous prevalence of English as the primary language for global communication. It was the growth of international contacts (as a result of the technology used in communication) that has played an essential role in the value ascribed to English language use today.

2. LEARNING ENGLISH AS A FOREIGN LANGUAGE

This subchapter's purpose is to give a perspective of how English is being taught and learned as a second or foreign language around the world. After a clarification of essential concepts, subsection 2.1.1 will focus on the importance of collaborative platforms and how they are being used to support EFL teaching/learning processes. Section 2.2. will focus on how the needs of different learners have led to a growth of ESP syllabi, with a particular focus on BE (Subsection 2.2.1). It is equally relevant for this framework to clarify the concept of *adult learner* and review the concept of *autonomous learner* in a time when Web 2.0 tools are available as support to language acquisition. These concepts are defined in the third section.

Regarding EFL teaching/learning, English is present in the education systems around the world. When looking at kindergarten offers, English language can be offered in a bilingual modality, in which children are immersed in a learning environment focused on two languages, as depicted, for instance, by Rothe (2015). In the USA, for the learners that opt for tertiary education, the national education boards¹⁹ plan to assure that English proficiency is reached before accessing higher education. At this level (and excluding courses which involve a high level of language knowledge, i.e. linguistics, literature, etc.) the plan appears to be the integration of ESP courses. This develops the (native and foreign) learners' English proficiency applied to specific knowledge areas, i.e. the study field of their choice – e.g. English applies to law, Business English, and so on.

In Portugal, some schools have even decided to include English as a complementary activity from the 1st grade onwards. The school panorama for the next few years will probably continue to favor English in the early stages of school education, allowing for the choice of a second foreign language in the 7th grade and a third in the 10th grade. From all the seven foreign languages possibilities offered to Portuguese pupils, only English is mandatory.

However, a most remarkable change of paradigm in tertiary education is the fact that universities around the world seem to be keen on having higher numbers of foreign students in their campuses, which makes them use English as a way to approach and engage them. This can be seen from two perspectives. Firstly, the universities of English speaking countries want to attract foreign learners who look at the university as a place “*to gain intercultural understanding and/or study the language, or long-term, relocating to a different nation to complete a degree*” (Brown, 2008:132). Second, the efforts put in by universities of non-English speaking countries to offer foreign learners the opportunity to study at their grounds. For this purpose, they provide

¹⁹ In the USA, school boards decided to institute programs of English as Second Language (ESL) to assure that some pupils, like immigrants or children who grew up in languages-other-than-English households, have the opportunity to learn English (McLaughlin, 2013:1).

information in English on their websites, online courses on various subjects in English and even graduate programs with syllabi in English.

Moreover, the academic production of scientific work also seems to be predominantly in English, as referred by Ferguson et al. (2011:1): *“Recent years have seen a growing output of publications expressing concern over the dominance of English in scientific publication and academic exchange”*. This raises issues like inequality between native and non-native speakers, but Ferguson et al. (2011) continue to list reasons why this is more of an assumption than a fact, namely: **1.** being a native English speaker does not make one proficient in academic writing; **2.** non-Anglophone researchers are willing to put up extra effort in the academic writing; **3.** non-Anglophone researchers tend to accept the dominance of English; and **4.** and see advantages in the use of a *lingua franca* (Ferguson et al., 2011).

Overall, the presence of English in the *expanding circle’s* countries is being accepted and formally included in the national education systems’ syllabi. The national boards of education have recognized English, and school programs were updated to include EFL – some with mandatory status and some with voluntary status. This is evidence that syllabi designers consider EFL as a vital for the academic success of pupils and students. These changes are relatively recent, and their effects are being analyzed by scholars like Cabral (2017) in Portugal, Müller (2016) in Germany, or Verspoor et al. (2015) in the Netherlands, which give some global feedback on how children, teenagers, and adults are accepting this paradigm change. Apart from the presence of English in the educational systems, institutions like The British Council, the TOEFL exams or Cambridge have created a network of global teaching services directed to a wide array of English learning.

Language teaching/learning is also a concern of the EU, which, after its consolidation in 1993, upon the signature of the Maastricht Treaty, initiated a convergence initiative to reform the EU’s educational systems. This initiative culminated in 1999 with the Bologna Declaration. This convergence initiative also prompted an analysis of the phenomenon of language teaching/learning in its borders. From this analysis, in 2001, the CEFR was presented to pose as a universal validation system for the education of languages in Europe. Thus, this document

“provides a common basis for the elaboration of language syllabuses, curriculum guidelines, examinations, textbooks, etc. across Europe. It describes in a comprehensive way what language learners have to learn to do in order to use a language for communication and what knowledge and skills they have to develop so as to be able to act effectively. The description also covers the cultural context in which language is set.

The Framework also defines levels of proficiency which allow learners' progress to be measured at each stage of learning and on a life-long basis".

Of course that the CERF is not free of criticism (Hulstijn, 2014), but it is generally accepted in Europe and it has also been matched to the major English exams to certify proof of language proficiency. CEFR is a valid and valued document and serves as a reference to every EU country. However, it is noted that for the rest of the world, certificates like TOEFL, First Certificate in English (FCE) or International English Language Testing System (IELTS) are most commonly asked by employers when it comes to English language validation.

Portugal educational policymakers are now considering including a Cambridge exam at the end of the 9th grade (Cravo et al., 2013). This decision is controversial but will surely provide these pupils with more global recognition of their English skills. However, this is a European problem, and it would be necessary that the EU could find a way to see the CEFR recognized worldwide.

It was also pressing to clarify the difference between EFL and English as Second Language (ESL).

"EFL is used in contexts where English is neither widely used for communication nor used as the medium of instruction. Brazil, Japan, Korea, Thailand, and Mexico are all countries where English is taught as a foreign language, either as part of the elementary and high school curriculum, or in private school or other educational settings." (Nunan, 1999:1).

Instead, it seems to designate settings where the language learning process is seen as more of an educational choice/imposition and not with the intent of immediate practical application. According to authors as Smith (1978) and Talebinezhad and Aliakbari (2013:22), EFL is

"English taught as a school subject or on an adult level solely for the purpose of giving the student a foreign-language competence which he may use in one of several ways: to read literature; to read technical works; to listen to the radio; to understand dialogue in the movies; and to use the language for communication, possibly with transient English or Americans"

Talebinezhad and Aliakbari (2013) also add that EFL learning tends to set the cultural emphasis in the native speaking countries, like the USA, the UK or Australia. The learner is invited to compare and contrast the cultural differences using the target language as the significant communication medium.

ESL is an approach for learners “*who have a primary language other than English and who are limited in their language proficiency*” (Carrasquillo, 2013:4). These learners have their native language and, due to several reasons – immigration, state demand, social pressure –, started to learn ESL. This is a movement that started in the aftermath of World War II and gained momentum in the late fifties and early sixties. Carrasquillo (2013:6) informs that the “*first of three ad-hoc conferences in TESOL was held in March 1964*” and “*The professional organization TESOL was established in 1966*”, followed by a period of expansion. ESL’s courses consider that English is the learners’ second language, and therefore the goal is to reach native levels of proficiency, hence the choice made by Carrasquillo (2013) of the words “*systematic development*” on Figure 2. Successful ESL learners dominate the concrete and abstract levels of language use, develop all English communication skills, understand native speech and texts of English, show native proficiency in the productive settings and, consequently “*function successfully in classrooms where English is the medium of instruction*” (Carrasquillo, 2013:5).

ESL program is the systematic development of the following areas:

- **A vocabulary for expressing oneself in different social and academic environments.**
- **Automatic control and fluency in the use of natural and accurate English language, linguistic and grammatical patterns.**
- **Natural communication situations for meaningful interaction.**
- **Creative grammatical and syntactical construction abilities.**
- **Development of strategies to confront the process and varied skills of reading.**
- **Development of conceptual, grammatical, and syntactical forms of writing.**

Figure 2 – General objectives of an ESL program (Carrasquillo, 2013:6)

When learning English, learners are sometimes faced with a choice of learning English from a content-based language course, i.e., GE, or rather a course that meets their own specific goals and purposes, i.e., ESP²⁰. According to Far (2008), there is a clear distinction in the definition of the two approaches:

- GE “*refers to contexts such as the school where needs cannot really be specified. It is more usefully considered as providing a broad foundation rather than a detailed and selective specification of goals*”.

²⁰ 2.2. ENGLISH FOR SPECIFIC PURPOSES will focus with more detail on this item.

- ESP is as recognizable activity within the broader professional framework of English language teaching, with implications for the design of syllabi and materials as well as its presentation and then evaluation (Far, 2008).

Focusing for now on GE, one can take into account Far (2008) summary, which states that GE learners' age varies from children to adults; the purpose of learning is related to education, i.e., English is a subject of a class they take mandatorily or willingly; the language skills are stressed equally as a general rule; assessment is done according to external directives; the syllabus does not take into consideration the future needs of the learner (since they are impossible to predict); the syllabus is drafted according to policy makers believe to be relevant for the learner.

It is also significant not to ignore that what separates the GE and ESP approaches is related to the practice of teaching and syllabus design. Taking into account that ESP syllabi are tailor-made for the needs of the learners, one also needs to consider that during time the needs of learners from several academic and professional groups diversify. This diversification of learner needs has motivated authors like Hutchinson and Waters (1987) to theorize a branching of ESP into English for Academic Purposes and English for Occupational Purposes, which, in turn are branching out towards other scopes. The clearest example is the *Tree of ELT* proposed by Hutchinson and Waters (1987; Figure 3 – see next page). Authors quoted in Javid (2013), like Far (2008), Gatehouse (2001), Dudley-Evans and St John (1998), and Strevens (1988), have even recognized overlaps between the teaching methods and learning techniques of the different branches.

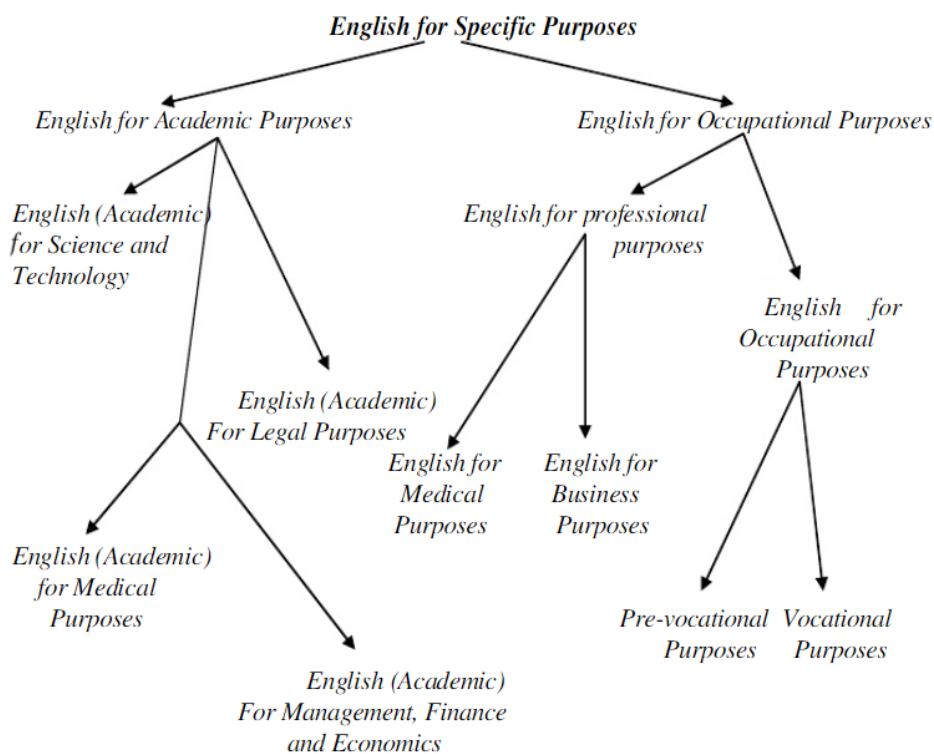


Figure 3 – Tree of ELT according to Hutchinson and Waters in Javid (2013:142)

Another evidence of the growth of ESP can be found, for instance, in Portugal. The Portuguese national qualifications catalog provides syllabi for sixty-seven different learning units related to ESP, which are certified, recognized in EU grounds and range from customer service to real estate²¹. Among many one can find English language for *Logistics, Marketing* or *Stock Management*.

2.1. FORMAL, NON-FORMAL AND INFORMAL LEARNING CONTEXTS

Until this point the literature review was focused on formal educational contexts for language learning. However, this project conceptualized an OCP to be equally used in informal learning contexts. Therefore, this section is essential to revise and frame the concepts of formal, non-formal and informal learning contexts.

Consistent with Chagas (1993), formal education is characterized by being structured. It takes place in own institutions – schools and universities – where students follow predetermined programs, similar to the other students who attend the same institution. Ahmed and Coombs (1974:8) described formal learning in terms of education context: “*formal education is the highly*

²¹ <http://www.catalogo.anqep.gov.pt/Ufcd>

institutionalized, chronologically graded and hierarchically structured education system, spanning lower primary school and the upper reaches of the university”.

Chagas (1993) states that non-formal education takes place outside these institutions and is organized by museums, the media and other institutions that organize events of various kinds, such as free courses, fairs and meetings, with the aim of teaching a heterogeneous public. Non-formal learning thus develops according to the desires of individuals in a climate specially designed to be enjoyable. The 2016 CEDEFOP²² report (Europaeu, 2016) described non-formal as learning consisting of planned activities not explicitly designated as learning (in terms of objectives, time or support) but which have important learning elements. It is intentional from the learners' point of view. Normally, this does not lead to certification, and learners may learn during work or leisure activities that do not have learning objectives; however, they are aware that they are learning.

Finally, Chagas (1993) states that informal education occurs spontaneously in everyday life through conversations and experiences with family, friends, colleagues and occasional interlocutors. To this definition one can add Ahmed and Coombs's (1974:8) statement saying that informal education is:

“(...) the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment - at home, at work, at play; from the example and attitudes of family and friends; from travel, reading newspapers and books; or by listening to the radio or viewing films or television.”

Ahmed and Coombs's (1974) definition is useful in this thesis's framework as it connects informal learning to the consumption of AVC for entertainment purposes – thus confirming the potential of watching videos in leisure activities as a valid complement to English language learning.

English can be taught in all these educational contexts and Section 2 addressed some formal English learning contexts, where learners are taught and asked to train the acquired skills. However, it is relevant to direct the attention to a type of learner that is ever more in the center of this teaching/learning process: the digital natives (Prensky, 2001). These are learners with the tools and the know-how to develop their skills outside of formal educational settings, as long as

²² European Centre for Development of Vocational Training

their autonomy is properly fostered. Nunan (1999) proposes four levels to foster learners' autonomy about the content and the process of learning:

1. Learners should be aware of the goals, contents, and strategies of the materials being used so they can select content and procedures according to their objectives, learning styles and approaches.
2. The next step implies learners' interventions in the modification or adaptation of the goals and content.
3. Later, learners create their objectives.
4. In the final stage, learners go beyond the classroom and search for opportunities such as self-access centers and continue their process of material creation.

Therefore, when learners immerse themselves in language learning contexts (and these contexts can be formal, non-formal or informal), it matters to distinguish what the learners' intention is. Taking into account the developments in the technology to support teaching and formal, informal and non-formal learning, Nunan's (1999) proposal lacks clarification about intentionality of autonomous learners in informal contexts. Cross (2006) had stated that informal learning was, in fact, intentional, which raises the question of whether the learners are intentional autonomous learners or unintentional autonomous learners.

The intentional learners, as defined by Cross (2006), are those who choose to expose themselves to the foreign language outside the classroom context. This type of autonomous learning, when specifically focused on foreign languages, leads the learners to research and utilize several Internet tools at their range to interact with content and interpret the stimuli, thus developing their linguistic competences Cross (2006). The learners need to show meta-cognitive sensibility, resulting in the attribution of degrees of difficulty to understand the material they chose to interact with, and they can even select more complicated content, outside the school programs, because of innate interest in the evolution of their proficiency or performance in the classroom (Sockett and Toffoli, 2012). For example, a typical study activity in EFL informal learning (motivated by need, vanity or curiosity) is to study with a grammar that focuses on a specific linguistic item and offers structured exercises.

On the other hand, the unintentional autonomous learners, who according to Sockett and Toffoli (2012), are learners that dedicate themselves to learning unconsciously. It may be by reading books, listening to songs or watching AVC. Unintentional autonomous learning does not involve conscious operations, and the interaction with the stimuli is done in a more familiar context and

is associated firstly to entertainment. In this case, it is unclear the time the learners dedicate to informal learning activities (Stevens, 2013). In these situations, the learners also attribute difficulty degrees to the material; however, in this unintentional paradigm, the learners feel comfortable with the selected content. In the end, the learners often do not realize learning occurred.

Regarding non-formal English language learning contexts, Ahmad (2019:3) gives the example of a *“Typical local and community based conversational English”* program taught in local community centers. These programs, as described by the quoted author, have assigned neither learning material, nor learner evaluation. They consist of friendly spaces for people to practice, namely by interacting in the target-language, resulting in the participation of learners with various English proficiencies. Ahmad (2019:iii) concludes that non-formal English learning programs provide: *“(1) a significantly enriched and positive vocabulary learning experience (...); (2) exposure to English and opportunities to use it during practice and interaction with peers and the teacher;”*

Informal language learning contexts were studied by researchers like Van Geert (2008) – who applied his theory of complex dynamic systems to the informal learning of foreign languages – and further developed by Sockett and Toffoli (2012) to study informal English language learning contexts. The latter believed that some characteristics of dynamic systems theorized by Van Geert (2008) were relevant in the study of informal language learning:

“Firstly, the assertion that initial conditions are crucial to learning outcomes is particularly pertinent in that these conditions are no longer uniform, with each learner possessing their own set of references to the target language gathered through an eclectic process of informal contact. Hence there is a great deal of individualisation in the learning process. Secondly, the study of attractor and repeller states in a system can be helpful in observing how certain learning strategies (such as reference to subtitles) can be an initial help to the informal learner before later becoming a hindrance. Thirdly, the possibility of co-adaptation of elements in the system may give rise to unexpected learning behaviours emerging from interactions between the large number of tools and contexts available to the learner. Finally, the non-linear nature of complex dynamic systems should lead to the appearance of examples of phase transition, such as jumps in degrees of fluency

or comprehension unrelated to any increase in the quantity of exposure to the target language.” Sockett and Toffoli (2012:140)

Thus, Sockett and Toffoli (2012) confirm that: **i.** informal English language learning results from day-to-day activities; **ii.** it is not structured; **iii.** there is no official program which defines what subject should be learned and in which hierarchy; **iv.** specific learning goals are not set in advance; and **v.** to deepen the particular case of informal learning of English, the learners merely wants to interact with content. In other words, there is not a duration attributed to an exercise or a session; it is not subjected to lesson planning with logical steps that obey to a teaching/learning methodology of a specific language; it can be interrupted, restarted, repeated, reviewed and even rejected. In their conclusions, Sockett and Toffoli (2012) state that informal learning happens ideally when the learners do not even realize that learning is happening, but still reacts cognitively to the content without proceeding any conscious mental operation.

To summarize, language learners can choose formal, non-formal and informal learning contexts. In these contexts, learners have shown two types of learning autonomy depending on the learners’ learning intention: intentional autonomous learners or unintentional autonomous learners. The types of learning autonomies are not exclusive to any of the learning contexts, as one can identify both types of autonomous learners (intentional and unintentional) in any of the contexts (formal, non-formal and informal). Taking this into account, it was established that the OCP under development is to be an aid in formal and informal teaching/learning contexts. Moreover, it is supposed to be an aid to promote intentional and unintentional autonomous learning possibilities by promoting the consumption of AVC that focuses on BE vocabulary, communication contexts and communication skills.

2.1.1. COLLABORATIVE PLATFORMS, SERVICES AND TOOLS DIRECTED AT LANGUAGE LEARNING

This subsection will address the basic concepts of collaborative learning and how it associates to language teaching /learning, addressing, when viable, EFL learning. The purpose is to sustain this project’s choice for a collaborative tool by framing the concept of collaborative learning, presenting parallels between collaborative learning and language learning, and presenting some studies where collaborative platforms and services have been used for language learning in formal and informal learning contexts

Collaboration is a vital skill and pinpointed as one of the 4 *C's of 21st Century Skills* (O'Sullivan and Dallas, 2017). However, Friend (1992) had already listed the defining characteristics of successful collaboration:

- Collaboration is voluntary;
- Collaboration is based on mutual goals;
- Collaboration depends on shared responsibility for participation and decision-making;
- Individuals who collaborate share their resources; and
- Individuals who collaborate share accountability for outcomes.

These characteristics were also transferred to educational contexts, giving rise to the term 'collaborative learning', which, according to Goodsell (1992:11)

"(...) is an umbrella term for a variety of educational approaches involving joint intellectual effort by students, or students and teachers together. (...) Collaborative learning activities vary widely, but most center on students' exploration or application of the course material, not simply the teacher's presentation or explication of it."

Therefore, collaborative learning takes advantage of the teachers and learners' natural tendency to socialize in order to gather them in a teaching/learning environment, where all have to rely on each other to achieve the goals set mutually.

Considering the characteristics of collaboration and the definition of collaborative learning, it seems that this educational approach was already successful when used in language learning contexts. According to the CEFR, formal language learning should be learner-oriented, training communicative interaction via productive and reproductive skills, focused on *"more effective international communication combined with respect for identity and cultural diversity, better access to information, more intensive personal interaction, improved working relations and a deeper mutual understanding."* (Council of Europe, 2001:5). The combination of 'collaborative learning' and 'language learning' has merged into 'collaborative language learning', which is summarized in Sun and Yuan (2018:189):

"The essence of CL/CLL lies in its various interactive methods for group work, which creates a dynamic and authentic learning environment for learners to participate in and to learn with each other. (...) Teachers, on the one hand, are the designers and facilitators of CLL activities. Their pedagogic beliefs and values often serve as critical contributors to successful classroom teaching. Students, on the other hand, can also influence how successfully the designed CLL activities can be implemented and to

what extent such activities can enhance their language learning due to their differing attitudes and engagement. “

Another crucial contribution for the development of collaborative learning platforms was the evolution of CALL. It is indeed worth noting that one of the landmarks for CALL was the PLATO project in the 1960's (Marty, 1981). Sixty years later, researchers like Mei et al. (2018) are addressing CALL 2.0, i.e. a form of CALL based on the technology of Web 2.0, thus confirming that this form of language instruction has gone through technological developments. Naturally, researchers have devoted their work to understand the impact of CALL, and its technological evolutions, in both teachers and students. For example, Nim (2009:99) summarized ten years of CALL implementation and concluded that the association of CALL with the Internet provided the EFL community with

“highly motivated learning environments and opportunities to engage in meaningful and authentic learning, (...) motivating students, providing a large amount of information, teaching resources and materials and a place for experiencing different cultures and communicating with other people in the target language”.

Nim (2009) list scholars to confirm the positive attitudes towards CALL, however, it seems that some less positive aspects were identified, namely: **i.** the technical proficiency of teachers, **ii.** the lack of appropriate equipment in schools, **iii.** the discrepancy between CALL software and the curricula of schools in the national education systems – possibly resulting in a possible malpreparation of learners when looking for alternative ways to learn English in informal and non-formal contexts, **iv.** the resistance of some teachers to student-centered teaching/learning paradigm along with the lack of proper teacher training.

In 2019, researchers are showing evidence of the same less positive aspects in their studies. For instance, Mei et al. (2018:3) study identifies and addresses the problem of the low technical proficiency of the language teachers: *“language teachers and learners have problematic interactions with CALL, and difficulties in weaving technology invisibly into language learning”.* Concerning the poor equipment/facilities in the institutions, Elaish et al. (2019:1) confirm that this issue is still a hinderance for CALL: *“lacking, poor or difficult to use equipment, tools, software or technology”.* Regarding the shift to a student-centered paradigm, Egbert and Borysenko (2018:2) identify yet again that there is a need to shift the center of teaching/learner from the teacher to the student: *“recent approaches to CALL focus on a learner-centered, explorative approach rather than the more traditional teacher-centered, drill-based approach, and learning this current approach may require changes in both teaching philosophy and*

practice.” These three findings serve to show that the issues that were affecting CALL for EFL in the past appear to still be lingering.

The developments of Web 2.0 tools, CALL, and the recognition of the importance of collaborative work in educational setting contributed towards the improvement of collaborative language learning methodology translated in the development of tools like blogs, wikis, RSS feeds or chat messenger services. These tools allow collaborative activities like tagging, file and media sharing, social networking or online messaging, which have been pivotal to aid classroom work and to sustain collaborative language learning initiatives. Among the most popular types of formal collaborative language learning proposals, one can find Massive Online Open Courses (MOOC) and blended courses. These E-learning activities have seen a considerable leap in the subscription of online learners due to the development of collaborative platforms, which eased the structuring of courses in a blended or distanced learning paradigm. This rise is evidenced by Figure 4, which shows the growth MOOC enrolment in the past six years.

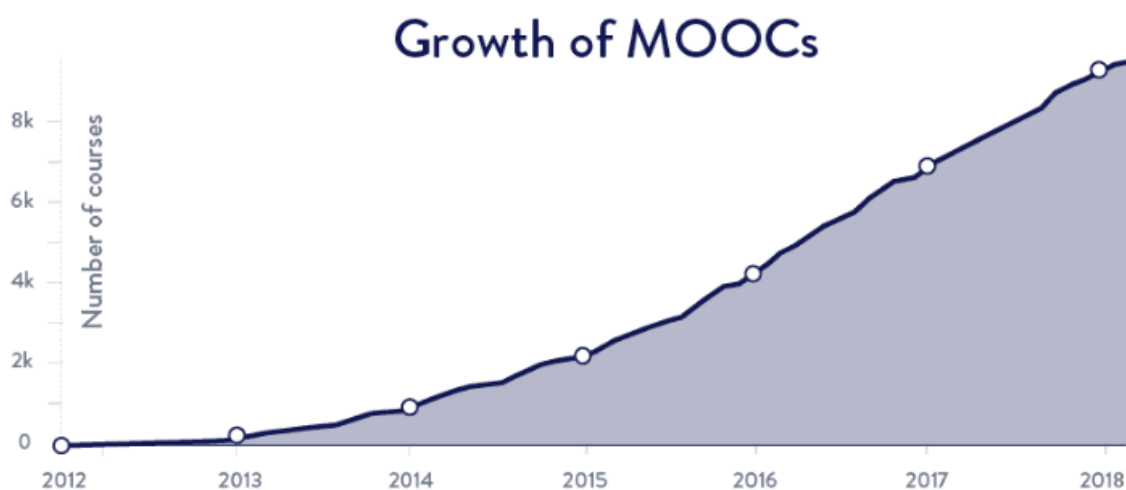


Figure 4 – Growth of MOOC enrolment in the top 5 MOOC providers (Class_Central, 2018)

Class_Central (2018) does not have specific information about the number or enrolments in language learning MOOCs. However, it seems safe to infer that the growth of MOOC courses and the growth of MOOC enrolments was also verified in language learning courses.

The literature has provided some examples of how collaborative platforms and online collaborative tools have been use for language learning. Angelova and Zhao (2016) conducted a study to develop language skills between American and Chinese English as Second Language students, via online collaborative platform (*Blackboard Learn*²³) using computer-mediated communication tools. This study’s conclusions state that the non-native speaker English learners

²³ <https://www.blackboard.com/index.html>

improved their language skills and the authors believe that their work demonstrated the potential of language learning via collaborative platforms. Angelova and Zhao (2016:168) literature review pinpoints a consistent disadvantage in their exploration of studies about online collaborative language learning: *“grammar accuracy is neglected (...) because students perceive this type of communication as less formal and seem to focus more on meaning than on grammar”*. However, the authors of this study also consider that collaborative platforms and tools in formal and informal language learning contexts *“provide a useful and economical way for authentic language use”* Angelova and Zhao (2016:184).

Wach (2012) designed a study where EFL learners used the Internet and social networks (with no kind of direct tutoring) after class for entertainment as well as for studying. This researcher verified that the heavy Internet users showed significantly higher results than the ones of the moderate Internet users on all five tests that were administered at the end of the study. This author concluded that *“the frequent and intensive exposure to English input, which is authentic, situationally relevant and meaningful to (...) users, might affect L2 learners’ developing competence in the target language”* Wach (2012:13).

Tingen et al. (2011) mention that another way to engage learners in collaborative work in formal educational contexts is by creating websites about the several subjects they learn. It is the author’s belief that when students develop these classroom websites, the inherent tasks will foster learners’ social skills, keep them interested in the course material, teach them how to comment and receive criticism constructively, make learners take control of their learning, and develop their research skills. One can infer that uploading these school-project websites for online use also gives this work a social dimension, as other members of the school community or even parents can use the websites – thus bridging the work between formal, non-formal or informal contexts.

Concerning the use of collaborative platforms and how they can benefit homework activities, Benta et al. (2014) conducted an experiment with Romanian university learners using Moodle²⁴ for the first time. The purpose was to perceive how learners solved collaborative classroom activities via online platforms. The authors believed that asking students to resolve academic tasks in an informal learning setting was a challenge that *“stimulates creativity and spirit of responsibility”*. The researchers considered this study to be a successful use of Moodle as a collaborative platform, as the task was seen as *“a real challenge that changed students’ perceptions about homework and their importance. Students proved to be more receptive and*

²⁴ <https://moodle.org/>

wiling to solve more complex homework. An e-learning platform is also a proper solution that helps in class management” Benta et al. (2014:1175).

An online collaborative platform that is receiving hype is *Duolingo*. This can be confirmed in *Google Play* statistics, where, in April 2019, it had the badge of *Editor’s choice*, it passed the 100M downloads, over 7M reviews and a 4.7/5 rating. When consulting user reviews (Fluentin3months, 2015), *Duolingo* is praised for its gamification features, for being free, for trusting the users to improve the quality of the linguistic material, and for interacting learned material with new; as for the cons, the collaborative features are limited to introduction of comments and suggestions, there is no actual interaction between learners in the foreign language, skills like *“Speaking”* and *“Writing”* are not trained as reproductive skills and there is no natural native language speech.

Still, the fact that *Duolingo* is being widely chosen as a language learning platform arose the curiosity of researchers like Anderson (2018) and Hockly (2015). The first focused on the platform’s choice for a translation methodology and criticized i. *Duolingo’s* decontextualized nature of the language, ii. the difficult transition from the elementary to intermediate, and iii. the high dropout rates. The author also believes that the most relevant advantage of *Duolingo* is its crowdsourcing nature. As for Anderson (2018:25), the researcher’s focuses on the *Duolingo for Schools* variant to evaluate the software’s efficiency for language learning. The most relevant positive aspect is that this platform *“can be a good educational material resource if teachers use it as a supplementary source that can help students with the learning process in specific areas of listening and syntactic sentence-level writing.”* On the other hand, Anderson (2018:26) questions *Duolingo’s* claim concerning *“thirty-four hours of using Duolingo equals one semester at university. I have not found any research that would justify that correlation”*; however, Anderson’s (2018:26) most relevant piece of criticism relates to interpersonal communication: *“The problem is (...) the content and learning method is too one-sided, hence the limitations in the interpersonal communication elements (...) Duolingo solely uses grammar-translation exercises.”*

The *“Writing”* skill also was benefited from the evolution of Web 2.0 tools. Online, collaborative word processors like the ones offered by *Google* or *MS Office 365* have given the possibility to take a traditional classroom exercise, like collaborative writing, to the Internet and, thus ally learning and technology in a very efficient way – and, with the function of checking who was changing the document, the teachers not only know the amount of work that was done and by whom.

Godwin-Jones (2008:7) also identified necessary improvements in the Web-writing 2.0 tools, like the fact that the spelling checkers do not appear to be as effective as the ones in the standard word processors: *“These tools are widely used but vary in their usefulness. This is particularly the case with grammar checkers, which tend to be designed for native speakers, and which often generate too many false positives to be useful”*. Other aspects like format tools, comment sections or a more extensive variety of fonts have still some room for improvement, but it seems to be a more used tool in EFL classes. For instance, Suwantarathip and Wichadee (2014) published the results of an experiment where they analyzed and praised the use of *Google Docs* for writing in an EFL group. The authors concluded, *“that the Google Docs group had a better performance”* and justified this success with results that emphasized, *“the collaboration method, special feature of Google Docs which motivated students to learn more efficiently, and more contribution to work”*.

Yamauchi (2009) also presented a case study where, among other online tools, EFL learners made use of *Google Docs* for writing and presentations. Learners were encouraged to use it to share created work, and their assessment of the instrument was that it was a novelty, quite demanding, productive and entertaining. The primary goal was to accommodate individual learner differences in the language work. According to the author, the results showed increased learner autonomy, a clear direction to a leveled task difficulty and general satisfaction. The cases stated in the theoretical framework clearly showed a tool to use in EFL class with validated results and providing a collaborative learning option where the teachers' role is to *“watch, share and praise what they had done”* (Yamauchi, 2009:13).

Collaborative platforms also have the advantage to be available to all users with a working Internet connection. Their presence online has allowed for user-contributions like comments, video sharing, ratings etc., to be available for the consultation of others. At the moment, a user can be a consumer of content but also a producer of content (Siemens, 2005), i.e. a 'produser', as defined by Burns (2007). Websites like www.amazon.com or www.imdb.com are fostered by the contributions of their community, and their content, which is shared with the Internet community, reaches a global audience. This audience, in turn, interacts with the provided content via tools like comments, ratings and sharing their on their social media pages.

This is a reason why teaching learners search skills is as necessary as teaching them other skills. The amount of information to consult on the Internet is so vast that, without proper training, learners will not be able to select and validate what they need from the *latent Internet corpus*.

Collaborative learning encourages learners to acquire these searching, selecting and validating skills together, and at the same time make learning a collaborative activity to construct new bodies of knowledge and understand the importance to identify reliable sources, organize and share the results of the collaborative activity with others. It would be better if this training started in the classroom, so that using collaborative work tools evolves into a natural skill for the learners to take to the labor market.

2.2. ENGLISH FOR SPECIFIC PURPOSES

As mentioned earlier, the syllabi of ESP flourished alongside a wider acceptance of the communicative approach to foreign languages (as theorized by Littlewood and William, 1981). This branch of EFL has been addressed by several researchers, like Nagy (2014), Javid (2013), Motos (2013), Dudley-Evans and St John (1998), or Hutchinson and Waters (1987). This section will provide a brief historical summary of the concept's evolution, followed by a definition and characterization of ESP. When addressing the history of ESP, Nagy (2014:262-264) distinguished five phases of evolution:

1. *"The first phase covers the 1960s and 1970s when teaching ESP focused on the sentence-level";*
2. *followed by "The late 1970s and early 1980s (...), in which the sentence level analysis and the focus on grammatical forms started to integrate rhetorical functions";*
3. *in the third phase of evolution, "the focus was on the target situation and the oral communication students may need in different professional contexts, which led to the implementation of the so-called notional-functional curriculum";*
4. *and the fourth phase in the second half of the 1980s when "the attention shifted to the strategies used by learners to acquire the language (the contribution of psycholinguistics)".*

The most recent phase of ESP evolution happened in the first decade of the 2000s; it was influenced by interdisciplinary movements and marked by a higher focus on language and a decreased interest in didactics (Nagy, 2014). Learners, connected to several fields of study, have shown a necessity to be proficient in specialized (professional and academic) terminology, in particular in the scope of foreign language. According to Motos (2013:4),

"Academic and Professional Languages is the most recent term with which we refer to what has been called technical language, special language, specialized language,

language for specific purposes, professional language so far. This term, coined by Alcaraz, refers to the type of language used by specific knowledge communities or groups of professionals, such as chemists, lawyers, physicians, etc. that share similar values and institutions that use the same genres and terminology to communicate”.

By being a branch with several evolution phases, there is a wide array of definitions for ESP. Rahman (2015:25) shares interpretations of some researchers: like Robinson’s (quoted in Rahman, 2015) – “Her key criteria are that “ESP is normally goal-directed’ and that ESP courses develop from a needs analysis, which aims to specify as closely as possible what exactly it is that students have to do through the medium of English.”; or Hutchinson and Waters (quoted in Rahman, 2015) – “[1] define that ESP is an approach to language learning and it is based on learners’ need”. Dudley-Evans and St John (1998) and Javid (2013) presented a definition that broadens the horizon of ESP, by distinguishing fixed and variable characteristics, as summarized on Table 1:

Table 1 - ESP Absolute/Variable Characteristics

| Absolute Characteristics | Variable Characteristics |
|---|--|
| <ul style="list-style-type: none"> • ESP is defined to meet the specific needs of the learner; • ESP makes use of the underlying methodology and activities of the discipline it serves; • ESP is centered on the language skills, discourse, and genres • appropriate to these activities. | <ul style="list-style-type: none"> • ESP may be related to or designed for specific disciplines; • ESP may use, in particular teaching situations, a different methodology from that of GE; • ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be for learners at secondary school level; • ESP is generally designed for intermediate or advanced learners; • most ESP courses assume some basic knowledge of the language system, but it can be used with beginners. |

As Javid (2013:140) states, keywords of ESP are *needs* and *specific*. Any syllabus developed under an ESP approach must consider:

- the learners’ needs, i.e. “*the learners’ special purpose of learning of English as a second language (ESL) or English as a foreign language (EFL) instead of the nature of the language they intended to learn*” (Mackay and Mountford, 1978:4);

- the specific/special language associated to the learner's field, meaning *“to place ESP firmly within the multidimensional space that constitutes the students’ chosen disciplinary culture”* (Barron, 1994:3).

Needs analysis was valued for the first time by Hutchinson and Waters (1987) and it seems to be the first step to the construction of any ESP syllabus, as it is vital to assess the needs of the learners. Needs analysis encompasses four components stated on Rahman (2015) work, namely:

1. Target Situation Analysis, which intends to identify the learners’ language requirements in occupational or academic settings;
2. Learning Situation Analysis, which intends to go to the root of *“why”* the learners want to learn, and thus being more focused on cognitive and affective factor;
3. Present Situation Analysis, which intends to ascertain the learners’ strengths and weaknesses before the learning is planned, and so collect information about the learners’ linguistic past, the language-teaching establishment, and the user-institution;
4. Means Analysis, which intends to analyze the environments in which ESP projects will be established, and thus acknowledge, *“that what works well in one situation may not work in another”* (Rahman, 2015:27).

The proper evaluation of the learners’ needs is also an evolving topic, and it led to the development of several Needs Analysis Models, like for instance Dudley-Evans and St John’s (1998) entitled *“What needs analysis establishes”*; the Communication Needs Processor by Munby (1981); McDonough’s (1984) Needs Analysis Model; Hutchinson and Waters (1987) mode for ESP Needs As Necessities, and the most recent developed by

which was summarized by Rahman (2015:30):

“This model, formulated by Dudley-Evans & St John (1998) focuses on (1) learners’ professional information, (2) learners’ personal information, (3) learners’ language information about the target situations, (4) learners’ lacks, (5) learners’ needs from course, (6) language learning needs, (7) communication information in the target situation, and (8) environmental information.

(...) This model, developed by Dudley-Evans & St John (1998) on language needs, is practical and pragmatic covering all aspects, such as, TSA (Target Situation Analysis), PSA (Present Situation Analysis), LSA (Learning Situation Analysis), MA (Means Analysis) and other important considerations”.

Another development concerning ESP is how scholars have branched it. In the consulted literature it was possible to find an array of acronyms that were connected to ESP – for instance: Javid (2013) lists English for Academic Purposes, English for Occupational Purposes, English for General Academic Purposes, English for Specific Academic Purposes, English for Science and Technology, etc. The author proceeds to present two trees – as the one shown earlier on Figure 3 – Tree of ELT according to – of English Language Teaching related to ESP: one developed by Hutchinson and Waters (1987), and another designed by Dudley-Evans and St John (1998), and both summarized in Rahman (2015). These trees serve to show how ESP can still subdivide into other modalities, and again, the goals of the learners seem to be the main denominator for the conception of syllabi.

The gathered work of all the researchers quoted in the previous paragraphs leads to the conclusion that ESP is, in fact, an alternative to GE. When one puts the needs of the learner over aspects like didactics or established syllabus, then conditions are gathered to the development of ESP projects. These projects should be flexible to harmonize the needs of the learners, to the use of different teaching/learning methodologies (customized taking into account the needs of the learners), the sorting of the necessary lexical fields and the environment where teaching/learning will occur. The evolution of branches stemming from ESP is a clear sign of how flexible this approach to English teaching/learning can be and, at the same time, how hard it is to outline the borders of each branch. One should remember that in ESP *“what works well in one situation may not work in another”* (Rahman, 2015:27), even if the ESP project is technically addressing the same branch.

Therefore, for the purposes of this project, the definition of ESP is the one theorized by Far (2008), who sees ESP as a recognizable activity within the broader professional framework of English language teaching, with implications for the design of syllabi and materials as well as its presentation and then evaluation; and Javid (2013:141), who states that ESP is *“a very flexible approach of teaching of English as a second language/ teaching of English as a foreign language (...) not limited to any specific discipline but meant for the specific needs of the learners”*.

The amalgamation of these two definitions stresses the main elements that characterize ESP: i. a branch of EFL; ii. flexibility of the syllabi design; iii. importance of learners’ needs analysis; and iv. connected to professional contexts. Naturally, such flexibility originated subdivisions of ESP into branches addressing different learner needs. One of the branches of ESP identified by Hutchinson and Waters (1987) was English for Business Purposes, i.e. a branch of ESP that caters to the needs of learners who use English as a language of communication in professional settings

connected to finances, trading, economics or internationalization of companies. In this thesis, BE will be the term used to designate *English for Business Purposes*, as it has been a denomination used by authors like Nagy (2014), Bhatia and Bremner (2012), Bargiela-Chiappini and Nickerson (2003), and Ellis and Johnson (1994). The next subsection will elaborate on BE.

2.2.1. BUSINESS ENGLISH

To understand the conceptual framework of BE, one can study, for instance, Bhatia and Bremner (2012:410), who dedicate a whole chapter of their work to list several definitions of BE and how the modern definition of the branch was influenced by:

first, developments in genre theory, which has moved far beyond the surface-level textual analysis of genres to incorporate in-depth and substantial analysis of context, including professional practice; second, the gradual convergence in terms of research, theory and pedagogy of two approaches to the teaching of Business English – English for Specific Purposes (ESP) and Business Communication studies – that at one time were considered quite separate; third, the realization that there is a gap to be bridged between the academy and the professions; and finally, the overwhelming use of new forms of media in the business world.

It seems widely accepted to use the term BE as it is clear that this particular branch of English learning stemmed out of the branch dedicated to ESP. Nickerson and Planken (2015:3) present a current and concise definition of BE as:

“an umbrella term to refer to any interaction, written or spoken, that takes place in English, where the purpose of that interaction is to conduct business. For example, it can be used to refer to a business meeting, an email sent to set up a business appointment, or an advertisement promoting a new product”.

The several definitions of BE along with the evolution of definitions is a consequence of the growth of demand for syllabi that satisfy the need for people to be able to communicate in English in particular business settings. This same growth also led to the curiosity of scholars like Neeley (2012), who pinpointed this growth in demand on several items:

- workers wanting to offer their employers new skills and thus value their position in the staff;

- access opportunities to develop proficiency in a new language, via exchange training programs or international study programs;
- companies that want to target global markets, thus adopting a language strategy (and, for now, English seems to be quite secure in its role as *lingua franca*) that facilitates communication between the head office and the international branches;
- employers wanting their commercial teams to be efficient in networking and closing deals with international clients;
- a historical tradition, in the 20th century, to look at economies from the UK and the USA. as the strongest economies in the world, and, therefore, adapt to their language to get in business with them.

BE is also fostering in a new type of business environment where learners need to tackle with professional tasks by interacting with multimedia tools, and synchronous and asynchronous social networking tools. As Jackson (2007:10) points out, “*mediated communication is infused into nearly any business communication context, perhaps even coming to dominate certain areas such as public relations*”. The modern business context cannot be conceived without a noticeable multimedia presence: emails, websites, webinars, video-conferencing, visual presentations, and multimedia advertising.

Bhatia and Bremner (2012) summary of features of BE is as follows:

- Needs analysis – a BE course should have as its first action an identification of the needs of the learners to use the target language in their functions efficiently. The needs can be of a linguistic, communicative and discursive nature.
- Variation in second language description – a BE trainer must study the communicative contexts in which the learners operate, as well as the jargon that the professional context is using. This study is paramount to understand the language requirements for an efficient professional activity.
- Curriculum design – after identifying the needs, the next step is to construct a syllabus to introduce and train the skills, activities or tasks that are considered crucial. At the same time, the trainer needs to outline time frames and select the adequate material.
- Methods and materials development – BE training context require a balance of input (what is taught) and output (what learners produce). To stimulate input and output, BE training requires the use of authentic materials for a better learner engagement. The execution of productive or reproductive tasks should take authenticity into account, i.e. the goal of the training tasks is to eventually use them in real professional situations.

- Assessment and evaluation – evaluating learners of a BE course should take into consideration what Douglas (2000) referred to as situational and interactional aspects. The situational aspect of a BE examination relates to the accurateness of the test in replicating features of the real-life context. The interactional aspect is about how much the test task engages the learner in the interaction with the real-life situation.
- Disciplinary variation – BE training has a multidisciplinary component, which was the result of the influence of “*disciplines that have a common interest in the study of language use (...) and (...) disciplines that are served by the ESP community*” (Bhatia and Bremner, 2012:420), including major disciplinary cultures such as business, economics, and accountancy.

An element which was not addressed in the summary above is intercultural training. BE learners can be faced with the need to communicate with a different culture, which raises a need to include in the BE courses elements of intercultural awareness and of International Business Communication, which is:

“a complex disciplinary area, and (...) the constructs of culture and communication involve a number of well-developed fields of enquiry, each with its distinctive approach (though these sometimes overlap), theory and methodology, and (...) the added dimension of the business context clearly increases that complexity”.
(Bargiela-Chiappini and Nickerson, 2003:3)

As a consequence, issues like *safe conversation topics, networking behaviors or greetings* can be found in BE manuals and can be included into BE tailor-made curricula.

The introduction of elements of intercultural awareness and of International Business Communication in BE courses gives this branch multidisciplinary characteristics. These multidisciplinary elements in BE encouraged Bhatia and Bremner (2012:418) to focus on two orientations to language teaching in business contexts. On the one hand, BE programs “*have started paying increasing attention to the business contexts in which language is used*”. On the other hand, Business Communication teachers “*started taking more interest in the description of language in business contexts*” (Bhatia and Bremner, 2012:418). According to these authors the two orientations seem to be converging and even integrating one-another, and consequently, justifying BE as a branch of ESP.

Shifting the focus to the implementation strategies of BE. As mentioned, a company with an aspiration to internationalize its business needs to define a language strategy in order to assure the training of its employees. Part of that path will be planned with implementation measures

of BE training. Neeley (2012) alerts that in some cultural contexts, the implementation of BE may be quite a radical choice. Cultural backgrounds with a strong sense of identity that see BE imposed on their training plan may act out with attitudes of rejection of the new language. To avoid this, it is necessary to adopt an implementation strategy that passes a message of reinforcement of the learners' sense of identity and that the proficiency in a new language is, in fact, a skill that will bring the worker better prospects on a personal and on a professional level.

Neeley (2012) also recommends that native speakers of the company get involved in the training, so that they get used to communicating in their native language in a way that accommodates and integrates their learner colleagues – by “*speaking*” slower, using different vocabulary, learning to rephrase or help their coworkers to communicate better. This will demand from native speakers a change in their communication behavior, which can also be faced with some resistance. The issue is that native speakers need to understand that BE is not American, or British or Australian English. It is English “*shared by the international community engaged in specific business activities across national or geographical borders*” (Bhatia and Bremner 2012:430). A study that shows how English speaking natives are not dominating the business settings was made by Rogerson-Revell (2008), who after analyzing several business meetings where English was the communication language, demonstrated the small importance of being native speakers. They did not dominate the talk time in the meetings, they were outnumbered by the non-native speakers, and the linguistic performance of most non-native speakers was still proficient.

As English is the *lingua franca*, companies with global ambitions should invest in training of ESP for the non-Anglophone staff. Employers need it to guarantee international success and thus establish a language strategy in the company. Promoting ESP training to employees seems to be an accurate procedure and this implementation needs to be very well-managed to make sure the workers understand that the training is for the benefit of all, and not a way to eliminate cultural identities. Workers also understand they need this training as they are daily faced with a workload that involves dealing with global synchronous communication, multimedia tools, multicultural business contexts, as well as the management of global social networks. As English gained the status of international communication language, they see BE as an inevitability for their professional success. Nowadays, BE is a branch which converges Business Communication studies, intercultural awareness and the teaching of the English language in an international context. As an example of the intercultural awareness element, BE courses can focus the language teaching together with how to behave professionally in different cultural backgrounds. As for Business Communication, it enriches the BE syllabi by suggesting materials and tasks to

teach language that promotes efficient communication processes at a global business level. Tailor-made syllabi seem to be ever more necessary to satisfy the needs of constant growing demand for BE.

2.3. THE ADULT LANGUAGE LEARNER

As aforementioned, the development of BE is directly related to the changes of the learners' necessities and BE is a branch of EFL mostly sought by adult learners. The relationship between this specific learner group and the branches of ESP is evident since adults either ask for language training to improve their skills or are incentivized and sometimes obligated by their employers to attend language training to use in specific contexts – business, academia, tourism and so on.

As for the concept of 'adult learner', in this work, the EU's definition was adopted, which states that an adult learner is a learner between twenty-five and sixty-four years old (Boateng, 2009). This recent concept of adult education was defined in the context of lifelong learning programs initiated by the EU Lisbon strategy (presented in 2010). Adult learners also value their own formal, informal and non-formal education, seeing these chances for lifelong learning as a way to mainly do a better job and improve career prospects, which are the main reasons they convey as a justification for participating in non-formal education and training (Boateng, 2009).

According to the European Commission (Commission, 2017) English is the most learned foreign language in Europe, but it is interesting to measure data about the number of hours adults dedicate to the EFL learning. This was already confirmed in Eurostat (2013a), which stated that 5.3% of hours invested in formal and non-formal training are dedicated to foreign languages – and out of this number, a very high percentage is attributed to English (for example, in countries like Czech Republic, Finland and Sweden this percentage is 100%).

In terms of learning progress, Krashen (1979:573) confirmed that "*Adults proceed through early stages of syntactic and morphological development faster than children (where time and exposure are held constant)*". Research has also focused on the fact that the adult is a learner who will rarely reach a native proficiency level of ESOL, especially in the oral skill, i.e., "*Speaking*". Shumin (2002) claims this is a *fossilization* phenomenon, i.e., the permanent cessation of further development in the foreign language, justifies that the adult reaches a certain level of proficiency and then stagnates.

This critical aspect for adult foreign language learning concerning with the difficulty the learner feels in the proficiency of oral production comes from the awareness that EFL learning will

eventually be used in a real context, in the creation of interpersonal relationships. Unlike the child, adults focus much of their success in details of oral communication like pronunciation and fluency. Communication failures are dramatically felt by adults, leading to frustration situations, anxiety, and withdrawal of the learning process. This group of learners is also inquisitive about the cultural differences between, mainly the USA and the UK (Shumin, 2002).

Age, in its biological sense, also distinguishes the learning patterns of adults when compared to children. Lima (2012:140) concludes that, in terms of oral production, age influence is “*negatively correlated to the phonetic-phonological production of students*”, and that there is a “*relationship in which the higher the age at the beginning of the acquisition, the lower is the phonetic-phonological acquisition of the learners*”.

All these aspects create a complex environment for the adult learner of the foreign language. Even though these learners initiate their training highly motivated, the truth is that dropout rates in adult language learning seem to be a problem (Parvaresh, 2008). On one hand, the adult language learner tends to show more obvious motivation levels²⁵. On the other hand, adult learners, especially those “*who have been trained in a society with an educational system which emphasizes teachers’ authority and students’ passivity are to a great extent fixed*” (Parvaresh, 2008:160), do not seem able to cope with learning/teaching methodologies of modern language schools, and, as a result, drop out. These dropout rates seem to be a clear indicator that adult teaching and learning is a process that involves a crucial task of needs analysis as mentioned in the previous section.

Publishers try to engage adult language learners by diversifying the content on the manuals. The result is a wide array of didactic material aimed at covering the different needs of the adult learners. One cannot ignore that adult learners represent an interesting market, hence the publication of manuals directed explicitly to adults. In this philosophy, one can find material both for adult learners of GE, like the *Headway* manuals from OUP, *Business English* manuals, like the MacMillan *In Company series*, and even ESP manuals, like Beck’s *The Legal English Manual*.

Teachers have several options at their disposal when it comes to manuals and support material, and, in this scenario, the use of AVC as a learning tool seems to have potential. Adult learners seem to respond to AVC as well as young learners and researchers wanted to confirm this practice. Lee (2015) concluded that adult learners with tactile and kinesthetic learning tendencies value AV material the most. Ahour and Rahbar (2014) confirmed that adult EFL

²⁵ There is an exception: motivation levels are lower when the language learner is forced to participate (Boateng, 2009) in the language course.

learners also register improvement in their listening skills when frequently exposed to AVC. Raja (2015) also concluded that authentic material, of which AVC is an example, is of extreme usefulness to maintain attention span levels of EFL adult learners' high. Some researchers, like Vanderplank (2016), are beyond the point of proving whether AVC is useful in the classroom, and have specified their research on items that make AVC even more effective learning tools – in his most recent publication the author focuses on the importance that captioning has been having in the teaching/learning process, when AVC is used in the classroom.

Therefore, by being a learner that can rapidly dominate the syntax and morphological aspects of the language, the adult tends to get more benefits from the training of ESP. Also relevant is the fact, sustained by Oyama (1976), that the adult learner is different from the young learner. According to the author, while the young learner seems to be able to expect a high development of proficiency in the foreign language, the adult learner will suffer from a *fossilization* process – especially noticeable in the oral skill –, which will impede a native-like proficiency of the foreign language. Other aspects like the decrease in the learning ability connected with age and an unwillingness to adapt to methods of schools placed outside the traditional high-school spectrum also lead to a considerable dropout rate of the adult language learners. This can be reversed by performing a pre-training needs-analysis study, with the development of adapted lesson plans, and the use of didactical material and AVC tools directed to what was diagnosed in the process of needs analysis.

Adults also use AVC for entertainment. Hence, one should also harness this motivation to insert learning opportunities in their entertainment activities. AVC can also serve as a clear example of communication and situational contexts mimicking reality, by enlightening adults about the most convenient language for specific communication contexts.

Thus, it is imperative to look at autonomous language learning from a perspective that takes into consideration the evolution of the tools for informal learning (which became available thanks to technological progress in the fields of digital education, and AVC production and consumption). In this sense, Sockett and Toffoli's (2012) adaptation of Van Geert (2008) theory of complex dynamic systems seemed appropriate, as it connects informal learning activity in EFL with AVC and Internet content interaction.

3. THE CONSUMPTION OF AVC

Audiovisual stimulation occurs when the senses of sight and hearing are kindled at the same time. This is in line with the etymology of this word²⁶: i. “*audio*” form of Latin *audire* “to hear”; ii. “*visual*” from Latin *visus* “a sight, a looking; power of sight; things seen, appearance,” past participle of *videre* “to see”; iii. the suffix –al which means *pertaining to*. The US version of the Oxford online dictionary adds a relevant piece of information when defining the word ‘Audiovisual’ “typically in the form of slides or video and recorded speech or music” (Oxforddictionaries.com, 2019); This adjective is normally connected to words like aids, tools, presentations, material, and, among others, entertainment.

The potential of AVC is evident in entertainment, education and even in the business world – hence the interest of dedicating a sub-chapter of this literature review to the consumption of AVC. Concerning the business world, management understood the potential of using audiovisual tools for their benefit. As stated above, this includes lectures or speeches accompanied by visual aids, like slide presentations and overhead projections, among others, as tools to pass more effective messages inside the companies, or to seduce customers. Some businesses invest correspondingly in AVC production in the form of advertising to be shown on media channels, as it is one of the most direct ways to reach potential customers. This investment is so substantial that it becomes the primary inflow of capital by private television stations, being by the run of commercial spots, product placement or direct sponsoring of certain television shows (Donders et al., 2013:63, 64). Internal training in business settings can also benefit from using AVC – an example of this is documented in Passos et al. (2017). In this study, employees of a security agency used AVC (and a collaborative environment) for official training programs designed to prepare them to conduct security in big events. Passos et al.’s (2017) results indicate that the media material was suitable to conduct training simulations, the professionals confirmed this material can contribute to an effective training, and it allows for the development of several training scenarios adjusted to their daily work reality.

As for AVC for entertainment and education, one will try to explore them thoroughly in the following sections. Firstly, an analysis of the AVC consumption devices will be presented, namely the time spent consuming AVC, the devices’ used to consume AVC, the different locations where this consumption can occur, the most consumed genres (with a specific focus on educational content), the current sharing habits of AVC, and the presence of the English language in the

²⁶ <https://www.etymonline.com/>

consumed content. When relevant, a small parallel with the Portuguese reality will be made in order to verify whether Portugal is accompanying main trends of AVC consumption and sharing.

3.1. CONSUMING AVC – HABITS, DEVICES, LOCATIONS AND GENRES

This section will address data about the time that various demographics spent consuming AVC. When possible, global data provided by the different reports will be presented, however, when this is not possible, the consumers of the United States will be used as representative samples. This population was chosen status because: i. according to Statistacom (2016a), it has the highest number of active *YouTube* users in 2018 (167.4 million); ii. according to Emarketercom (2018), it has the highest percentage of active *Netflix* subscribers; iii. it is a country with a massive production of AVC for entertainment countries; iv. it is a native English-speaking country. Parallel to all global/American analysis, this section will present the Portuguese panorama of AVC consumption habits.

Focusing on the viewers and taking the American TV consumers watching habits as sample, one can confirm that traditional television is still watched by people from 12 years of age to 65 and plus; in fact, the tendency seems to be: the older one is the more hours of television one watches (Marketingchartscom, 2015). This behavior is shared by people from several wage levels, social stature and different races and ethnicities.

A relevant aspect for this research is the presentation of some statistics that confirm the massive consumption habits of AVC on a global level. Conclusions from Ericsson Consumer Lab (2016:3) confirm that:

“Since 2012, the average consumer globally has increased their viewing on mobile devices by 4 hours a week, while their fixed screen viewing has declined by 2.5 hours a week. This means that today they spend an extra 1.5 hours watching TV and video than they did 4 years ago; (...)

40 percent of consumers globally are very interested in a mobile data plan that includes unlimited video streaming capabilities. At 46 percent, millennials are the group most interested, as they typically use multiple on-demand services and appreciate mobility; (...)

Consumers aged 16-34 spend almost 2.5 hours more each week watching streamed on-demand UGC, compared to 35-69 year olds. At the same time, they

spend almost four hours less than the older population when it comes to watching live and linear broadcast content.”

The key findings of Ericsson Consumer Lab (2016) indicate that the consumption of AVC is increasing in all demographics. These findings are complemented with the data collected by Nielsencom (c2019), which provide clear information about the shift in consumption habits from *Live+time shifted TV* to *TV connected devices* and *App/Web on a smartphone* (Figure 5).

SHARE OF DAILY TIME SPENT BY PLATFORM

Based on Total U.S. Population

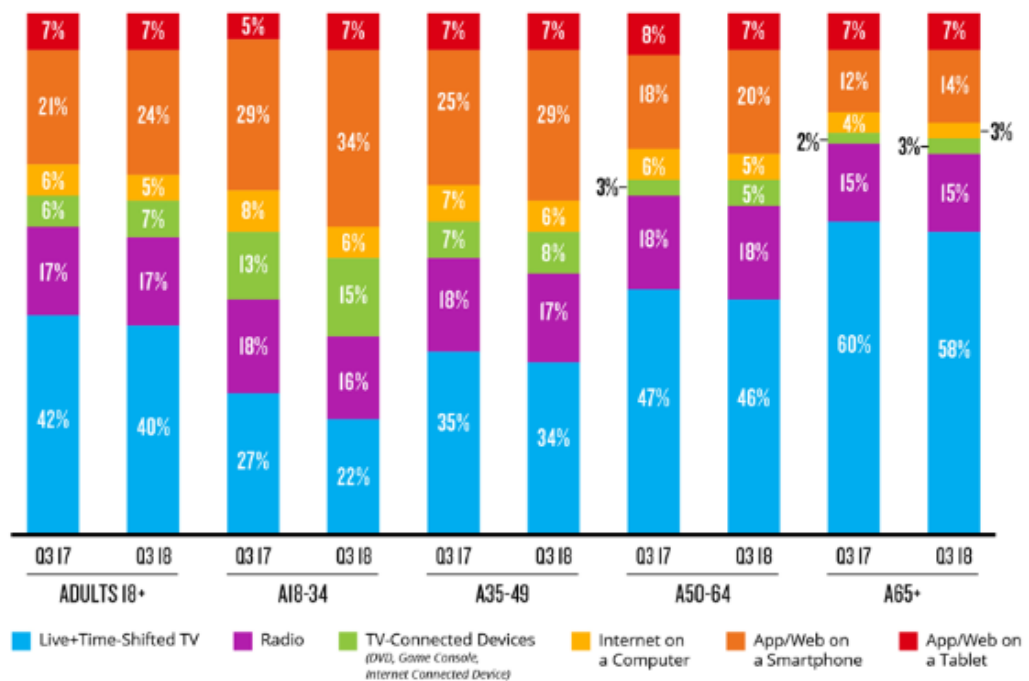


Figure 5 – Comparison of the third quarter of 2017 with the third quarter of 2018: Share of daily time spent by AVC viewing platform Nielsencom (c2019).

The chart shows how the *Live+time shifted TV* loses preference in the A18-34 demographic group to the *App/Web on a smartphone*. In other demographics, this shift is tenuous, but it is happening. The chart displayed on Figure 5 also provides insight on one of the modern tendencies of viewers and two facts are very explicit: 1. The TV screen is slowly losing viewer preference in younger generations; and 2. AVC consumption using digital video is on the rise. It is acceptable to think that, as younger generations grow up and enter new age groups, they will take their habits with them. Therefore, one can predict that the future will bring an inversion of today’s pattern, namely *Live+time shifted TV* will lose its position as the main device for AVC consumption.

Therefore, it is pertinent to understand why this shift is occurring. One of the identified reasons is stated in Ooyala (2018), which reported that the length of AVC influences the device chosen to consume it. The report's key findings state that i. long-form content continues to be most dominant on connected TVs; ii. viewers on PCs and smartphones tend to be more democratic in their approach to video length, mixing in short-form with long-form, and also some medium-form content (5-20 minutes); iii. there are plenty of situations in which content is viewed on the closest device at hand (that the viewer has control over); iv. long and ultra-long content viewing to completion is not affected by the choice of viewing device. These findings confirm that the shift is happening, but the larger screens still have a clear preference when it comes to consuming longer duration AVC.

The Portuguese reality has also evolved along with the technological developments of the media providers. From 2009, when the first broadcasts of TDT – Digital Portuguese Television started to 2016, the panorama of consumption changed. Apart from TDT, Portuguese viewers can also subscribe to packages of TV/Internet provided by *Cabovisão*, *NOS*, *MEO* and *Vodafone*. In 2015, the Portuguese had the chance to subscribe to the *Netflix* services. With all the changes happening, a need arose to develop a national study that reflected the consumer habits of the Portuguese. The national entity ERC (Entidade Reguladora Para a Comunicação Social) took point and hired studies in 2014 and 2016. The report of 2016 ERC (2016) presents a summary of the Portuguese consumption habits that are of substance to this framework.

Therefore, regarding the hours spent on consuming AVC in Portugal, ERC reveals an average of 296 minutes of TV consumption a day ERC (2016), placing this country as the third biggest AVC consumer in Europe. It also evidences that viewers of all demographics and genders have regular consumption habits. With this confirmation in mind, it is also pertinent to analyse which apparatus are viewers using to consume AVC.

Television

The classic example of an AVC viewing tool is the television. Moreover, one can list a series of technologic evolutions to aid the enjoyment provided by this apparatus, like video players, sound systems, DVD players, satellite receivers, cable receivers, fiber optic receivers, laptops and/or computers, etc. All these extras had the intention to improve the entertainment possibilities, which were output by the central positioning of the television in people's lives. The current number of purchases of this domestic appliance is a clear indicator of how people still

view it as an essential entertainment medium, in spite of clear signs that other options of apparatus for consuming content are currently on the rise:

“Sales of LCD TVs worldwide were worth 106 billion U.S. dollars in 2016, a figure that is projected to fall to 102 billion dollars by 2017. Asia/Pacific was the largest market for LCDs as over 74 million units were expected to be sold in the region in 2013. China alone accounted for 42.5 million of these units. This meant that almost 20 percent of all LCD TVs sold worldwide throughout the year were sold in China. North America was the second largest market for LCDs as 41.8 million units were sold there in 2013, 33.7 million of which were purchased in the United States.” (Statistacom, 2018b)

In addition, special attention has to be given to the role of television had in society, at one point. As one of the most consumed mediums for audiovisual entertainment, researchers also tried to measure its impact. To state one example, Devadas and Ravi (2013:51) depicted that television had profound influence on its viewers especially on younger generations. Young viewers were *“susceptible to cultural impact amounting from television (...) susceptible to cultural implications from television”*.

In terms of revenue, television gets its funding from three main sources: public funding, advertising and subscription fees, having the latter grown from 95 to 152 billion euros between 2006 and 2013. Currently, *Netflix* leads the global market of IP/Internet services and the company presented 8.8 million subscribers globally (Businessinsidercom, 2019). These revenues place this business in the multi-million-dollar status, creating conditions for the development of new products, the employment of thousands of people – actors, writers, designers, technicians, etc. – and the investment in digital technology to cut costs of production and develop novel ways to reach the audience. This has been slowly giving ground to a more global industry nurtured by genius and talent on every continent (Finance and Zwerman, 2015). Another interesting development happened in the television studios. As technologies, like the blue screens, started being more integrated, these spaces gained the ability to handle different kinds of production and guarantee a more controlled sound and visual environment. The development of control rooms was also essential for the ever-growing variety of the television studios (Millerson and Owens, 2012).

The technological advances of television also refer to the way content is distributed. IP/Internet based television is a service provided by companies like *Netflix*, *Hulu*, *Amazon Prime* or *Apple TV*, which consist on subscription services that grant viewers access to a repository of AVC to

consume at any time they see fit. This type of service is said to revolutionize the way people watch televisions and “A lot of industrial and academic attention has been paid to current trends associated with digitization and the emergence of alternative distribution platforms” (Steemers, 2014:45). IP/Internet based television services are on the rise indeed, as it can be confirmed in Ericsson Consumer Lab (2016:3): “Consumers in the US spend 45 percent more time choosing what to watch on video on demand (VOD) services than scheduled linear TV services, yet they rate VOD services higher”.

Concerning the video-on-demand and streaming-on-demand services, it seems Portugal still has a long way to go when compared to global trends ERC (2016). The generation gap of Portugal is a pertinent issue as features like these only have a utilization of 6,9% of ERC’s sample. The age group that most relies on video-on-demand is the 15-24 group. As for the current shift to streaming-on-demand television services, data from Markttestcom (2017) indicates that *Netflix* is the most notorious brand with a 48,2% notoriety, followed by *FoxPlay* (35,9%) and *NPlay* (33,9%). Parallel to this statistic, Anacompt (2018) identified i. 8,1% of individuals in Portugal subscribed streaming-on-demand services in the first semester of 2018, which results in a 3,6% increase to the same period of 2017; and ii. 45% of registered individuals on *Netflix* access the platform via smartphone or tablet. Taking the example of *Netflix* in Portugal, Yann Lafarge, head of corporate communication for the company, confirms a growing curve of acquisition of subscriptions since 2015, a guidance target of 30% of market share by 2025 and an increase of five times more AVC available for Portuguese consumers than in October 2015 (Jornaldenegócios, 2018).

As for apparatus for viewing, the main choice for consumption of AVC falls on the TV set (ERC, 2016). Viewers in general tend to gather round on the TV as the main AVC entertainment device because of its possibility to provide a bigger screen and a better image quality. When it comes to using other devices, a clear generational gap is evidenced. The age group 15-24 was the only group detaching themselves slightly from the TV set and relying on computers, tablets and smartphones to satisfy their AVC consumption needs. All other age groups keep the traditional tendency to watch AVC on TV and only residual results can be found regarding other devices (ERC, 2016).

Cinema

The film industry has also been showing a long tendency of investing in technology that creates different experiences of interaction with AVC. On the consumer perspective, the evolution of 3D

movies, *Dolby Atmos* sound evolutions, and viewing concepts like *IMAX* is indicating an effort to maintain audiences going to the cinema. On the producing side, one can equally accompany the developments when it comes to sound editing, costume design, make-up or special effects. These are major production investments to make the film and TV watching experience more mesmerizing (Mukherjee et al., 2013). The film supply has also seen a great development with more genders to offer to the public, in order to keep audiences interested in going to the cinema (Statistacom, 2019).

With such a diverse audience to please, it is logical that the supply of content is widely diverse. One can, for example mention News, Commercials, Adult content, Political content, and many others. This diversity was pinpointed by, for example, Devadas and Ravi (2013:51):

“Differences in the priorities of watching various kinds of programmes were found between male and female viewers. (...) Females are more inclined towards certain programmes like serials, cookery shows, health, environment and science and technology. Whereas male liked certain programmes like news, sports, travel, Documentaries, Quiz, etc”.

It was this investment in people, research and technology that has given AVC a wide array of diversity in terms of what can be offered to viewers. Viewers have the chance to consume shows awarded by their quality, from several countries in the world. These investments and awards can be looked at as indicators that television and cinema will continue to produce quality AVC that can be considered as both entertaining and educational.

Other devices

Despite the supremacy of television and the steady numbers of audience in movie theatres, one cannot ignore the technological evolution that happened in the way AVC is distributed, namely the role played by Internet online platforms, like *YouTube*. Erikson and Fitzgerald (2018) literature review provides an enlightening summary of the rise and growth of Web-TV (i.e. web-based content viewed on TV) and how it is changing the way broadcasters explore the possibilities of producing television, namely by focusing on Web shows. The webcast *Superlive*²⁷ was analyzed by the mentioned authors to understand how the show’s informal, humorous and interactive communication approach generates a “*Superliveness*” which “*breaks with some of the communicative norms associated with traditional broadcasting, yet provides new forms of*

²⁷ <https://www.fotbollskanalen.se/superlive/https://www.fotbollskanalen.se/video/3428152/rapport-fran-manchester--da-utbryter-kaos/>

communicative ethos through its interactional work” (Erikson and Fitzgerald, 2018:68). In their conclusions, the authors state that the success of shows like *Superlive* challenge broadcasting conventions, reveal the audiences desire for a multi-level engagement with AVC, and that this form of Web based content is emerging as a significant genre.

However, the Internet also provides options to consume, upload or download AVC. The idea underlying the creation of, for example *YouTube* or *Netflix*, was to harness and improve the conditions to make AVC mobile and consumable anywhere – either by Internet streaming or by previously downloading video files from repositories for a later consumption. Data from Ericsson Consumer Lab (2016:3) TV and media report has confirmed that, when it comes to mobile viewing habits, “At 46 percent, millennials are the group most interested, as they typically use multiple on-demand services and appreciate mobility”. This confirms a relevant paradigm change, namely from the television set being the main vessel for AVC consumption, suffering strong competition from mobile platforms (Deloitte, 2015), to a balanced utilization of the TV set and other mobile devices connected to the Internet in order to consume AVC (Figure 6).

Q1 2018 SHARE OF DAILY TIME SPENT BY PLATFORM

Based on Total U.S. Population

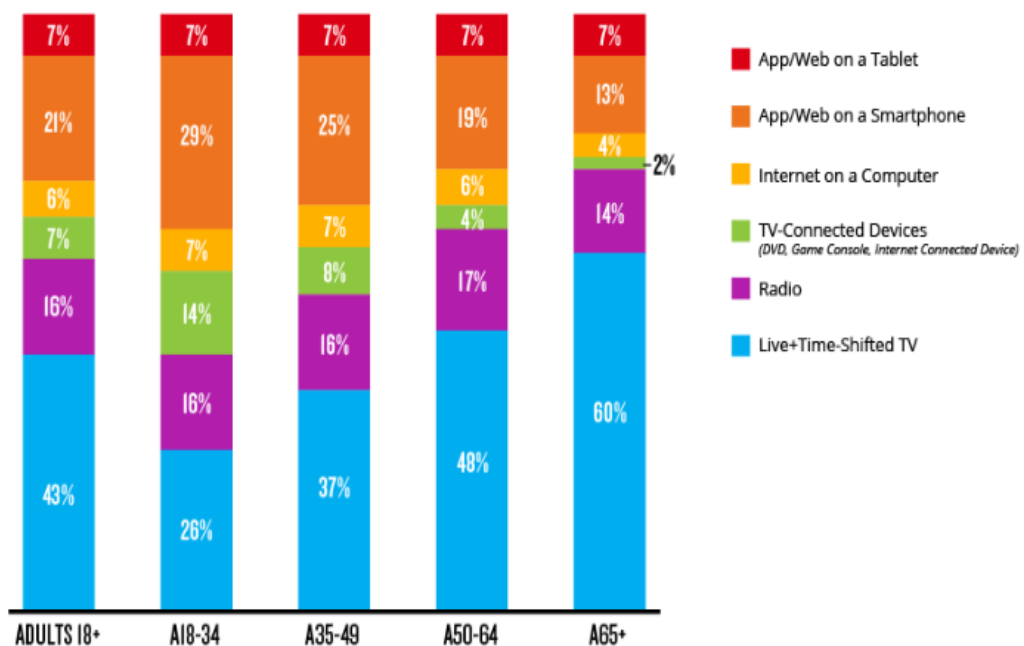


Figure 6 – Nielsencom. (2018) report on American adults' interaction with media

The Internet as a distributor of content, either by AVC repositories, or streaming services, has been changing the habits of consumers, by, as stated, keeping them more time consuming AVC, and by adapting to other viewing devices. An evidence of this is confirmed by a behavioral aspect: the fact that the consumption of video-on-demand and streaming-on demand content is growing. This fact was previously confirmed by Ericsson Consumer Lab (2014), and by the evolution of binge-watching activities evidenced on Ericsson Consumer Lab (2015:5): *“Bingeing is rapidly becoming a preferred practice, with 87 percent of S-VOD users bingeing at least once a week”*. This is an interesting aspect when addressing AVC consumption by autonomous language learners because this type of learner is also expected to select the AVC to interact with. Another evidence of this behavioral fact is shown on Figure 7, where Statistacom (2018a) presents the distribution of global downstream Internet traffic as of October 2018, by category, concluding that *“video accounted for over half of downstream internet traffic volume. Within that category, Netflix was by far the market leader in terms of global video traffic.”*

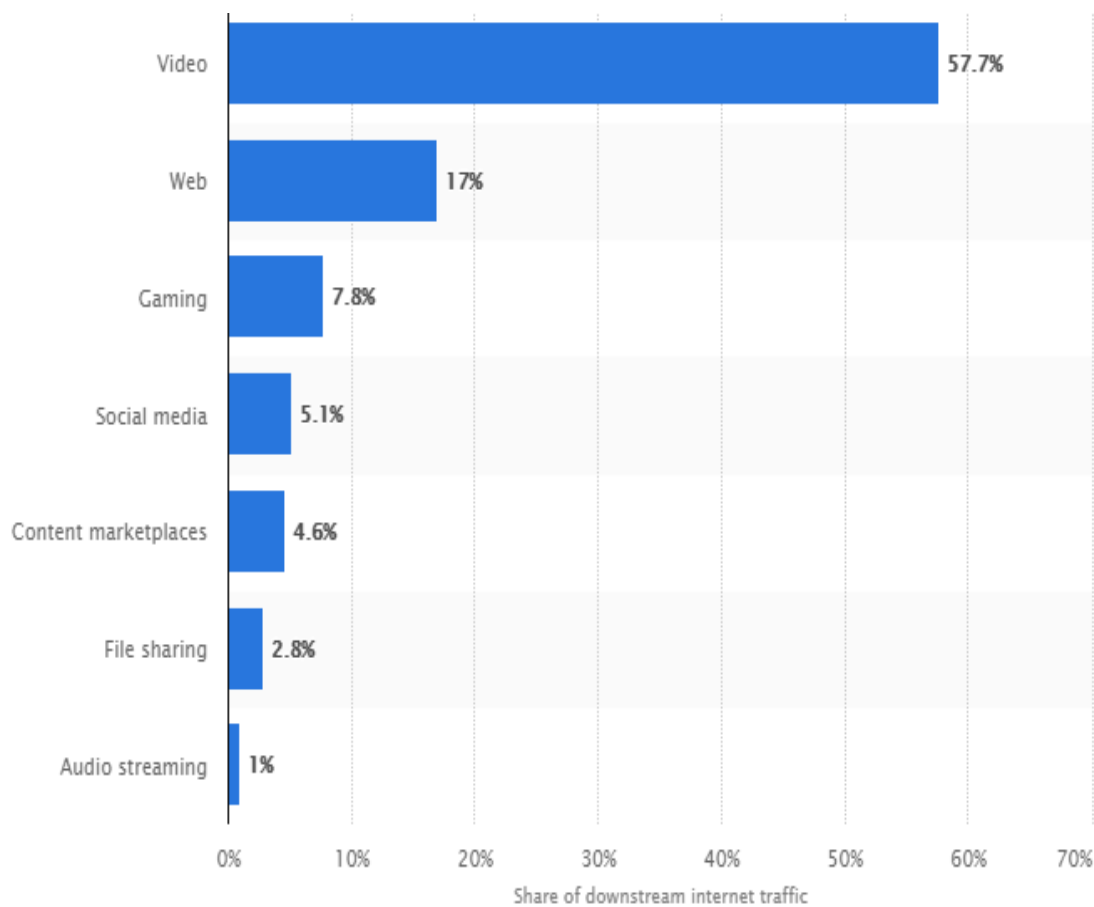


Figure 7 – Distribution of global downstream Internet traffic as of October 2018, by category Statistacom (2018a).

In addition, Ericsson Consumer Lab (2016:10) study pinpointed that *“The second screen, such as a smartphone or tablet, is used by 64 percent of consumers every week to complement the content on the big TV screen, such as looking up an actor, checking ratings, posting comments on social media, and watching video content on multiple screens”*. This confirmed a growing tendency of AVC consumers to use several types of devices during their media exposure. More users are adopting a behavior of watching TV and using a parallel device like a computer, a tablet or a smartphone to interact with the content they are currently consuming.

Considering the TV screen seems to no longer commands our full attention, Abreu et al. (2013:6) recover a typification of secondary screen users:

“(i) dual screening, which includes any action while watching TV; (ii) synchronous activity, activities inspired by what is being shown on TV (e.g. Facebook about it, IMDB, among others), and; (iii) companion experiences, including applications developed mostly by broadcasters and TV providers in order to enhance and improve the experience of the viewer with the content being watched (enhanced TV) or the programs broadcasted by an operator (e.g. Zeebox [32], The Walking Dead - Walkers Kill Count [15], MEO Remote [24], among others).”

These solutions may use technologies like audio fingerprint to guarantee automatic synchronization of the content on a second screen with the TV related show.

The rise in second screens presents the television producers with an opportunity to rethink the traditional way to watch TV. Clearly, the traditional way is no longer 100% satisfying to the viewer, who gets easily distracted with whatever content is on the second screen. As this trend is not showing signs of slowing down, the TV business needs to come up with ways to interface the second screen with the broadcast. Among some ideas, Nixon’s (2015:1) *Linked Television* puts forth a solution, i.e. *“A content platform (...) allows multiple devices to synchronise the video and its related content across different screens”*. University of Aveiro is also developing a similar project called *2nd Vision* (<http://2ndvision.web.ua.pt>). Besides, the service providers also developed apps to mimic the set-box remote, which allows for users to replace it by another device, and so, be able to achieve a standard of high interaction with the content.

This is an endorsement of an evolution of the tools for consuming AVC to provide a more complete experience to the spectator, i.e. an experience that entailed more than passive viewing. Audiovisual producers and researchers have been working on ways to make AVC produced for television more interactive. Concepts like Interactive Television or Second Screen apps for tablets and smartphones are improving the spectators’ possibilities to interact and

sometimes directly influence the AVC they are consuming Fallahkhair et al. (2007). In fact, interaction with AVC consumption itself is a current practice – a good example is audience participation on the Eurovision Song Festival, or apps related to reality shows like “Love Island”²⁸ –, the tools to allow viewers to interact have accompanied the Web 2.0 evolutions, giving rise to live television program mobile apps²⁹.

In conclusion and agreeing with what is stated in Thinkwithgooglecom (2017a), after a worldwide survey on the habits of online consumers (for the purpose of this framework one will only focus on the AVC consumption statistics), *“The lines between traditional TV content and online video are blurring, along with the platforms where this type of content is consumed.”* The stated study also confirms the growth of online AVC consumption – with a fairly even preference given to smartphones and computers (53% of enquired individuals use both computer and smartphones to consume online AVC) – via platforms like *YouTube*, social media and streaming-on-demand websites. The authors of the report conclude that *“people are increasingly directing their focus to the content itself and its availability across screens and viewing options. Users can now access video content across any internet enabled screen when and where they want, as opposed to being constrained by linear broadcast airing schedules”* Thinkwithgooglecom (2017a).

Considering the fast pace evolution in terms of trends for TV viewing, it seems that the future will bring about a deeper evolution of the link between TV with the Web and content experiences based on interaction of the viewer with the content and with other people. Users are themselves different, as they are developing multi-tasking abilities and quickly shifting their attention span between several activities. The rise in the usage of second screens is demanding a quick response by TV show producers and broadcasters to keep the viewers’ focus and attention on content, under the risk of losing them to another type of activity. At this point, consuming AVC on-the-go seems to be an investment to pay attention to. Moreover, it seems clear that viewers are varying the locations where AVC is consumed, which deserves a more attentive analysis.

²⁸ <https://www.imdb.com/title/tt4770018/>; https://play.google.com/store/apps/details?id=com.itv.tellybug.loveisland&hl=en_GB

²⁹ <https://play.google.com/store/apps/details?id=net.mready.xfactor>

Locations where users consume AVC

Another important statistic for this framework is the pinpointing of where consumers are accessing their AVC, and Statistacom (2017a) provides a global scenario. Figure 8 shows that all age groups tend to favor their home to consume AVC. However, younger age groups are keener to consume content in different contexts. From the age of 46 onwards, the amount of users consuming AVC at home increases steadily and consuming AVC in other contexts decreases progressively. Figure 8 also indicates that consuming AVC is a regular habit at home, in the workplace and during commutes. This is of high importance for this framework, as it intends to rely equally on the consumption of AVC in formal, informal and non-formal contexts.

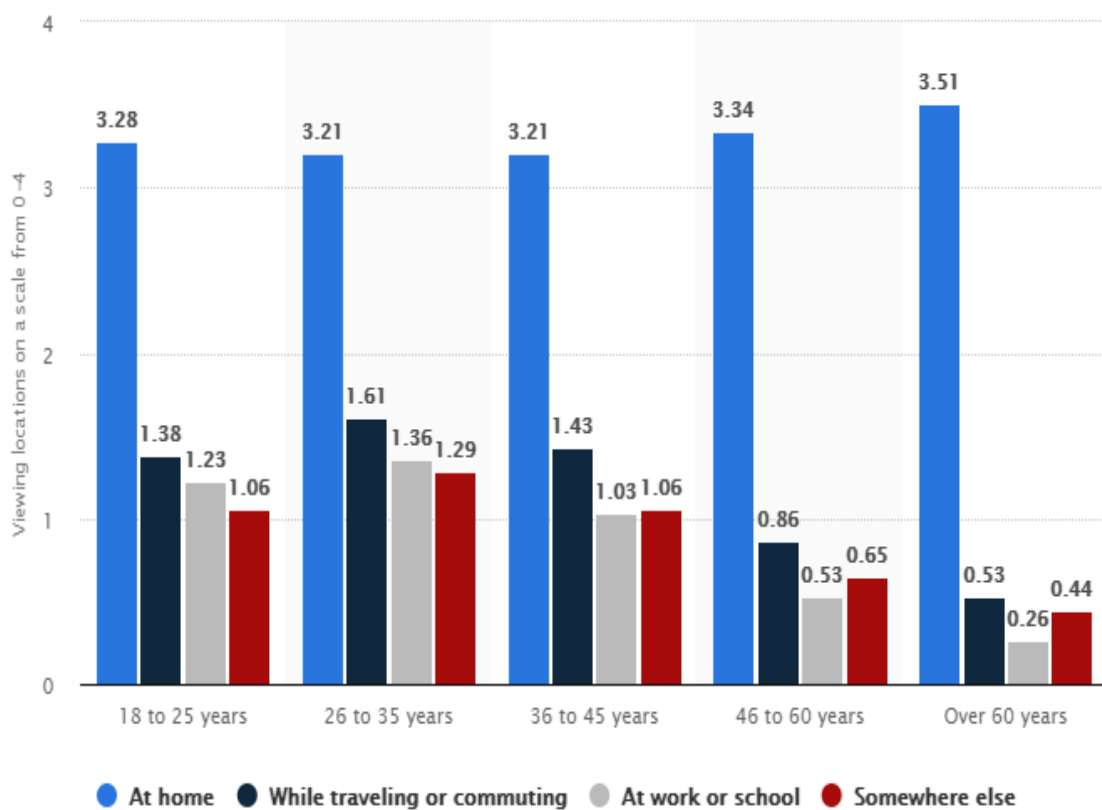


Figure 8 – Global online users watching online video in selected locations worldwide as of June 2017, by age group Statistacom (2017a)

Considering the increase in mobile online AVC consumption, *Sandivine* released a report in February 2019 that confirms a worldwide inclination to watch online videos on mobile devices. The report states that YouTube represents 38% of worldwide mobile traffic, whereas *Facebook Video* is the second brand 2,5%. *Netflix* represents 2,4% of the worldwide mobile traffic (Cullen, 2019). The amalgamation of this data shows the importance of online AVC in the several moments of the day.

Regarding the consumption of video content outside of their homes, Portugal is also showing an interesting tendency. According to data released by *Netflix*, 66% of Portuguese subscribers consume *Netflix* content in public – cafés and restaurants (56%), airports and airplanes (44% and public transportation (like trains [32%] and commuting [26%]) –, placing Portugal in the third European country consuming AVC content in public (Expressopt, 2018; Jornaldenegociospt, 2108; Publicopt, 2018).

Genres

Considering all the broadcasters investing in the diversity of content (established networks like *FOX*, *CBS* or *ABC*) plus the viewing services like *Netflix*³⁰, *Hulu*³¹ or *Amazon*³² (services that provide alternative ways for the distribution of AVC, via streaming services), who are also investing in original content, it is no surprise that the number of original fiction scripts have been increasing in the fifteen years (up to 2015 – Adalian, 2015). The consequence of all these factors is that television production has never been so diversified in terms of content, form or target crowds. Reality shows, series, live sports, family shows, nostalgia, games-shows and films are broadcasted or made available in streaming catalogues to please the different panoply of taste the consumers of AVC demand.

A wide variety of demand creates a need to develop content of different genres with different formats. However, concepts like genre, sub-genre and format are abstract because their definition has evolved and, like one can gather from Edgerton and Rose (2005), genres i. are a form of branding for networks to have a straightforward way to market their product; and ii. overlap constantly to provide viewers with a multitude of content, thus satisfying their several consumption needs.

A 2018 survey entitled *The behavior of viewers in front of TV* (Socialtv, 2018) also showed that “*women are more influenced than men when it comes to the selection of TV content, most tips about what to watch come from family or friends, and finally, genre and mood are important criteria about choosing what to see on TV*”. Research conducted by Abreu et al. (2013) had already confirmed the later aspects and added other factors that influence the choice of AVC, namely: i. “*the importance family context has in the decision of what content to watch together, highlighting the relevance that TV content selection applications need to have to conform not*

³⁰ https://help.netflix.com/en/node/412?ui_action=kb-article-popular-categories

³¹ <https://www.hulu.com>

³² <https://www.amazon.com>

only to the user's profile but also to the surrounding context (...); ii. the possibility to develop TV recommendation systems “based on (...) viewing history”; iii. the state of mind or mood when turning on the device; iv. the genre and v. the time available to watch TV.

This framework also addressed what type of content is being consumed. Focusing primarily on online AVC, as *YouTube* is the leading platform, this framework will draw conclusions from this platform’s statistics. According to Thinkwithgooglecom (2016), the most popular categories are comedy, music, entertainment/pop culture, and “how to” videos. This is in line with the popular online video categories in the United States (Statistacom, 2017b), represented on Figure 9.

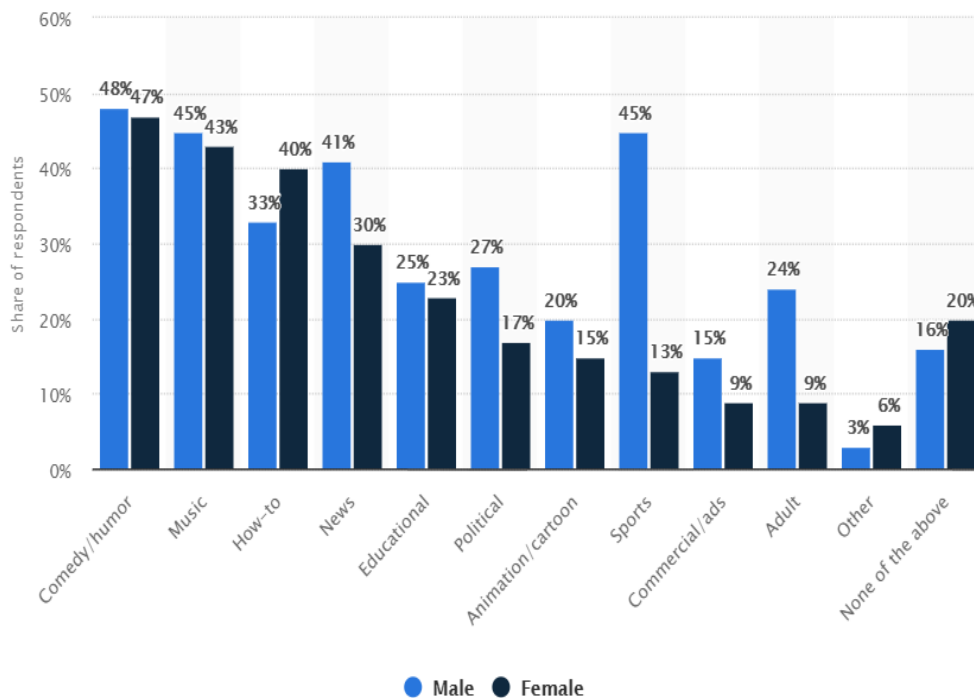


Figure 9 – Most popular online video categories in the United States as of February 2017, by gender (Statistacom, 2017b)

Still regarding the genres, BBC (and other newsrooms³³) had access to a 2017 summary of what *Netflix* users were consuming in specific moments of the day, on a global level, and the conclusions were: i. the predisposition to watch comedies during the breakfast times increases 34%; ii. at lunchtime, 47% of the global audience tends to consume drama shows; iii. in the evening there is a tendency to consume thrillers and comedies; and iv. after midnight, documentaries, films and TV shows portraying true stories increase 24% (Nitpt, 2017).

³³ This report was analyzed by the press and the conclusions were published in other media platforms like www.variety.com, www.theguardian.com, and www.nit.pt to name a few examples.

However, Portugal is not following this trend, as it can be confirmed with data shared by ERC (2016). In relation to content, news is the most sought AVC by the Portuguese, followed by films, soaps and TV shows (ERC, 2016). After separating consumption by age groups one can find that over 80% of all age groups above 25 years old value news the most. The younger age group tends to value TV shows. The most central age groups tend to choose films whereas the older age groups tend to value soaps. As for *YouTube* consumption, Consumerbarometercom (2015), placed TV shows as the most consumed category, and it did not mention educational content in the top five categories (Figure 10).

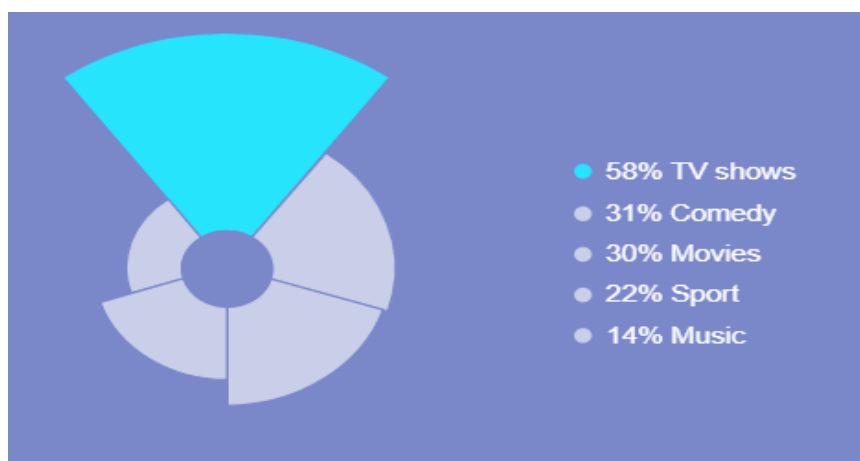


Figure 10 – Categories of online video watched with smartphone in Portugal (Consumerbarometercom, 2015)

Nevertheless, when consulting *YouTube*'s statistics, represented on *YouTube*'s *rewind* function³⁴, the most watched videos of 2017 and 2018 were in the categories of comedy/humor and music. Therefore, this can be an indicator that Portugal may be converging with the trends of American users.

Although the consumption of AVC for educational purposes is lower than the other categories, it is important to understand how this category is present in repositories, and how it satisfies the needs of the users. Again, data related to *YouTube* will be used to measure the habits of consuming educational AVC, and the first pieces of information are that in 2017 there were “1 billion views of learning-related content on the platform every day”, and that “1M learning videos are shared everyday on Youtube” (Thinkwithgooglecom, 2017b). This information confirms that educational videos, like the ones produced by Khan Academy³⁵, BBC or renowned universities (like MIT³⁶, Cambridge³⁷ or Zurich³⁸), are appreciated and shared. According to

³⁴ <https://www.youtube.com/channel/UC49ztM5Bfiwhk34Vo4Im69A>

³⁵ <https://pt.khanacademy.org/>; <https://www.youtube.com/user/khanacademy>

³⁶ <https://www.youtube.com/user/MIT>

³⁷ <https://www.youtube.com/user/CambridgeUniversity>

³⁸ <https://www.youtube.com/user/ethzurich>

Twinwordcom (c2018)³⁹, the amount of Education related videos on *YouTube* in 2018 is around 5% (Figure 11).

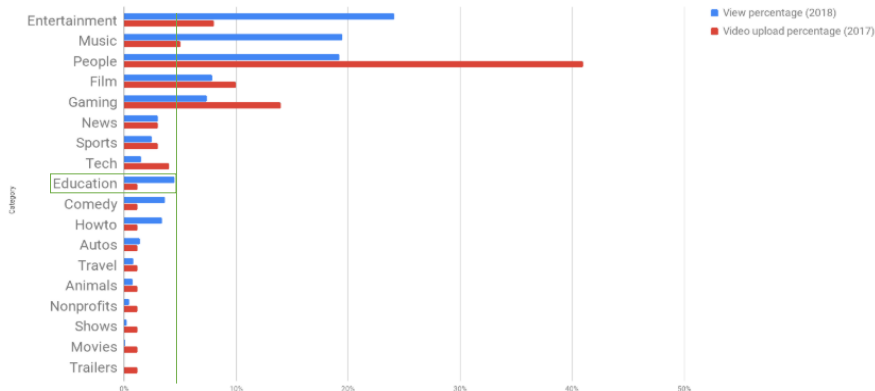


Figure 11 – Supply and demand of videos on *YouTube* by categories (Twinwordcom, c2018)

Therefore, educational videos are clearly appreciated by *YouTube* consumers, because, when one adds up UGC categories like Education, gaming, and “howto” videos, the result is 20% of AVC on this platform is related to instructional subjects.

3.2. SHARING HABITS

A final relevant issue for this framework is the data describing the presence of UGC in the AVC repositories, like for example *YouTube*. UGC is over 50% of video upload percentages, making UGC categories the most popular uploads on this platform. Moreover, according to Statistacom (2016b), videos uploaded by people tend to be slightly more popular among the American users than videos uploaded by brands, companies or institutions (Figure 12).

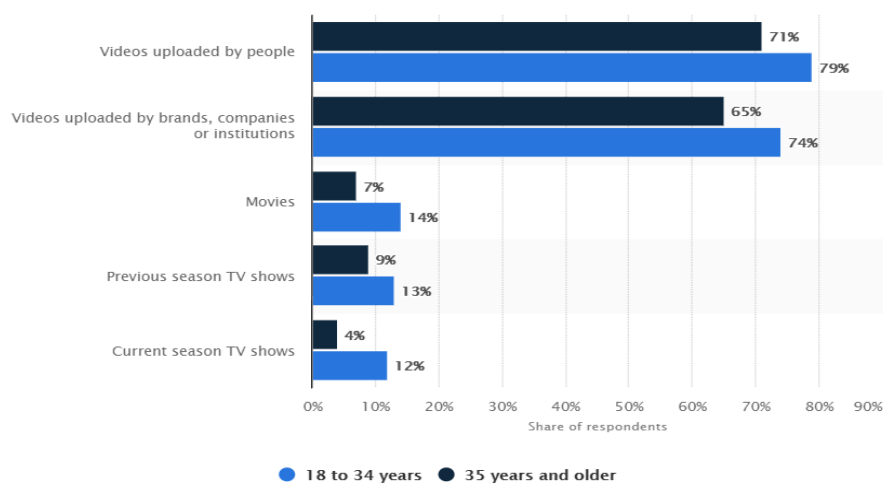


Figure 12 – Preferred types of video content accessed via *YouTube* according to weekly online video viewers in the United States as of January 2016, by age group (Statistacom, 2016b)

³⁹ Twinword.com used data from www.statista.com to compile the number that generated Figure 11.

Moreover, the possibility for AVC consumers to be *producers* of amateur content online has triggered a great enthusiasm on a global scale, which can be measured in the number of videos uploaded to sites like *YouTube*[®] or *Vimeo*[®]. Among the most popular uploads one can find: “*everyday things*”, “*funny things*”, “*event attendance*”, or “*pets and animals*” (Purcell, 2013)⁴⁰. However, when focusing on learning, Thinkwithgooglecom (2017c) reveals that “86% of U.S. viewers say they often use YouTube to learn new things”, “7 out of 10 YouTube viewers use the platform for help with a problem they’re having with their work, studies, or hobbies”, and “There are 500M views of learning-related content on YouTube every day.” These statistics show the potential of AVC repositories sustained by producers to assist the learning habits.

Despite this potential, producers’ uploads are still unregulated, which led to controversy and debate about copyright issues in the amateur uploads. This legal debate culminated in the approval of the Copyright Directive by the European Union in September 2018. With this Directive the EU intends to provide i. “*Better choice and access to content online and across borders*”; ii. “*Improved copyright rules on research, education and cultural heritage*”; iii. “*Achieving a well-functioning marketplace for copyright*” (Commission, 2018:1). However, according to Tim Berners Lee (the inventor of the World Wide Web) and Vint Cerf (Internet Pioneer), the impact of this Directive, particularly Article 13,

“would also fall heavily on ordinary users of Internet platforms — not only those who upload music or video (frequently in reliance upon copyright limitations and exceptions, that Article 13 ignores), but even those who contribute photos, text, or computer code to open collaboration platforms such as Wikipedia and GitHub.”
(Cerf et al., 2018:1)

Member states still have to vote on the Copyright Directive, but there is some concern that the practice of ‘producing’ AVC may be threatened.

UGC also influences the Portuguese population, as it was demonstrated by Ceia (2016). In spite of the number of consumers of UGC in Portugal still being very low (ERC, 2016), in this study, the researcher confirmed that UGC on *YouTube* influences the Portuguese consumers. The latter tend to recognize the functional value of UGC, retrieve emotional responses when consuming UGC, and attribute credibility to the UGC – which will condition their consumer behavior (Ceia, 2016). This study is focused on a Marketing perspective and it would be relevant that future

⁴⁰ Pew Research Center survey: Online video consumption

research would focus on how educational content is being consumed by the Portuguese and what impact does that consumption has on all learning settings.

The stated reports show evidence of high number of viewings of UGC, TV series, Movies, TV Programs, Sports and News. After analyzing the time people spend consuming AVC, the different sort of apparatus they use, the video-on-demand practices and the most viewed content it is possible to conclude that: i. the time spend interacting with AVC has a tendency to remain constant; ii. the TV is still the main apparatus for interacting with content, but mobile devices usage is increasing rapidly; iii. viewers are also adapting to modern tools of television providers, like the video-on-demand and streaming-on-demand, thus changing their consumption choices to more self-relevant content and the viewing patterns according to their time and mood; iv. people consume AVC in several moments of the day, and these moments influence their choices of consumption; v. the number of people consuming AVC while commuting is increasing; vi. mobile devices are more used of short-duration videos, whereas the TV is used for longer-duration videos; vii. educational content represents around 5% of content on *YouTube*; viii. UGC is the most uploaded type of video production; ix. and finally to conclude that UGC, TV series and movies are the most sought types of content.

Therefore, one can confirm a massive consumption of AVC on a global scale in all demographics, with a balanced number of female and male consumers. However, younger generations are keener on using mobile devices to satisfy their viewing needs, whereas older generations are staying loyal to the television. Portugal is accompanying global tendencies in what regards the preference for mobile viewing devices among younger generations, the preference of TV among older generations, and the increase in video-on-demand services, TV/Internet packages and subscriptions to online AVC services. It is also relevant to point out that the Portuguese follow global tendencies when consuming films and TV shows. However, in Portugal, news is more valued and the group of people who consume UGC online is still very small. ERC's (2016) study confirmed that financial difficulties and a generational gap are limiting Portuguese access to the new tools (that technology is developing to maximize the experience of consuming AVC). Generally, the Portuguese are not big consumers of deferred content and mainly younger generations diversify devices of AVC consumption as well as the search for video on the Internet.

3.3. THE USE OF ENGLISH IN AVC

It was previously mentioned that one of the reasons for the current spread of the English language was the easy access to the mass media production of English-speaking countries. Some of these productions are broadcasted globally by networks who have placed themselves in the global TV market, like *FOX*, *BBC*, *SONY entertainment*, *CNN* or the new players of IP/Internet TV like *Netflix*, *Hulu* and *Apple TV*, that reach countries of the three circles.

To understand some of the reasons why inner circle countries gained such a broadcasting notoriety, one can go through Dupagne and Waterman's (1998) analysis of the prominent role of the USA in the international programming flow, during the nineties, in Western Europe⁴¹. These authors identified two main currents of thought when it comes to explaining this dominance. On the one hand, many scholars adopt an ideological perspective and refer to an American media imperialism, in which the distributors try to use American television shows as a cultural reference to covertly implant their culture and their values. The authors also mention a second current that sustains the American dominance in plain social, economic and consumer preference grounds.

Dupagne and Waterman (1998) recognized other important aspects in the spread of American programs. Firstly, that the increase of private television networks was directly related to further imports from American television, seeing that public networks still showed many signs of protectionism towards American productions. Secondly, the English language proficiency did not increase with the consumption of the American shows by Western Europeans, which was justified by the use of subtitling, dubbing or lecturers. Thirdly, the researchers have problems in identifying quotas for the import of foreign programs, which meant that the countries they studied were allying a development in the private television sector, which were many times obliged to fill their programming with American programs, to a drop of protectionist measures when it came to program importing. The dominance of the USA in Western Europe has also been sustained in constantly increasing amount of AVC production, adaptation of genres, formats, foreign shows, i.e. this amount of productions for selection is necessary especially "*when domestic television is not producing material of comparable entertainment or other relevant value*" (Mills, 1985:493).

The efficient distribution models, the lack of competition by domestic broadcasters, the amount of content that the USA were able to produce, the country's status as political, economic,

⁴¹ The BBC and SKY television were also major players in the 90s broadcasting world. However, the authors do not analyze this fact in depth. This was mentioned not to ignore the role of British broadcasting as a distributor of AVC in English to the world.

military, cultural superpower and the noticeable quality and success of their products were some of the main reasons that allowed for the USA to lead international television trade by a large margin and thus contributing to a spread of the English language until the 21st century. The dominance of the USA has taken a slight drop in the first decades of the 21st century due to the evolution on the consumer patterns and habits. Despite the drop, the USA remain on the forefront of television and AVC evolution to guarantee its dominant place mostly in the European, American and African contexts and thus assure the distribution of the massive amount of AVC produced.

The streaming and online AVC repositories seem like a valuable source of English language material, as it appears to be the most used language of the videos on, for example, *YouTube*. “*In our sample of most popular content only 15 percent were in another language other than English*” (Burgess, 2013:85). Establishing a parallel with what was outlined in the previous sections, one can conclude that video repositories language content is in line with the choice of English as the *lingua franca*. Of course, one cannot ignore the fact that *YouTube* was also an American development and a part of *Google*. However, similar sites from other countries using languages other than English, like <http://www.bs.to>, do not seem to present a competition to the established brand *YouTube* became during the last decade.

This massive presence of English in AVC has naturally stimulated research addressing usage and production of AVC for teaching/learning EFL (both for television and Internet). It is important to remember that EFL represents over half the speakers of English in the world, and these learners also embody a vast audience, both as learners and as consumers.

English may have already two billion speakers, as predicted by Crystal in 2008, and one of the reasons this language seems to reach such a vast crowd is the overwhelming presence it has in the audiovisual industry. This happens, as stated in the sections above, due to quality productions, efficiently distributed on a global scale, and a notorious capacity to evolve and please the new demands of the audience, AVC in English is being distributed and shared all over the world. Moreover, the film industry with cinema and video formats, television and video streaming make it so easy to access content in English. Finally, video repositories, which allow for UGC, also seem to favor English speaking content, for it is a guarantee that the video in question will reach a wider audience.

4. LEARNING EFL WITH AVC

In this section, the focus shifts to how the community is taking advantage of a means of entertainment so global and so consumed (AVC) to assist in the teaching/ learning of the world's *lingua franca*. As mentioned, AVC seems to stimulate two of the four skills related to learning a foreign language, namely, "*Listening*" and "*Speaking*" – and, by using subtitles, "*Reading*" can be added to the set. The potential of AVC is at plain sight and, for that reason, English teachers use AVC as a tool in their praxis, and learners as an aid to complement their learning (either by own initiative or instructed by teachers). After all, with AVC, the teacher can expose learners to a living language, providing opportunities to practice the language through authentic texts and exposing them to real spoken English language models (Pim, 2013).

Such a teaching tool has met its share of criticism. Firstly, the issue whether a certain AVC is appropriate for the lesson and of substance for the learner. As mentioned by Bajrami and Ismaili (2016:505), "*it would be very beneficial for instructors to select video materials that are conducive to language learning*" as "*Learners are more motivated to cope with the instruction when given the opportunity to study with the use of video materials.*" It is, therefore, pertinent to consider the language of the AVC and its suitability to the learners. Many times, AVC fails to achieve its goal because it is not relevant to the lesson's goals. Another issue concerning the exposure to authentic language has to do with the difficulty in understanding the content, and the contact with irrelevant vocabulary, which springs from learners not being accustomed to using the appropriate processing strategies to comprehend authentic language input (Bahrani and Sim, 2012). An example of difficult language in authentic material is normally associated to regional dialects, slang words, idioms, unfamiliar accents and/or English spoken by individuals of the *outer circle*⁴².

Secondly, Masats (2009) identified situations when AVC is seen as a dead-time filler in the classroom. This impression is a consequence of a class that was not properly planned for integrating AVC in the lesson.

Thirdly, Bahrani and Sim (2012) also raised the concern as to the cultural bias present in some AVC. The authors refer to a tendency for AVC to attribute fictional characters with generalized and obvious traces of certain races and/or cultures, and by doing so the plot does not need to present these characters to the audience. Among the most common examples nowadays are to connect Muslims to terrorism, South Americans to drug dealers, Asians to martial arts experts or Japanese to technical wizards. In other cases, AVC mocks these cultural idiosyncrasies. This

⁴² 1. ENGLISH AS LINGUA FRANCA

kind of racial/cultural profiling present in some AVC passes incorrect messages that could be dangerous in educational contexts. However, a teacher that successfully integrates AVC in the class is capable to guide learners in the deconstruction and selection of what is the culturally biased content, thus connecting the message of the AVC with the lessons' goals.

Finally, Richards and Renandya (2002) also recommend working with learners on how to deal with AVC in the classroom. The main reason thereof is the fact that learners tend to associate AVC with entertainment and their interaction with it is usually passive. Nevertheless, in the classroom, they need to see AVC beyond its entertainment potential, and also regard it as a learning medium to actively engage with the AVC. That guidance needs to come from the teacher who is responsible for guiding learners to *"focus their eyes, ears and minds on the video in ways that will increase both comprehension and recall and add to the satisfaction they gain from viewing"* (Richards and Renandya, 2002).

Researchers summarized in McNulty and Lazarevic (2012) shared their contribution when it comes to advantages of AVC as a tool for learning, stating that: i. it delivers rich visual support; ii. it encompasses listening components; iii. it covers advanced communicative contexts (when stating that AVC provides contact with the real language, this means that one can be exposed to speech using slang, rural language, urban language, uttered by adults, children or non-native speakers, and thus the learner gains a capacity to connect the environment of the classroom to the real world, by obtaining authentic material presented in the English language); iv. it offers visualization of communicative dynamics; v. video players provide the possibility to control the reproduction speed⁴³; vi. it fosters the improvement of active listening skills; vii. it promotes the acquisition of higher phonetic proficiency; viii. it might nurture the increase of learner confidence; and ix. it may allow learners to reach high levels of learner confidence and affection. Other characteristics of AVC like visualizing the synchronous communication situations and the use of nonverbal communication (gestures, facial expressions, paralinguistic clues and lip movement) are present in the literature to confirm the multisensorial nature of this content; regarding these advantages, McNulty and Lazarevic (2012) stated that these multisensorial elements promote a more efficient understanding of the meaning, which eventually immerses the learner deeper in his learning.

⁴³ The evolution of video-players may also have an impact because of the possibility to guarantee a higher reproduction control of the AVC. Fallahkhair et al. (2007:314) criticized the *"non-interruptible quality that restricts learners from replaying the information"*. However, nowadays, computer software for video playing allows for not only easier repetition of information, but also the control of reproduction speed. Teachers can choose to adjust it according to their evaluation of the learners' capacities.

Researchers have also studied the impact that AVC may have in the actual learning/acquisition⁴⁴ of language. However, learning/acquisition is such a complex process that many researchers describe the frameworks of their studies in great detail and, when presenting results from experimental studies, the authors avoid generalizations – even if the results show learning improvement of the learners. With language learners this premise is also valid, and it raises the doubt of how is AVC contributing to actual learning/acquisition of the language. In two experimental studies, Bahrani (Bahrani et al., 2014; Bahrani and Sim, 2012) suggested that certain typologies of AVC were inadequate to certain levels. In the conclusions, the authors stated that, for example, advanced learners got no learning from cartoons and on the opposite side, and elementary learners were not proficient enough to perform valid cognitive operations to understand news. However, both Bahrani's studies cited above were conducted in specific environments and it seems very pertinent to replicate these studies in different contexts.

Another aspect is that testifying real communication is a plus when compared to the *“typical teaching materials or even the oral models provided by the teachers”* (Joseph and Baskaran, 2011:33) – the authors are referring to manuals and the listening exercises included in them. According to McNulty and Lazarevic (2012), authentic language exposure concerns how people talk, recognizing different communication contexts, identifying and adapting to different registers and perceiving aspects of non-verbal communication. The authors also mention the importance that aspects of non-verbal communication have in the understanding of meaning. Non-verbal cues are normally referring to body language, facial expressions, paralinguistic items and lip movement transmitted in a synchronous and asynchronous way, accompanying the aural text. Hardison (2003) had already made a key contribution to the importance of the effects of visual cues, by concluding that elementary learners actually thrive better in their learning results when exposed to AVC in the target language, by taking advantage of the non-verbal communication.

Exposure to AVC also seems to create higher motivation and affection levels in the learners. Several of the already referred studies – Bahrani et al. (2014), Falahkair et al. (2013, 2007, 2005), Sockett and Toffoli (2012); McNulty and Lazarevic (2012) – have, somehow, addressed the learners' motivation levels. These studies pointed out how learners create affection bonds with AVC and concluded that learners improved in terms of language proficiency.

⁴⁴ As defined by Krashen (1981): the formal and conscious development of a language, which happens by explaining and discussing grammar or structural rules relates to learning; acquisition is a subconscious process, in which learners are merely aware that they will need the language to communicating.

As for the access to AVC in English, the previous subchapters showed how English was so present both in the audiovisual market and in the AVC repositories on the Internet, thus allowing interaction with AVC in English outside the classroom. In fact, the Internet increased the use of other materials, allowing for content sharing between teachers and learners and avoiding the participants' cultural and geographical isolation towards the English language. Social media/networking have also allowed for the displacement of communication between teachers and learners to the outside of the classroom, which, for AVC, means that it can be recommended and shared, and not confined to the borders of formal learning contexts.

Outside of the classrooms, learners have the opportunity to consume AVC in English in a more relaxed environment, using the TV, a video player, or the Internet, with the advantage to adapt the speech's velocity to the learners' skills – both for listening comprehension and, in the case of using subtitles in the target-language, to allow for temporized reading. Moreover, learners live in a digital age where they may choose to learn English by using many of the learning AVC available in the repositories (e.g. *BBC Learning English*⁴⁵ or *Learn English Conversation*⁴⁶). These producers distribute EFL “*free audio, video and text materials to learners to be used around the world (...) delivered as full length courses but each component of the course is standalone and can be studied on its own*” (Bbccouk, c2019), i.e. AVC for EFL to consume outside the classroom.

Another way that AVC in English could be consumed is with the massive amount of content from English speaking countries like the U.S.A. or the U.K. which are produced for entertainment purposes. Sockett and Toffoli (2012) realized that learners create affection connections with these contents, either on TV or on the Internet, based on the familiarity they feel for the characters, the acquaintance with the scripts and the use of more realistic speech, much different from the “*oral models [usually] provided by the teachers in the classroom*” context (Joseph and Baskaran, 2011:343). This familiarity is also addressed by Pim (2013) when stating that learners recognize characters with whom they identify themselves, and even relate to them, thus finding a familiarity for a greater enjoyment of the plot.

Learners that participated in the study by Sockett and Toffoli (2012) sustained the claim that regular contact with TV shows makes them more understandable, due to the repetitive nature they have, and the recycling of isolated expressions. Once the meaning becomes transparent, the learner becomes capable of predicting it in advance and applying it in a real context. This

⁴⁵ <http://www.bbc.co.uk/learningenglish/>

⁴⁶ <https://www.youtube.com/channel/UCiLADGxdlggDc14zkO2CVlQ>

reinstates the idea that AVC provides opportunities to listen to “*how people talk (...) the normal language*” (Sockett and Toffoli, 2012:148).

The following sections will develop further on the way AVC has been used as a learning aid, report on its usage in formal and informal learning contexts and elaborate on how researchers evaluate the potential of different genres for EFL learning. From these utilizations, it will be possible to advance to a compilation of elements that learners of EFL appreciate when watching AVC to support their language learning. This subchapter will end with considerations on AVC produced for autonomous learning and the conclusions of the exploratory study done to platforms that use AVC for EFL, which guided the construction of the Matrix (described in Chapter 3).

4.1. AVC SHOWING/CONSUMPTION AS A LANGUAGE TEACHING/LEARNING PROCEDURE

The notion that either showing AVC in the classroom or that watching AVC are language teaching/learning *procedures* is sustained by Richards and Rodgers (2001:28), who describe a language learning procedure as “*Classroom techniques, practices, and behaviors observed when the method is used (...) resources in terms of time, space, and equipment used by the teacher (...) interactional patterns observed in lessons (...) tactics and strategies used teachers and learners when the method is being used*”. This conception of showing/watching AVC as a *procedure* for both teachers and learners fits to the conceptualization of this study’s OCP, i.e. confirming that it should be a tool to be used by both teachers in the classroom and learners.

Moreover, Richards and Rodgers (2001) highlight that AVC is one of the techniques being used when following a method. Method is a keyword in this context, as it refers to wide array of methods for language teaching which are analyzed in Richards and Rodgers’s (2001: 15, 16) work; the authors define Method as:

“an overall plan for the orderly presentation of language material, no part of which contradicts, and all of which is based upon, the selected approach. An approach is axiomatic, a method is procedural. Within one approach, there can be many methods. (...) Thus, a method is theoretically related to an approach, is organizationally determined by a design, and is practically realized in procedure.”

The previous definition also cites a crucial keyword in the literature regarding language teaching/learning research: *approach*. Richards and Rodgers (2001:16) state that a method is

related to an approach, which is defined as “theories about the nature of language and language learning that serve as the source of practices and principles in language teaching”. Moreover, Richards and Rodgers (2001) place method on a superior plane, as can be shown by Figure 13. From these set of definitions one can agree with Borges (2012), who concluded that methods are more focused in language structure and grammar rules, whereas approaches focus on language usage, understanding and oral production.

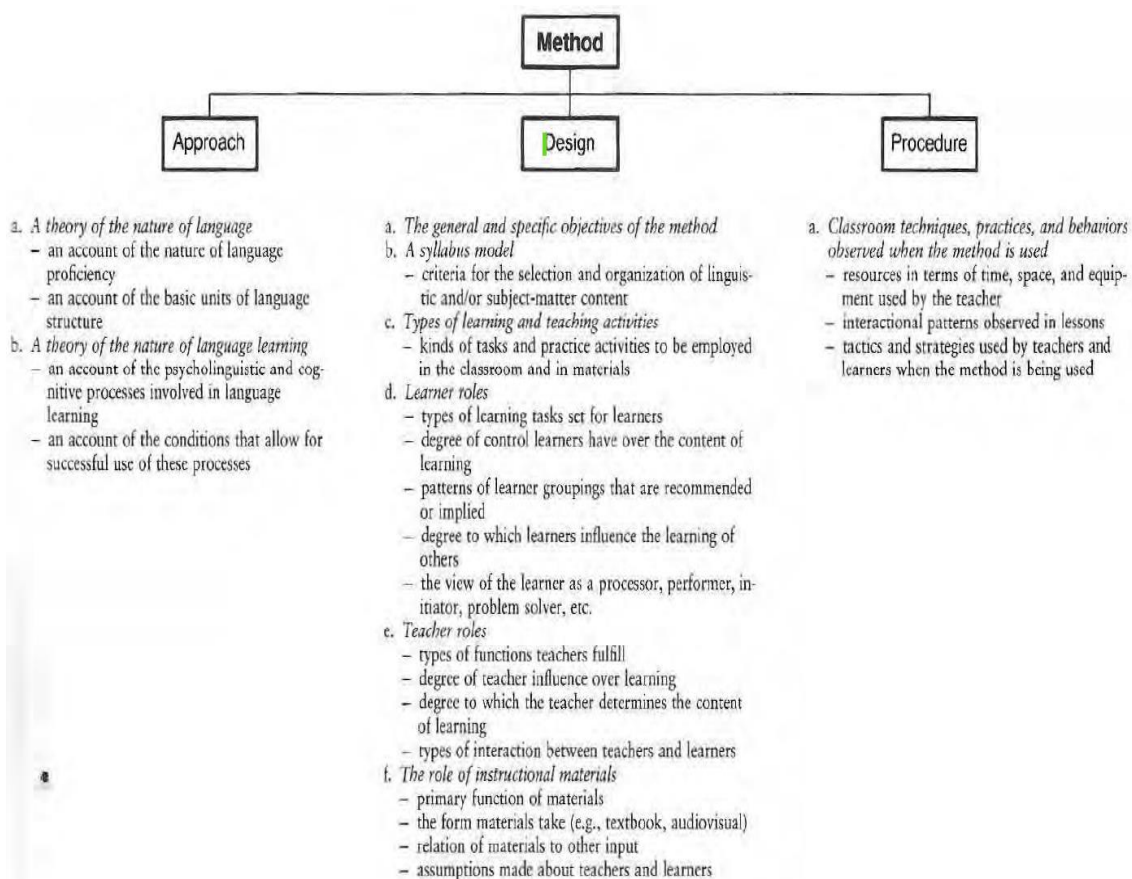


Figure 13 – “Summary of elements and subelements that constitute a method” Richards and Rodgers (2001:28)

Indeed, Richards and Rodgers (2001) present a detailed analysis of language teaching methods and approaches which are summarized in Table 2. The column with “Usage of AVC” is an appreciation of how AVC was used as a teaching/learning aid in each method/approach. As the methods list is long, and this section is essentially focused on usage of AVC in formal contexts, the methods which see AVC as a dispensable learning aid will not be described on Table 2.

Table 2 - Summarization of methods and approaches (Richards and Rodgers, 2001)

| | | Focus | Techniques | Features | Usage of AVC |
|-------------------|-----------------------------|--|--|--|--|
| Methods | Direct | Learning L2 with L2 | <p>_Vocabulary taught by constant interaction between teacher and learners;</p> <p>_Abstract vocabulary is taught by using idea association.</p> | <p>_Lessons are in the target language;</p> <p>_Pronunciation is a key element;</p> <p>_Grammar is taught inductively.</p> | Used as example of L2 for introduction of themes and vocabulary |
| | Audiolingual | Hierarchy of spoken ability over reading and written production | <p>_Memorizing structures and vocabulary;</p> <p>“Acceptable” and “unacceptable” replace feedback like “correct”, or “right”</p> | <p>_Big emphasis on eliminating errors and bad pronunciation;</p> <p>_Grammar is taught inductively.</p> | Used to introduce communicative situations and vocabulary |
| | Total physical response | | | | Dispensable |
| | Grammar-translation | | | | Dispensable |
| | Suggestopedia | | | | Dispensable |
| | The silent way | | | | Dispensable |
| | Community Language Learning | | | | Dispensable |
| Approaches | The Natural Approach | Communication is more important than speaking with correct grammar rules – as when children learn their mother-tongue(s) | _Usage of various vocabulary introduction activities (games, AVC sketches, collaborative work) | _Big emphasis on acquiring a solid set of vocabulary items | Used rarely as examples of L2 for introduction of vocabulary |
| | The Communicative Approach | Semantics of the language and learners’ communicative competence | <p>_Tasks for language input and utilization which are focused on authentic communicative contexts with meaning to the learners</p> <p>_Interpretation of speech focused both on elements and cohesion of texts.</p> | <p>_Balanced training of all skills of communication (speaking, reading, writing, listening);</p> <p>_Training is directed to authentic, functional and pragmatic use of the language.</p> | It is a way to introduce authentic communication in the sessions |
| | The Oral Approach | New linguistic items are introduced and practiced after the clear definition of a communication context | <p>_Usage of concrete objects, pictures, realia, actions and gestures to demonstrate new meanings;</p> <p>_Learners are guided into making mistakes to understand the introduction of new linguistic elements.</p> | <p>_ Big emphasis on eliminating errors and bad pronunciation from speech;</p> <p>Syllabi are planned to introduce simple forms first and more complex forms as the training proceeds.</p> | Used as example of L2 for introduction of themes and vocabulary |
| | The Lexical Approach | | | | Dispensable |

Richards and Rodgers's (2001) work examining the fundamental characteristics of foreign language teaching methods and approaches finished with a comparison of all methods and suggestions for program design, which is summed up on Figure 14.

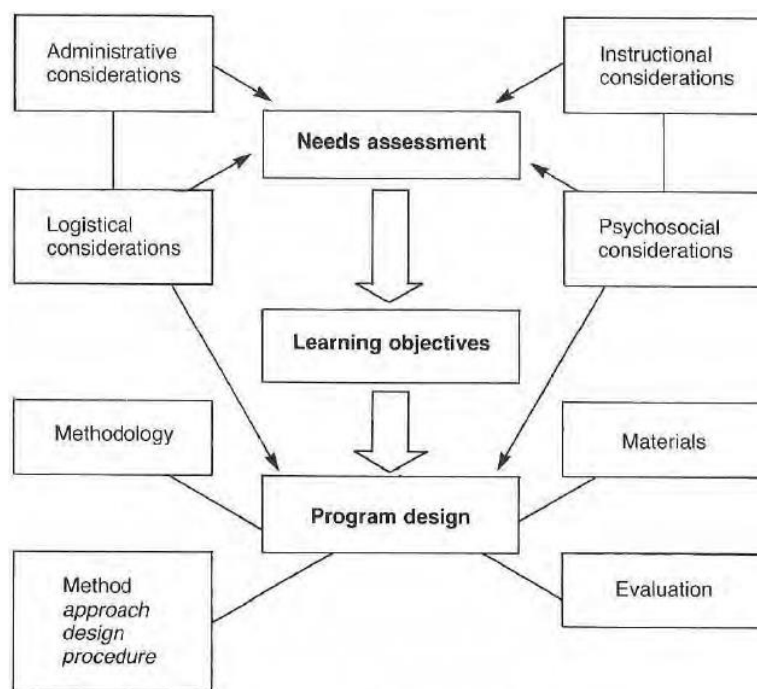


Figure 14 – Language curriculum development processes (Richards and Rodgers, 2001:159)

Figure 14 clearly shows that foreign language teaching is a process depending on so many variables that it is advisable to gather the most appropriate techniques from all methods and approaches. Similar research was conducted by Kumaravadevelu (2001), who theorized *Post-Method Pedagogy*, i.e. a curriculum development process which considered a. an alternative to the methods; b. the autonomy of teacher and learner; and c. a pragmatism based on principles.

Therefore, for the purpose of this framework, it is worth to dedicate some attention to this pedagogy and to the Communicative Approach – as it is an approach that looks at AVC as a valuable source of authentic material, real communicative situations, as well as a valuable aid to be used in moments of the lesson, as it can be confirmed at Teachthoughtcom (c2019).

Communicative Approach

This approach stresses the incorporation of learners' personal experiences into their language learning environment, and the focus on the learning experience in addition to the learning of the target language (Nunan, 1991). The Communicative Approach was praised during the boom of audiovisual production and distribution in the late 90s as it assumes that language should to

be learned in context. AVC naturally became an aid to the introductory phases of the classes. Indeed, in a communicative lesson,

“Meaning is paramount. Dialogs, if used, center around communicative functions and are not normally memorized. Contextualization is a basic premise. Language learning is learning to communicate. Effective communication is sought. (...) Any device which helps the learners is accepted - varying according to their age, interest, etc. (...) Fluency and acceptable language is the primary goal: accuracy is judged not in the abstract but in context.” (Richards and Rodgers, 2001:67, 68)

Another relevant feature of the communicative approach is the balanced training of the four macro-skills (“Reading”, “Speaking”, “Writing”, “Listening”), i.e. it focuses on all components of the communicative skill (Brown and Holloway, 2008). Complementing communicative sessions with AVC provides both contextualized and essential content and interaction with the target language, which can train “Listening” and “Reading”, as well as foster “Speaking”.

Looking at the features of the Communicative Approach, which is summarized in Richards and Rodgers (2001), one can notice a special concern for a more humanistic way of teaching foreign languages, that places learners’ needs in the center of the curriculum design. The curriculum itself is flexible, balanced and it accepts techniques from all methods and approaches. Therefore, the communicative approach shares some parallels with Kumaravadivelu (2001) *Post-Method Pedagogy*, which will be addressed next.

Post-method pedagogy (According to Kumaravadivelu, 2001)

This term defined a language teaching pedagogy that took into account aspects like the location where teaching is taking place, the particular features of a teacher, the particular features of a learner, the particular features of the institution, etc. This pedagogy can be implemented in ten macro-strategies that are summed up in Silva (2017):

- Maximizing learning opportunities;
- Minimize perceptual misunderstandings between teachers and learners’ intentions;
- Promote activities for learners to be encouraged to generate their own discussion;
- Promote learner autonomy;
- Nurture learners’ linguistic conscience with activities that evidence L2’s importance;
- Promote intuitive discovery of both structural and communicative language rules;
- Present all linguistic input in context;

- Integrate all language macro-skills;
- Acknowledge the social, political, economic and educational context of learners;
- Increase learners' cultural awareness.

When elaborating on these ten micro-strategies, Kumaravadivelu (2006), highlights the importance of learners' contexts, needs, and social connections. Brown and Lee (1994) had already defended the notion that teachers should have the freedom to choose methods/approaches, design syllabi and use procedures and aids that they see more fitting to the learners in their context. This means that Post-Method Pedagogy reiterates that a. teachers base their choices for the sessions in their training, their needs assessment work and their experience; and b. that teachers benefit from sharing experiences, procedures and taking time to search for new ideas.

Another keyword removed from Kumaravadivelu's (2006) conclusions is the word "*connections*", which was used by the author referring to social connections made by learners. However, with the technological evolution bringing about Web 2.0, authors like Siemens (2005), Siemens and Tittenberger (2009), and Weller et al. (2011) theorized and studied a new "*ecology of knowledge*" (Silva, 2017:51) sustained in societies with an abundance of information, new possibilities of connectivity software, and new tools to aid the teaching/learning practices. The advent of this new learning model was when Siemens (2005) shared his new learning theory: Connectivism.

Connectivism

Connectivism's fundamental idea is that it is the learners' responsibility to use all the resources at their disposal to experiment and learn. The technological advances, which inspired Connectivism, have developed alternatives that can be connected to the language learning approaches and methods. For example, the learner can opt for a translation method by using *Duolingo*. The learner can also use an audio-lingual/visual method by using content in podcasts, RSS or *YouTube*. If the learner prefers a more immersive/communicative approach, he can use virtual environments like *Second Life*. There is also the possibility to just train grammar on websites created to help learners with grammar exercises in the target language. Thus, exposure to the target language can happen by checking grammar websites, reading the media, listening to the radio, using mobile apps, or watching streamed television channels. Productive skills are also encouraged using synchronous interaction software like *Skype* or *Facebook Messenger*. Even if learners feel they need the structure and the discipline of a course guided by a teacher,

they have MOOC. Fact to the matter is that the learners can decide what is best for them to learn a language.

Web 2.0 and the Connectivism principles have been evolving since 2005 (Siemens, 2005), with learners showing more autonomous approaches to language learning, the usage of collaborative tools like *Facebook* groups or *Microsoft Office 365*, and ways to interact with the learners. According to Siemens (2005:7), the principles of Connectivism are:

- i. *“Learning and knowledge rests in diversity of opinions;*
- ii. *learning is a process of connecting specialized nodes or information sources;*
- iii. *learning may reside in non-human appliances;*
- iv. *capacity to know more is more critical than what is currently known;*
- v. *nurturing and maintaining connections is needed to facilitate continual learning;*
- vi. *ability to see connections between fields, ideas, and concepts is a core skill;*
- vii. *currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities;*
- viii. *decision-making is itself a learning process.*
- ix. *choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.”*

When analyzing these principles one can conclude that Siemens (2005:3, 6) identifies the main paradigm shift of Connectivism as the fact that learning *“can reside outside ourselves”* whereas *“A central tenet of most learning theories is that learning occurs inside a person”*. Moreover, when stating that *“learning may reside in non-human appliances”*, the author is stressing the importance of CALL/MALL, regardless if the ultimate goal of these platforms is education or entertainment.

Connectivism principles are crucial in the conceptualization of the OCP this project proposes, as it will be a mobile software (a non-human appliance) directed at teachers and learners; it will be sustained on the opinions of the users; it will provide connections to potential teaching/learning materials, as well as connections between the users; it will have gamification features to nurture consumption of AVC for language learning/acquisition; it will have messaging tools to build and maintain connections; and it allows for autonomous usage, thus giving learners the responsibility of their learning process.

Equally crucial are the principles of the Communicative Approach, which values the presentation of communicative situation in context and using authentic language, as well as a balanced training of all skills. The fact is that AVC provides this authenticity of speech, as well as the possibility to train “*Listening*” and “*Reading*” skills. Moreover, teachers adopting a Post-Method Pedagogy are sensible to the appropriate use of procedures/techniques which are more adequate to their groups. AVC used as an aid has such a wide range that it can satisfy different needs of different teachers and learners.

In the next section, some of these usages will be addressed in order to pinpoint the features of AVC which are more valued by learners.

4.2. USAGE OF AVC FOR EFL IN FORMAL AND INFORMAL LEARNING CONTEXTS

Evidence has been shown that AVC is, at the moment, more present in people’s lives, with a wider variety of content accessible to individuals, it is cheaper to own one than one TV, you can use different devices to consume AVC, and it is seen as an efficient educational tool, a useful aid in a classroom and, due to its entertainment nature, it is getting more affective responses from the learners. Grounded on the benefits that may be brought to the teaching /learning process by using AVC as a classroom tool, this section focuses on published case studies in which AVC was a valid aid for the teaching/training/improvement of EFL learning/acquisition.

When analyzing literature on using AVC in the classroom there seems to be a high amount of case studies dedicated to improvement of phonology. In fact, a classroom exercise using exposure to AVC seems to be mostly directed to train the “*Listening*” skill, and, in several cases, researchers (e.g. Hardison, 2003; Ingram, 1998; Yamada, 1992; Morosan and Jamieson, 1989) have concluded that this procedure actually shows good results in terms of correcting and/or improving learner pronunciation. Studies like these have sustained more research, like the one conducted at Purdue University (Wei, 2014:IX), which “*explored the possibility of improving the pronunciation of EFL learners by correcting their mouth-lip movement through visual feedback methods...[by developing a prototype system]... to compare the standard pronunciation mouth shape movement with a user’s pronunciation mouth shape movement and give visual feedback to users*”. (Wei, 2014:4) recognizes several limitations in the created prototype – “*the participants were limited to college-aged English foreign language learners, (...) this study was limited to the pronunciation of individual words and phonemes without the influence of context (...) this study was limited by the robust level of computer vision technology in lip detection*” –, and has pinpointed aspects to improve, namely the insertion of a different evaluation scale, the

elimination of functions that were distracting users, and the improvement of the audio system for similar phonemes. However, Wei (2014) concludes that it can be an effective method for refining English pronunciation. Wei's (2014) study is useful for this doctoral project as it calls the attention to issues that might arise in the prototyping and experimental phases of projects of this nature.

In a research paper, Sewell and Denton (2011) conducted a case study where learners were stimulated by AVC clips presented by teachers in class, thus fostering the creation and sharing of materials in the classroom – *“we found that students were more receptive to lessons and—as test scores indicated—learned more as a result”* (Sewell and Denton, 2011:65). In the same year, Watkins and Wilkins (2011) provided an extensive list of ideas of how to use AVC from *YouTube* in the classroom, as well as relevant points of how teachers and learners should face the introduction of AVC clips in the teaching/learning process.

In a communicative setting of EFL teaching/learning, it is also pertinent to address grammar issues, ideally with learners intuitively discovering rules. According to İlin et al. (2013:280), grammar is a sensitive issue for some learners as it shows *“complexity of form, complexity of meaning and complexity in the form-meaning relationship”*. Grammar teaching with AVC requires an approach different from the one used for pronunciation training. İlin et al.'s (2013) study compiled a valid theoretical framework (grounded on action research) for the use of AVC for grammar teaching and decided to create their own AVC to show in class. This approach was well accepted by the learners, which were not directly motivated by the AVC, but felt compelled to autonomously search for other AVC, by asking for shared content on social platforms.

Another specific benefit of using AVC is its influence on vocabulary build-up and consolidation. Bahrani, together with other colleagues (Bahrani et al., 2014; Bahrani and Sim, 2012) published two case studies which concluded that elementary learners would build vocabulary faster if they were exposed to cartoons. The studies clarified that most cartoons are usually directed to younger audiences, hence they possess features like simple language clusters and a repetitive nature of certain phrases. Earlier, Chung (2002) had already used a theoretical framework – put forward, for instance, by Schrum and Glisan (1994, 2000), Herron et al. (1995), Herron (1994), and Ausubel (1978) – to hypothesize if AVC classes with pre-viewing activities would be valid to *“establish a meaningful learning set”*, aiding learner's *“understanding by limiting the number of possible interpretations”* (Chung, 2002:232). The researcher stated that, when the teachers are well-prepared and tailor their AVC activities to their learners, the results show that the group

“viewing the videos did indeed perform better than the control group” (Chung, 2002:240) in terms of vocabulary work.

One should also keep in mind that in formal learning settings, while training the *“Listening”* skill, the audio exercises need to be balanced between single and multiple talker situations. Both approaches serve specific purposes: monologue, dialogue and multiple speaker training. In the listening exercises, the difference between the three types of interaction is not always determining as they are conceived for specific purposes (e.g. improve pronunciation, identify key-information, etc.). However, as Hardison (2003) noted, the introduction of AVC significantly improved the linguistic proficiency resulting from listening exercises. Besides, learners interacting with AVC achieved significantly higher level of accurateness in the pronunciation exercises than the group only interacting with the listening exercises, and there also seemed to be a marginally significant better performance of the learners who interacted with multi-talker situations (Hardison, 2003). Furthermore, a previous study by Hardison (1996) had also concluded that intermediate EFL learners are much more efficient at analyzing speakers’ facial expressions, as opposed to the elementary learners who show a better learning efficiency, when having the chance to analyze the speakers’ complete set of non-verbal cues. This indicates that, when using AVC in a classroom, learners concomitantly activate both listening and body language interpretation skills. Learners apparently accompanied lip movement, which they afterwards try to mimic – a practice previously pinpointed by McGurk and MacDonald (1976) and quoted in Hardison (1996) –, and other non-verbal cues.

Hardison’s (2003) work touches a current topic discussion, i.e. whether AVC in exam environments only serves listening purposes or whether it involves a whole new set of interpretation skills. This literature review also came across an ongoing debate about the relevance of adding video-based assessment to the globally recognized English exams like IELTS or TOEFL. On the one side, some scholars look at AVC as means to address the development of the *“Listening”* skill, along with extra visual aids, which can disturb the attention of the learner, as it was identified by Sueyoshi and Hardison (2005). On the other side other, other scholars/practitioners look at AVC comprehension as a more complete exercise, as it involves both listening and perception to visual cues (Chung, 2002), which are elements of authentic communication contexts. Regardless of the debate, interpretation of AVC scripts is already a current practice in the TOEFL exam.

Still, criticism like cognitive overload, lack of interaction with AVC, or lack of preparation by teachers to present AVC in class has arose towards using AVC in the classroom. For instance,

Schmid (2008) referred several authors (like Moreno, 2006; Sakar and Ercetin, 2005; and Plass et al., 2003) to sustain the necessity to use multimedia in the classroom in a conscientious manner, and so avoid problems of cognitive overload, identified by these authors in some teaching praxis. Schmid (2008:1556) stated that “*multimedia instruction can lead to improved learning results*”; however, too much AVC and audio information can very well be a hindrance to the development of other skills in the case of both low and high-level learners.

An effective way to avoid cognitive overload is to adopt viewing strategies that will focus the learners’ attention on specific items. For example, a film like *The Matrix*⁴⁷ (1999) is considered to tackle some abstract concepts: freedom, slavery, self-sacrifice or A.I (Imdbcom, c1990-2019b). In the plot, these concepts are approached several times, sometimes with antagonistic views, and spread throughout the plot. Therefore, using this movie to address one of these concepts requires a partial viewing and the lesson planner also needs to be sure that one of the concepts can be isolated from the remaining ones. It is the content itself that will allow that isolation – if all concepts are interconnected and essential to the plot, this isolation will not work. With modern AVC editing software, which is considered quite intuitive and user-friendly, a teacher can assume the editing process of AVC to produce clips of the crucial parts. Showing edited clips of AVC is a good strategy to use content that has meaning to the learners and avoids the introduction of too much AVC information. Moreover, it is possible that these clips are already online, as they were previously uploaded by other users.

Schmid (2008) also pointed out the importance of encouraging learners to engage actively with the AVC resources. In the author’s opinion, to achieve this, learners need to be challenged to carry pre-viewing tasks that will activate previous knowledge, thus specifying the subject of the lesson. Activities of this sort help reducing the cognitive overload and prepare learners for the AVC they are about to watch. During the viewing, learners also need to engage with simple tasks, such as information confirmation/identification, to guarantee an active attitude towards AVC. Naturally, post-viewing activities are also important to consolidate new knowledge.

Considering that AVC stimulates the hearing and sight senses, learners tend to position themselves as passive actors. However, if the tasks stimulate interaction with the material, this will challenge learners to react to the content. For instance, a television show like *Little Einsteins*⁴⁸ fosters viewers’ reaction to the AVC material. It is necessary to balance the length of the AVC with the set of tasks planned for interaction. A balanced viewing/task plan can even

⁴⁷ <https://www.imdb.com/title/tt0133093/>

⁴⁸ https://www.imdb.com/title/tt0756522/?ref =nv_sr_1

allow for teachers to play a whole movie, if the sections respect the implications reminded by Schmid (2008:1567), namely: “(a) the importance of balancing the amount of “representations” that are provided to the students in order to avoid cognitive overload and (b) the importance of encouraging students to engage actively with multimedia resources so that they can process the information more effectively”.

With AVC, it is also advisable for teachers and learners to embrace knowledge about the AVC world. This means understanding concepts like genre, film techniques, directing, soundtracks and actors. This knowledge will potentiate the elaboration AVC related pre/during/post-viewing activities, as some of these require background knowledge of the field of AVC production. For example, specific vocabulary like *Cameo* or *Easter Eggs* are important as searching for these can be a during-viewing activity; production techniques like lighting, voice-overs or scene cuts, are useful to develop post-viewing activities – also referred by Terry Heick as “*modality analysis*” (Teachthoughtcom, c2019).

Feedback also plays a considerable role to potentiate the interaction with AVC. Theorization and validation of feedback was addressed by Hardison (2003) (sustained on and agreeing with authors like Sa and Ballard, 1997; or Homa and Cultice, 1984), who recognized and concluded that improvement in proficiency is more notorious when feedback strategies are used – e.g. mutual feedback, immediate feedback or positive reinforcement.

Publishers of EFL and ESP manuals are not indifferent to this increase of interest in consuming AVC. Therefore, companies like Cambridge University Press - CUP⁴⁹, Oxford University Press - OUP⁵⁰ or McMillan⁵¹ decided to invest in the production of AVC as a complement to their learning manuals, i.e. directed to learners training in a classroom environment, who went on to enrich their learning outside the classroom using AVC associated with the manual adopted in courses. Examples of this practice can go back as far as 2002 when, for instance OUP’s *New Headway English Course* (2002) provided a VHS complement of the manual. A more recent example can be CUP’s *Empower* series (2015), which bases the beginning of each didactical unit on the manual on AVC.

To sum up, teachers, who are aware of the limitations associated with using AVC in the classroom, will plan lessons to use the content more efficiently in their practice. To plan an AVC

⁴⁹ <https://www.cambridge.org/>

⁵⁰ <http://global.oup.com/?cc=it>

⁵¹ <http://www.macmillaneducation.com/>

lesson, the teacher must evaluate the content quality, to verify its pedagogical value, its relevance to the learners and its appropriateness to the established syllabus. The content needs to have an appropriate length that will avoid cognitive overload and the plan needs to balance the tasks for learners to perform before, during and after the viewing, thus avoiding reducing exposure to AVC to a simple and passive listening/reading exercise.

Thus, regardless of teaching methods/approaches, knowing the AVC and lesson planning sustained on a wide array of pre/during/post/extended viewing activities are vital moments teachers need to consider not only in their studies, but continuously in their praxis. Also, the tasks should promote interaction with the AVC, nurtured by providing feedback to the learners' production results.

Types of AVC and their suitability to learners

A limitation that springs from the literature is that nowadays, the sources for content appear to be unlimited (Bahrani and Sim, 2012). AVC and its potential to support teaching/learning of EFL were already addressed, therefore, the focus of this section will now shift to a listing of types of AVC available to aid teachers and learners who decided to rely on AVC as a teaching/learning support – along with a short description of what they have to offer. To achieve a valid theoretical framework about this item, the selection fell on Gebhard's (1996) listing of AVC to use in the classroom (movies, commercials, quiz shows, animation, news clips, TV shows, music AVC, documentaries, and reality-shows), as it provides more classical and experimented suggestions of usage of AVC for EFL teaching/learning. When relevant, each type of content will be followed by considerations about using the analyzed AVC in BE.

To begin with, movies have had a very prominent role in the case of AVC in the classroom. Golden (2001) mentioned that they be used for "*minilessons on grammar, readers workshop, and vocabulary practice*" (Golden, 2001:XIV). Research compiled by Bahrani and Sim (2012) has shown that films are a source of authentic language as well as language diversity, they induce high levels of motivation, they possess many cross-cultural values and they provide excellent basis for the development of critical thinking along with a rich source of content. The authors concluded that "*films with good story lines seem to motivate the learners to absorb the language input better and have a significant effect on the language improvement*" (Bahrani and Sim,

2012:63) – the only down side identified both by Bahrani and Sim (2012) and Golden (2001) was that movies are too long to show in classroom.

Focusing on films to aid BE teachers and learners, like *Wall Street*⁵², *The Big Short*⁵³ or *Wolf of Wall Street*⁵⁴, one can identify moments in the films that are rich in vocabulary and rich in moments that relate to communication skills specific of BE, like negotiating, closing a sale or making a presentation.

Length is not an issue with commercials, though. This category of AVC stands out for being quite short, the language tends to be authentic, very straightforward and repetitive, which makes them ideal for new language learners, who easily get overwhelmed with long exposure to AVC. Furthermore, “*TV commercials are created in many different English speaking countries making it possible for students to have exposure to a variety of Englishes (...) thereby allow their students to expand the reach of their listening abilities*” (Tuzi, 2008:1), are thus bringing a cultural dimension to this category of AVC. Their size also makes them easier for teachers to go through them, select the most relevant ones and plan lessons this type of content. Finally, the alliance of visual and aural cues assists learners in understanding the meaning of the commercial. The features highlighted here led (Tuzi, 2008) to conclude that TV commercials present a set of language learning opportunities.

Commercials provide the BE community with examples of straightforward language for appealing to costumers, communicative skills like influencing or closing. More, when using commercials in BE classes, teachers can steer the language focus towards the commercial style, thus presenting learners with a salesman speech. As they are short and very varied, they can also be used outside the classroom. Moreover, commercials cover several products or services, therefore, it is reasonable to gather different commercials in playlists for learners to watch at their own pace.

Gebhard (1996) also mentioned quiz shows, which seem to lack the massive approach for experimentation as other genres. This is unfortunate because quiz shows have unique features that can be of high value in an EFL classroom. To start, they are transferable to all cultures.

⁵² https://www.imdb.com/title/tt0094291/?ref=fn_al_tt_1

⁵³ <https://www.imdb.com/title/tt1596363/>

⁵⁴ <https://www.imdb.com/title/tt0993846/>

Shows like *Who wants to be a millionaire?*⁵⁵, *The weakest link*⁵⁶ or *The price is right*⁵⁷ have a global presence on television broadcasters, with many countries producing their national versions, therefore, appropriate for learners to relate to. Furthermore, and according to Hill (2007:TF), quiz shows display a high communicative competence, a spontaneous use of authentic language, a wide array of formats to please different tastes or subjects, they prove to be very useful in the reviewing of material, they focus on facts, trivia and cultural aspects and they can demand both simple and complex cognitive operations. However, the unique advantage of this category, and the one that Hill (2007), experimented with, is the possibility to simulate the quiz show in the classroom. The author focused on simulation and game theories framework to provide a solid background (Crawford, 2002; Christofer, 1999; or Goudart, 1999 are some of the authors sustaining the work) to her in-classroom experiment. As an activity, Hill (2007) concluded that the classroom quiz show, supported by previous viewings of the original quiz shows, serves to evaluate learner language learning/acquisition, promote creativity and innovation, and provide learners with engaging and entertaining tasks.

BE English learners do not seem to have many possibilities to remove valuable content from quiz shows. *The price is right* presents a wide array of vocabulary concerning goods. However, BE teachers can take the concepts of quiz shows like *The price is right*, *Family feud*⁵⁸, or *Beat the clock*⁵⁹, change the format of the shows to financial or business related themes, and implement them in class to present vocabulary and train BE communication skills in an interactive way. At Greatgamecom (2014), Aaron Clay shares some ideas on how to use quiz shows in BE environments.

AVC with animation features is also a powerful EFL aid. Cartoons score very high in the affection of learners by engaging their attention and presenting material in a non-threatening atmosphere. Teachers may also rely on cartoons' potential to foster cognitive operations and discussion skills (Clark, 2000). When it comes to the process of language learning, Doring (2002) praised the effect cartoons had on learners because they "*could produce oral answers that were very proactive and interesting in different discussions held in the classes. Moreover, the discussions were rich and the students had high confidence*" (Bahrani and Sim, 2012:58). A research conducted by Rule and Auge (2005) identified high levels of motivation during the

⁵⁵ https://www.imdb.com/title/tt0166064/?ref=mv_sr_1

⁵⁶ https://www.imdb.com/title/tt0268862/?ref=mv_sr_1

⁵⁷ https://www.imdb.com/title/tt0068120/?ref=mv_sr_1

⁵⁸ <https://www.imdb.com/title/tt3962354/>

⁵⁹ https://www.imdb.com/title/tt0198059/?ref=mv_sr_3?ref=mv_sr_3

viewing of cartoons, leading to a consequential potential to enhance memorization, and a balanced training of language skills. Finally, Bahrani and Sim's (2012) work added the category's higher benefit for lower language learners associated with the less specialized vocabulary usage. They also identified improvement in language acquisition in the lower-level learners who, in their study, were exposed to cartoons.

As for animation features that can be valuable aids for BE learners, one can distinguish two types of content: content produced specifically for BE learning and content produced for entertainment with high value for BE. The first is found on *YouTube* channels – like *Animated English*⁶⁰ –, on educational platforms – like *Udemy's Everyday English for ESL*⁶¹ – or broadcasting websites – like *BBC's English at Work*⁶². As for entertainment AVC, one can name a few examples, like episodes of *The Simpsons*⁶³ which, according to Sidehustlenationcom (2014), relate directly to business and finance (*Bart Gets an Elephant* – S04; *Bart's Inner Child* – S05; *22 Short Films About Springfield* – S07). As for animation films, a study by Champoux (2001) had already pinpointed the potential of animated films in business and management. Films like *AntZ*⁶⁴, *Babe*⁶⁵, *The Lion King*⁶⁶ or *A Bug's Life*⁶⁷ explore CS like, making decisions, interacting, socializing or engaging staff. Therefore, animated features should also be considered as a valuable aid for BE, as they come in short and long forms, the vocabulary and CS match the needs of BE, and they can be used in all educational settings.

News clips are one of the most ancient categories of AVC and as such, they have been regarded as pedagogically valuable material for some decades now, as they are full of authentic language, presented in a consistent and repetitive lexicon-syntactic fashion (Blachford, 1973). Further studies were conducted in the following decades and were summarized in Bahrani and Sim (2012). The most highlighted benefits of news clips regard improvements of the “*Listening*” comprehension skill, efficient training with rapid native speech comprehension, the recycling feature of the presented vocabulary, the opportunity to interact with specialized vocabulary of all fields (sports, current events or politics) and the effective result of exposure to it on intermediate and advanced learners (Bahrani and Sim, 2012). As a less favorable result, the

⁶⁰ <https://www.youtube.com/channel/UCneJ64DgPjL7kWW5V0WUyhg>

⁶¹ <https://www.udemy.com/everydayenglish/#overview>

⁶² <http://www.bbc.co.uk/learningenglish/english/features/english-at-work>

⁶³ https://www.imdb.com/title/tt0096697/?ref=fn_sr_1?ref=fn_sr_1

⁶⁴ https://www.imdb.com/title/tt0120587/?ref=fn_al_tt_1

⁶⁵ https://www.imdb.com/title/tt0112431/?ref=fn_al_tt_1

⁶⁶ https://www.imdb.com/title/tt0110357/?ref=fn_sr_2?ref=fn_sr_2

⁶⁷ https://www.imdb.com/title/tt0120623/?ref=fn_sr_1?ref=fn_sr_1

authors pinpoint that low-level learners present several difficulties to achieve valid language acquisition when exposed to news clips.

Related to BE, business related news on English speaking broadcasting networks, along with shows like *Mad Money with Jim Cramer*⁶⁸, *Your Money*⁶⁹ or *Squawk Box*⁷⁰ – which were in the list of best business related shows on American television provided by Investopediacom (2019) – present a rich array of linguistic and communicative items to complement BE sessions.

TV shows are a heavily consumed content, however Gebhard (1996) singled out the power of comedy shows. These kinds of shows have such a wide spectrum of cultural representation. Interacting with this AVC will represent an entry into so many different features of the English-speaking people of all circles (see Chapter 1, 1. ENGLISH AS *LINGUA FRANCA*). There are shows about suburban families (*My family*⁷¹), families who live in the country (*The Dukes of Hazzard*⁷²), African-American families (*The fresh prince of Bel-Air*⁷³), mixed cultures (*Different strokes*⁷⁴), politics (*Yes, Minister*⁷⁵), Muslim families (*Little Mosque on the prairie*⁷⁶), specific professions (*The I.T. crowd*⁷⁷/*The office*⁷⁸), etc. According to Sherman (2003), TV shows introduce aspects of real life into the language learning environment. Apart from the benefits to the language acquisition, contact with such representations will foster critical thinking on views and positions adopted by the characters and incentivize debating activities thereby promoting classroom interaction as a more frequent post-viewing task.

BE teachers and learners have a wide supply of AVC to choose from. According to Entrepreneurcom (2018), shows like *Silicon Valley*⁷⁹ or *StartUp*⁸⁰ are recommended for their rich content of business and management related topics. Apart from these recommendations, one can also mention high rated shows on *imdb.com* in the drama genre like *House of lies*⁸¹, *Mad Men*⁸² or *Billions*⁸³. Hence, from an BE perspective, these shows present vocabulary and CS that

⁶⁸ <https://www.imdb.com/title/tt0487185/>

⁶⁹ https://www.imdb.com/title/tt4038496/?ref=fn_sr_7?ref=fn_sr_7

⁷⁰ https://www.imdb.com/title/tt0972177/?ref=fn_sr_1?ref=fn_sr_1

⁷¹ https://www.imdb.com/title/tt0257315/?ref=fn_sr_2

⁷² https://www.imdb.com/title/tt0078607/?ref=fn_al_tt_2

⁷³ https://www.imdb.com/title/tt0098800/?ref=fn_sr_1

⁷⁴ https://www.imdb.com/title/tt0077003/?ref=fn_sr_5

⁷⁵ https://www.imdb.com/title/tt0080306/?ref=fn_sr_1

⁷⁶ https://www.imdb.com/title/tt0923293/?ref=fn_sr_1

⁷⁷ https://www.imdb.com/title/tt0487831/?ref=fn_sr_1

⁷⁸ https://www.imdb.com/title/tt0386676/?ref=fn_sr_1

⁷⁹ <https://www.imdb.com/title/tt2575988/>

⁸⁰ https://www.imdb.com/title/tt5028002/?ref=fn_al_tt_1

⁸¹ https://www.imdb.com/title/tt1797404/?ref=fn_sr_1?ref=fn_sr_1

⁸² https://www.imdb.com/title/tt0804503/?ref=fn_sr_1?ref=fn_sr_1

⁸³ https://www.imdb.com/title/tt4270492/?ref=fn_sr_1?ref=fn_sr_1

are relatable to BE syllabi, like describing trends and figures, describing work or collecting new contacts.

The soap opera format has also had an amazing success among viewers, which in turn led researchers and teachers to believe that it would be valid AVC to use in an EFL classroom. For instance, Huffman (1986) based a paper on using soap operas in the classroom on relevant items like realistic dialogues with a variety of accents, coverage of current social issues, and the entertainment features of the genre. The benefits that this genre brings are quite similar to the ones stated for TV shows, even though, as a study by Fallahkhair et al. (2007) pointed out, vocabulary used in soap operas may be too challenging even for advanced learners. Still, it seems that the benefits clearly outweigh the challenges and teachers are able to plan lessons that include efficient tasks for the comprehension of the content in soap operas.

BE teachers and learners can also retrieve many communicative situations from soap operas, as they often provide storylines and plots set in working spaces (a company, an office, a small-medium-size enterprise). This can be confirmed in a study of images of work in family soap operas conducted by Czarniawska et al. (2013). The authors confirm a regular presence of work-related communicative contexts to provide verisimilitude to the storylines.

Documentaries are equally a genre to take into account in the EFL classroom, because they are more carefully scripted in Standard English – as defined by Soong (2012) –, they provide real situational communicative contexts and they are more serious as well as already thought of for educational purposes, which automatically predisposes learners for learning. Of course, some learners may not be able to fully cope with the script, even though “*Most upper-intermediate students can cope with most documentaries, and at intermediate level they can manage edited version*” (Soong, 2012:133). However, taking into account a thought selection process by the teacher, this genre deals with specific topics, making it easier to plan pre-viewing activities. Indeed, documentaries are “*the TV version of a newspaper or magazine article*” (Soong, 2012:132) and their recurrent lexical usage will help understanding and memorization.

For the BE community, the most valued documentaries relate to the business/ management/ financial sectors. Academy Award Winner *Inside Job*⁸⁴ and documentaries recommended by

⁸⁴ <https://www.imdb.com/title/tt1645089/>

Businessnewsdailycom (2018) like *Enron: The Smartest Guys in the Room*⁸⁵, *Freakonomics: The Movie*⁸⁶ or *Generation Startup*⁸⁷, are among the group of documentaries that can provide rich vocabulary and CS to teachers and learners.

A final type of AVC to include in this section is reality shows. This genre was not a genre mentioned by Gebhard (1996) even though there had already been some examples of reality television since the 50's (example: *Queen for a day*⁸⁸). Then, the genre did not follow the format of actual times and was more considered documentary television. Afterwards it became blended in bigger formats like gameshows or records-beating shows. MTV's *Real World*⁸⁹ paved the way and *Big Brother*⁹⁰ (first version from 2000 in The Netherlands) consolidated the genre which saw an explosion of demand from then on. The most popular reality shows, according to www.tv.com/shows/category/reality are *American Idol*⁹¹, *Face Off*⁹² and *Hell's Kitchen*⁹³, however, the most impressive piece of data from this list is the amount of shows: over 500 shows were produced and broadcasted on American television in the present decade alone <http://www.tv.com/shows/category/reality/decade/2010s>. If authentic language, cultural exposure, and critical thinking are validated benefits of using AVC in the classroom, then teachers and researchers will have lots of possibilities to experiment with the content from all these shows. They may provide learners with cross-cultural references, paralinguistic analysis, debate topics, or specifically oriented vocabulary.

For BE teachers and learners, reality TV shows like *Shark Tank*⁹⁴, *Planet of the Apps*⁹⁵ or *Billion Dollar Buyer*⁹⁶, are also recommended by Entrepreneurcom (2018), and therefore, valued examples of reality TV shows which are focused in the business/management world. Due to the rich variety of business vocabulary, business communicative contexts and CS, they also seem to have potential to serve as aids for BE learners and teachers.

⁸⁵ https://www.imdb.com/title/tt1016268/?ref=mv_sr_1?ref=mv_sr_1

⁸⁶ https://www.imdb.com/title/tt1152822/?ref=mv_sr_1?ref=mv_sr_1

⁸⁷ https://www.imdb.com/title/tt5535726/?ref=mv_sr_2?ref=mv_sr_2

⁸⁸ https://www.imdb.com/title/tt0048895/?ref=mv_sr_1

⁸⁹ https://www.imdb.com/title/tt0103520/?ref=mv_sr_2

⁹⁰ <https://www.imdb.com/title/tt0251497/>

⁹¹ https://www.imdb.com/title/tt0103520/?ref=mv_sr_2

⁹² https://www.imdb.com/title/tt1663641/?ref=mv_sr_2

⁹³ https://www.imdb.com/title/tt0437005/?ref=mv_sr_1

⁹⁴ https://www.imdb.com/title/tt1442550/?ref=fn_al_tt_1

⁹⁵ https://www.imdb.com/title/tt5884018/?ref=fn_al_tt_1

⁹⁶ <https://www.imdb.com/title/tt5363720/>

Quality AVC for using in the EFL and BE classroom varies according to needs analysis, syllabus, purpose, learning items or relevance to the learners. Furthermore, it can be a tool to aid either in the more structural teaching of the language, the vocabulary build-up and/or consolidation, or in the training of more communicative situations as well as in the exposure to cultural aspects of the English-speaking world. Teachers with a tendency for appreciating AVC will be in a prepared mindset to evaluate whether content A or B will be of relevance to their group and, if possible, look in the literature for colleague feedback about using certain AVC. The exposure to relevant cultural data from the English-speaking countries is another reason making AVC an esteemed classroom teaching/learning tool. Appropriate AVC balances the cultural aspects of the target language's culture(s), it respects learners' beliefs and it supports the teaching/learning process.

Researchers like Bahrani et al. (2014), McNulty and Lazarevic (2012), Bahrani and Sim (2012), Joseph and Baskaran (2011), and others quoted in this section have shared experiences and results of using AVC as a teaching tool. From their feedback, it was possible to compile a list of characteristics of AVC, which learners have validated as useful when searching for AVC for informal learning purposes. This list generated a side paper (Carvalho and Almeida, 2015) in which these characteristics were analyzed. The following list of characteristics is a summary of said paper.

_Verisimilitude: Learners, which opt for consumption of fiction TV shows, search for content with language use close to real contexts. Considering that learners of foreign language normally attribute importance to it because they will need it, for instance, for travelling, working or meeting people, it is relevant that the AVC they consume tend to portrait these environments. In fact, even if the training sessions follow an efficient adoption of the Communicative Approach principles for foreign language teaching, and include appropriate materials for that purpose, the truth is that oral communication tends to be quite limited by conversational exercises that merely mimic real situations. With AVC, the learner has the chance to visualize and listen to communicative situations, and even go a step further to get acquainted with other communicative contexts.

_Catch-phrases: These are appreciated by learners since they allow for a type of repetition which is useful while learning. Moreover, when interacting socially with other fans of the same AVC, learners have the chance to integrate catch-phrases in their daily speech, thus respecting the significant of the catch-phrase and the pragmatic component of the foreign language.

_Diversity of speech: This aspect addresses the simple news report, the variations in slang, infant language, non-native speakers broken English, registers of several countries of the inner circle, and other registers. Learners show interest in the linguistic variety of English and they look for it in AVC.

_Introduction of vocabulary: Learners do not tend to search for a vocabulary exercise when consuming AVC. However, they recognize that regular exposure to content in the foreign language increases their vocabulary. Learners unconsciously perform cognitive operations to integrate new words and so vocabulary memorization occurs. When watching cartoons, for example, this memorization process is faster, even though the linguistic variety is low. On the other hand, by watching news broadcasts the learner faces a bigger challenge as he is being exposed to a richer vocabulary, which tends to be closer to the country's linguistic norm. Teachers are crucial in this activity as they are the guides that direct learners to the appropriate AVC. They also need to clarify that when being exposed to new vocabulary the priority is understanding the aural speech and only after should some translation work be done.

_Affection: An affective atmosphere is not directly related to the linguistic side of the learning process. However, it is decisive when one considers that motivation is a key aspect of informal learning. For the learner to immerse himself in the AVC, then the content needs to be motivating, address his interests and easy to obtain. Only like this can the learner feel the need for entertainment satisfied and the conditions are set for unconscious cognitive operations. Learning in an affective atmosphere has been proven to have good results. Learner affection can also be directed to the characters of the TV shows. This empathy and constant exposure promote a gradually higher understanding of their speech. With the unveiling of the plot the learner can also reach a level of knowledge of the characters that allows him to predict the characters responses, catch phrases and attitudes.

_Relevance: When the learner intentionally looks for AVC for language learning/acquisition, then the goal is to interact with content that is useful in the academic, social or professional context where the learner is inserted. Future perspectives, professional ambitions, entertainment options are some of the features that will mold the learner's taste and thus determine the AVC that is chosen. Again, the teacher can have a guide role by recommending content based on previous experiences with other learners with similar taste or goals, or by searching for previously validated content.

_Narrative: As mentioned, some of the reasons for learners to watch cartoons are related with the high levels of affective atmosphere and the tendency to be exposed to lower-level language,

which is easier to follow. Cartoons use language that is purposely modified to be less challenging to their target audience. Elementary-level learners achieve better performances in the memorization of vocabulary and in listening exercises because the narrative of cartoons is easy to follow. When addressing narrative features then one needs to pay attention to items like pauses, rhythm, intonation and stress. All these items play a role when characterizing AVC's potential to be used as a learning tool. Establishing whether a specific content is appropriate for elementary or intermediate learners will also take this into account. Learners who are looking for ways to improve their skills in terms of pronunciation, speech fluency or even linguistic variations will unconsciously be looking for variations in these items. Thus, prosodic qualities, which are included in the CEFR, should also be considered: voice quality, pitch, loudness and length are qualities that "*fall outside the regular phonological system*" (Council of Europe, 2001:89).

_Subtitles: The utility and efficacy to follow the aural speech with the written speech through subtitling is proven in the literature. However, there are other researchers that still do not accept the benefits of using subtitles in AVC use. For the purpose of this framework, and for the conceptualization of the OCP's Matrix, it is accepted that subtitles are indeed a valid learning aid for those who decide to use AVC in informal settings, as stated in Vanderplank's (2016) findings.

_Paralinguistic clues: Learners tend to compensate lacks in understanding the aural speech by a more attentive analysis of the *body language*. Gestures, facial expressions, lip movement are some of the non-verbal clues that assist the learners' understanding. Indeed, the multi-sensorial nature of AVC not only prompts more efficient understanding, but also a deeper learner immersion in the content.

Joseph and Baskaran (2011) confirm that constant contact with the dialogues of their favorite TV shows makes them even more understandable because of repetition and recycling of isolated expressions. The significant becomes transparent and the learner is, afterwards, capable to predict it and apply it in a real context. In the end, the learners appreciate the opportunity to listen to how people talk in daily environments (Joseph and Baskaran, 2011).

The CEFR lists several items concerning paralinguistic cues that should be taken into account in the teaching/learning of foreign languages. In terms of body language, the document mentions gestures, facial expressions, posture, eye contact, body contact and proxemics. Extra-linguistic speech sounds, like a "*sh*" to request silence or "*s-s-s*" (hissing) to express public disapproval, are also mentioned (Council of Europe, 2001:89).

All the features listed in this summary – namely: the contact with the real language, the mimesis of real situations, the possibilities of diversified speeches, the concrete reports, the simple stories, the characters with whom empathy is created, the recycling of catchphrases, online conversation with other fans of the shows scattered around the Internet, easy access the AVC on the Internet, etc. – contribute to making AVC a popular choice for formal and informal language learning. Adding to these, one cannot forget that AVC can be easily found and accessed on online platforms, with the benefit that future users of the conceptualized OCP can look for AVC especially produced either for autonomous language learning, or for entertainment purposes. The following section will address online platforms where AVC can be consumed for formal, informal and non-formal contexts.

4.3. ONLINE AVC PLATFORMS FOR AUTONOMOUS LEARNING PURPOSES

The EFL classroom provides teachers and learners with many opportunities to rely on AVC as a teaching/learning tool. However, language learning also occurs outside the classroom, especially if the learner interacts with the target language in an autonomous way in informal or non-formal learning settings. Teachers should see potential in fostering these autonomous activities, like assigning homework or creating opportunities of language immersion in entertainment contexts. In these situations, AVC seems to be a valid tool to rely on as well.

Scholars who took a special interest in studying the development of autonomy in EFL have consistently relied on suggesting the interaction with AVC as a form of extra-class activity (Bahrani et al., 2014; Bahrani and Sim, 2012; Gonzalez and Louis, 2008), so that, afterwards, they validate the potential of the tool for the language learning/acquisition. As stated earlier, AVC exposes learners to authentic communication situations and their learning would have a lot to gain by developing communication and media skills through AVC, which *“may prove to be appropriate successors to the language learning strategies taught in the classroom (...)”* (Sockett and Toffoli, 2012:150).

Outside the classroom and with the proper stimuli and guidance from the teacher, learners have a great number of possibilities to interact with AVC purposely produced for EFL learning. Learners have access to this material on television programs, on video, on interactive DVDs and through Internet streaming services. Another way to interact with EFL content is through

websites and mobile apps, like for instance *YouTube*, *VoiceTube* and MOOC⁹⁷. The advantages of this type of AVC are that it takes into consideration a target audience of learners that range from beginner to more advanced levels, and, in some cases, with the extra benefit to accompany their AVC with manuals, AVC recordings and other items that will assist learners in: i. improving the experience of watching these contents; ii. training the language skills and iii. raising interest in further consuming said AVC.

A good example of an educational TV show for autonomous EFL learning is *Follow Me* which was specifically directed to adult EFL learners. This show saw a huge success in the late seventies and early eighties, and led to a worldwide consumption – in 1983, 100 million Chinese people watched this BBC television series on the English language (Crystal, 1985). Due to the success of *Follow Me*, other shows in this typology were produced. Some of the most recent productions include *Let's talk English*⁹⁸ in 2014 – the Canadian broadcaster Omni projected a seven-year commitment (OmniTvca, c2014), however, the show's homepage is only providing 11 episodes and there is no indication of this show in a TV program grid, which leads one to consider that the show has been cancelled. Other productions are mentioned on TV Guide, more specifically a series of educational shows dedicated to teaching EFL to children called *English 1-4* (there are also references to *English 5-6* and *English 7-8*). In 2002, the British *Channel 4* broadcasted a show entitled *Extr@*⁹⁹ (which is available on a *YouTube* channel as UGC¹⁰⁰), which only had one season. The fall in popularity of these TV shows could probably be related to an increase in attractiveness of other content for autonomous EFL learning that came about with the development of video cassette players, interactive DVD, CALL, MALL and Internet streaming.

The AVC reproduction evolution that brought about DVD or *Blue Ray* also brought higher interaction possibilities, with new features like browsing through menus, subtitle selection or play speed selection. However, the progress made in the area of Computer Assisted Language Learning (CALL) increased the interaction possibilities of learners to whole new levels, by developing a new type of autonomous learning software associated to appropriate AVC that needed to be produced specifically for CALL. Schools like *Wall Street Institute* rely on CALL to provide their learners with multimedia courses, that mimic the principles of the *Natural Approach*, and this interaction with multimedia is the foundation of their teaching methodology.

⁹⁷ Example: <https://www.class-central.com/mooc/1449/futurelearn-a-beginner-s-guide-to-writing-in-english-for-university-study#reviews>

⁹⁸ <https://www.omnitv.ca/on/en/shows/lets-talk-english/about>

⁹⁹ https://www.imdb.com/title/tt0934648/?ref=fn_al_tt_1

¹⁰⁰ https://www.youtube.com/watch?v=k89GF-i_Evg&list=PLdYSWqTrWP2jyqWIdjsATbrb11uN_BMrF

CALL/MALL have played a very important role in the language acquisition of EFL learners in all learning contexts. Learners accepting CALL/MALL as a learning aid can opt for purchased CD/DVD software, MOOC, AVC repositories or collaborative platforms. Whatever the choice, it seems that learners will most likely include AVC in their autonomous learning process when choosing CALL/MALL. Considering the current trends on AVC consumption, *YouTube* seems to be one of the preferred repositories that EFL learners go to when looking for content. At the same time, the massive upload of EFL educational content that this platform received provides this framework with many examples of AVC used for EFL. In *YouTube* as a sample one can find:

- Educational UGC, like *English with Jennifer 2014*¹⁰¹ *YouTube* channel, or institutionally produced educational content, such as the *BBC Learning English* channel¹⁰²;
- Applying the same dichotomy of user/institutional produced content, *YouTube* also provides AVC for all ages. *Teach Kids English* (channel) is an example of UGC, whereas, *British Council* developed a channel called *LearnEnglish Kids*¹⁰³;
- The age is also considered in some of the content and it ranges from children, teenagers, young adults and adults to seniors;
- Viewers can also find several levels of proficiency from A1 to C2. Using channels will be more productive as they are already organized in terms of sorting AVC content by level;
- ESP, in its manifold branches, is also a field that attracts AVC uploading, e.g. English for lawyers, English for doctors, or English for flight attendants.

When it comes to using AVC for autonomous learning, the material available is numerous, oriented to all aspects that determine the production of learning material (age, skill, level, purpose) and with the increment that a learner can get material from past learners who were at the same level. It is up to the learner to decide what to consume. In the current language educational context, autonomous learning is possible under the stated principle of Connectivism, “*Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality*” (Siemens, 2005:7), which validates this tendency of letting the learner decide which content serves best, how to engage with it, whether the content is accepted or rejected, and how to construct the new knowledge with it.

According to the aforementioned Connectivism principles, the learners should be the ones to decide on the best approaches, tasks, exercises or exposure to have in the target language and thus develop their proficiency. The considerations bellow will devote a more directed look to

¹⁰¹ <https://www.youtube.com/channel/UCNIBNry7NuztkGRgTvoF0gA>

¹⁰² <https://www.youtube.com/channel/UChHD477h-FeBbVh9Sh7syA>

¹⁰³ <https://www.youtube.com/user/BritishCouncilLEKids>

how the Internet, CALL/MALL software and Web 2.0 tools allied with AVC are being used to teach/learn EFL in formal, informal and non-formal educational settings. The purpose is to analyze reviews and studies focused on MUVE, MOOC and online AVC repositories, which are being used by teachers and learners, in all educational settings, in order to pinpoint general advantages and aspects that could be improved.

Starting with the use of MUVE for EFL, the MUVE platforms selected for this framework's exploratory study followed the following criteria: i. MUVE analyzed in Silva (2010); ii. MUVE providing possibilities for EFL learning and iii. MUVE directed to adults. Therefore, *Second Life* and *Quest Atlantis* (Figure 15) were explored for this study and the main positive points identified in the MUVE were the full interaction possibilities, the gamification features, and the wide range of EFL training possibilities. The items to improve were, in *Second Life*, the price, the very limited English learning level possibilities, and the lack of BE content; in *Quest Atlantis* the main criticism fell on the tendency for technical problems, and on the lack of BE content.



Figure 15 – Screenshots of Quest Atlantis and Second Life

As for its usage of MUVE in educational settings, Wang et al. (2009) provided a case study to collect learner/teacher perceptions using *Second Life*. In their conclusions, they stress “the overall positive perceptions of the student teachers on both SL as an EFL learning platform and the SL_EFL Program as a whole”, they also conclude that “*Second Life is clearly a platform with much to offer to EFL/ ESL instruction*” Wang et al. (2009:37) Focusing on aspects to improve, Wang et al. (2009:37) point out the need for “*technology support, clearly defined objectives and curriculum, and supporting resources such as blogs and lesson plans*”. Previously, Silva (2010) had also praised the high motivation and involvement levels of the learners, both in using the software and in using EFL to communicate, the satisfactory nature of the exploratory activities, and the development of lexical competence. Silva (2010) mentioned that to use *Second Life* in the classroom it is necessary to i. have more time to both train learners to maneuver in the environment and to train EFL CS afterwards, ii. the improvement of technical issues with the

visual aspects, iii. more teacher training so that English teachers become equally proficient in the environment, and iv. the acceptance of schools of these new technologies of ICT.

In order to ascertain if the selected MUVE were currently being used for EFL, the author revisited the platforms and explored the literature for more current studies. Indeed, more recent explorations of virtual environments for language learning can be found in Wang et al. (2019). In this study, a meta-analysis of the effects of 3D virtual worlds in language learning was conducted. Wang et al.'s (2019:20) study concluded that i. interaction plays a crucial role in these environments as *“It substantially facilitates linguistic and affective gains”*; ii. virtual worlds *“are likely to greatly enhance learners’ both communication skills and linguistic competence”* as teachers, who use these worlds for their language teaching, integrate various teaching methods; iii. virtual worlds are producing positive learning results from learners, leading the authors to see virtual worlds and the learners in a *“relation of partnership”*; and iv. virtual worlds *“enhance students’ attitude and selfefficacy, especially in collaboration learning conditions.”*

Despite the items to improve, when one considers the global spread of English, the immersive character of MUVE should be pondered. The evolution of conversational tools in the MUVE software is indeed a consolidation of this type of platform as a language teaching option on formal, informal and non-formal contexts. Not only are MUVE interactive, immersive and, up to a point, free of charge for exploratory use, but they also allow for cultural awareness development – e.g. virtual city tours, exploring content created by universities or global institutions like the *British Council*, and even scheduled meetings between native and non-native speakers.

MOOC for EFL, which will be now analyzed, have also proliferated with a wide array of offers, like for instance the Reading University *Academic Writing* MOOC, provided by *Future Learn*¹⁰⁴, which relies on AVC to present its instructional material, or *Professional English* MOOC (developed by Bárcena, 2014 – Figure 16). The latter was the first EFL MOOC in Spain. It was a case study which based its literature review on information collected from previous case studies, like for instance, Worlock and Ricci (2013) and the purpose was to perceive reactions from learners and teachers to the *Professional English* MOOC. Bárcena (2014:15) noticed an enthusiastic adhesion, positive feedback from the learners regarding its *“flexible structure, the scaffolding, feedback mechanisms”* and free access to materials. The researchers also included in the MOOC a validation of oral presentations and oral/written interaction which fostered a

¹⁰⁴ <https://www.futurelearn.com/search?utf8=%E2%9C%93&q=english>

more engaged learner activity during the course. Bárcena (2014) also identified some aspects that needed improvement, namely: there was a significant dropout rate, it failed to target the needs of most learners and some learners did not make the best of the interaction and collaborative tasks. They also addressed and circumvented other criticism, i.e., “*the unmanageable size and heterogeneity of the student group*” and “*the potential unreliability of the authorship of the assessment*” (Bárcena, 2014:12).



Figure 16 – Screenshots of 'A beginner's guide in English for University study' and UNED's 'Professional English'

A new exploration for studies concerning MOOC using AVC for EFL was done in the first quadrimester of 2019, and a study by Martín-Monje et al. (2018) deserved attention. This research addressed the importance of AVC in language learning MOOC and the authors present a conclusion that stems from an analytical study of EFL learners who participated in the MOOC, “*How to succeed in the English B1 Level Exam*”¹⁰⁵. The conclusion is: “*With regard to learning objects, videos seem to be the preferred materials by far, favoured both by male and female students alike. This is consistent with previous research done with MOOCs (see, for instance, Goldwasser, Mankoff, Manturuk, Schmid, & Whitfield, 2016).*” Martín-Monje et al. (2018:266). This conclusion confirms the value given to AVC by learners in language learning MOOC.

For the purpose of this framework, the exploratory study of MOOC focused on the EFL courses provided by *Future Learn*, *Saylor.org*¹⁰⁶ and *edX*¹⁰⁷. These MOOC were the selected according to the following search criteria: i. MOOC quoted in Stevens’s (2013); ii. MOOC providing structured syllabi for EFL; iii. MOOC directed to adult learners; and iv. platforms providing at least four MOOC in EFL. After exploring the MOOC, analyzing Stevens (2013) review and analyzing user reviews, the main praise to these MOOC were the structured syllabi designed by the developers of the MOOC, and the collaborative experience; *Future Learn* also received reviewers’ praise for the extra training possibilities it provided to learners. The main items to improve regarded:

¹⁰⁵ <https://extension.uned.es/actividad/idactividad/11785>

¹⁰⁶ <https://learn.saylor.org/course/view.php?id=43>

¹⁰⁷ <https://www.edx.org/course/english-doing-business-asia-writing-hkustx-eba102x-2>

- *Future Learn* – the lack of BE content and no possibility to train "Speaking";
- *Saylor.org* – no audio features, no video materials, no extra training possibilities, and no possibility to train "Speaking";
- *edX* – and no audio features; no video materials; no possibility to train "Speaking".

This exploratory study of MOOC led to the conclusion that for EFL learning, AVC is a useful feature, which should convince MOOC designers to use it more often as a teaching aid. The learners also value the interactive and collaborative tools in order to regularly contact with the teachers, tutors, or with other learners. MOOC also need to invest in exercises to train "Speaking", and in courses directed at BE content. One can suggest that to improve the "Speaking" training, AVC recordings with smartphones or webcams can be a good tool to integrate this skill in MOOC. Even with room for improvement, it seems that EFL MOOC with integrated AVC as an aid can contribute positively for EFL and BE learning.

Shifting the focus to AVC repositories/aggregators, there was the need to execute a comprehensive exploratory study to present the potential of these online platforms for EFL teaching/learning. Due to the high number of platforms providing AVC available online – which according to Jin (2017:200), are "too numerous to mention" –, it was also necessary to define a set of criteria to define which platforms to study:

1. the platforms had to provide AVC directed at adults;
2. the platforms had to be both mobile and web-based;
3. the platforms needed to provide a captioning service;
4. the platforms had to provide some AVC related to BE.

Following these criteria, it was possible to identify platforms that were sorted into three big groups. This division allowed the researcher to select the best rated software (by filtering the ones with reviews over 4.0 on *Google Play*) and the most popular platform software (by consulting which was the most downloaded mobile app of each group on *Google Play*) out of each group, explore it as a representative of each group and present advantages and disadvantages of each platform, as well as studies from researchers who studied the potential of these platforms for EFL teaching/learning. All the selected platforms were revisited in the first third of 2019 in order to confirm if they still fit the selected criteria. At the same time, new revisions of the state of the art were made to confirm the software's potential to support EFL with AVC. When relevant, recent studies will also be quoted in the analysis of the selected platforms. The three groups of platforms are, therefore:

- i. general repositories like *YouTube*, *Vimeo*, or *Daily Motion*, which give free registered users the possibility to watch, upload, and share videos with anyone able to access the site. These videos can also be embedded and shared on other sites. The uploaded content can be grouped in a playlist and registered users can also create channels for other users to subscribe and follow. Moreover, these repositories provide a comment section for users to share opinions regarding the AVC and to reply to other users' opinions (Figure 17).

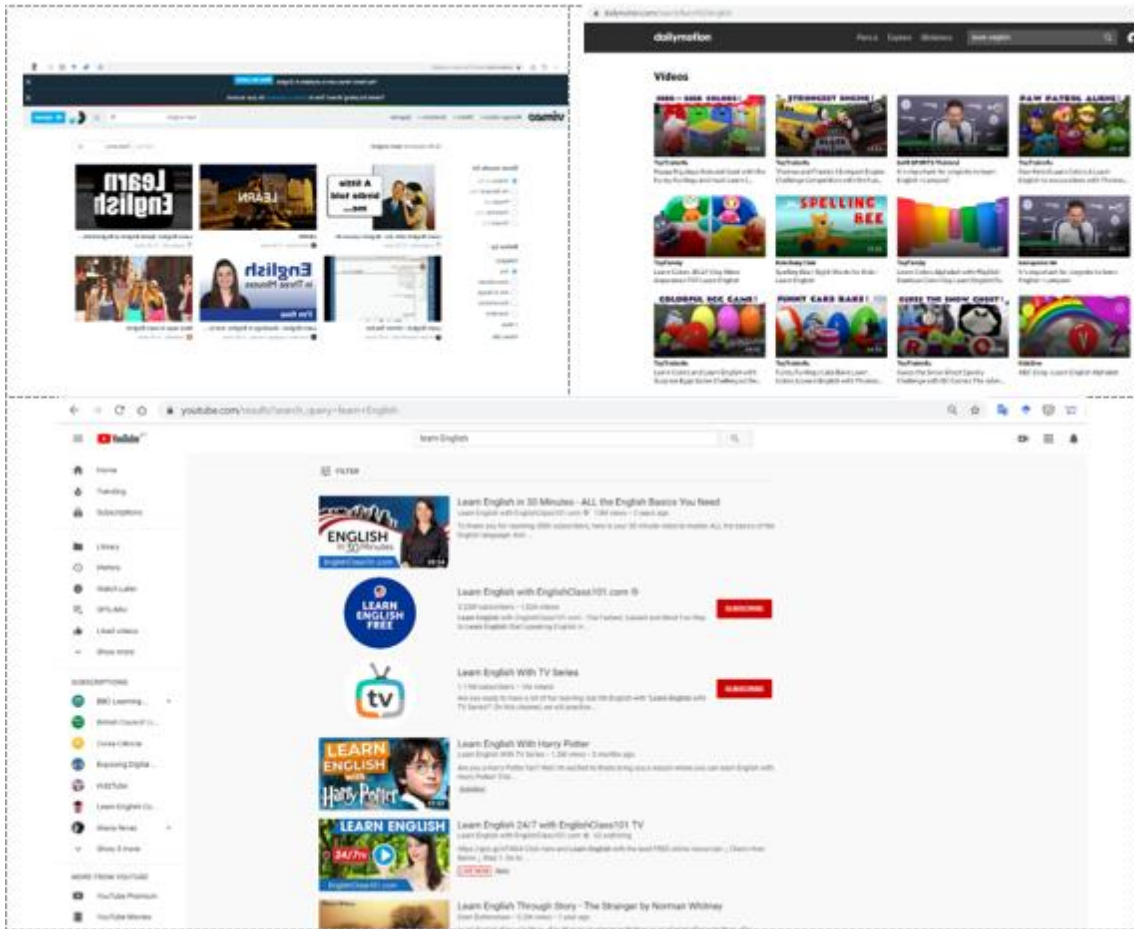


Figure 17 – Screenshots of YouTube, Vimeo and Dailymotion

ii. mobile and web-based aggregators of AVC like *English Central*¹⁰⁸, *Bliu Bliu*¹⁰⁹, *Yabla*¹¹⁰, *LingQ*¹¹¹, *VoiceTube* or *FluentU*, which provide users with AVC together with an autonomous language learning service supported by tools like personalized video settings, progress bars, activity and progress trackers, captions, quizzes, games, pronunciation exercises, and possibility to interact with tutor on a one-on-one session. This group was also divided into two subgroups, namely, free software and paid software – mixed platforms were included into the paid software subgroup as users still need to pay to use all the platform’s functions – (Figure 18).

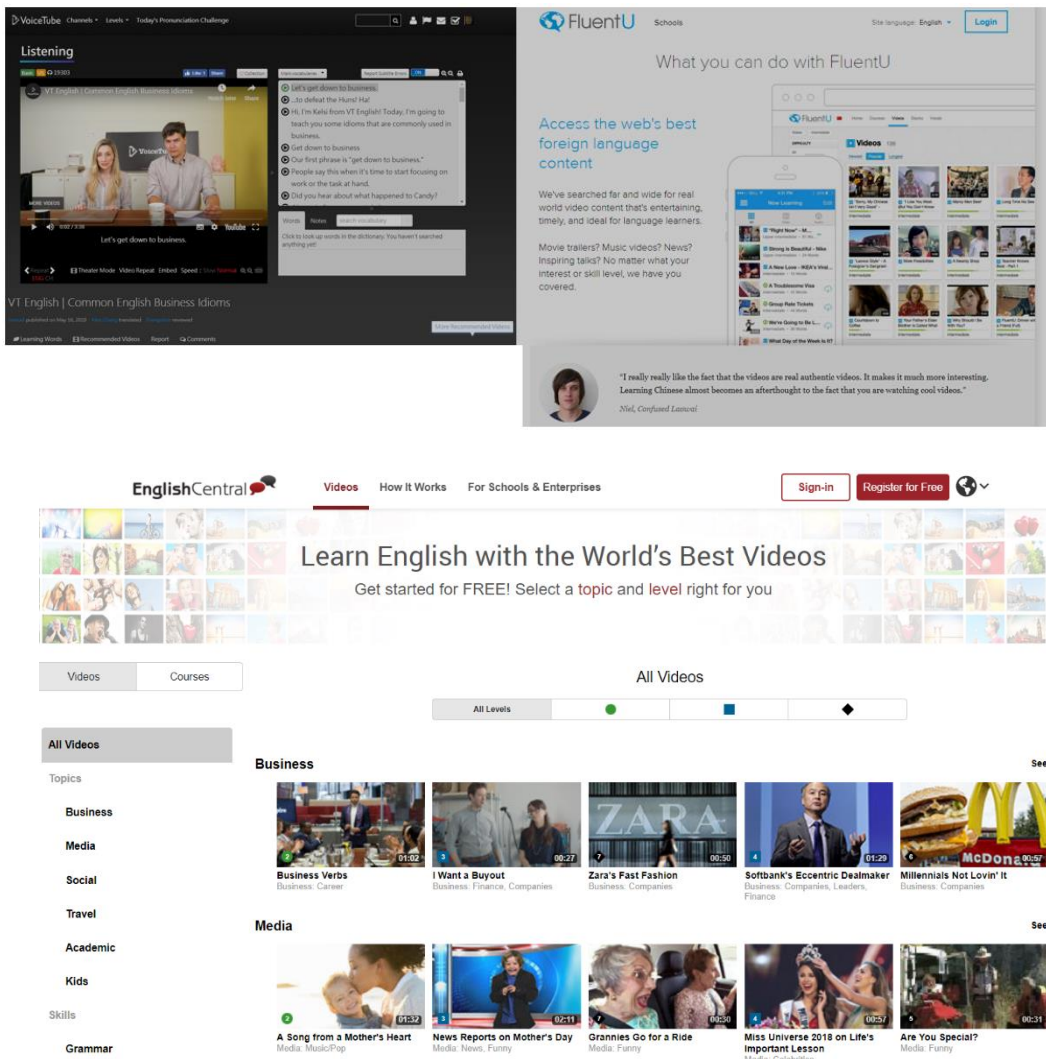


Figure 18 – Screenshots of VoicetTube, FluentU, and English Central

108 <https://www.englishcentral.com>
 109 <https://bliubliu.com/en/about-us/>
 110 <https://english.yabla.com/>
 111 <https://www.lingq.com/en/about/>

- iii. Repositories of AVC specifically produced for English learners like *BBC Learning English*¹¹², *British Council Learn English Great Videos*¹¹³, *TV411*¹¹⁴, or *English Class 101*¹¹⁵ which produce their own AVC and make it available for registered users and potential learners in their websites and mobile apps (Figure 19).

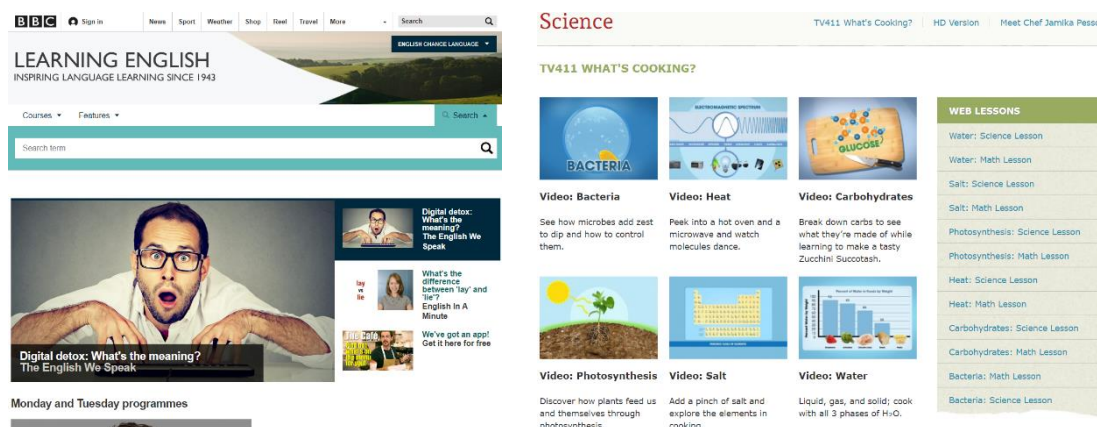


Figure 19 – Screenshots of BBC Learning English and TV411

Group I – General repositories

Regarding the general repositories, the greatest advantage is that they provide various types of content for learners to choose from. For example, a *Google* video search following the pattern “*learn English*” restricted to *YouTube* produces 2,970,000,000 results (search remade in 04.2019). The majority of these results relate to UGC uploaded by users trying to share their experience with learning, their evolution in the language acquisition, and their best tips for efficient learning. Search results also produced AVC classes focused on grammar, vocabulary, contextualized situations and/or channels dedicated to sharing structured English learning AVC. As for BE, the same search following the pattern “*learn Business English*” produces 97,000 results. *Daily Motion* produces 722,000 for “*learn English*” and 191,000 for “*learn Business English*”, whereas *Vimeo* produces 329,000 results for the former and 34,600 for the latter. Therefore, as the offer is immense, the considerations about general repositories will be focused on using *YouTube* as an aid for EFL teaching learning, as it stands out as the platform with more users, more application downloads (+5B) and with highest volume of available content.

¹¹² <http://www.bbc.co.uk/learningenglish/>

¹¹³ <https://learnenglish.britishcouncil.org/apps/learnenglish-great-videos>

¹¹⁴ <http://www.tv411.org/>

¹¹⁵ <https://www.englishclass101.com/index.php>

Addressing the positive influence that consuming AVC from these repositories has on EFL teachers and learners, one can list studies by Rahayu and Putri (2019), Faizi (2018), and Aşıksoy (2018) to confirm the positive outcomes of consuming content on the teaching and learning practices. Firstly, a recent study conducted by Faizi (2018) tried to ascertain the attitudes and perceptions of teachers towards using Web 2.0 technologies in language learning and teaching. Faizi (2018:1223) agreed that “*video sharing platforms offer endless opportunities for formal and informal student-centered language learning*”, either to consume AVC or to upload UGC; the author also added that “*YouTube videos can also be used to stimulate cultural lessons, enhance exposure to world languages, and to promote vocabulary development*”. The study revealed that teachers agreed on the positive impact Web 2.0 technologies have on their teaching practice; there is also a further important element in Faizi (2018) study, as the author identified that AVC from *YouTube* was the most used educational resource by teachers participating in the study (51% [n=90] of teachers provided their learners with links to video and audio resources for autonomous consumption – the second most used resource [20%, n=90] was giving assignments on collaborative platforms).

Secondly, a study by Aşıksoy (2018) was focused on learners’ perspectives about the positive influence of AVC repositories as a learning aid in formal, informal and non-formal contexts. According to the author, learners give a higher preference to *YouTube* and social networking tool to support their language learning. *YouTube* gathers more preferences as learners admit they “*are able to watch large number of videos depending on their interest, which are free and have different styles of pronunciations. On the other hand, Youtube is an ideal source for improving the skill to understand different accents*” (Aşıksoy, 2018:247). In this study it was also possible to conclude that students also recognize *YouTube* as a more effective learning aid when compared to other Web 2.0 tools.

A final positive effect of general repositories was addressed by Rahayu and Putri (2019), and it concerned the possibility of platforms like *YouTube* allowing the upload of UGC. The authors focused their study on a group of EFL learners who receive the assignment to record and upload AVC to a *YouTube* channel. The authors concluded that this assignment increased learners’ motivation to master English pronunciation, by putting extra effort into preparing and rehearsing it.

As an extra concerning towards Group I repositories, one should also compliment open repositories for giving the possibility to any user to upload content. In fact, *YouTube* allows any learner to find AVC uploaded by other users, normally with knowledge of English, who create

extensive amounts of training AVC to explain grammar, introduce vocabulary and, in some cases, use the uploaders' native language, clearly directing his material to a specific group of people. This is the case of *YouTube* channels like *EnglishLessons4U - Learn English with Ronnie!*¹¹⁶, *Tutoriales Inglés*¹¹⁷, or *Agora Eu Falo*¹¹⁸ (Figure 20). Browsing through the comment section one can find both satisfied and unsatisfied learners, however, these user-created *YouTube* channels lack a proper, validating scientific study to measure the EFL acquisition in the learners.

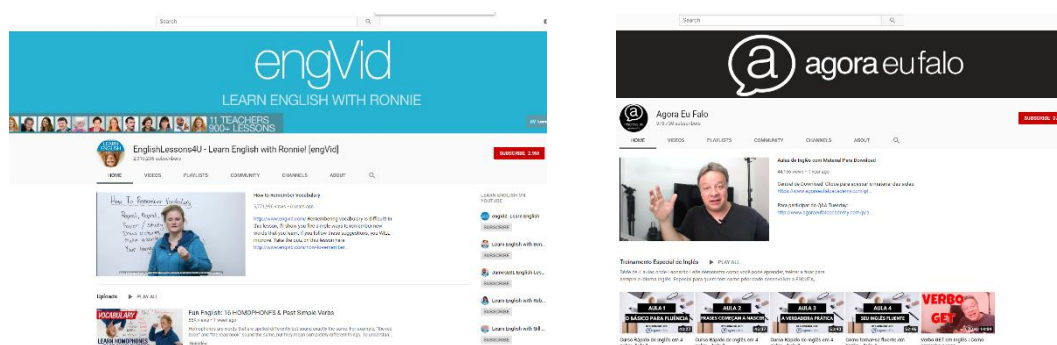


Figure 20 – Screenshots of *EnglishLessons4U* and *Agoraeufalo*

From the exploratory study of *YouTube* as an example of a general repository, as well as the literature review on how these repositories are being used in the EFL teaching/learning, it was possible to list advantages and disadvantages of these general and open repositories. When it comes to disadvantages, it became clear that general repositories do not offer optimal interaction possibilities between learners, as interaction is mostly limited to the comment section; the platforms do not offer extended training possibilities to consolidate linguistic content; there are no gamification features to entice learners to return to the platform to consume or upload AVC; and there is no validation of the content by linguistic proficient users. Considering the advantages, one can mention the mobile possibilities of these repositories, the possibility for any user to upload content, the access to the repositories is free, learners have access to a massive amount of material to satisfy their interests, to enrich their learning with cultural aspects (like accents), and to choose AVC appropriate to their linguistic proficiency.

¹¹⁶ <https://www.youtube.com/user/EnglishLessons4U>

¹¹⁷ <https://www.youtube.com/user/cursodeinglesok>

¹¹⁸ <https://www.youtube.com/user/agorauefaloingles>

Group II – Aggregators with an autonomous language learning service supported by tools

The second group focuses on AVC aggregators that provide autonomous learning support tools based on embedded AVC. One can divide these platforms into two subgroups: free and paid aggregators.

Free aggregators

Among the free aggregators the most downloaded software is *VoiceTube*¹¹⁹, which according to Jin (2017:248), “is a free web-based software that allows practice learning English pronunciation via video resources.” Jin (2017) pinpointed some strengths with this software, like authentic discourse-level input, effective functionalities for shadowing¹²⁰ (recording function, subtitles, play speed adjustments, categorization of vocabulary, personal learning notes), and highly individualized settings. Among the aspects to improve the author listed the need for automatic speech recognition and feedback, expanded levels of shadowing (“Currently, it provides a sentence-by-sentence shadowing option (...) if learners can gradually expand their level of shadowing (e.g. one sentence → multiple sentences → paragraph), it will be more purposeful and meaningful for practicing suprasegmental features in discourse level.” Jin (2017:252), more variety of videos to accommodate all proficiency levels, and more sources of non-native model speech. Despite the aspects to improve, Jin (2017:251) considered that *VoiceTube* is a “purposeful tool for learning English pronunciation (...), because it provides authentic, discourse level input for practice”. Due to its groundbreaking conception, *VoiceTube* was awarded *Language app of the year 2016* by Facebook.

Concerning *VoiceTube*'s potential as an autonomous language learning aid, studies by Li (2018), Chang and Yeh (2018), and Liu (2017) provided clarifying conclusions. Firstly, Li (2018) conducted a study in which *VoiceTube* was used with EFL learners to develop listening fluency. The author's conclusions stated that the learners who participated in the study had a positive attitude towards the platform and showed encouraging signs of learner autonomy. The language assessment after sixteen weeks of using *VoiceTube* indicated improvements in the listening comprehension. Li's (2018) methodology did not indicate clearly whether the use of the

¹¹⁹ *Bliu Bliu*© is also a free repository, however, as it is not exclusively based on AVC, it was not explored in much depth.

¹²⁰ “Shadowing is often suggested as one effective teaching and learning method to promote the learning of suprasegmental features within the discourse context. (...) the basic skill of shadowing is to immediately follow the utterance produced by the native speaker ‘as closely as possible.’” Jin (2017:248)

platform was done in informal settings, but it seems safe to assume that the learners' positive attitude towards this platform led them to use it in informal settings during the sixteen weeks of the study. Secondly, a study carried out by Liu (2017) involved the design of a syllabus for higher education learners of ESP (English for tourism purposes). In this syllabus, the activity of watching *VoiceTube* videos was presented as a mandatory homework assignment. The author did not share information about learners' attitudes towards the platform, however, Liu (2017:468) concluded that the designed syllabus "*could contribute to the teaching of English literature studies*" and it could also "*be applied to ESP (English for Specific Purposes) courses.*" A third study conducted by Chang and Yeh (2018) also relied on autonomous AVC consumption via *VoiceTube* as a part of an EFL learning model for higher education English language learners. Watching a video on the platform was the starting point for a mix of collaborative and individual activities that the learners executed as homework. The authors pinpointed i. very positive attitudes from the learners towards the use of mobile learning aids (*VoiceTube* included) and how these could benefit their informal learning practices; ii. learners' positive perception towards an evolution of pronunciation, fluency, accuracy and self-assessment practices; iii. learners' positive perception towards an increase in confidence when speaking English (derived from a lower-anxiety environment to practice English speaking); and iv. a higher engagement during the collaborative activities. A less positive aspect of the implemented model regarded the different levels of motivation among the learners, due to their different working habits.

The exploratory study of *VoiceTube* led to the identification of advantages and disadvantages of this subgroup of aggregators. As for the latter, there is an absence of collaborative validation of the AVC, in terms of how useful the content is for EFL autonomous learning, by teachers and learners. Moreover, the platform decides which AVC to provide to their users, the comment section is not interactive enough, no links were found in the comment section for further training of grammar or vocabulary items, there are no gaming features to stimulate learners to watch more AVC, there are no extra training features (quiz or questions about the content), there seems to be a low variety of AVC, it should be enriched with efficient automatic speech recognition to train the "*Speaking*" skill (as it should enrich the levels of shadowing). Regarding the advantages, one can praise *VoiceTube* for being free of charge and for providing content to satisfy GE learners as well as BE learners; moreover, it has evidenced positive effects on learner proficiency, it provides tools to promote effective shadowing, and it stimulates autonomous learning practices.

Paid aggregators

Focusing on the subgroup of paid aggregators, like *English Central*, *Yabla*, *LingQ*, or *FluentU*, one can identify similarities with the characteristics identified by Jin (2017), when this author reviewed *VoiceTube*, namely: authentic discourse-level input, effective functionalities for shadowing, and highly individualized settings. What distinguishes the paid aggregators is possibility for the user to follow a structured learning path adapted to the user's language proficiency and targeting a language evolution. The most downloaded software is *English Central* (+1,000,000), which according to Silva (2017), is a digital platform which combines the use of video (of several formats), vocabulary learning, pronunciation practice, and online tutors in one-on-one session focused on the teaching of EFL (Silva, 2017)¹²¹. Moreover, it provides tools like a voice recognition system to evaluate users' pronunciations, it trains oral production and understanding, and it provides a learning management system to create courses, follow learning progress, and create a syllabus tailor made for the needs of the learners (Silva, 2017)¹²². Among its advantages, the author highlights the wide array of AVC for learners and teachers, the support provided by the embedded learning management system, the offer of content for fifty different areas of ESP, the adaptation of the AVC to the learners' level, the possibility to interact with a tutor, and the different activities to aid improvement of accent and vocabulary. Among the main aspects to improve, Silva (2017) recommends that the platform provides a wider number of linguistic consolidation activities, and that the proficiency level given to the AVC be closer to the CEFR.

Concerning *English Central's* potential as an autonomous language learning aid, studies by Forbes et al. (2019), Abugohar et al. (2019) and Silva (2017) provide clarifying conclusions. Firstly, Forbes et al. (2019) present a study where EFL learners were given a one-month-homework task to watch a pre-determined number of videos on *English Central*. The authors stated that the majority of learners executed the assigned homework in the given time, and that the feedback of using the platform was very positive – “a large majority of students expressed the wish to use *English Central* within class time” (Forbes et al., 2019:64). Abugohar et al. (2019) addressed teacher's perceptions about the potential of platforms like *English Central* as an

¹²¹ “O *English Central* é uma plataforma digital que combina o uso de vídeos, aprendizagem de vocabulário, prática de pronúncia e tutores online para o ensino de inglês como língua estrangeira” (Silva, 2017:13) – Translated by the author.

¹²² “(...) um sistema de reconhecimento de voz para avaliação da pronúncia dos usuários, (...) por possibilitar a o aprimoramento de duas habilidades principais para a comunicação oral, a produção e a comunicação oral, e possuir um sistema de gestão de aprendizagem capaz de auxiliar os professores no acompanhamento do progresso dos alunos, bem como na criação de um curso com vídeos para prática dentro e fora da sala de aula, e um currículo de acordo com o nível dos alunos.” (Silva, 2017:81, 82) – Translated by the author.

autonomous language learning aid. In their results the authors identified very positive perception from teachers: i. 80% of inquired teachers (n=45) agreed that platforms like *English Central* “are convenient tools for enhancing students’ speaking fluency” (Abugohar et al., 2019:82); and ii. 49% of inquired teachers (n=45) agreed that these platforms “foster students’ speaking fluency” (Abugohar et al., 2019:84). Finally, Silva (2017) developed a study to integrate *English Central* in an EFL beginners (A1) course lasting 200 hours in a Higher Education institution in a blended learning philosophy. The author deeply elaborated on the typology of classroom and homework activities to conclude that the platform offered excellent support to both teachers and learners, and that its inclusion in blended learning courses should be considered. However, the study did not give accurate information on whether there were visible learning improvements thanks to *English Central*. It also failed to share perceptions of the users about the platform’s potential as an EFL learning aid.

The exploratory study of *English Central* led to the identification of advantages and disadvantages of this subgroup of aggregators. As for the latter, one noticed that Group II aggregators shared some of the same shortcomings as Group I repositories, namely that there is also no collaborative validation of the uploaded AVC done by EFL teachers or learners; it is, therefore, unclear how useful the AVC provided works as a learning aid; there are no gamification features to promote further consumption of AVC; and there should be room for a wider variety of consolidation activities. Concerning the advantages, one has to highlight the possibility to access a structured syllabus for all learning levels, the possibility to interact with a tutor, the access to a learning management system to accompany progress, and the wide variety of AVC, which is directed which is directed at both EFL and ESP learners.

Group III – Repositories of AVC specifically produced for English learners

The most downloaded software of this group is *BBC Learning English* (+1,000,000) and it will serve as an example to characterize these types of repositories. According to Saunders (2017:33), this repository is “a very useful free service with a large number of videos to choose from”; “specifically designed to help students of English improve their comprehension and abilities via a large selection of videos and radio content produced by the BBC.” Saunders’ (2017) review highlighted positive aspects like the intuitive organization of the platform, the wide choice of the AVC, the possibility to access extra activities, the tool to search for content by grammar or vocabulary items, and the accurate proficiency level given to the AVC. The author

also listed items where the platform needs improvement, like the use of transcripts (instead of simultaneous captioning), the absence of L2 captions (unlike, for example, the captioning system provided by the *TED*¹²³ repository), the absence of a learning management system, and a function for speaking practice.

Concerning *BBC Learning English's* potential as an autonomous language learning aid, one can mention studies by Milliner (2017), or Medvedovska et al. (2016), which superficially presented this platform as a viable tool, but did not go deep into studying its use in real educational contexts. In fact, since 2017 there seems to be an absence of published (and open access) studies focusing directly on using *BBC Learning English* video repository as a teaching/learning aid. Still, considering that these repositories have a similar architecture as to the Group I's, one can assume that they also share the same advantages and disadvantages. After all, one can easily find videos of these Group III repositories in the Group I content lists.

The clearest asset of the Group III repositories when compared to Group I is that these are videos specifically produced by professionals, edited and uploaded for EFL learners. Therefore, one is more likely to find AVC with new content feedback sections. Moreover, these platforms are richer when it comes to providing links to grammar/vocabulary sections and extra activities.

After gathering and interpreting information and data from all the analyzed platforms one may conclude that these online platforms based on AVC are able to provide autonomous language learners with i. a high number of miscellaneous AVC; ii. a tag system for difficulty, view count and accent; iii. autonomous work possibilities (games, quizzes, explanations); iv. progress/activities trackers for users to accompany their proficiency evolution; v. the possibility, in some platforms, to interact with a tutor; and vi. functions of the player (subtitles, dictionary, play speed). On the other hand, the finite number of AVC, the lack of variety of genres, the lack of flexibility to watch AVC freely, the poor amount of tags for an AVC, the lack of gamification features to promote consumption of AVC, and absence lack of a user validation system to comment and rate the AVC can be seen as relevant shortcomings (these shortcomings are especially pertinent in Group II repositories).

As this thesis is proposing the development of a new platform, it is crucial to identify the positive and negative points of other platforms on the market, in order to provide a high-quality

¹²³ www.ted.com/#/

autonomous learning experience to EFL and BE learners. Moreover, this section demonstrated that dissociating autonomous language learning practices from the formal learning contexts is unusual; after all, many of the quoted studies above refer to tasks of AVC consumption fostered by teachers. This fact confirms that a successful online platform needs to foster both teacher and learner participation, and thus include teacher and learner experiences of usage when developing the OCP prototype.

CHAPTER 2: METHODOLOGY

The presentation of the chosen research methodology is to be clarified in this chapter. In the first section, it addresses the methodological approach to the problem, the need to choose a mixed-methods approach, the general outlines of the chosen methodology – Developmental Research Methodology (DRM) – and its connection to the research objectives previously stated. The second section diachronically describes the study, by providing detailed descriptions of the different phases. On the description of each phase, there will be an in-depth explanation of the data gathering and treatment procedures, instruments, and techniques, as well as a characterization of the desired participants.

Nature

As stated in 1.1. *THE PROBLEM AND OBJECTIVES OF THE STUDY*, the final goal of this research project is the conceptualization and prototyping of an OCP as well as an experimental implementation of the developed prototype. This implementation will serve to get the target-users' opinion about the concept the OCP. Therefore, this project has an experimental nature which, according to Hill and Hill (2000:20), tests “*new facts (empirical data) to test deductions made from a theory which may have practical application in the middle-run*”¹²⁴.

Paradigm

Considering the specificity of the study object and the outlined research objectives for this project, it was necessary to design a doctoral project of an empirical nature¹²⁵ (applied type), adopting a methodological approach with both quantitative and qualitative characteristics, i.e., a mixed approach. This approach is typically used to address educational issues because the complexity of the phenomena benefits from the use of the multiple research natures to “*describe, understand and interpret them thoroughly*” (Esteves, 2006:105). Given the mixed nature of the study, the adopted methodological paradigm is interpretative (Coutinho, 2014) and the research model to follow is of a practical/applied framework.

¹²⁴ Translated by the researcher from Portuguese: “*testar factos novos (dados empíricos) para testar deduções feitas a partir de uma teoria que pode ter aplicações práticas a médio prazo*”

¹²⁵ As theorized by Hill and Hill (2000)

The tasks are targeted to the design and development of a learning tool grounded on: **i.** a literature review; **ii.** an exploratory study; **iii.** a conceptualization of a tool; **iv.** a design for the construction of the tool, and; **v.** the gathering and scrutiny of the opinions/perceptions of the target-users who would benefit from this tool. Consequently, this project required planning in different phases, adopting different techniques to reach the goals of each individual phase. Therefore, research levels are varied: descriptive, experimental and correlational (Almeida and Freire, 2013), depending on the phase of the project.

Method

Bearing in mind the final goal to develop a tool for instructional assistance, the nature of the project, the paradigm, the mixed method nature of the conceptualization and trial tasks, and the multiple research levels, this study adopted the methodological guidelines of Developmental Research Methodology (DRM) as theorized by Ketele and Roegiers (1999), Van der Maren (1996), Richey and Nelson (1996) and Seels and Richey (1994). According to Van der Maren (1996), researchers use DRM for the development of an *Instructional System Design* (ISD) to solve a practical problem related to the teaching/learning process. Furthermore, DRM theorizes an array of tasks, which are organized in phases/moments, that involve the conceptualization, development, and improvement of an object to be developed, which are dependent on the lessons to be learned by the experimental implementations of the ISD (Richey and Nelson, 1996). Therefore, before presenting the methodological choices for this study, it seems relevant to present the general characteristics of DRM.

Appropriate for informal educational settings

DRM is a suitable choice to develop ISDs for both formal and informal educational settings – as shown by research developed by Hirumi et al. (1994), which reported on the analysis, design, development, implementation, and evaluation of an interactive videodisc, i.e., these authors successfully developed an ISD model to be adapted to informal educational settings.

Object development

Richey et al. (2004) analyzed an array of DRM projects to conclude that there are two types of DRM. Type 1 is focused on product development and evaluation, where researchers put more

focus on “*phases/functions*” (Richey et al., 2004:1116) to design tools and reach context-specific conclusions. Type 2 is focused on model design and validation, where researchers focus more on phases/functions to develop and validate ISD models and reach a generalized conclusion. Even though the planned research project shares features of both Types in its distinct Phases, as a whole, the conception of the OCP fits the Type 1 DRM.

As for the development of the ISDs, Van der Maren (1996:178) lists “*Object Development*” as one of the three possible development activities to which DRM is conceptualized, adding that projects of this kind tend to follow a path similar to problem-solving research projects (Van der Maren, 1996). “*Object Development*” generally starts by analyzing the possible object (so that it responds to an identified need), conceptualize the object, elaborate a model (a representation of all elements that will compose the object), outline construction strategies, evaluate possibilities for concretization, proceed to the temporary construction of the object (the prototype) and implement it (Van der Maren, 1996).

Mixed methods approach

Furthermore, DRM is “*conceptual, evaluational and interventive research*” (Van der Maren, 1996:158), in which the researcher has the possibility to employ techniques from several research methodologies – depending on the moment of development of the object (Richey and Nelson, 1996; Van der Maren, 1996). These techniques sustain a “*systematic study for the design-> development-> evaluation of a product which should respect criteria of internal consistency and efficiency*” (Richey and Nelson, 1996:1213). Richey et al. (2004:1115) confirm a tendency of researchers using DRM to “*(...) utilize multiple research methodologies and designs, with different designs again being used for different phases of the project*”.

Experimental/Exploratory

DRM also encompasses an experimental/technological layer which is related to the goals of testing the constructed ISD with the target-users. This layer was addressed by Ketele and Roegiers (1999) and divided into three categories, being one of these *Technological (or development) Research*. This branch is characterized by, among others, the following criteria (Ketele and Roegiers, 1999:120, 121¹²⁶):

¹²⁶ Translated into English by the author

- i. priority orientation towards developing instruments or materials that are valid, viable and generalizable in well-defined contexts;
- ii. recurring needs to predict and verify the object development using experimental devices;
- iii. demand for a degree of validity and reliability for certain measurements;
- iv. the priority value of efficiency.

The technological branch of DRM targets action, and researchers attempt to build aids, using knowledge of the scientific laws, and searches generalizations limited to certain contexts; as stated by Ketele and Roegiers (1999:112): *“In this effort, the researcher will attempt to enunciate technological laws to be generalized in certain contexts or, more simply, technological rules for the elaboration of a certain instrument.”*¹²⁷. Ketele and Roegiers (1999) also identify an exploratory layer of DRM. This layer consists of two types of moments: **i.** heuristic moments which are focused on predictive or regulative activities; and **ii.** confirmation moments which are focused on the feedback from users to validate the developed object.

It is relevant to add that this methodology predicates a focus in digital technologies (Seels and Richey, 1994). In fact, Richey et al. (2004:1114) advocate that for a problem to be solved using DRM it needs to *“pertain to cutting-edge technology”*. This means that for both the experimental and exploratory tasks of a project, researchers should be tech-savvy.

Expected outcomes

Concerning the expected outcomes of a DRM research project, Richey and Nelson (1996) differentiate two main groups, namely:

Group 1. a group of research projects which emphasize specific products or programs’ design, development and/or evaluation projects, which result in lessons learned by these specific developments and by the analysis of the conditions which facilitate their usage; the conclusions concern specific contexts;

Group 2. a group of research projects which emphasize the processes of design, development, and evaluation and/or models and conditions which facilitate its use; the conclusions can be generalized.

¹²⁷ From the original: *“Neste esforço, o investigador tentará enunciar leis tecnológicas generalizáveis num determinado contexto ou, mais simplesmente, regras tecnológicas para a elaboração ou para a utilização de um dado instrumento.”* Translated by the author.

Adapting DRM

To sum up, the choice for DRM laid on the fact that both the construction and validation of the Matrix, as well as the construction and implementation of the OCP prototype, were in tune with the guidelines of DRM, as it addresses the exploratory (with heuristic and confirmation moments), experimental, and technological purposes that were outlined for this study. Additionally, DRM was the chosen methodology because the research project is framed in an educational setting, seeing that it intends to aid learners and teachers of BE in formal, non-formal and informal educational contexts.

DRM pertains to conceive, construct, experiment with, and validate an ISD to solve a practical problem, relating to the daily activities connected to teaching/learning, i.e., **Object Development**. Regarding the **different layers of the project**, it was also necessary to use both quantitative and qualitative methodological techniques, thus in line with the **mixed-methods approach**. Moreover, the present project matches most of the categorization criteria for the **Technological (or development) Research category** of DRM. In addition, as the research was focusing on a new ISD, it required an update of technical knowledge and digital skills, not only for the exploratory tasks but also for the conception and construction tasks.

Consequently, planning and designing this project involved crosscutting the needs of this venture with the types, the emphasis, the functions and the research techniques of DRM. There was a set of tasks that were deemed relevant to the completion of the project that had an **exploratory nature**, and complementary tasks that had an **experimental nature** (also in line with DRM's guidelines). In addition, this project required the development of a Matrix before the conceptualization and construction of the tool. The **procedures** to develop the Matrix relate to a **Type 2 DMR**, which is focused on model validation (Richey et al., 2004). On the other hand, the construction of the OCP relates to a **Type 1 DRM**, which is focused on **product design and development** (Richey et al., 2004). This diversity required an organization into different phases with different goals.

As for the **expected outcomes**, as each phase has a specific function in the development process (like the design phases), there are outcomes that emphasize the process of design, hence placing the conclusions of some of the phases in **Group 2**. However, as a whole, this project aims to provide conclusions that will target a specific group of users (EFL teachers and ESP/BE learners), thus placing this project's conclusions in **Group 1**, a group of DRM research projects that provide "*context-specific conclusions*" (Richey et al., 2004:1103).

The methodological design in phases

After the decision to use DRM for this project and considering the diversified tasks that lead to the implementation of the OCP, it was decided to divide this project into four phases, more specifically: **1.** the design of the Matrix; **2.** the validation of the Matrix; **3.** the construction of the OCP prototype, and; **4.** the validation of the OCP prototype. Each phase had either a conceptual or an experimental layer, different goals, different techniques, different participants and, in the case of Phases 2 and 4, different data collection and treatment instruments and techniques.

To better understand the methodological design, it is essential to provide a diachronic description of the study, by explaining the elements of each phase and their stages; the role of the participants; the data collection techniques; the data treatment; the developmental tools that were used for the conception and construction of both the Matrix and the OCP; and how each phase influenced the subsequent one.

Concerning the participants, as this research project was also sustained on validation and evaluation moments, it was necessary to involve participants with a specific profile, namely: EFL didactics experts, multimedia in education experts, EFL teachers, and ESP/BE learners. The section intends to describe the participants' selection process and how they contribute to the study. Regarding the data, Table 3 provides a general outline of the research and treatment methods of the different phases of the studies.

Table 3 - Outline of the data collection and treatment methods for each phase

| | Objective | Data collection technique | Data treatment technique |
|----------------|---|---|--|
| Phase 1 | Conceptualization and development of the Matrix | Document gathering | Documental analysis |
| Phase 2 | Validation of the Matrix by an expert panel | Direct observation of experts while performing tasks; Think-aloud protocols (TPA); Interview survey | Content analysis (MS Word ¹²⁸) + Descriptive statistic (MS Excel ¹²⁹) |
| Phase 3 | Embodiment of the Matrix in an OCP and development of the prototype | Not applicable | Not applicable |
| Phase 4 | Evaluation of the OCP prototype by target-users | Direct Observation of target users while performing the tasks; Think aloud protocol; Survey | Content analysis (MS Word) + Descriptive statistic (MS Excel) |

Further development is provided in the description of each phase in the following sections.

¹²⁸ https://www.microsoft.com/pt-pt/store/b/word_2016

¹²⁹ <https://www.microsoftstore.com.hk/partner/product/Excel-2016>

1. PHASE 1 – CONCEPTUALIZATION AND CONSTRUCTION OF THE MATRIX

Phase 1 is divided into two stages. Stage 1 consists of exploratory tasks. It is based on document gathering and analysis, and its outcomes influence the next stage. Stage 2 entails developmental tasks based on data gathered in Stage 1, namely informal model validation procedures and TPA protocols. All the results of these exploratory and developmental tasks will be addressed in Chapter 3: PHASE 1 - Conceptualization and construction of the Matrix.

In Stage 1, the plan is to revisit documental analysis to gather fundamentals that are relevant to crosscut AVC with the teaching/learning needs connected to BE. The first body of data entails the literature review conducted and revisited to sustain the project. The second body stems from the CEFR, which provides guidelines for language teaching/learning in all European countries that adopted the Bologna protocols. In the CEFR, the focus is on gathering relevant elements for the teaching/learning practices. The third body sources from a study of several digital platforms, like *YouTube*¹³⁰, *Onestopenglish*¹³¹, *Rosetta Stone*, i.e., software produced to learn English autonomously, and online platforms dedicated to language teaching and AVC repositories.

The goal of this deeper digital platform analysis is to collect elements about the organization of meta-data like: **i.** AVC information such as duration of AVC, genre, type of AVC and keywords; **ii.** organization of search engines and presentation of results; **iii.** examples of content cataloging, and; **iv.** interaction models of the web platforms and mobile apps. This collection procedure is also relevant to get guidelines on how these platforms categorized and organized their content and how their search engines and search filters were structured.

The next step is to verify if the deconstruction of the concepts done for this Matrix follows similar patterns in more than one source of information¹³². For example, the duration concept was divided into five variables and it was pertinent to verify the explored platforms to make sure these variables were suited to the Matrix. This framework is aggregated in a spreadsheet so that the research team analyzes the concepts critically and think of necessary changes.

Considering that Stage 1 provides the conceptual framework of the Matrix¹³³, Stage 2 adopts a developmental approach to transform the conceptual framework into a Matrix. Seeing that

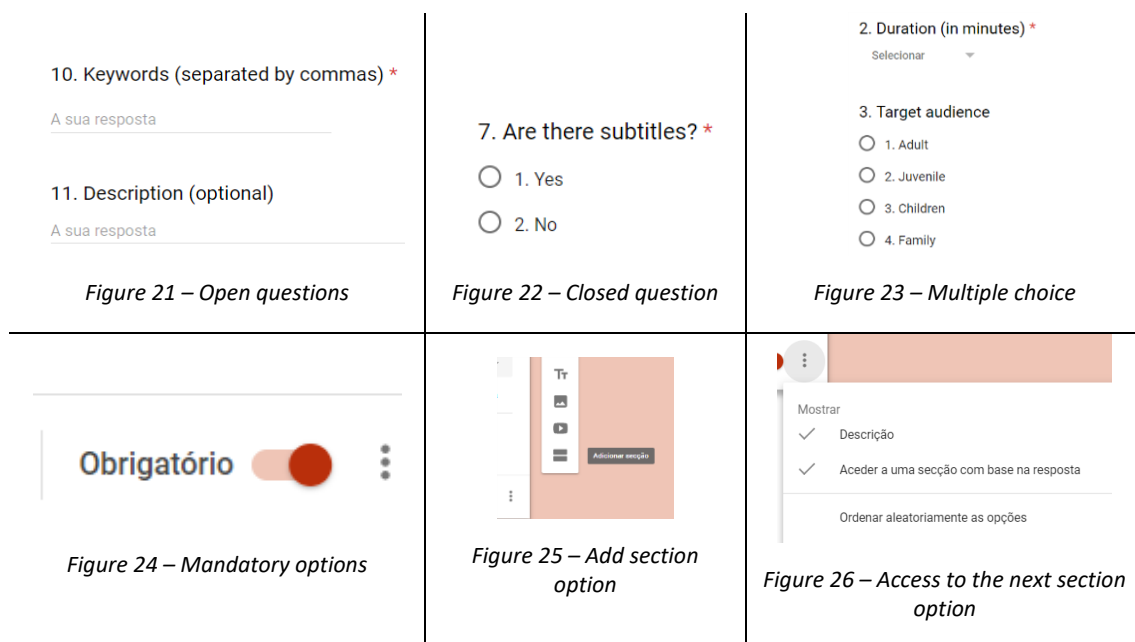
¹³⁰ www.youtube.com

¹³¹ www.onestopenglish.com

¹³² For example, to deconstruct the concept *Genre* it was necessary to confirm if the variables proposed by IMDB© were validated by other sources.

¹³³ Described in depth in Chapter 3.

different concepts are to be converted into different question types, it was concluded that the result of this concept deconstruction shared a similar structure to that of a survey. With this in mind, the research team embodied the Matrix into an online survey where each concept would be attributed a type of question. According to Pardal and Correia (1995), there are three types of question: open (Figure 21), closed (Figure 22) and multiple choice (Figure 23). Taking these guidelines into account, the chosen tool to embody the Matrix is *Google Forms*¹³⁴, as it allows the conception of all necessary types of questions and the automatic storage of the answers in a spreadsheet. It also provides text options to contextualize, describe and explain questions to the users, thus, satisfying another condition of survey construction outlined by Ghiglione and Matalon (2001).



Following the guidelines of DRM for development and testing of an object, Phase 1 finishes with the necessary testing of the questionnaire and revision of items that need improvement – regarding the used language, the answer options and organization of sections. At this point, the Matrix will be ready for the Model validation cycle in Phase 2.

2. PHASE 2 – VALIDATION OF THE MATRIX BY AN EXPERT PANEL

Phase 2 is divided into two stages. Stage 1 consists of experimental tasks executed by an expert panel and observation tasks by the researcher complemented by a TPA. Stage two is a content analysis of the collected data. The validation of the Matrix by an expert panel is the milestone

¹³⁴ See <https://www.google.com/forms/about/>

for Phase 2. To gather the experiences and opinions of the experts, four meetings were planned with the following objectives:

- i. Identify the interviewees' global perception concerning the mapping accuracy and range of the Matrix;
- ii. Validate the linguistic formulation and variables included in the Matrix;
- iii. Validate the dimensions in which the Matrix was divided;
- iv. Validate the search variables for mapped AVC;
- v. Elicit predictions from experts about:
 - a. Opportunities that such a Matrix provides to aid teaching and motivate autonomous AVC consumption of AVC;
 - b. Threats that can hinder effective use of the Matrix;
 - c. Predictions of the engagement of target-users with the OCP;
 - d. Suggestions on how to operationalize the Matrix in the OCP.

Figure 27 demonstrates the planned tasks before, during and after the four meetings:

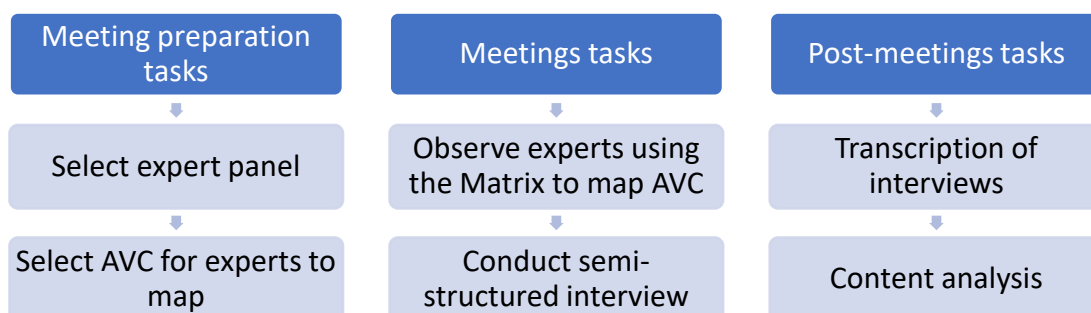


Figure 27 – Tasks of Phase 2

Concerning the selection of the participants, one of the first decisions in selecting a review panel is to define the necessary expertise of its members. Experts can be identified by specific characteristics, i.e., *“An expert has documented (...) experience with the target population; achieved professional certification in a related topic area (...); or initiated research on the topic area”* (Davis, 1992:1). Using this insight, the following criteria to select experts for the panel were outlined, and the experts should fulfil at least three out of five:

- i. Being an expert in EFL didactics;
- ii. Being sympathetic to EFL learning with AVC;
- iii. Being a researcher in the field of AVC consumption;

- iv. Being sympathetic towards developmental research methodology;
- v. Using any sort of OCP in educational contexts.

The criteria to select the AVC for experts to map is:

- i. the videos need to exhibit a BE skill;
- ii. there has to be an example of all AVC types (TV, film, and UGC);
- iii. they have to be less than 5 minutes long;
- iv. the UGC must be a recent upload by an acknowledged *YouTuber*.

The structure of the meeting is shown in Figure 28¹³⁵.

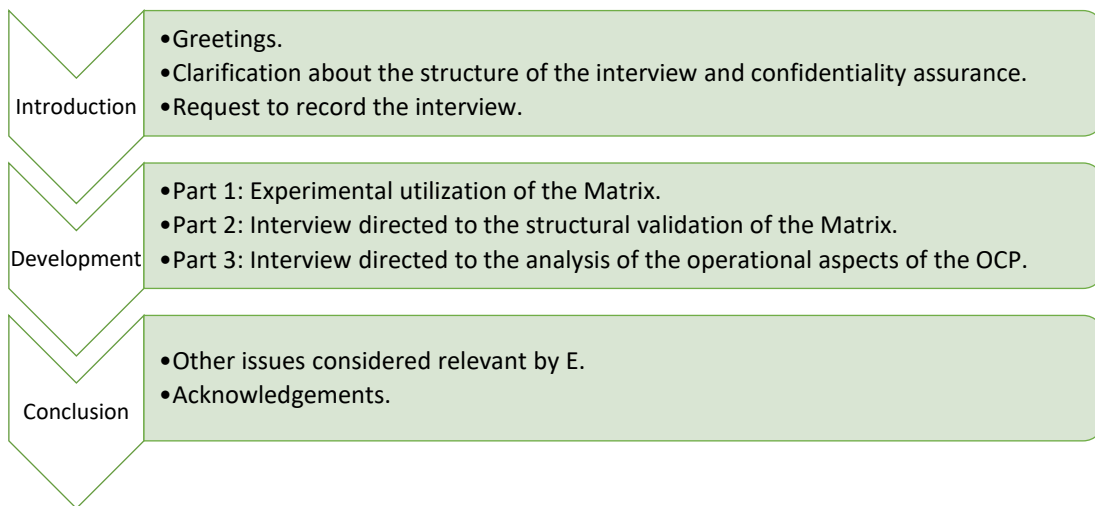


Figure 28 – Structure of the meeting

For data collection, three instruments are planned: **i.** an observation grid, to be used by the researcher to register the Experts’ reactions to the Matrix use; **ii.** a survey that follows the *Atrakdiff*¹³⁶ methodology for evaluation of products, and; **iii.** a semi-structured interview, to collect the experts’ viewpoints and recommendations. The gathered data will be treated as qualitative data by means of content analysis¹³⁷.

¹³⁵ Further details can be found in Annex I, which describes the interview plan in detail.

¹³⁶ See <https://www.uid.com/en/publications/atrakdiff>

¹³⁷ This methodological procedure was influenced by Ghiglione and Matalon (2001) terminology concerning content analysis.

2.1. EXPERIMENTAL USE OF THE MATRIX/ OBSERVATION/ SEMI-STRUCTURED INTERVIEW

The experimental part of the meeting instructs the Experts to:

- Map a previously selected audiovisual document – the researcher uses an observation grid (Appendix I) to register errors, hesitations or requests for help of the Expert completing the questionnaire;
- Map an audiovisual document from a list of possibilities provided by the interviewer.

It is expected that executing these two mapping activities guarantees a reliable perception of the of the Matrix for the interviewee to offer his expert opinion on the subject.

As for the interview, it is an appropriate instrument to collect and gather information by tapping into expert knowledge, and thus correct and support the Matrix's process description. The guidelines for the interview were collected from Harrel and Bradley (2009), regarding the semi-structured interviews as a mean to obtain qualitative opinions concerning items "*already isolated and categorized by the researcher*" (Harrel and Bradley, 2009:40). Furthermore, the purpose of the interview included gathering data about experts' beliefs and opinions. According to Harrel and Bradley (2009), from all the types of interview, the semi-structured interview is the one that researchers use to perform a more systematic treatment of the data, and it is flexible enough to select, mid-interview, subjects that need further deepening. With a balanced amount of control and a set of open questions, the semi-structured interview also allows insertion of new (*in vivo*) items. Further features of this type of interview consist of a guide to questions and topics that need to be covered and the obligation that the questions prepared for the interview need to be the same to all respondents. At the same time, it allows the script to drift to aspects that the researcher had not considered. It also collects information in a conversational style that analyses each topic deeply so that the researcher understands the views of the respondents thoroughly. However, the flexibility of the interview clashes with its unpredictability factor. The interviewer needs to maintain control of the conversation, hence the need to be very well prepared when conducting it.

For the interview to be considered successful, it is necessary that the interviewer had obtained information or explanations from the respondents, had asked all questions or covered all topics and had understood all the answers.

2.2. DATA TREATMENT

The interviews data treatment includes the following stages:

1. Transcribe the interviews' oral corpus to a written corpus in order to get an analyzable body of data - as presented in Samper et al.'s (1998) framework.
2. Treating the data to prepare it for content analysis. Bourdieu (2008) suggests taking steps to protect the confidentiality of the interviewees. Toward this end, a code was attributed to each interviewee, namely Ed1, Ed2, Et1, and Et2. Moreover, the quoted author also suggests caution towards possible illegible parts of the transcribed speech, certain aspects of oral speech had to be ratified: contractions, repetitions, accidental mistakes of gender or number or word repetition (Bourdieu, 2008).
3. Studying the data resorting to a Content Analysis, as the data is mostly composed of textual artifacts – as theorized by Julien (2008).

Phase 2 is completed after the researcher compiles all the information that would allow starting Phase 3, namely, the necessary data to conceptualize and construct the OCP prototype.

3. PHASE THREE – EMBODIMENT OF THE MATRIX IN AN OCP PROTOTYPE

Phase 3 consists of developmental tasks, and it is based on data gathered in Phase 2, informal product evaluation procedures and TAP. The final version of the prototype is to be constructed using web agile prototyping tools with the cooperation of an interaction design expert from the UA, to complement the researcher with the technical tools and know-how that are necessary for use in this development Phase.

Just like in Stage 2 of Phase 1 (which is the Matrix's conception Phase), Phase 3 gathers the theoretical background which sustains the conception of the OCP. The background stems from two sources. The first source is the Matrix, validated in Phase 2, thus becoming a model to integrate in the conception of the OCP. The second source is the data gathered from the expert panel (it was also a goal of Phase 2 to gather suggestions for the operationalization of the Matrix into an OCP). These suggestions also served as background data to guide the conception of the OCP. The theoretical background works organically as a whole since all collected data from both sources is relevant for this Phase.

The sources are the starting point to build a model of the OCP using the *draw.io* online platform for the diagrams¹³⁸ and *Balsamiq*¹³⁹ for the low-fidelity wireframes. Figure 29 illustrates the development of the process, highlighting the need for several reflexive cycles before attaining a final version of both the flowchart and the platform model.

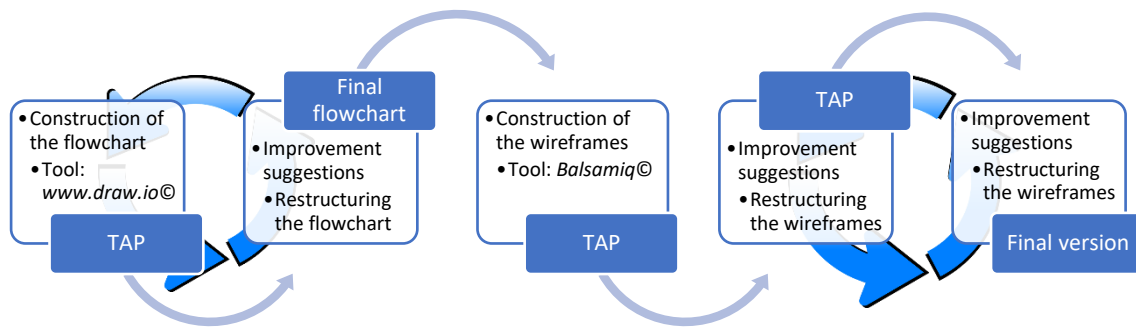


Figure 29 – Wireframing flow scheme using *draw.io* and *Balsamiq*

After a validated and informal tested low-resolution wireframe, it becomes possible to construct the technical-functional prototype of the OCP. The construction process was similar to the previous wireframing process, and the used tool is *Figma*¹⁴⁰ – this conception process was assisted by an interaction design researcher student of DECA-UA. The final step is to take the *Figma* images and introduce them on *Marvelapp*¹⁴¹ to construct the final version of the prototype. Figure 30 outlines the development process.

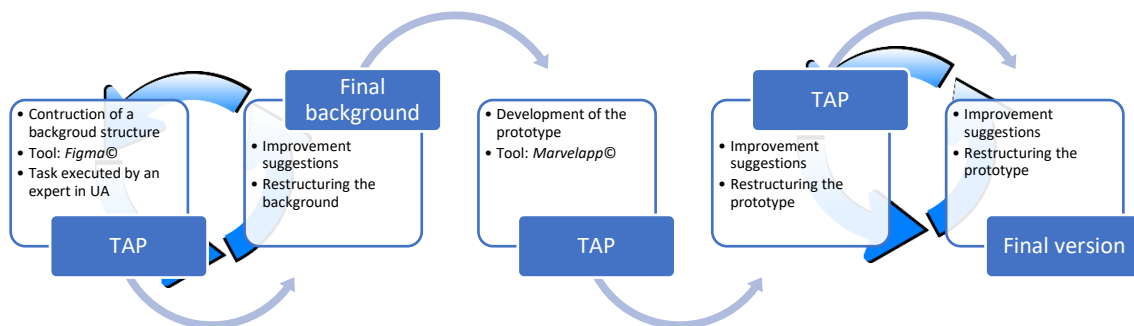


Figure 30 – Development of the prototype using *Figma* and *Marvelapp*

¹³⁸ See <https://www.draw.io/>

¹³⁹ See <https://balsamiq.com/>

¹⁴⁰ See <https://www.figma.com/>

¹⁴¹ See <https://marvelapp.com/>

As described in the evaluation/reflection stages present in the DRM framework, it is advisable to adopt a critical thinking approach. Hence, it was decided to use TAP to test the functions of the prototype, in order to validate, improve or eliminate functions or text. In order to guarantee an overall experience of what the future OCP would offer, it was established that the prototype would offer: i. an AVC search and rate experience; ii. an AVC mapping experience; iii. a registration and login procedure. Figures 31 to 35 give an illustration of Phase 3's progress.

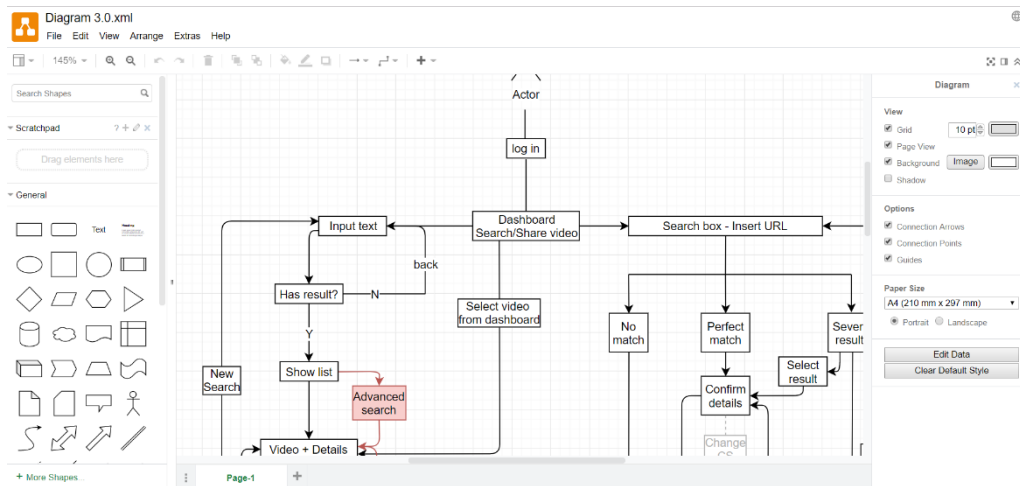


Figure 31 – Screenshot of the work developed on draw.io

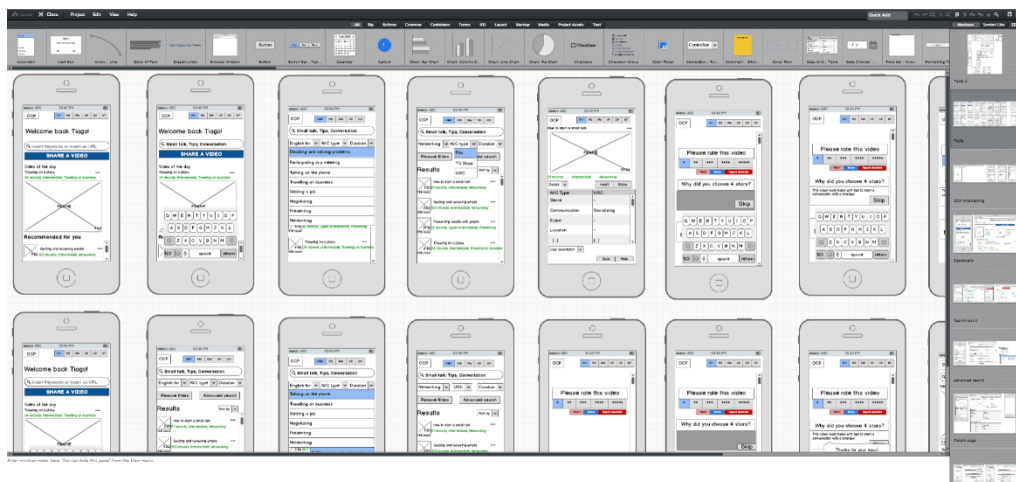


Figure 32 – Screenshot of the work developed on Balsamiq

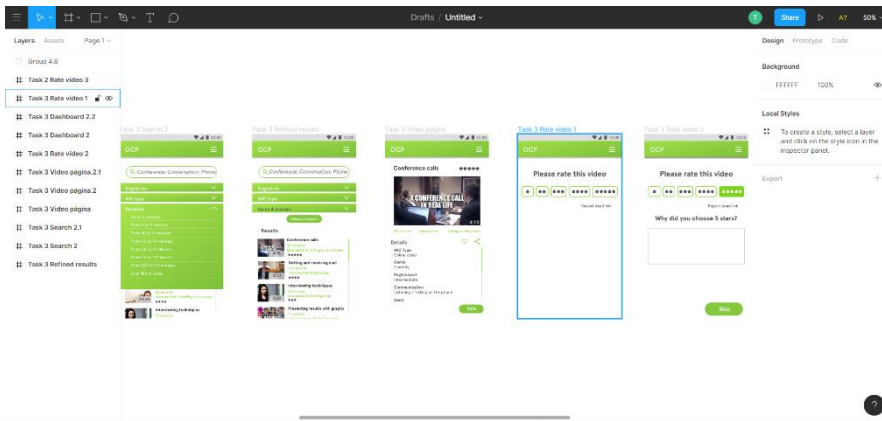


Figure 33 – Screenshot of the work developed on Figma

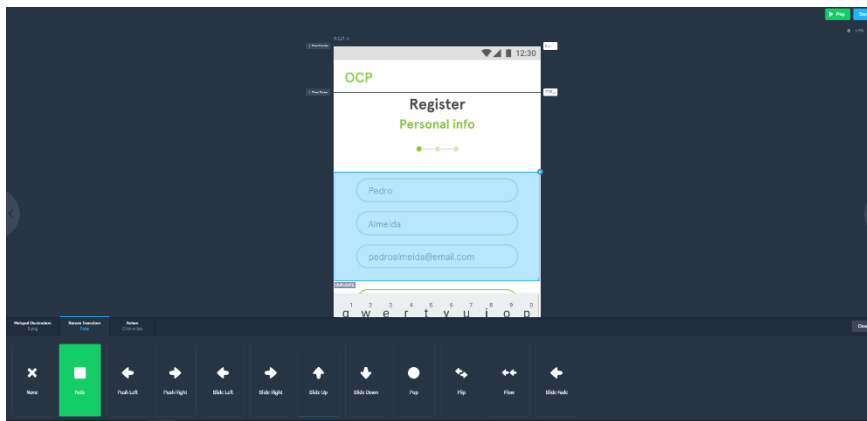


Figure 34 – Screenshot of the work developed on Marvel

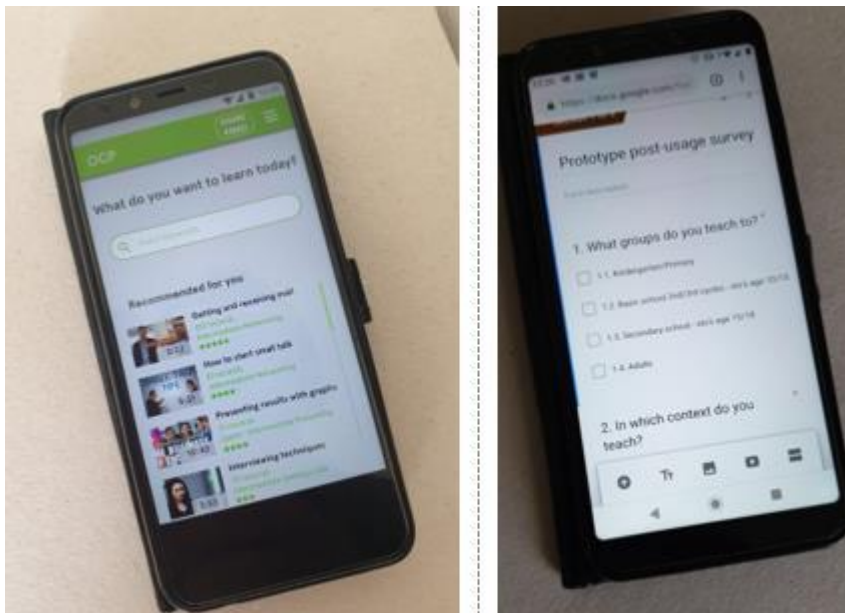


Figure 35 – Shots of the working prototype and of the post-testing questionnaire on a smartphone



Phase 3 ends when all the experiences to offer are covered by the prototype, and there is no more need to improve any elements, thus making it into a practical instrument for Phase 4.

4. PHASE 4 – EXPERIMENTAL USE OF THE OCP PROTOTYPE BY TARGET-USERS

Phase 4 intends to validate a product, and it is divided into two stages. Stage 1 consists of experimental tasks executed by EFL teachers, observation tasks by the researcher and a provision of feedback by the participants. Stage 2 consists of experimental tasks executed by ESP/BE learners, and feedback by the participants gathered in a focus group.

The validation of the prototype by the target-users is the milestone of Phase four. The controlled testing's purpose is to: **i.** test the prototype in what concerns usability and functions; **ii.** collect feedback concerning the interaction of the target-users with the prototype, and; **iii.** collect opinions on the experience of using such a platform, and perspectives for future use from the teachers and ESP learners.

The participants in this Phase are the intended target-users of the OCP, i.e., the EFL teachers and the BE learners. Following the orientations provided by Ferraz and Almeida (2013), both controlled testing sessions also need to be divided into three moments: before, during and after the session. The descriptive schematization of both stages will, therefore, be presented separately.

One of the tasks to complete before Stages 1 and 2 concerns the criteria to select the AVC to be visualized at the evaluation sessions. The criteria to select the videos for the experimental sessions is: **i.** videos that exhibited a BE communicative skill; **ii.** videos available on the *YouTube* platform; **iii.** videos between 5 and 10 minutes long; **iv.** videos that cover *UGC, TV Shows, and Films*¹⁴². Out of these selected videos, only four are to be viewed by trial-users during the sessions.

¹⁴² The intention is not to view all these videos at the experimental sessions, but rather to display them on the prototype, thus giving the users the idea that the real platform would have all these videos types available.

4.1. STAGE 1 – CONTROLLED TESTING SESSIONS FOR TEACHERS

Some of the Teachers that participate in this study are a convenience sample, as they will gather at the 32nd APPI¹⁴³ Annual Conference, in AVEIRO, on the 27th, 28th and 29th April 2018. In case the number of participants is low, the researcher will contact other Teachers for face-to-face meetings, where they will voluntarily conduct the session using TAP.

Considering the prototype, the goal of this Stage is to get feedback and validation of three key dimensions:

- Features
 - This dimension includes feedback about the searching experiences, the mapping experiences, the social interaction tools, playlist creation and the gamification features.
- Navigation and interaction
 - In this dimension, participants will direct their focus to the layout and iconography of the prototype and the way they interact with it.
- Global validation of the OCP
 - This global validation will focus on concept and structure of the OCP.

Teachers are also going to be asked about threats to a successful implementation of the OCP, corrections that the OCP may need, and suggestions to improve the three dimensions to be analyzed. As proceeded in Phase 2, there are outlined tasks for the periods before, during and after the evaluation sessions. These tasks are:

- the drafting of a script providing Teachers instructions to perform predetermined tasks with the prototype;
- the preparation of a *Google Form* survey to collect characterization information about the Teacher, a feedback questionnaire, and an *AttrakDiff* questionnaire (all links available on Appendix II);
- the draft of a script (Appendix II) to explain the session to the participants, how they can participate, and what is expected of them.

¹⁴³ APPI is the Portuguese Association of English Teachers, which held 2018's annual meeting in Aveiro. With the proper consent of its President, Alberto Gaspar, it was possible to execute some of the research tasks, namely, to approach EFL teachers to test the prototype. Moreover, as described in the Methodology, the researcher organized a session at the meeting to present the prototype and gather feedback.

Figure 36 provides a summary of the tasks directed at participants, who volunteer to experiment with the prototype at the lobby of the conference. Figure 37 presents a summary of the voluntary participation of Teachers.

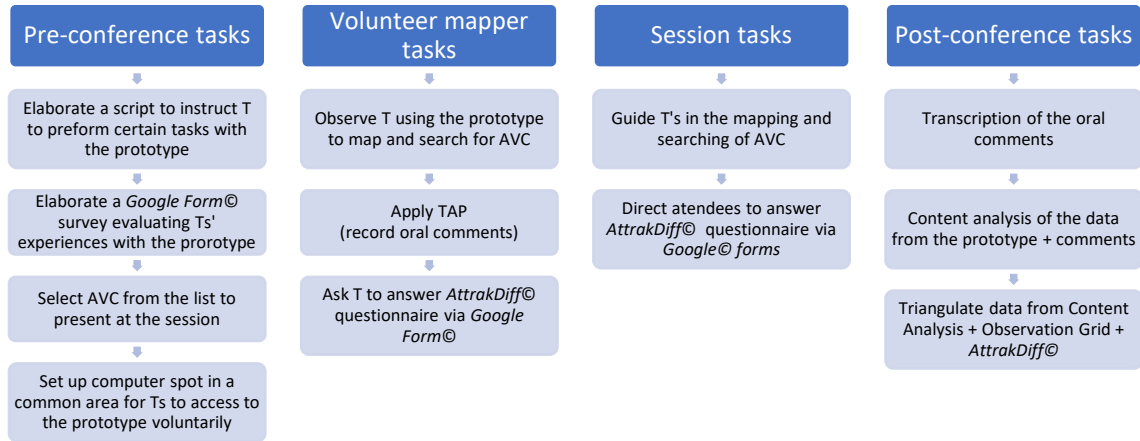


Figure 36 – Outlined tasks for the conference's experimental sessions

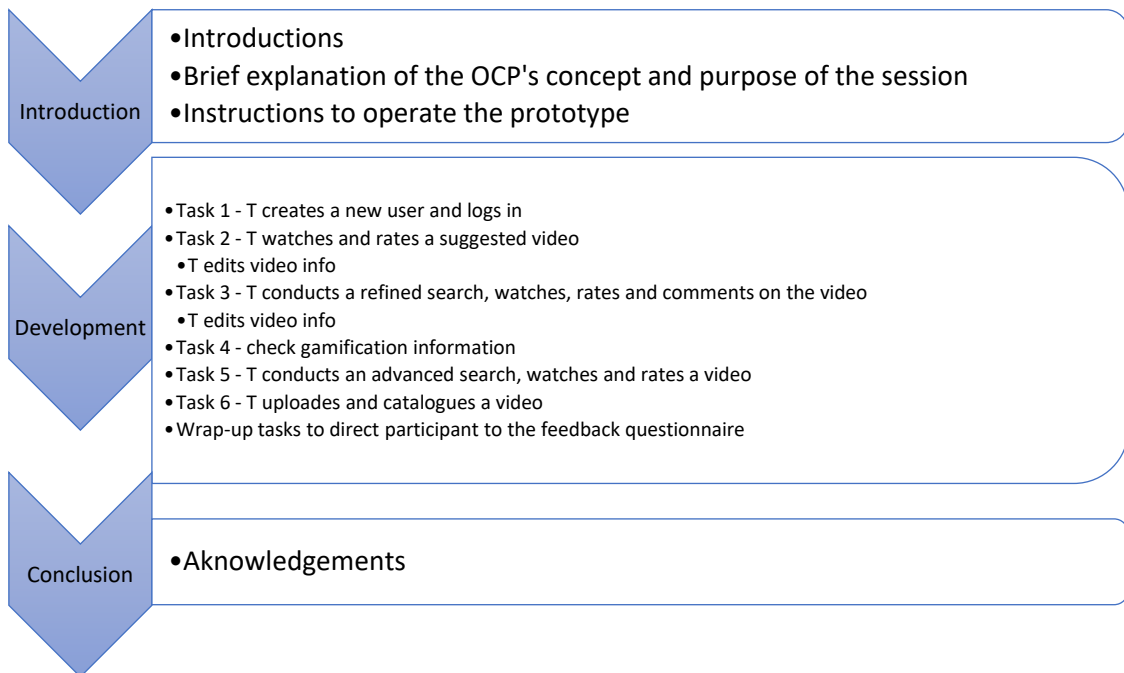


Figure 37 – Structure of the approach to Teacher's voluntary participation

4.2. STAGE 2 – CONTROLLED TESTING SESSIONS FOR LEARNERS

The Learners that participate in this study are a convenience sample, as they are all students at ESTGA - Águeda School of technology and Management – University of Aveiro¹⁴⁴. These Learners will execute the experimental sessions with the prototype during the month of October 2018. The researcher organized visits to classrooms of BE to have contact with the target-users. The purpose of this Stage is to gather Learner feedback about the potential use of the OCP in their informal learning practices. In this sense, the goal of this Stage is to get feedback and validation of three key dimensions:

- Usefulness of the OCP
 - This dimension regards Learners opinions about the conceptual purpose of the OCP.
- Features
 - This dimension regards the mapping and searching experiences, how the information is displayed on the screens, and the gamification features
- Global validation of the OCP.
 - This global validation will focus on concept of the OCP, and whether such an OCP would change Learners' AVC consumption habits, either as consumers or as mappers.

As proceeded in Stage 1, there are outlined tasks for the periods before, during and after the evaluation sessions. The tasks to execute before the trial are:

- the drafting of a script providing Learners instructions to perform predetermined tasks with the prototype;
- the preparation of a *Google Form* survey to collect characterization information about each Learner, a feedback questionnaire, and an *AttrakDiff* questionnaire (all links available on Appendix III);
- the draft of a script (Appendix III) to explain the session to the Learners, how they can participate, and what is expected of them.

¹⁴⁴ <https://www.ua.pt/estga/> - ESTGA is a higher education institution connected to University of Aveiro and it provides courses related to technology and management.

Figure 38 outlines the tasks that composed the preparation and execution of the experimental sessions with Learners, and what steps were to follow.

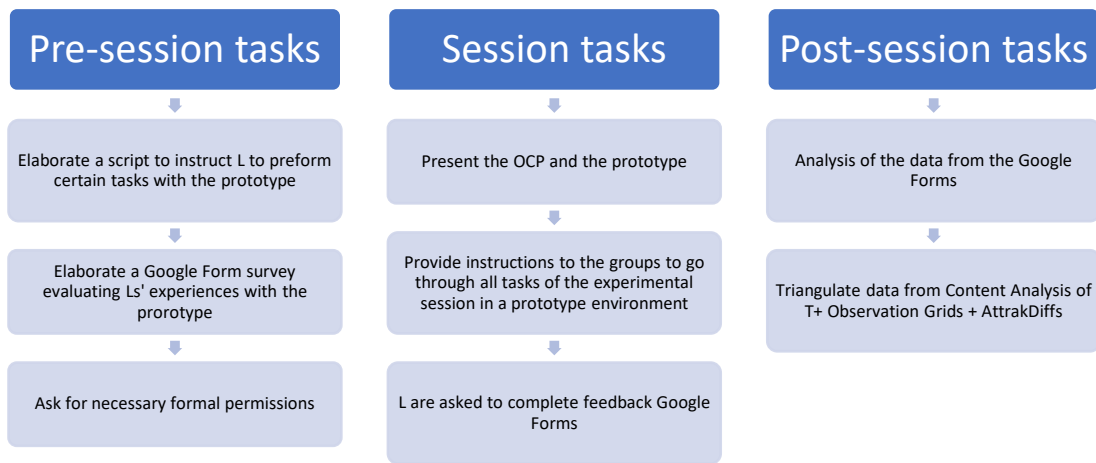


Figure 38 – Outlined tasks for the experimental sessions with Learners

To guarantee smooth participation of the Learners, a presentation is drafted to explain *in loco* the evaluation to the participants, why they are being asked to participate, how can they use the prototype and what tasks were expected of them (Appendix III).

As for the actual facetime with the Learners, Figure 39 illustrates the flow of tasks in the classroom.

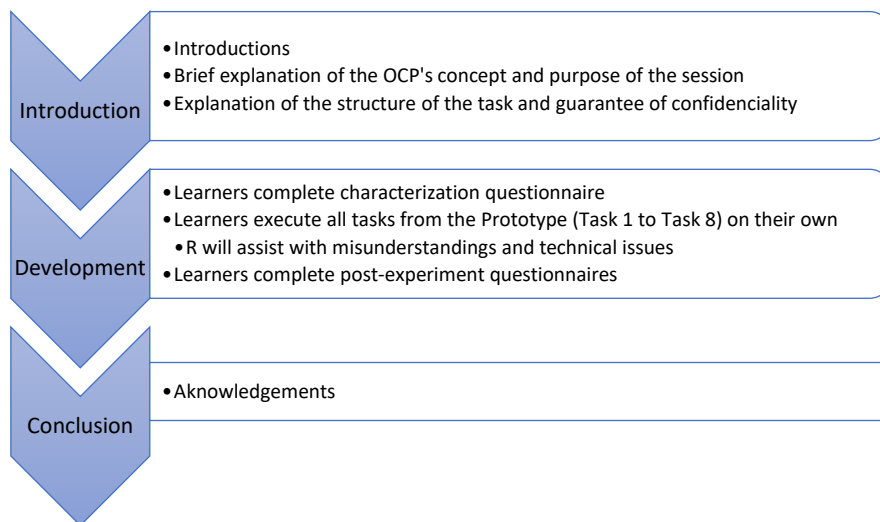


Figure 39 – Workflow of the experimental sessions with Learners

4.3. DATA TREATMENT

a) Quantitative analysis

All data collected from the evaluation sessions with the prototype and the *AttrakDiff* questionnaire is considered statistical data and is coded using *AttrakDiff*'s own chart generator and *Microsoft Excel* software. Using these data coding tools, it is possible to perform an exploratory analysis and a confirmation analysis of the gathered data (Quivy and Campenhoudt, 2008). Afterward, it is necessary to adopt strategies of Descriptive Statistics, which encompass a set of measurements and of graphical representations to aid in the summary description of the collected data (Martins, 2011; Howell, 2010). The graphical representation of the quantitative data will follow the guidelines established for:

- Pie charts;
- Horizontal bar charts;
- Vertical bar charts;
- Comparative vertical bar charts;
- *AttrakDiff*'s quadrant chart (represented of Figure 40).

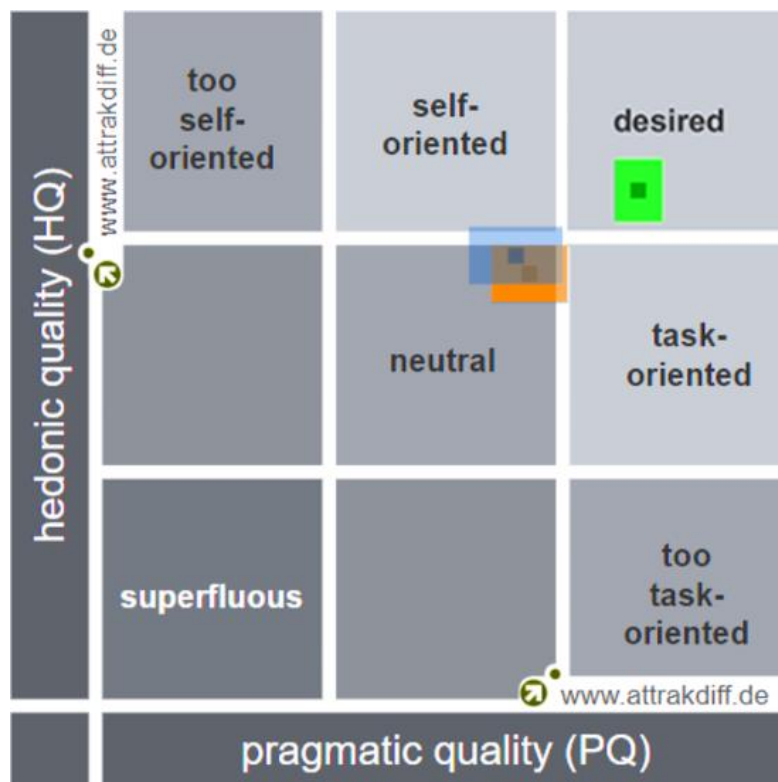


Figure 40 – Example of an AttrakDiff quadrant chart

b) Qualitative analysis

The procedures of qualitative analysis of the comments of the Teachers followed the same methodological steps used in Phase 2 (section 2.2. *DATA TREATMENT*) namely the transcriptions of the oral comments, the preparation of the data, the analysis of the textual artifacts via content analysis and a triangulation task to correlate the data collected from all three data collection instruments listed in Table 3 - Outline of the data collection and treatment methods for each phase. The second task of qualitative analysis intends to draw conclusions from the open questions of the prototype. Table 4 provides an example of how the categorization system was organized. The subcategories of this analysis will be defined *in vivo*.

Table 4 – Planned content analysis categorization system for the TAP with teachers.

| Dimension | Category |
|-------------------------------|-------------------------|
| 1. Features | 1.1. Searching AVC |
| | 1.2. Mapping AVC |
| | 1.3. Social interaction |
| | 1.4. Gamification |
| 2. Navigation and interaction | 2.1. Layout |
| | 2.2. Icons |
| 3. Global Validation of OCP | 3.1. Concept |
| | 3.2. Structure |
| | 3.3. Mobile environment |

Phase 4 is complete when the researcher possesses all the results that can address the research objectives regarding the validity of the OCP.

CHAPTER 3: PHASE 1 – CONCEPTUALIZATION AND CONSTRUCTION OF THE MATRIX

The information collected from the literature review, from the exploratory study of EFL teaching/learning software (which included online platforms) and from a side study regarding the categorization of BE communicative skills (to be explained in more detail further down) provided the conceptual framework for the Matrix. In this chapter, there will be a description of how these concepts were deconstructed into measurable variables, how these variables were sorted into analysis dimensions, the minor adjustments performed to make the search tool clearer to the user and how all these elements were embodied in a Matrix with three sections.

1. DOCUMENTAL ANALYSIS/ EXPLORATORY STUDY -> CONCEPTUAL FRAMEWORK

In this section, it is relevant to clarify how the concepts that compose the conceptual framework will be treated. These concepts were collected during the exploratory study and aggregated in an *MS Excel* worksheet. This allows the research team to critically analyze the concepts and their deconstruction into variables, and think of necessary changes, as shown in the examples below:

- Dismissing unmeasurable concepts– Verisimilitude is listed as one of the features that learners mostly value when consuming AVC in informal contexts, however, as it is too subjective to measure, it must be dismissed from the Matrix;
- Giving flexibility to the Communicative Contexts – The CEFR proposal of Communicative Contexts is rigid; hence, the researchers suggested adding the options *not important* and *others* to the Matrix;
- Eliminating redundant/irrelevant elements – for example, when embodying the Communicative Contexts concepts in the Matrix, it seems clear that some items are unnecessary. All these redundancies will be agglutinated into one concept, like for instance, *clients* and *customers* into *clients*;¹⁴⁵
- Sorting the variables into dimensions that shared a common mapping feature;

¹⁴⁵ Other dismissed concepts were *Register*, *Narrative pace*, *Paralinguistic cues*, some Communicative Contexts (see Chapter 3, section 2.4. *LEARNING DIMENSION*, *Situational categories*), *Background noise*, and *Number of people participating in the conversation*.

- Organizing a fluid and organized questionnaire to be divided into three sections to present to the experts in Phase 2.

The following subchapter will develop on the conceptual framework, list the four dimensions in which the concepts were sorted, and which variables were used to make them measurable.

2. DIMENSIONS

During the conception stage, it became clear that the Matrix needs to be organized into four AVC analysis dimensions:

- Video information dimension;
- Video content dimension;
- User-review dimension;
- Learning dimension.

This subchapter will clarify the dimensions, the conceptual framework that sustains the Matrix, how these concepts are converted into questions, and the justification for the options (when applied). When relevant, there will be a separate paragraph addressing the search questionnaire, namely, to explain how it stems from the cataloging questionnaire (thus becoming a simplified version of the cataloging questions). The simplification process is focused on two scopes: **i.** to reduce the number of inquiries; **ii.** to transform the mapping questions into search prompts.

2.1. VIDEO INFORMATION DIMENSION

The first section of the mapping process is the information about the AVC. The questions in this section are based on data from the theoretical framework and the exploratory study of online AVC repositories, like *YouTube*, *Vimeo*¹⁴⁶ or *BBC*¹⁴⁷. Table 5 (see next page) provides the questions and options for this dimension.

¹⁴⁶ See <https://vimeo.com/>

¹⁴⁷ See <http://www.bbc.co.uk/learningenglish/english/>

Table 5 - Questions of the Video information dimension

| Questions | Options |
|---|--|
| 1. URL/link (mandatory) | Short open answer |
| 2. Duration (mandatory) | 2.1. Up to 4 minutes 2.2. From 5 to 9 2.3. From 10 to 19 2.4. From 20 to 34 2.5. From 35 to 74 2.6. From 75 to 119 2.7. From 120 to 179 2.8. Over 180 |
| 3. Type (mandatory) | 3.1. Film 3.2. TV show 3.3. UGC |
| 4. Season (mandatory if choosing TV show on question 3) | Short open answer (ex.: S01) |
| 5. Episode (mandatory if choosing TV show on question 3) | Short open answer (ex.: E01) |
| 6. Director (optional) | Short open answer |
| 7. Year of publication/release (optional) | Short open answer (ex.: 2004) |
| 8. Uploader/producer (mandatory if choosing UGC on question 3) | Short open answer |
| 9. Support URL (optional) | Short open answer |

1. URL/Link

Filling out this parameter is mandatory. It provides a link to the video being shared and mapped.

2. Duration

With a scale from up to 4 minutes to over 180 minutes, the duration of AVC is a mandatory and single-choice question that took into consideration the most common formats consumed by audiences. For example, **i.** a *film* can range between 80 minutes to over 180 minutes; **ii.** a *TV Show* tends to vary between 45 and 60 minutes; **iii.** American sitcoms are usually between 20 and 24 minutes, whereas English sitcoms usually are over 30 minutes. The shortest AVC duration option is the same used in *YouTube's* search tool.

3. Type

This question is mandatory, and allows to select between *Film*, *TV Show* and *UGC*. As stated in the theoretical framework, these types of AVC are the most consumed ones, when considering consumption at home or on the move.

4. Season

Targeted to the AVC structured in seasonal broadcasts, like, for instance, a *TV Show*. The naming in seasons follows the IMDB classification: for example, *S01*.

5. Episode

Targeted to AVC structured in episodes, like, for instance, a *TV Show*. Once again, it follows the *IMDB* classification: for example, *E01*.

6. Director

This question is optional and open. In the *Film* type, the director of the content is a search parameter that IMDB uses. However, with famous directors being engaged in TV Shows (Martin Scorsese¹⁴⁸ in *Boardwalk Empire*¹⁴⁹ or David Fincher¹⁵⁰ in *House of Cards*¹⁵¹), as well as in *UGC* with a director's signature (Wes Anderson's¹⁵² short films on *YouTube*), it is a relevant option to attribute to all types of AVC.

7. Year of publication/release

This question is also mandatory, and it serves all types of content. This parameter was present in the search engines of AVC repositories and the search engines of AVC databases. It was, therefore considered a significant search parameter and included in the Matrix.

8. Publisher

This question is optional and open. In *UGC* one can see a proliferation of content created specifically for AVC to be consumed using online repositories. The example of Khan Academy was given previously to exemplify this activity. However, AVC uploaded to AV repositories can also be associated with videobloggers, celebrities or educators to share their productions. To

¹⁴⁸ https://www.imdb.com/name/nm0000217/?ref=nm_sr_1

¹⁴⁹ https://www.imdb.com/title/tt0979432/?ref=nm_sr_1

¹⁵⁰ https://www.imdb.com/name/nm0000399/?ref=nm_sr_1

¹⁵¹ https://www.imdb.com/title/tt1856010/?ref=nm_sr_1

¹⁵² https://www.imdb.com/name/nm0027572/?ref=nm_sr_1

include this question is to give searchers the possibility to view AVC produced or published by someone they are following, or by an institution they respect.

9. Support URL

An optional mapping field to provide a link that will direct to the official page of the AVC that is being mapped, not the video itself.

Video information dimension: The search questionnaire

In the search questionnaire for this dimension, only *type and duration* remained in the search questionnaire. All other items were removed, as shown on Table 6.

Table 6 - Questions and options for the video information dimension of the search questionnaire

| Questions | Options |
|----------------------------|--|
| 1. Duration (mandatory) | 1.1. Up to 4 minutes 1.2. From 5 to 9 1.3. From 10 to 19 1.4. From 20 to 34 1.5. From 35 to 74 1.6. From 75 to 119 1.7. From 120 to 179 1.8. Over 180 |
| 2. Type (mandatory) | 2.1. Film 2.2. TV show 2.3. UGC |

2.2. VIDEO CONTENT DIMENSION

The video content dimension relates to all the concepts found in the literature that were pinpointed as valuable by learners, and it is organized on Table 7.

Table 7 – Questions and options of the video content dimension

| Questions | Options |
|------------------------------|--|
| 1. Genre | Multiple choice of 29 options (ex.: comedy; drama; animation) |
| 2. Target-audience | 2.1. Adult 2.2. Young 2.3. Children 2.4. Family |
| 3. Accent | 3.1. British 3.2. American 3.3. Australian 3.4. South African 3.5. Other English 3.6. Foreigners |
| 4. Are there subtitles | 4.1. Yes 4.1.1. In English 4.1.2. Open answer 4.2. No 4.3. Accurate English subtitles 4.3.1. Yes 4.3.2. No |
| 5. New learned item feedback | 5.1. Yes 5.2. No |

1. Genre

The question related to the Genre of the video has an optional and multiple-choice character. The list proposed for the Matrix was built in three steps. In step one, the search adopted the proposal of the *IMDB* website (Imdbcom, c1990-2019a), as it is a widely used collaborative platform for TV and film content, and, therefore, validated by a multitude of users. In step two, the genres of the *IMDB* list were enriched with Eurodata TV report (International-televisionorg, 2010), Creeber (2015), and Edgerton and Rose's (2005) work, which resulted in more genres added to the list. In step three, the Matrix assumed the division of Genres into three

subcategories: Fictional, Entertainment and Factual – as proposed by Creeber (2015) and shown on Table 8.

Table 8 - Organization of Genres in the Matrix

| Fictional | | Entertainment | Factual |
|------------------|-------------------|----------------------|----------------|
| Action | Musical | Comedy show | Biography |
| Adventure | Mystery | Game show | Documentary |
| Animation | Romance | Reality show | Magazine |
| Comedy | Sci-fi | Sports | News |
| Crime | Soap | Talk show | Debate |
| Drama | Thriller/suspense | Variety show | Religious |
| Fantasy | War | Talent show | |
| Film-noir | Western | | |
| Horror | | | |

2. Target audience

The target audience is an optional and multiple-choice question, and its categorization is proposed by the Eurodata TV report (International-televisionorg, 2010).

3. Accent

This question is optional and single-choice and aims to identify, if necessary, language inflections. The consideration of this question relates with Sockett and Toffoli (2012) claims concerning how learners value being exposed to realistic language. The realistic language's regional and standard variants are valued by Bahrani et al. (2014), who also claim that learners appreciate the authentic language that they come in contact to when consuming AVC.

4. Are there subtitles?

The presence of subtitles in the AVC is a mandatory and single-choice question. The subsequent questions about captions, especially when related to the accurateness of written and oral text, are inspired by Gruba (2004) and Rokni and Atae (2014). These two authors confirm that English subtitles in English speaking AVC have a positive impact on the EFL learning processes of learners that use AVC as an auxiliary learning tool.

5. New learned item feedback

This is a mandatory and single-choice question which serves to identify a common strategy present in AVC directed to EFL autonomous learning, namely, to find a grammar or a vocabulary explanation at the end of the scene, like shown of Figure 41.

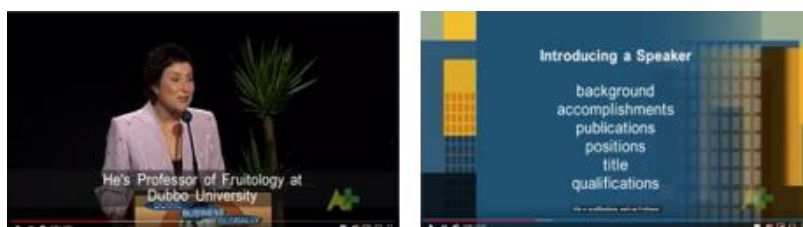


Figure 41 – Example of isolation of an introduced item in autonomous EFL learning AVC¹⁵³

This question was inspired by AVC directed to English learning that was uploaded to *YouTube* like for instance the videos uploaded on the *YouTube* channel *The Business of English*. The AVC on this channel uses this strategy to isolate and clarify new grammar or vocabulary items that are introduced in the previous scenes.

Video content dimension: The search questionnaire

Considering the search tool, some simplifications were in order namely, the *Subtitles* question was simplified to a simple *Yes/No* type of question, and it is highlighted on Table 9.

Table 9 – Questions and options of the video content dimension for the search questionnaire

| Questions | Options |
|------------------------------|---|
| 1. Genre | Multiple choice of 29 options (ex.: comedy; drama; animation) |
| 2. Target-audience | 2.1. Adult 2.2. Young 2.3. Children 2.4. Family |
| 3. Accent | 6.1. British 6.2. American 6.3. Australian 6.4. South African 6.5. Other English 6.6. Foreigners |
| 4. Are there subtitles | 4.1. Yes 4.2. No |
| 5. New learned item feedback | 5.1. Yes 5.2. No |

¹⁵³ <https://youtu.be/vhxJe7tejKg>

2.3. USER-REVIEW DIMENSION

The collaborative element of the Matrix requires that users elaborate on some of the concepts with their own opinions. The concepts listed in this section are not possible to deconstruct into options, hence the need for open questions. This is a fundamental aspect of the cataloging procedure because of the collaborative approach of the tool to be built. Table 10 shows the questions and options of the user review dimension.

Table 10 - Questions and options of the user review dimension

| Questions | Options |
|------------------------|-------------------|
| 1. Title | Short open answer |
| 2. Keywords | Short open answer |
| 3. Description/Comment | Long open answer |

1. Title

This is a mandatory question, and it will require the user to explain in no more than eight words the pedagogical reason to share the AVC.

2. Keywords

This is an optional and open field — one to five words which will describe the AVC. This is a standard catalog/search parameter present in OCP's that provide a repository service — both in AVC and lesson plans.

3. Description/ comment

Optional field to describe the AVC, how it can help learners and give tips for teachers to use the mapped content in a class. This question was based on the tips section from class plans at *OnestopEnglish*. Ideally, mappers will not describe plots, as question 12¹⁵⁴'s goal will be to provide these descriptions. However, if the content is *UGC* that has no connection to *Film* or *TV Show*, then this space will also be used for brief descriptions of the AVC.

¹⁵⁴ Question 12 of the Google© Form asks a support URL for the uploaded content.

The search questionnaire

The search tool only asks for 2. *Keywords*.

2.4. LEARNING DIMENSION

The learning dimension relates to the identification of CS in the AVC, as well as the identification of communicative concepts found in the CEFR. Concerning the CS, this research showed that there was a gap in the literature review concerning the identification of CS and the lack of a solid categorization proposal. Therefore, a parallel study was conducted to achieve a conciliatory categorization of BE communicative skills, which can be found at Carvalho et al. (2017). Table 11 (see next page) provides the questions of the Matrix, the mandatory options (Macro BE CS and Meso BE CS).

Table 11 – Questions and options to pinpoint the macro- and meso-CS

| Questions | Options | |
|---|---|---|
| 1. English for... (pinpointing the macro- and meso-CS) | Mandatory | Optional |
| | <p>1.1. Deciding and solving problems</p> <p>1.2. Getting a job</p> <p>1.3. Participating in a meeting</p> <p>1.4. Negotiating</p> <p>1.5. Talking on the phone</p> <p>1.6. Presenting</p> <p>1.7. Traveling on business</p> <p>1.8. Networking</p> <p>1.9. Do you wish to specify which communicative skills are present in the AVC?</p> | <p>1.1.1. Making decisions inside the company</p> <p>1.1.2. Making decisions towards the outside</p> <p>1.1.3. Solving problems indoors</p> <p>1.1.4. Solving problems outdoors</p> <p>1.2.1. Conducting yourself as an applicant</p> <p>1.2.2. Conducting yourself as an employer</p> <p>1.2.3. Taking part in a job interview</p> <p>1.2.4. Describing work</p> <p>1.3.1. Being active in a meeting</p> <p>1.3.2. Conducting a meeting</p> <p>1.3.3. Discussing general affairs</p> <p>1.3.4. Discussing internal affairs</p> <p>1.3.5. Analyzing and checking information</p> <p>1.4.1. Closing</p> <p>1.4.2. Negotiating before deal</p> <p>1.4.3. Addressing post negotiating situations</p> <p>1.4.4. Planning a negotiation</p> <p>1.5.1. Handling recorded messages</p> <p>1.5.2. Listening/ talking on the phone</p> <p>1.5.3. Participating in a teleconference</p> <p>1.5.4. Preparing phone calls</p> <p>1.6.1. Attending a presentation</p> <p>1.6.2. Interacting with crowd</p> <p>1.6.3. Planning a presentation</p> <p>1.6.4. Influencing</p> <p>1.6.5. Describing trends, facts and figures</p> <p>1.6.6. Reporting</p> <p>1.6.7. Presenting</p> <p>1.7.1. Attending or organizing an event</p> <p>1.7.2. Discussing business topics</p> <p>1.7.3. Planning a trip</p> <p>1.7.4. Surviving out of town</p> <p>1.7.5. Working off-site</p> <p>1.7.6. Learning about cultural differences</p> <p>1.8.1. Addressing customer care</p> <p>1.8.2. Collecting new contacts</p> <p>1.8.3. Interacting with co-workers</p> <p>1.8.4. Socializing</p> <p>1.8.5. Engaging staff</p> <p>1.9.1. Yes</p> <p>1.9.2. No</p> |

This is a mandatory and multiple-choice question that will provide the first attribution of communicative skills to the mapped AVC. Mappers will have the choice to elaborate further on

the attribution of communicative skills in the Communicative Situations inquiry. The optional choices column is the description of the CS specifications. In the online questionnaire, this section is to be optional and multiple-choice. Option 1.9. (See Table 11) needs to be added to give mappers the decision to extend their mapping to the communicative situations' inquiry. When choosing *Yes*, the third section will be open for mapping after ending section 2, however, if choosing *No*, the mappers will not have access to the third section.

2. English level

This is a mandatory and single-choice question, and the categorization proposal was adapted from the CEFR (Table 12).

Table 12 – Question and options for the English level

| Questions | Options |
|------------------|--|
| 2. English level | 2.1. Beginner 2.2. Beginner / Elementary 2.3. Elementary 2.4. Elementary / Intermediate 2.5. Intermediate 2.6. Intermediate / Upper-Intermediate 2.7. Upper-intermediate 2.8. Upper-intermediate / Advanced 2.9. Advanced 2.10. Advanced / Fluent 2.11. Fluent |

3. Situational Categories

The Situational Categories questions are to be developed following the guidelines of the CEFR which concern the situations in which communication is taking place (Table 13). The CEFR proposes eight domains in which the situations can be divided. However, for the purpose of this Matrix the three that are considered more relevant are: *i. “the locations in which (...) they occur”*; *ii. “the persons involved, especially in their relevant social roles in relation to the user/learner”*; and *iii. “the events that take place”* (Council of Europe, 2001). This selection is connected to the

CEFR’s association of these Situational categories to the contexts that ask for oral production and interpretation.

Table 13 – Questions and options for the situational categories

| Questions | Options | |
|---------------------------|--|---|
| 3. Situational categories | 3.1. Are the characters participating in an event? | 3.1.1. Conferences 3.1.2. Consultations 3.1.3. Industrial accidents 3.1.4. Industrial disputes 3.1.5. Interviews 3.1.6. Meetings 3.1.7. Receptions 3.1.8. Seasonal sales 3.1.9. Trade fairs 3.1.10. Other (Short open answer) 3.1.11. Not important |
| | 3.2. In which location is the plot taking place? | 3.2.1. Airports 3.2.2. Civil services 3.2.3. Factories 3.2.4. Farms 3.2.5. Hotels 3.2.6. Offices 3.2.7. Ports 3.2.8. Railways 3.2.9. Service industries 3.2.10. Stores/shops 3.2.11. Workshops 3.2.12. Firms/companies 3.2.13. Other (Short open answer) 3.2.14. Not important |
| | 3.3. What are the occupations of the characters? | 3.3.1. Client 3.3.2. Colleague/workmate 3.3.3. Employee 3.3.4. Employer 3.3.5. Manager 3.3.6. Receptionist 3.3.7. Secretary 3.3.8. Subordinate 3.3.9. Technician 3.3.10. Other (Short open answer) 3.3.11. Not important |

Learning dimension: The search questionnaire

The search tool maintains both questions related to the CS, as well as the question to choose the English Level. However, the questions for the Situational Categories are to be simplified:

3.1. *Are the characters participating in an event?* → *Events;*

3.2. *In which location(s) is the plot taking place?* → *Locations*;

3.3. *What are the occupations of the characters?* → *Occupations*.

3. CONVERTING THE MATRIX INTO AN ONLINE QUESTIONNAIRE

Considering that Stage 1 provides the conceptual framework and the definition of measurable options for the Matrix, Stage 2 adopted a developmental approach to embody the elements into a cataloging and a searching survey. Thinking that different concepts need to be converted into different question types, it was concluded that the final result of this deconstruction shared a similar structure to that of a survey. Taking into account the typology of elements to structure into a survey, the *Google Forms* tool was chosen, as it has features that allow a practical embodiment.

To structure an efficient and quick survey, the option will fall on a three-section-questionnaire¹⁵⁵:

- Part I. meta-information about the AVC.
- Part II. questions and options not covered in Part I and Part III.
- Part III. specification of the CS (meso-categorization).

In conclusion, the online survey is a first proposal to embody the Matrix in an online, interactable platform for experimental use. The target-users of these surveys are the experts identified in the Methodology chapter¹⁵⁶. The next chapter will concern the implementation of these surveys and the feedback gotten from the experts.

¹⁵⁵ Link to Google© Form mapping questionnaire:

https://docs.google.com/forms/d/e/1FAIpQLScM_0vfiqevK3BesMdzrArFqRT5_93qv45QziZ5PLbuxXeZsQ/viewform?usp=sf_link ;

Link to Google© Form search questionnaire:

https://docs.google.com/forms/d/e/1FAIpQLSei4INxeksv5gd0oC_2pgWP79YIJKsCPqC4rTgmAUaYo_Qwgc/viewform?usp=sf_link .




¹⁵⁶ The screenshots of the final Excel tables for the mapping and a search questionnaire can be consulted in Appendix V.

CHAPTER 4: PHASE 2 – VALIDATION OF THE MATRIX BY AN EXPERT PANEL

This chapter addresses the feedback of the expert panel on executed experimental tasks and observation tasks completed by the researcher, after following all the steps described in the Methodology of Phase 2.

Table 14 provides a description of the AVC used for the three experimental tasks. All videos were considered adequate for a B2 level, and they represent the three types of AVC type contemplated in the Matrix. Moreover, the videos address different BE communicative skills and [Video 2](#)¹⁵⁷, precisely, was uploaded by a prominent Vlogger¹⁵⁸. [Video 1](#)¹⁵⁹ was used to get experts to familiarize themselves with the Matrix questionnaire, whereas [Video 2](#) was or mapping with previous knowledge of the Matrix. [Video 3](#)¹⁶⁰ was to address the Search Tool.

Table 14 – Rundown of AVC used for the Expert trials

| AVC | Description |
|--|--|
|  <p>Mad Men - Best Ad Pitch - The Carousel</p> | <p>Video 1 Title: Mad Men - Best Ad Pitch - The Carousel AVC Type: TV show clip BE Skill: Influencing Length: 3:27 URL: https://youtu.be/cT0d-ISXH5Q</p> |
|  <p>important message</p> | <p>Video 2 Title: important message AVC Type: User Generated Content (UGC) BE Skill: Presenting Length: 3:37 URL: https://youtu.be/8hp6Ea_Cphc Channel: PewDiePie Channel rank: 1st</p> |
|  <p>Pursuit of Happiness - Cold Calling</p> | <p>Video 3 Title: Pursuit of Happiness - Cold Calling AVC Type: Movie clip BE Skill: Listening/talking on the phone Length: 1:55 URL: https://youtu.be/emzARZsJntw</p> |

¹⁵⁷ https://youtu.be/8hp6Ea_Cphc

¹⁵⁸ A person who records them self-talking about their life and uploads it to various video sites (<https://www.urbandictionary.com/define.php?term=Vlogger>).

¹⁵⁹ <https://youtu.be/cT0d-ISXH5Q>

¹⁶⁰ <https://youtu.be/emzARZsJntw>

Four trials were conducted with four experts individually. The trials respected all the steps listed in the methodology, and the activities followed the organization of the script (Methodology, Chapter, 2.1. EXPERIMENTAL USE OF THE MATRIX/ OBSERVATION/ SEMI-STRUCTURED INTERVIEW). There were no objections from the Experts concerning the recording of the meeting, thus allowing an effective TAP that resulted in a rich body of qualitative data. Moreover, as the interviews were conducted in Portuguese, it was necessary to translate the texts into English. This translation was done by the researcher. The collected data were analyzed resorting to content analysis, as the data is mostly composed of textual artifacts.

Hence, this chapter is divided into five subchapters addressing all five objectives of the interviews. Each subchapter identifies the Research Objective and begins with a category structure underlying the content analysis of the Objective. In each subchapter, one can visualize the pre-defined categories and the subcategories defined *in vivo* along with the presentation of the most relevant results in each *Discursive Elements*¹⁶¹. As these elements are mostly constraints to the efficiency of the Matrix, solutions were conceived; these solutions are described, when relevant, at the end of the analysis of the Discursive Elements.

OBJECTIVE 1. IDENTIFY CONCEPTIONS AND PERCEPTIONS THAT INTERVIEWEES HAVE CONCERNING THE MAPPING ACCURACY AND RANGE OF THE MATRIX

One of the purposes of the interviews was to get feedback about the accuracy of the Matrix to map AVC, considering the target-users (BE teachers and learners). Figure 42 provides the structure that underpinned the content analysis for Objective 1.

¹⁶¹ Phase 2 generated a paper entitled “*Audiovisual content as a learning aid for Business English learners: developing and validating a Matrix*” [Carvalho et al. \(2018\)](#). Whenever relevant, this work will refer to the paper, which has addressed the Content Analysis.

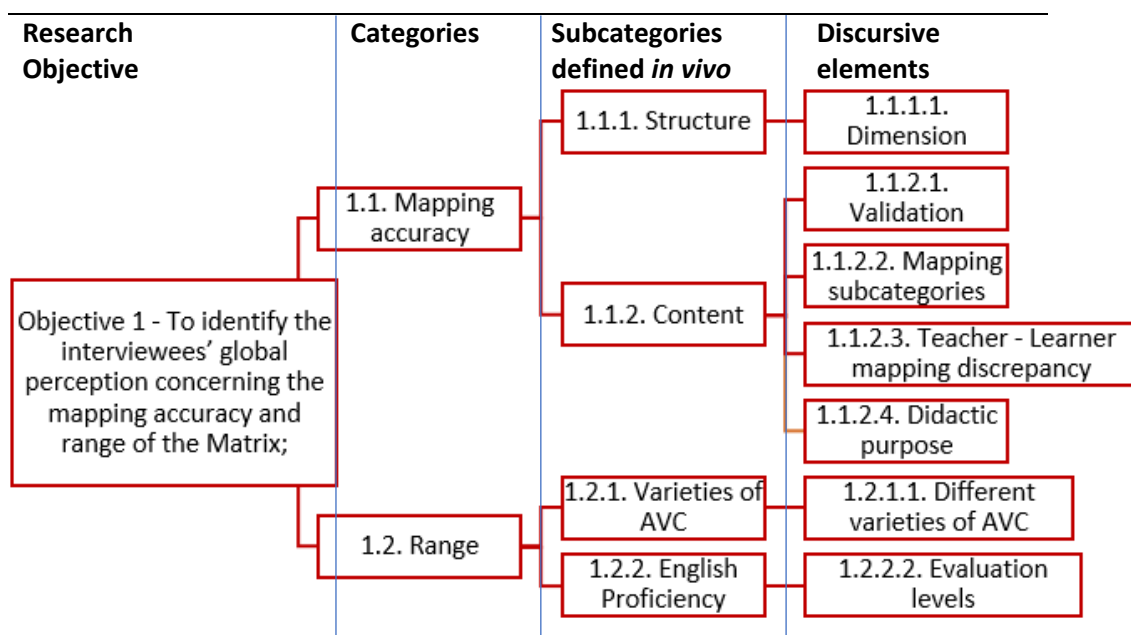


Figure 42 – Category structure underlying the content analysis for Objective 1

1.1. CATEGORY 1: MAPPING ACCURACY

As to the category *Mapping accuracy*, it subdivides into topics related with *Structure* and other with *Content* (see Figure 42). As to the former, the discursive element that assumed relevance was *Dimension* (see Figure 42). In fact, most of the interviewees (Et1, Ed1, and Ed2) pointed out that there are many secondary mapping options and some questions provided too many variables. More concretely, Et1 raised concerns about the amount of secondary information asked in the questionnaire, in particular as to the cataloging of AVC info (the URL, the AVC type or the duration¹⁶²) of the AVC. Moreover, Et1 saw the need to direct the questionnaire primarily to the purpose and only after to the content: *“It is not important to index the content (...) In this type of platforms, it is more relevant to identify the purpose, more than the content itself”*. (Et1)

Ed1 stated that there were questions with too many answer options: *“The number of questions is not excessive. The number of items is”* (Ed1). Ed2 also commented and used the example of the question about the genre to inquire the need of so many variables and the relevance of these variables to the mapping process: *“I don't know if they [mappers] will use all that is here. I don't know if all that is here is equally relevant”*.

¹⁶² All variables of this dimension are described on Chapter 3, Subchapter 3.2.

Solutions:

- a. To create a user-profile which, in the first interaction with the OCP, allows to collect chief data about the user, thus defining the type of user-experience (teacher or learner), and afterward about English language proficiency and preferences (of the genre and/or communicative contexts). The creation of a user-profile enables the pre-selection of some of the elements of the Matrix and, consequently, the user can receive suggestions to watch videos, create playlists, use social interaction tools, and benefit from gamification features;
- b. To provide two levels of search possibilities, basic with filters and an optional advanced search;
- c. When mapping, and after answering some core questions – like the definition of the AVC type – the OCP eliminates irrelevant questions from the questionnaire (for instance, if a user chooses a UGC, the platform does not need to ask about the episode, season or producer);
- d. For searching or mapping functionalities, the user is asked about macro-communicative skills (Getting a job; Negotiating; or Presenting) and meso-communicative skills (Taking part in a job interview; Negotiating before deal; or Planning a presentation). In this case, instead of showing pre-set answers, a mandatory question about the macro-communicative skills and an optional secondary question about the meso-communicative skills were included, stemming from the user's selections in the previous question. This question about the meso-communicative skills is not visible in the base questionnaire but appears after the selection of the macro-communicative skills, i.e., a “Hidden question”.

About the format of the questionnaire, Et1 and Ed2 shared contrasting opinions. The first thinks that, in terms of format, *“the questionnaire is well done”* and the latter expressed concern about presenting the questionnaire in Google Forms format (*“If it is to be used (by many people), you will not expect them to use this questionnaire in this format, will you?”*)

Solution:

The Matrix needs to evolve into the mobile application prototype, which takes into account the most recent OCP design strategies to develop an interactive, intuitive and user-friendly tool sustained by all the elements of the Matrix.

As to the *Content* subcategory, the relevant discursive elements are *Validation*, *Mapping subcategories*, *Teacher/learner mapping discrepancy* and *Didactic purpose*. Concerning *Validation*. Both Ed1 and Et2 believe that the Matrix catalogs AVC accurately: "I think the questionnaire is well done" (Ed1). Furthermore, Ed2 believes that the crowdsourcing element of the OCP will serve as validation, as it will take into account the view of teachers and learners. Ed1 expressed mild concerns about the lack of items to identify inappropriate content. However, regarding this indicator, the earnest opinion was from Ed2 who did not agree that the OCP mapped AVC accurately. According to the expert, "(...) sometimes the cataloging terms do not correspond to what I'm watching". The solution found for this gap will be presented in the next paragraphs, which address the discursive element *Mapping Subcategories* (Figure 42 – Category structure underlying the content analysis for Objective 1.).

While observing the experts' mapping (1.1.2.2. Mapping subcategories), it was possible to conclude that they were not responding to the inquiries properly. Ed1 was responding to unnecessary questions and incorrectly (e.g., cataloging the *Online Video* as if it were a *TV Show*), Ed2 was also unsure of what answers to give in the informative elements about the AVC and Et1 expressed surprised when realizing one had to go look for information about the videos ("It didn't even cross my mind to have to look for this [meta-data]!"). Furthermore, Et1 had doubts placing [Video 2](#) (Table 14 – Rundown of AVC used for the Expert trials) in a genre, and this is in accordance with another issue pointed out by Ed2 (which is connected to findings depicted in Figure 42 – Category structure underlying the content analysis for Objective 1), which concerns the rigidity of the Matrix's questionnaire – "what is asked in a technical analysis (...) Let's say that there is no room for negotiation (...)" (Ed2). Ed2 was expressing concerns as to the classical rigid terminology used in the cataloguing terms, once this lack of flexibility may lead to doubts when a viewer is mapping a "new form of public communication" (Ed2) like the ones that *YouTubers* produce – in which "People are talking about themselves to persuade others" (Ed2). With this feedback one can conclude that the subcategories in the Matrix's inquiry need to be clearer and more directed to the type of AVC that they users are mapping – for example, a complete film may have too many CS, which means that an advanced CS mapping would be irrelevant (as it was underlined by Ed2).

Solutions:

- a. Some of these limitations to the lack of flexibility of the questionnaire can be solved by adding the option *Others* in some of the questions. There is also the possibility to add an item for *Comments*, to add information not provided by the Matrix's questionnaire¹⁶³. However, it is these additions must not conflict with the discursive element *Dimension* (Figure 42 – Category structure underlying the content analysis for Objective 1);
- b. The cataloging questions should focus more on the reason why someone is sharing or searching for content and less on meta-data from the AVC itself. Taking the solutions from 1.1.1.1. into account, the option was that questions regarding English level, communicative skill or description should be on a basic level of cataloging/searching, whereas most AVC indexation data should concern the advanced search or a complete mapping task.

Concerning the discursive element *Teacher/learner mapping discrepancy* (1.1.2.3.), the experts in Educational Technology mentioned that when one allows teachers and learners to map AVC, there might be some discrepancies. Et2 did not think this was “*serious*”, whereas Et1 expressed some concerns about the accuracy of learner mapping – “*When we pass to a wider crowd (...) it is necessary to have someone who does the validation (...)*”. However, this concern is not shared by the experts in EFL didactics, who believe that mapping done by learners is “*more in accordance with what is more motivational for him (the learner)*” (Ed1) and “*it is more interesting to know the mapping of the students*” (Ed2). Still, Et1 suggests that it would be useful for teachers or higher-level learners to be given the task of validating lower-level learners' mapping (if done with some gamification techniques which will be discussed in the suggestions subchapter).

The last discursive element of this subcategory is *Didactic purpose* (1.1.2.4.), which was not an element to be validated by the experts. However, the flexibility of the semi-structured interview allowed for the conversation to drift to that topic. In this sense, Ed1 was quite an optimist about the advantages that cataloging AVC could pose for didactic purposes. According to this expert, teachers [in the role of searchers] would have access to filtered AVC, previously validated by

¹⁶³ This solution will be considered in future work, when there is the possibility to develop a working mobile app/ web page of this OCP. For the purpose of the prototype, this solution was ignored for two reasons: 1. It would not enrich the mapping experience of the trial-users; and 2. the limitations of the prototype concerning trial-users providing own opinions would make this particular variable redundant when completing the mapping task.

peers, whereas learners [also in the role of searchers] would have “*the possibility of being the one to choose the typology*” thus being “*responsible for what appears*” (Ed1).

However, Ed2 pointed out a limitation of the questionnaire, namely the fact that it does not provide a measure for the learning potential of watching videos to train a specific CS.

“Does this [watching the video] transform it into a learning opportunity? (...) my question is: if I am a person who wants to learn how to talk on the phone in a foreign language, will this video help me or not? I do not know the answer... Merely watching a film, does not contribute to me learning a language” (Ed2)

The latter argument pointed out by Ed2 was also addressed when commenting on communication skills. This expert reminded that didactic purpose involves pre, during and post-viewing activities, and not just watching a two-minute video – “*Two minutes (...) on the phone is not going to help me much with my specific skills [talking on the phone]. It will help me with my general, cultural and linguistic-communicative repertoire, because it intends to widen it*” (Ed2).

Solutions:

a. According to Et1, teachers tend to share resources “*because that resource has a certain objective from a didactic point of view*”. As suggested by this expert, a proper description, when mapping AVC, would provide the didactical purpose of said content. The *Description* item is also mentioned in the solutions of 1.1.2.2.;

b. If a whole community is cataloging AVC according to items as language level, communicative context, CS, then, there will be enough information available to infer didactic purpose and potential use of a specific AVC.

1.2. CATEGORY 2: MAPPING RANGE

As to the category *Mapping range*, it subdivides into topics related with *Varieties of AVC* and other with *English level* (see Figure 42). As to the former, the discursive element that assumed relevance was *Different varieties of AVC* (1.2.1.1. see Figure 42 – Category structure underlying the content analysis for Objective 1). To be accurate, Et2 was very clear to point out that the questionnaire maps Video 1 and Video 2 with accuracy (“*But, for this type of AVC, a more professional AVC, a UGC, I think so*”.); nonetheless, some doubts were raised about the different types of AVC which consumers have at their disposal: “*I imagine it will be hard to foresee all*

types of AVC which people can consume. (...) Concerning programs like talk-shows, game-shows, I am not sure" (Et2).

As Et2 pointed out, this Matrix is too focused on AVC related to professional environments. As this is in line with the current focus of the Matrix on mapping AVC according to the needs of BE teachers and learners, Ed2's comment is a confirmation that the mapping variables were well conceived, and the Matrix was well designed.

Concerning the topic *English Proficiency* (1.2.2.), the discursive element (*Evaluation levels*) arose because Educational Technology experts were reluctant when attributing a level to the videos they mapped. When asked about this specific issue, both Et1 and Et2 believed that learners would not be able to evaluate the AVC's English level, once the question about the language framework is a "*highly detailed grid of the English level (...) my English skills are not very good for me to evaluate (the level of the AVC)*" (Et1) and "*The learner may not know exactly what level of English a particular video clip is pointing to*" (Et2). However, Ed1 Ed2 did not raise any other concerns about either the highly detailed grid to evaluate the level or possible difficulties that learners may have attributing a level to the AVC. For this reason and accepting that the opinion of the EFL didactics experts deserves more validity in this element, the option was to maintain the proposed grid. It is important to underline, though, that the learner experience of the prototype should only provide six variables for mapping/selecting the language proficiency level of the content, thus making the questionnaire less cumbersome.

OBJECTIVE 2. VALIDATE DISCOURSE AND ANSWER OPTIONS USED IN THE MATRIX

The focus of this subchapter lies on the linguistic choices made to transform the conceptual framework into questions and the deconstruction of the concepts into measurable variables. The goal was to confirm that both the questions and the answer possibilities would be understood by target-users. Figure 43 provides the structure that underpinned the content analysis for Objective 2.

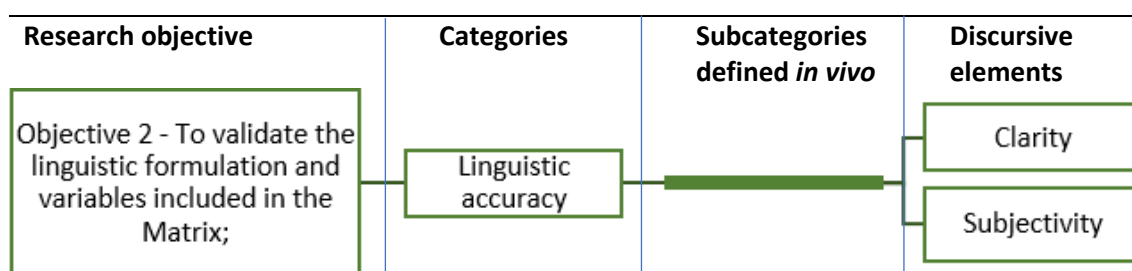


Figure 43 – Category structure underlying the content analysis for Objective 2.

2.1. CATEGORY 1: LINGUISTIC ACCURACY

As to the category *Linguistic accuracy*, it subdivides into the topics *Clarity* and *Subjectivity* (see Figure 43). Et2 and Ed2 addressed the former issue of *Clarity* directly, and both considered the questionnaire adequate and clear, considering the level of the expected users: “*If you ask me if a learner (...) can use this questionnaire? I think so*”. (Ed2)

When asked about the *Subjectivity* Et1 directs concerns towards the subjectivity of some of the variables of the questionnaire. Cataloging is already an exercise with an inherent subjectivity – as Et1 states “*The cataloging is completely subjective*”. Subjectivity as mentioned in discursive element *Dimension (1.1.1.1)*, may always lead to doubts when answering the questions, especially if there is an excessive number of answer options. There were two questions, in particular, that raised doubts in terms of subjectivity:

i) as to the English level – “*That highly detailed grid for the level of English. Which does not even have main levels... it has levels and sublevels (...) who is learning English does not know (what to choose)*” (Et1). This issue was already addressed on the discursive element *Evaluation Levels (1.2)*.

ii) as to the Target audience – “*Juvenile? Adult? Teenagers usually have problems. From 18 one is already an adult. In the USA from 16 one is already an adult*”. (Ed1)

Solution:

Regarding the latter, the subjectivity level can be reduced by changing the terminology used in the question from *Target audience* to *Age groups* and the sublevels would be the ones proposed by the didactic manuals, namely: *Young learners; Teenage learners; Adult learners*.

OBJECTIVE 3. VALIDATE THE MODULES CONSIDERED

The interviews also served the purpose of getting feedback on the questionnaire organization and on whether there were questions that were either missing or irrelevant. Figure 44 provides the structure that underpinned the content analysis for Objective 3.

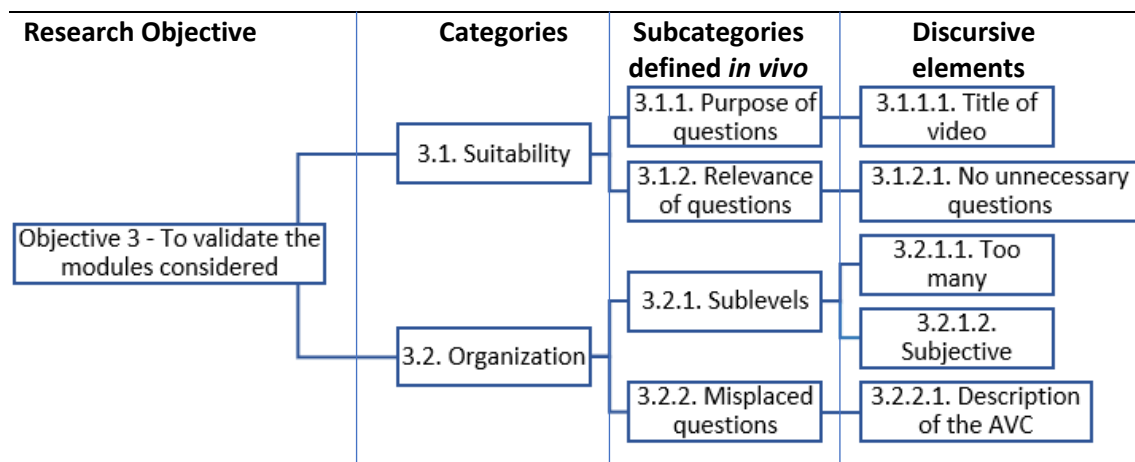


Figure 44 – Category structure underlying the content analysis for Objective 3

3.1. CATEGORY 1: SUITABILITY

As to the category *Suitability*, it subdivides into topics related with *Purpose of questions* and *Relevance of questions* (see Figure 44). As to the former, the discursive element that assumed relevance was *Title of video* (see Figure 44). In fact, Et1 does not consider necessary to catalog the AVC with a *Title*, in a sense that it would just be a copy of the AVC’s title from the repository where the video’s URL is linked to the OCP. This expert refers that “*The title should be the reason why I include the AVC in the platform, rather than to do an ‘imdb’ of the videos*”.

Solution:

The item *Title of the video* is automatically provided by the repository from where the AVC is uploaded and a new variable called *Purpose of the video* needs to be added (with an explaining

pop up balloon clarifying that the information to be written would be the didactic purpose(s) of the video), providing one or two examples, such as: "*extraordinary way to present a product*" (Et1). This variable is not so evident in the prototype to facilitate the user-trial, however, in the construction of an actual tool, title and purpose of AVC need to be very well distinguished.

However, when the questions addressed the *Relevance of questions*, neither Ed1 nor Et2 pinpointed a question as unnecessary. Again, one can infer that the construction of the Matrix shows value and efficiency in this aspect, as it asks its users the right mapping questions. It is important to remember that the Matrix is the culmination of a series of exploratory works¹⁶⁴, that were considered valuable research in the events where they were disseminated. Expert validation reinforces this value.

3.2. CATEGORY 2: ORGANIZATION

When addressing the category *Organization* two topics stemmed: *Misplaced questions* and *Sublevels* (see Figure 44). Only Et1 opinionated about the *Misplaced questions* by stating that *Description of the AVC* is "*critical for this cataloging*", which means that it needs a more highlighted position in the questionnaire. Et1 also added that the description must not be an optional item – the researcher agreed with this opinion and the *Description* will be more prominent in the prototype.

As for the *Sublevels* (apart from the issues concerning *Mapping accuracy* (1.1.) and *Linguistic accuracy* (2.1.), both Ed1 and Et2 both addressed the organization of the questionnaire stating that there were no issues with the organization – "*No problem*" (Ed1); "*Well organized and well structured*". (Et2) – thus validating, once again, the work behind the construction of the Matrix.

¹⁶⁴ Carvalho and Almeida, 2015 – COIED 2015 –, Carvalho et al. (2017) – Edulearn 2017 and APPI Azores seminar (2018).

OBJECTIVE 4. VALIDATE THE SEARCH TOOL QUESTIONNAIRE

Experts were also asked to use the search tool to look for content. This trial allowed for a series of questions focusing on the potential of this tool that stemmed from the Matrix, which are addressed in this subchapter and structured on Figure 45.

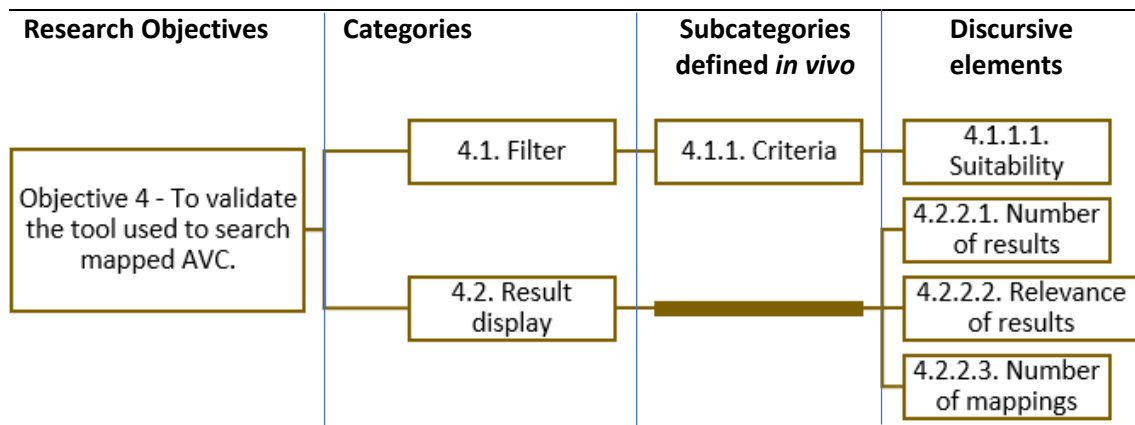


Figure 45 – Category structure underlying the content analysis for Objective 4

4.1. CATEGORY 1: FILTER

As to the category *Filter*, it subdivides into a topic related to *Criteria* and the discursive element that assumed relevance was *Suitability* (see Figure 45). In fact, when asked to comment on proposed filter options, Ed1 and Ed2 both stated that the videos that were presented to them matched the search criteria: “*It was adjusted. Yes*”. (Ed1); “*It matches the description. (...) The video is a match. It's interesting, motivating, it's a man on the phone, etc*”. (Ed2). These responses confirm that the Search feature stems accurately from the Matrix and that the variables used to develop this feature are suitable for a trustworthy search for AVC.

4.2. CATEGORY 2: RESULTS DISPLAY

When addressing the category *Results display* three topics stemmed: *Number of results*, *Relevance of results* and *Number of mappings* (see Figure 45). Concerning the former, Et1, Ed1, and Et2 stated that the OCP should present several results, even if there would not be a 100% match with the search criteria. Concerning the *Relevance of results*, Et1 added that there should also be information about a “*degree of approach to what the user searches for*”. This point was sustained by Et2: “*One of the pieces of information that most people expect is the relevance towards the search criteria*” (Et2).

Regarding the *Number of mappings*, Ed2 and Et2 believe that the number of users who mapped should appear in the results display. The experts agree that the number of times an AVC is cataloged is an important piece of information to appear in the quick-results list. However, Ed2 believes that there should be detailed grid to provide info about “*The number and who (cataloged)*”, whereas Et2 believes that “*this level of information [the number and who] is already extremely detailed*”. Considering Ed1’s earlier opinion about learners’ mapping being more in accordance with what target-users are looking for, one is inclined to agree with Ed2.

Solution:

The information above was crucial to conceive two types of result display on the prototype: 1. A condensed result display with *Duration, Purpose of video, Number of mappings, English level, Communicative skill* and *User-rating*¹⁶⁵; 2. A details/video play page to go through all the information and play the video. Furthermore, a function on the results display list was conceived to quickly and easily access information as to the type of users who mapped the AVC (number of teacher and learners) – maybe clicking on the info about the number of mappings¹⁶⁶.

¹⁶⁵ Et2 highlights the importance of visualizing on the results display the CSs, the English level and the duration of the AVC’s.

¹⁶⁶ However, the prototype limitations did not allow for this function to be used in the trials.

OBJECTIVE 5. ELICIT PREDICTIONS FROM EXPERTS

Another topic approached with the experts regarded the identification of opportunities and threats of developing the OCP. They were also asked to predict behaviors of target-users and suggest strategies to increase active user-participation. Figure 46 provides the structure that underpinned the content analysis for Objective 5.

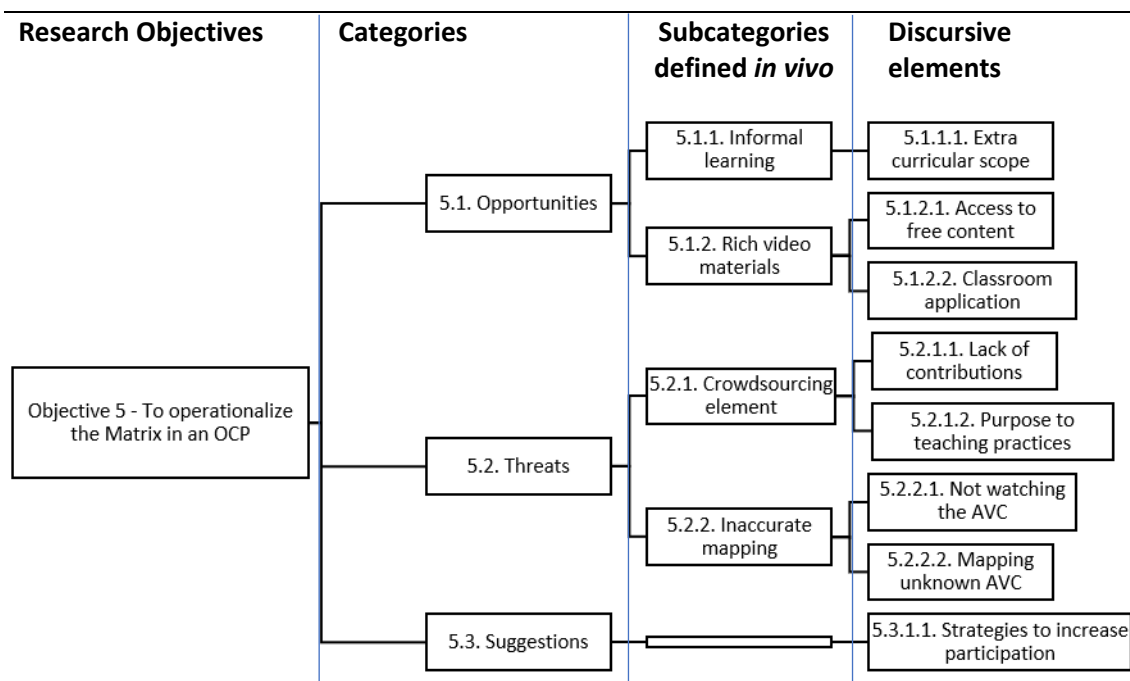


Figure 46 – Category structure underlying the content analysis for Objective 5

5.1. CATEGORY 1: OPPORTUNITIES

As to the category *Opportunities*, it subdivides into topics related to *Informal learning* and other with *Rich video material* (see Figure 46). As to the former, the discursive element that assumed relevance was *Extracurricular scope* (see Figure 46). In fact, Both EFL didactics experts praised the extra-curricular opportunities of this OCP. On the one hand, this platform could provide a complement to the formal syllabus – “*Let us imagine a course of BE who has classes with a teacher. The class is about talking on the phone. Then there is this tool to complement the class*” (Ed2). On the other hand, the OCP seems to potentiate the learners’ autonomy and responsibility as to the learning purpose, as Ed1 mentions: “*If we address self-learning, the learner also has the possibility to self-monitor himself*”.

When focusing on *Rich video materials* the discursive elements that stood out were *Access to free content* and *Classroom application*. Concerning the *Access to free content*, the interviewees also agree that the free access to validated video content is also an opportunity provided by this platform and, from an in-depth analysis of the gathered data, it is important to feature that it:

- may provide enrich EFL learning with the development of cultural awareness by giving “*learners access to the other voices, to other worlds*” (Ed2);
- will enrich “*the pool of materials with which people [teachers] can work*” (Et2);
- will allow learners to “*benefit from materials already mapped by others to concrete situations*” (Et2).

Furthermore, Et2 believes that AVC is not used in educational contexts more often “*precisely because teachers waste time looking for what they want*”. The planned OCP addresses this issue by providing teachers with a simplified search for AVC.

Pertaining the *Classroom application* opportunities, it was evident for the Experts that the OCP was conceived with informal consumption in mind. Still, Ed1 and Et2 identified opportunities for possible classroom applications – “*From the classroom point of view (...) will be a good motto to start a class*” (Ed1). Moreover, the OCP will provide teachers with validated and cataloged material to use in class. Et2 also stressed that teachers appreciate when colleagues take the time to map and organize a series of resources, which connect to specific skills to be taught in a formal teaching context – this is what this OCP is intended to offer. With this in mind, one can also suggest giving the learners the responsibility of looking for AVC to show in the classroom themselves, e.g., in the scope of a group presentation, etc.

Ed2 also predicts a scenario where a learner’s homework is to watch and map an AVC (selected by the teacher or by the learner) and, in a classroom environment, evaluate the learner’s cataloging work. In this scenario, and given the motivational value of video, the AVC’s scope is broader as it may be part of formal, informal and non-formal learning contexts, thus bridging the classroom activity with the self-learning tasks. Et1 also conceives a possibility to delegate in teachers and more advanced learners the validation of the other learners’ mapping.

5.2. CATEGORY 2: THREATS

As to the category *Threats*, it subdivides into topics related with *Crowdsourcing element* and other with *Inaccurate mapping* (see Figure 46). As to the former, the discursive elements that assumed relevance were *Lack of contributions* and *Purpose to teaching practices* (see Figure 46).

Considering the previous, Et1, Et2 and Ed2 share concerns about possible low participation by target-users. As stated by Et2 *"The greatest threat, in the end, is the matter of the contribution"*. To circumvent that major threat, it would be imperative to think of solutions that would not *"push away the users"* (Et1) but rather engage them in interacting as much as possible with the OCP – like creating a user-profile, using Gamification features, and assigning AVC mapping as learner homework. 4. Ed2 also warns that teachers *"do not like reflective shores much"*, which may be a hindrance to the OCP, in the sense that they may not commit to the role of AVC mappers (which is crucial for the success of the OCP).

Another identified threat was the possibility that teachers see no value in using the OCP in the teaching practice (discursive element *Purpose to teaching practices*). As Ed2 explains that *"the teachers of English (...) are a great community, very fond of concrete things that help them do their job better"*., i.e., teachers will ignore/not contribute to the OCP if it is not perceived as a useful tool to support their practice. This comment was a confirmation of methodological conceptualization of Phase 4. The APPI annual meeting was, in fact, the perfect setting to start the field trials, as EFL teachers from several contexts are gathered there, with an open mind for new developments, and more willing to invest some of their time to provide valuable feedback.

Concerning the *Inaccurate mapping* and focusing on the discursive element *Not watching the content*, This OCP is conceived to be a tool that can bridge formal and informal learning contexts, and teachers may see a benefit in instructing mapping of AVC as a homework activity, which is an idea corroborated by Ed1. However, this expert warns of the possibility that the learner is not interested in the activity and does the mapping without watching the AVC. This expert considers sensible to implement a mechanism, which confirms that the learner viewed the content (*"try to find a mechanism to know if the film was seen (...) or if it was abandoned and (the user) did something else"* – Ed1).

Solution:

YouTube has a mechanism that shows how much of a video was watched, therefore, the technology to identify if the content was played exists. The OCP should not allow a mapping of content until the AVC reaches its end. Whether the learner watched the video is something one cannot control. However, if mapping is inaccurate the collaborative element will marginalize it.

Pertaining another threat that was visible during these trials (discursive element *Mapping unknown content*), Et1 showed some frustration when asked to provide meta-information about [Video 1](#) (see Table 14 – Rundown of AVC used for the Expert trials) and was unwilling to look for it online. Moreover, Ed2 distinguished three situations:

- i. if a teacher assigns a learner to watch an AVC, it is possible that mapping may be hard if the learner has no previous reference to the AVC (*"If I had to present this (mapping exercise) to a learner (...) I wouldn't assume he would know the AVC, so I had to provide that info in the beginning"*. – Ed2)
- ii. a teacher should only recommend an unknown AVC if the subject relates to the classroom activities.
- iii. users may not get enough information for accurate mapping, only just by watching an unknown AVC once (*"If I watched it [video 1] two or three times maybe I would have a different opinion"* – Ed2).

5.3. CATEGORY 3: SUGGESTIONS FOR OPERATIONALIZATION

When addressing the category *Suggestions for operationalization* the relevant discursive element is *Strategies to increase participation*. This element arose in order to counter some of the threats of lack of participation by target-users, thus endangering the collaborative element of this platform. The following list presents other operationalization strategies that may be considered, in the future:

- Creation of a business model to assure cooperation with educational institutions (Et1).
 - These institutions would cooperate to **i.** offer the gamification rewards; **ii.** engage their teaching staff to map AVC, **iii.** provide certification of organized training sessions or learning paths.
- Creation of a business model to guarantee funding for teachers who accept the task of mapping content (Et2).
- Creation of social interaction tools to connect the users (Et1).

Conclusions¹⁶⁷

Phase 2 of this research project consisted of asking experts to validate the core concept of the OCP and the structure of the Matrix and to collect suggestions about ways to incorporate the Matrix into the OCP. After following all methodological procedures and subsequent analysis of the collected data, it was clear that the experts saw value in the development of this OCP, thus stressing the validity to the primary goal of the research project.

Moreover, the experts considered all items of the Matrix necessary for accurate mapping. The main concerns about the questionnaire are the number of answer options and rigidity of some questions. Still, all items were considered relevant for the mapping and search processes. Some of the items were highlighted as more significant, which was relevant for the final organization of the mapping questionnaire in the OCP – ideally with two levels of mapping: *i.* editing/adding existing information, *ii.* and mapping imported content.

In terms of operationalization, experts shared some strategies to both, improve the Matrix and circumvent the threats they pinpointed to the OCP. When analyzing all solutions from a global perspective, one can distinguish four dimensions of strategies:

1. Strategies to increase participation of target users – like the creation of a user-profile, offer two levels of searching for content, offer two levels of content mapping (share video and post-viewing), integration of social interaction tools, promotion of cooperation with educational institutions and conception of business models to ensure user-participation.
2. Strategies to facilitate user-interaction – elimination of variables from the questionnaire based on previous choices and the user-profile, insertion of the “Hidden question” for the Meso-Communicative skills, development of social interaction features between the target-users and the basic information on the results display.
3. Strategies to improve the Matrix’s questionnaire – insertion of *Comments* as a variable, highlight the importance of the *Description* item and the renaming of some variables.
4. Strategies for the didactic dimension – Insertion of the variable *Purpose of video*, possibility to use the OCP as a homework assignment and give higher-level users the task to validate mapping from lower-level users.

Among the opportunities that this project may pose, the experts underlined the value it would bring in extracurricular contexts, namely putting the focus of choice on learners, thus holding

¹⁶⁷ As stated in Carvalho et al. (2018).

them responsible for the progress of their learning. Another opportunity is related to the enrichment of the teaching/learning context with free authentic material provided by the online AVC repositories. This last opportunity can also be transferred to the classroom context, reinstating the importance of AVC as an aid in EFL/BE classes and reinforcing the OCP's role as a potential bridge between formal and informal learning contexts.

The objective of Phase 3 was the construction of the OCP's high-definition prototype, taking into consideration the feedback shared by the expert panel.

CHAPTER 5: PHASE 3 – EMBODIMENT OF THE MATRIX IN AN OCP PROTOTYPE

This chapter focuses on the embodiment of the Matrix in a functioning high-resolution prototype, which will be used in Phase 4 to collect feedback from trial-users. A prototype is “*an original model, form or an instance that serves as a basis for other processes. In software technology, the term prototype is a working example through which a new model (...) can be derived*” (Techopedia, c2018). National Instruments’ White Paper (Nationalinstruments, c2019) lists some of the benefits of prototyping, namely:

- *Fail early and inexpensively – (...) By building a prototype, you can quickly weed out the approaches that don’t work to focus on the ones that do.*
- *Gather more accurate requirements – (...) Traditional requirements gathering techniques such as interviews and focus groups can fall short because many people find it difficult to conceptualize a product before they see it. By developing a working prototype, you can demonstrate the functionality to help solidify requirements for the final design.*
- *Technically understand the problem – (...) By developing a functional prototype, you are forced to address both the foreseen and the unforeseen technical challenges of a device’s design. Then, you can apply those solutions to a more elegant system design when you move to the final deployed solution.*
- *Resolve conflicts – (...) By taking advantage of a prototyping platform, you can quickly conduct several different implementations of the feature and benchmark the resulting performance to analyze the trade-offs of each approach. This can save time, but it also ensures that you make the correct design decisions.*

Taking all the upper aspects into account, this project considered the use of a prototype in Phase 4 because, this way, Users can work with an interactive and properly designed tool; they can also better understand what the research project is proposing, as the prototype form reduces misunderstandings of what the OCP is supposed to be (note that this prototype is a reduced version of the designed app).

The development of the prototype is based on James (2002) elements of the user-experience (Figure 47). James (2002) proposal consists of five dependent layers, in which each is sustained by the previous one, and they start from abstract towards more concrete layers.

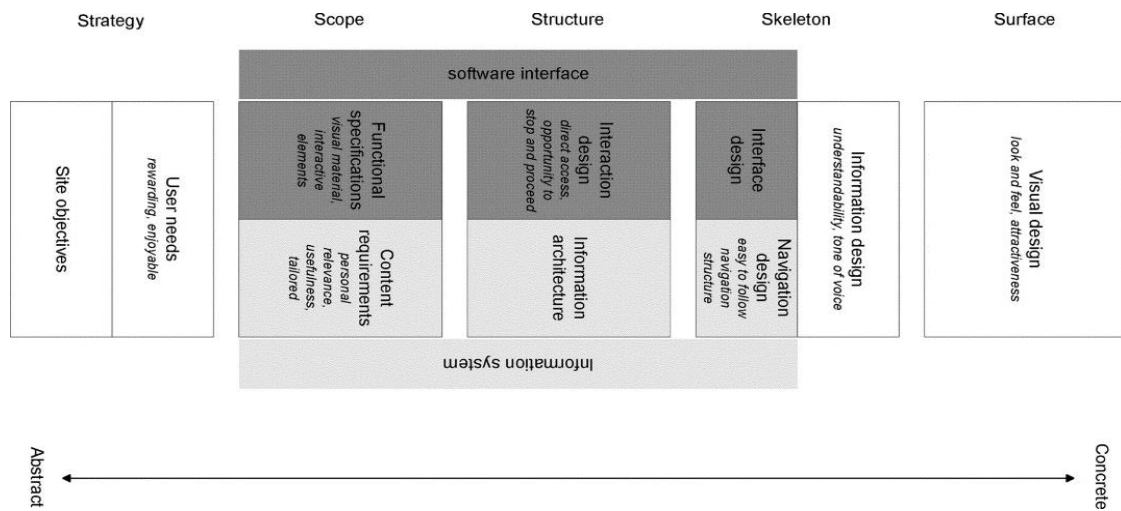


Figure 47 – The elements of user-experience according to James (2002), as quoted and further developed in Crutzen et al. (2009:79).

The development of the prototype also requires predicting the user-experiences this research project needs its trial-users to execute, in order to provide valuable feedback. Thus, the crucial experiences for the trial-users are the following:

- Register in the app – Trial-users need to understand the benefits of completing a user-profile.
- Watch recommended AVC – Connected to the previous task is the experience to watch an AVC recommended by the OCP. The purpose of this experience is to connect this task with the profile completion.
- Search content – It is expected that the OCP’s most sought service to the Users is the search experience. Therefore, the prototype should provide two search options, a quick one (with no more than three or four items to refine a search for keywords), and an advanced one where the Users can select several specific details.
- Share an AVC – Taking into account the collaborative aspect of the OCP, a trial-user needs to understand the importance of sharing and cataloguing AVC. Hence, a trial of this nature needs to lead trial-users to a task of sharing and cataloguing AVC.
- Post-viewing mapping – In the editing page, trial-users can attribute ratings, share opinions or edit some pieces of information about an AVC after viewing it (being either from a recommended viewing or from a search experience).

- Gamification – The gamification features of the OCP should be presented after all viewings/shares. The trial-users need to understand how the points and badges are attributed and how achievements can be consulted.

Taking in consideration the reasons that led to the decision to embody the Matrix in a prototype, the choice to use a sustained prototype development methodology and the experiences that were considered vital for this project, it was possible to advance to its conceptualization. The following subchapters will provide a rundown of how the prototype development went from an abstract to a concrete plane.

1. STRATEGY

According to Garrett (2010)¹⁶⁸, the Strategy plane is supposed to outline the purpose of the prototype, who the Users are and what value does it deliver to the society or the target-users. It is an abstract plane that requires answering the questions mentioned above before any kind of software utilization takes place:

“On the surface you see a series of Web pages, made up of images and text. Some of these images are things you can click on, performing some sort of function such as taking you to a shopping cart. Some of these images are just illustrations, such as a photograph of a book cover or the logo of the site itself.” (Garrett, 2010:22)

As the description of purpose, value and Users were already covered in the Introduction chapter, Table 15 provides a summary of the Strategy plane.

Table 15 – Summary of the Strategy plane

| | |
|---------|---|
| Purpose | Demonstrate OCP’s function of crowd mapping of AVC using the CEFR, as well as the communication skills most commonly associated to BE, thus organizing and categorizing content. |
| | Demonstrate the potential of an online information repository for teachers and learners to consult when they need suggestions about which AVC would be more suited for their informal learning needs. |
| | Demonstrate the potential of recommending AVC to Users who have gone through the process of creating a user-profile, providing information about their teaching/learning needs and about their AVC preferences. |
| | Demonstrate the potential of User-reviews of AVC in a post-viewing evaluation. |
| Value | The possible development of a space ¹⁶⁹ where teachers and learners could, in a community, recommend/share/search for AVC to support the teaching/learning process. Furthermore, this space can be used to map AVC bearing in mind markers, which translate the assumptions expressed in the CEFR, as well as the communication skills most commonly associated to BE. |
| User A | Teachers of EFL |
| User B | Learners of BE, Level B1, Adults |

¹⁶⁸ Garrett (2010) presents a development of James (2002) work concerning the five planes for developing a prototype.

¹⁶⁹ This space was idealized as both mobile and web-based. However, for the purpose of the trial runs in Phase 4, a mobile version was chosen to connect with the benefits of informal learning contexts mentioned by the Experts on Phase 2.

With the definition of the Strategy plane, it is possible to start outlining the Scope plane of this prototype.

2. SCOPE

As stated by Garrett (2010), the next step of developing a prototype is listing its every functional specification and content requirements, i.e., the *Scope* plane. This means that the developers need to position themselves as Users of the prototype. The purpose of this subchapter is to list the features of screens, (buttons/functions, pieces of information, etc.) and, when pertinent, clarify how these items are to be presented in the prototype version for trial-users. Table 16 highlights the main modules, which were to be developed in the functions listed from a) to l).

Table 16 – Main modules for the Scope plane

| Registration | Search content | Share content | User-menu |
|-----------------------------|-----------------------|-------------------------------|--------------------------|
| a) User-registration | b) Dashboard | h) Share video questionnaires | i) Dropdown menu |
| | c) Video details | | j) Profile |
| | d) Rating/Comments | | k) Achievements/ Rewards |
| | e) Edit Video Details | | l) Messages |
| | f) Search Results | | |
| | g) Advanced Search | | |

The purpose of asking new Users to register (a) User-registration) is, as the Experts suggested, to create a series of questions that will allow for the personalization of the user-experience of the OCP and allow for more fluid interaction with the questions of the Matrix. For this purpose, the OCP asks for an email and a password. In the next screen, Users have to define which type of user-experience they are interested in: EFL teacher or BE adult learner.

Teachers then proceed to select the groups of learners that match the teaching practice and their own AVC preferences. Learners opt for the language level and the type of English they consider appropriate and their AVC preferences.

After creating a user-profile and logging-in, the first screen Users see is the dashboard (b) where Users have four options: watch a recommended AVC, use the search bar to look for Keywords and URLs, a button to share an AVC's URL and a drop-down menu button to access other functions. The list below presents a summary of what is considered important in the dashboard:

- Share video function

- To access the mapping inquiry, there is a clickable Share video button, which directs Users to the *Share video screen* (h).
- User-menu
 - A standard three-line-menu icon gives Users access to a dropdown *User-menu* where options like Messages, Log-out and Profile are available (i).
- Search bar with the search function
 - In this bar, the Users type in keywords or search for a specific URL. After inserting the text, a clickable Magnifying glass button directs Users to the *Search results screen* (f).
- Recommended content
 - In the bottom half of the screen there is a list of recommended AVC that derived from Users' profile. Visually, this list contains a screenshot of the AVC, and, on the right side of the screenshot, the following pieces of information: *Title of Video, Number of mappings, English level, CS macro-category, Duration of AVC and Rating*. Each listing consists of a clickable rectangle, encompassing all the previously described items, leading Users to the *Video details screen* (c).

On the *Video details screen* (c), Users have detailed information about the video and two clickable areas. By clicking on the video frame, it starts to play; by clicking on the rating button, Users access to the *Rating/Comments screen* (d). Here are the projected functions:

- Frame of AVC
 - Like most video repositories, a *Video details screen* consists of a larger frame of the video.
- Relevant information
 - For the purpose of the OCP's prototype, and following the recommendations of the Experts, the relevant information about the AVC to display on this screen is divided into two levels. On a first and more highlighted level is: Title of video, Number of mappings, English level, CS macro-category, Duration of AVC and Rating. On a second level, the information to display is: AVC type, Genre, English level and CS.
- Rating button
 - The information concerning the AVC rating is also available through a clickable button that directs Users to the *Rating/Comments screen* (d).

On the *Rating/Comments screen (d)*, it is expected that Users provides a rating of the AVC and an optional comment. The rating is based on a star system (1 to 5), and the comments allow Users to insert text. After entering the rating (and optional comments), a clickable OK button becomes active and directs Users to the *Edit video details screen (e)*.

On *Edit video details screen (e)*, Users have the chance to edit AVC details. In this prototype, Users can either change items (e.g. *English level*) or add information (e.g. CS). This screen also has some social interaction functions, namely a *Like* button and a standard *Share* button. The former allows Users to add the AVC to one of their playlists; after submitting all the changes, Users are directed back to the Dashboard (b). As to the latter, it is merely to show Users that the OCP will allow the sharing of AVC with other platforms.

When Users use the search function of the Dashboard (b) by typing keywords and clicking “Search”, Users are directed to a screen showing results with refining options and an “Advanced search” possibility. This screen contains the following functions:

- Results list
 - The listing of results related to the keywords search service, miming the listing of recommended AVC.
- Refine options
 - This screen offers Users the chance to refine an AVC search with a maximum of three options. If Users need more search criteria, they should opt “Advanced search”. As Users refine content, the listing automatically updates the results.
- Advanced search button
 - When Users need a more detailed search for AVC, a clickable button for “Advanced search” is provided to link to this specific screen (g).

The *Advanced search screen (g)* is a feature that directly addresses the Users with a set of drop-down menus for selection of several variables:

- The drop-down menus ask Users about *AVC type, Duration, Genre, English Level, English for* (inquiry about the CS), *Location* and presence of *Subtitles*.
- Items like *AVC type, Duration, English level* and *English for* are mandatory and that information should be clearly visible on the screen. All selected variables should appear in a different color.
- The *Confirm* button lights-up when the mandatory items are completed. Clicking “Confirm” directs Users to the *Search results screen (f)*.

- After the selection of the CS *English for* a new menu called *Communication* appears, so that Users can specify Meso-communicative skills. This is the “Hidden question” explained in Chapter 3.

Sharing and mapping an AVC are crucial functions of the OCP and the prototype must provide a realistic experience to the trial-users. The steps defined for sharing a video function are the following:

- Sharing the URL of the AVC is the initial task, and for that, a box with the instruction *Insert URL* is provided in the Dashboard (b).
- Screen 1 – After the insertion of the URL, a series of drop-down menus (like the ones in the *Advanced Search screen* [g]) follows – with the same mandatory items and the same “Hidden question”.
- Screen 2 – On the second mapping screen Users insert the information concerning the User-review dimension (see Chapter 3, Section 2.3. USER-REVIEW DIMENSION). For the purpose of this prototype, the videos to be searched and mapped are online videos and collected from *YouTube*.
- Both Screen 1 and Screen 2 have a *Next* button, which lights-up when the mandatory items are answered. The “Next” button on Screen 2 directs Users to the *Edit video details screen* (e).

Similar to standard native apps, a User-menu (i) is available for Users to access several screens, such as: user-profile (j), settings, messages inbox (l), liked AVC list, user-guide and a log-out option. For this prototype, it was defined that the working buttons would be *Profile* (j), the *Messages* and *Exit*. *Exit* directs the trial-user to the *Google Forms* questionnaires, which are used to collect feedback about their experience with the prototype.

The *Profile screen* (j) intends to provide information about how Users are interacting with the OCP. For this prototype, it was defined as relevant to include the following information: *Watched videos*, *Hours of watching*, *English level* and *Main CS*. This screen also provides a button that directs Users to the *Achievements and rewards screen* (k) as described below.

The *Achievements and rewards screen* (k) intends to show Users the summary of their gamification interaction with the OCP. It provides information as to:

- *Badges* Users have unlocked;
- *Badges* Users have not yet unlocked – and what Users needs to do to unlock them;
- *Rewards* Users can collect – through a button to collect the reward;

- *Rewards* Users have to look forward to;
- A drop-down button to consult information about *Points* accumulated by Users in the interactions with the OCP.

The *Messages screen* (l) is considered relevant for Users to receive notifications from the OCP. For the prototype, it is pertinent to give trial-users the idea that future Users will receive notifications about points accumulated after watching an AVC – with a button to direct Users to the *Achievements and rewards screen* (k)– and notification to watch an AVC and get closer to a *Badge*. Another relevant piece of information relates to the gamification achievements, i.e. points that are given to Users after completing a task in the OCP. The list below demonstrates the point system conceived for the prototype:

- Rating a video – 10 Viewing Points (VPoints on the Prototype);
- Editing a recommended AVC – 10 Sharing Points (SPoints on the Prototype);
- Editing a refined search AVC – 20 SPoints;
- Sharing a new AVC in the OCP – 50 SPoints.

These notifications are to appear as pop-up messages after the task is complete.

To organize all the information listed in the Scope plane, it was necessary to use a diagramming tool to create a structure of the prototype. The used tool was *draw.io*¹⁷⁰ as it is a free online diagramming application. Figures 48 and 49 (see next page) demonstrate how the OCP user-interaction was schematized.

¹⁷⁰ <https://www.draw.io/>

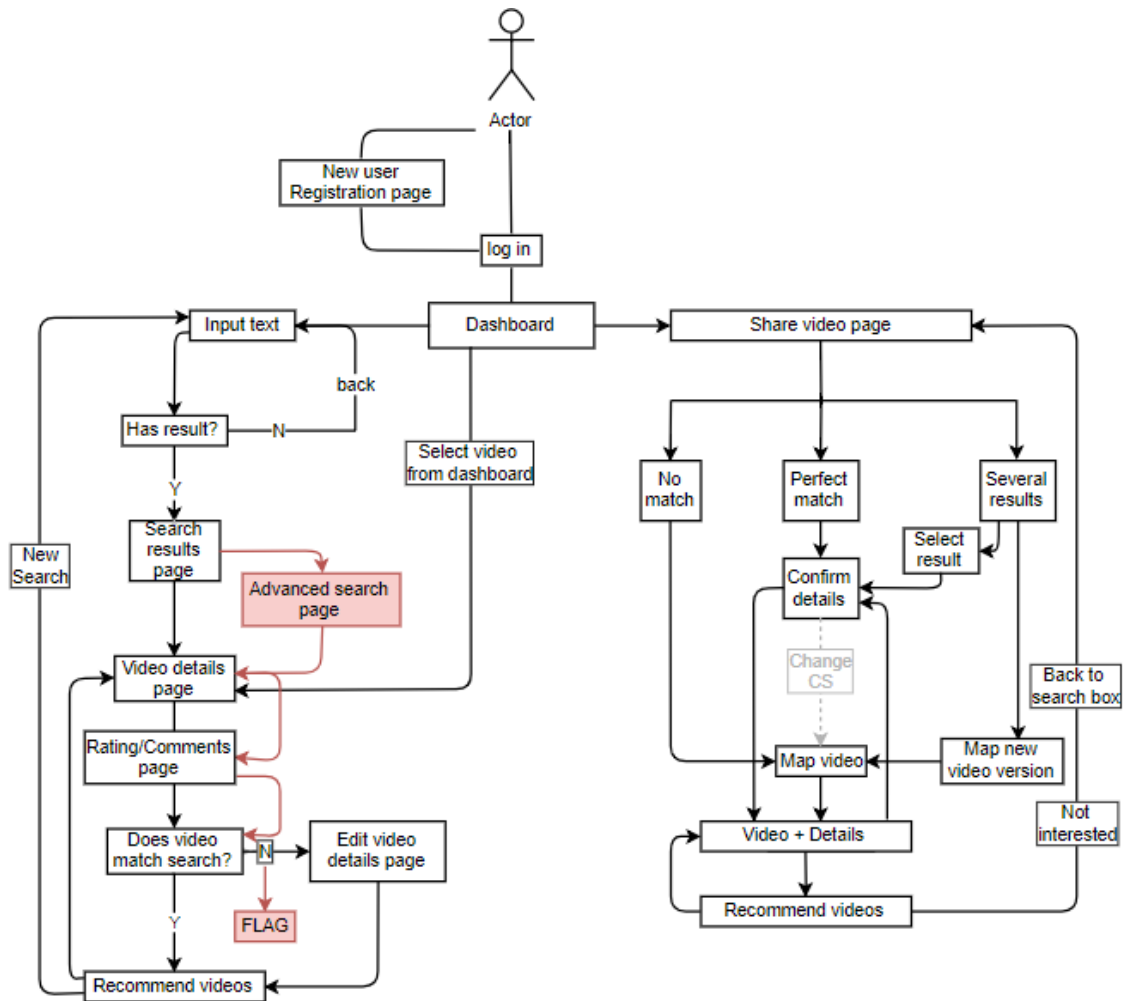


Figure 48 – Scheme of the OCP experience

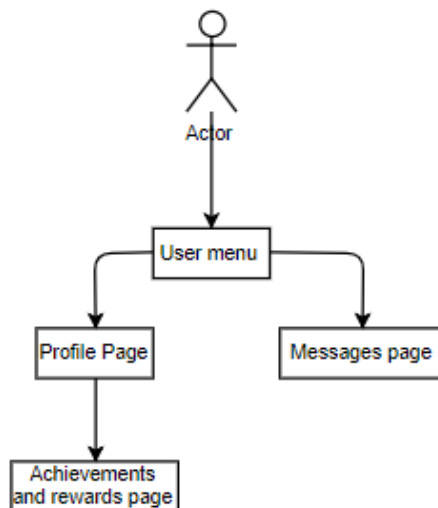


Figure 49 – Diagram for the active functions of the prototype for the User-menu

With the screens, buttons/functions and pieces of information provided by screen, it was possible to go to the next step of prototype development.

3. STRUCTURE

The development of a Prototype advances to the *Structure* plane, which is described by Garrett (2010:22) as follows:

“The skeleton is a concrete expression of the more abstract structure of the site. The skeleton might define the placement of the interface elements on our checkout page; the structure would define how users got to that page and where they could go when they were finished there. The skeleton might define the arrangement of navigational items allowing the users to browse categories of books; the structure would define what those categories actually were.”

This is the development step in which the developer starts sketching the screens, the buttons and the connections of each element, i.e., taking the elements listed in the *Scope* and organizing them on actual screens drawn on paper drafts. It is a step to answer questions like *“What does the page look like from a mile away?”* and *“Where are different things going to go?”*. This *“Think-aloud Protocol”* (TAP) development stage should be inspired by the analysis of similar platforms/websites.

The *“information architecture”* (Garrett, 2010:27) was based on the platforms studied for the development of the Matrix and can be consulted in the *Google Form* mapping questionnaire¹⁷¹. One should stress that this is a sketching process, i.e. a work to be done by developers using paper and pencil (Figure 50 – see next page). The result of these sketching activities is to be transposed to a low-fidelity wireframe in the *Skeleton* plane. For that reason, this sub-chapter merely contains a brief explanation and serves as a transition to the next plane.

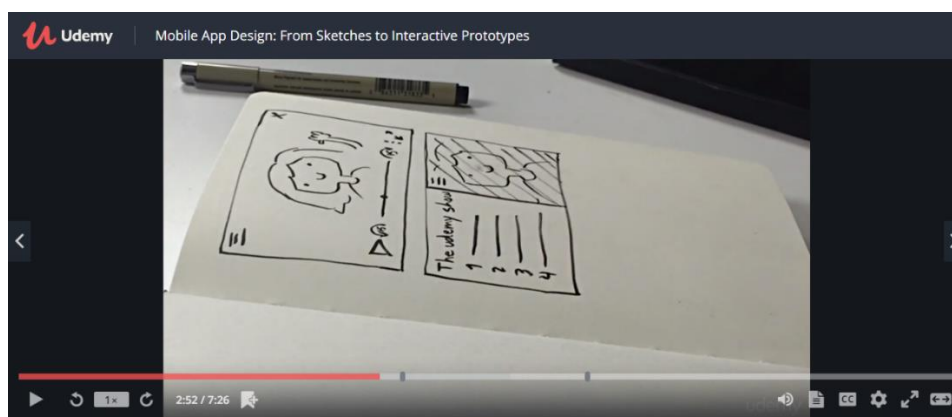


Figure 50 – Screenshot of an online course provided by Udeemy¹⁷² on how to sketch functions of a mobile app¹⁷³

¹⁷¹ https://docs.google.com/forms/d/e/1FAIpQLScM_0vfiqevK3BesMdZrArFqRT5_93qv45QziZ5PLbuxXeZsQ/viewform?usp=sf_link

¹⁷² www.udemy.com

¹⁷³ <https://www.udemy.com/mobile-app-design-prototype/>

4. SKELETON

After the *Structure* plane, the prototype development consists of:

“The placement of buttons, controls, photos, and blocks of text. The skeleton is designed to optimize the arrangement of these elements for maximum effect and efficiency (...) a more concrete expression of the abstract structure of the site (...) define the placement of the interface elements (...) define the arrangement of navigational elements allowing the users to browse” (Garrett, 2010:23).

At this point, it was also decided to invest in the development of a mobile version of the low-fidelity and high-fidelity prototypes. Even though the OCP is also supposed to be web-based, for the purpose of Phase 4, it was decided that trial-users would see more value in a mobile app prototype.

This subchapter presents how the several listings of the *Scope* plane were translated into low-fidelity wireframes, focused on details beyond layout, shapes, sizes, and texts. The tool used for this step was *Balsamiq*, and Figures 51 to 59 show the wireframes that served as support for the *Surface* plane.



Figure 51 – New User-registration

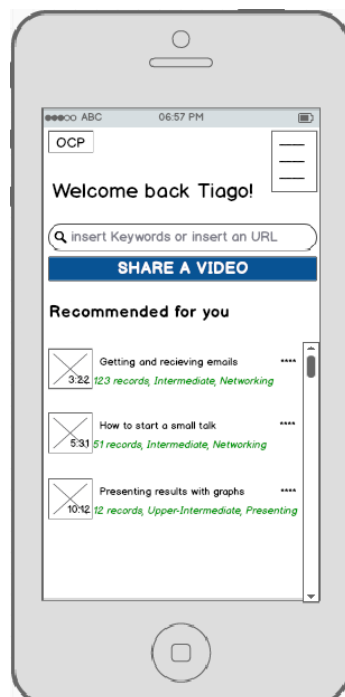


Figure 52 – Dashboard

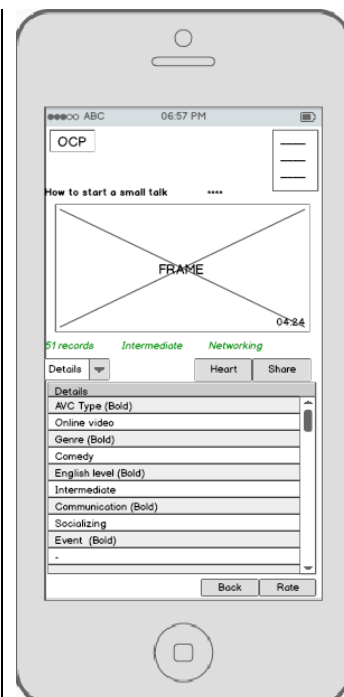


Figure 53 – Video Details

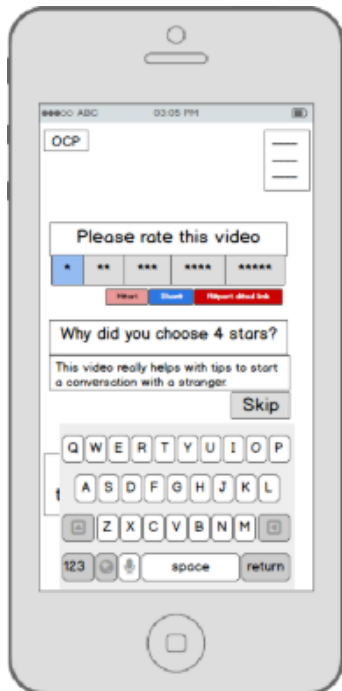


Figure 54 – Rating/Comments

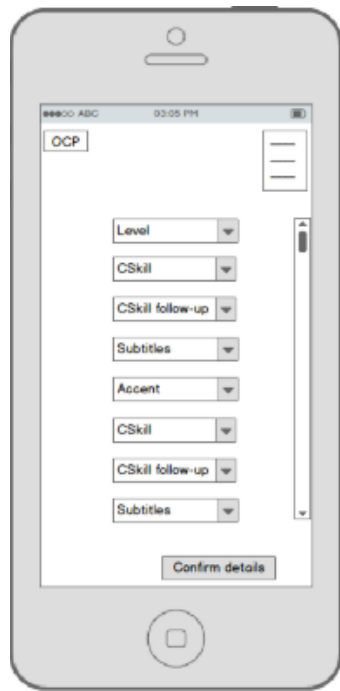


Figure 55 – Edit Video Details

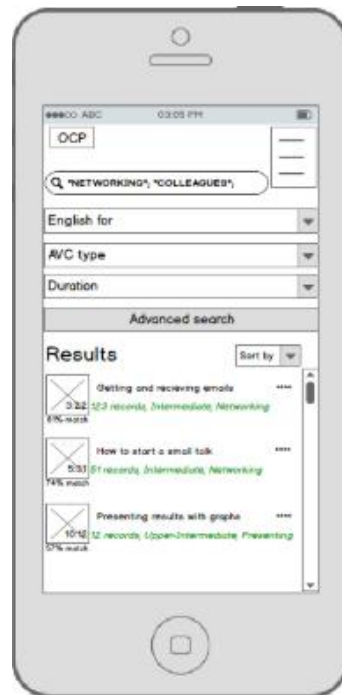


Figure 56 – Search Results

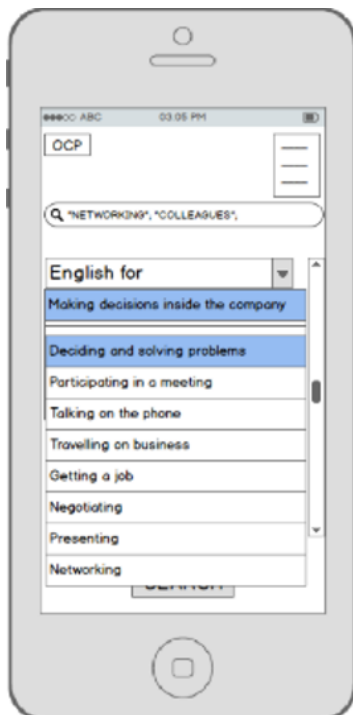


Figure 57 – Advanced Search



Figure 58 – Share Video



Figure 59 – User-menu

5. SURFACE

The Surface plane intends to give the trial-user a visual idea of what the actual OCP will be. In this plane, images, thumbnails, and text are organized in a defined style and following some design rules – hence the need to ask for the assistance of a designer from University of Aveiro’s Department of Communication and Art (who also worked on the aesthetic component). The *Surface* plane was divided into two tasks:

Task 1 – Converting the low-resolution wireframe into a high-resolution mock-up, i.e., a set of images to be uploaded into a prototyping software tool;

Task 2 – Linking the images developed in Task 1 through the use of prototyping software.

The end product is two prototypes of the OCP directed at both groups of Users, to provide the “look and feel” of the prototype in its most concrete plane. The following subchapters explain the purpose of each task and the tools used to execute them.

The conversion from wireframes to mock-ups was done by the researcher (with the help of the aforementioned designer) using the software *Figma*. *Figma* is an interface design software tool. It is free to download, and it provides templates that were modelled to this project’s needs. The images were worked on *Figma*’s canvas (replication and edition of components). Using *Balsamiq*’s images as a model, the achieved end-result was a series of images to be organized in a prototype, with a set of tasks. Figures 60 to 62 show how the *Balsamiq* images were converted using the *Figma* software – Appendix IV shows all images created in *Figma*.

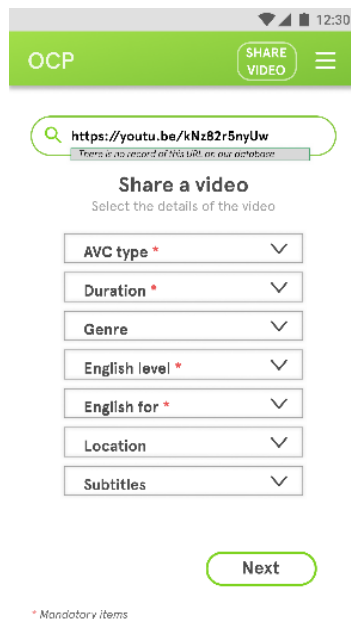


Figure 60 – Share Video Page



Figure 61 – Profile

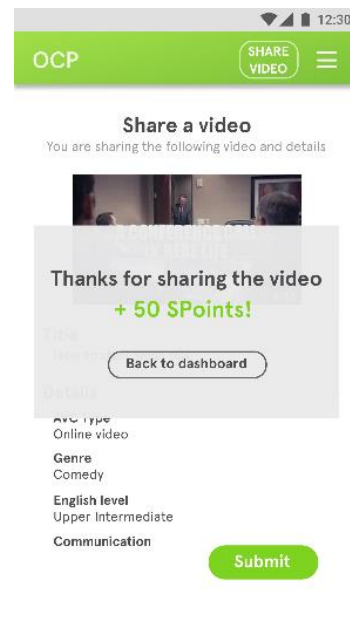


Figure 62 – Gamification notification

In order to build an interactive prototype, the researcher decided to use *Marvelapp*¹⁷⁴. This software is used to insert *hotspots* in pictures that create links to other images. It was chosen because of its online free version and its intuitive features. Considering this project, the goal to achieve with *Marvelapp* was to develop an intuitive prototype of the mobile version of the OCP that would take the trial-users through all the crucial interactions of the project. The following Figures (63 to 68) show how the hotspots (rectangles in shades of blue and green) were placed in the images from *Figma*.

¹⁷⁴ <https://help.marvelapp.com/hc/en-us/articles/360000150549-How-to-create-your-first-prototype>

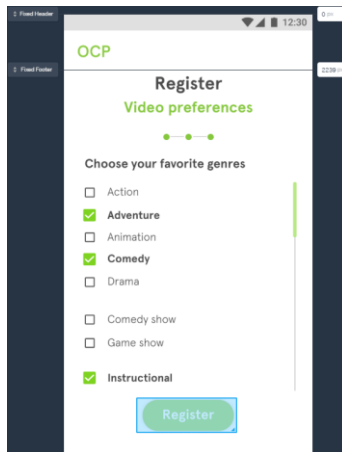


Figure 63 – New User-registration

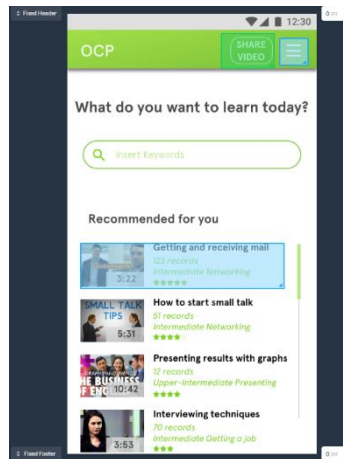


Figure 64 – Dashboard

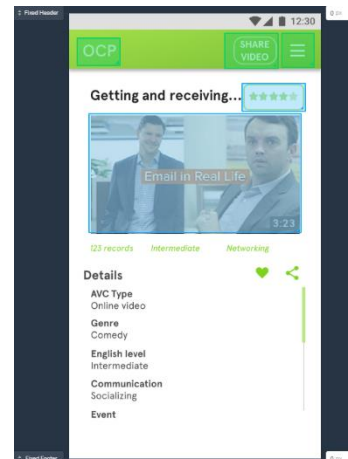


Figure 65 – Video Details

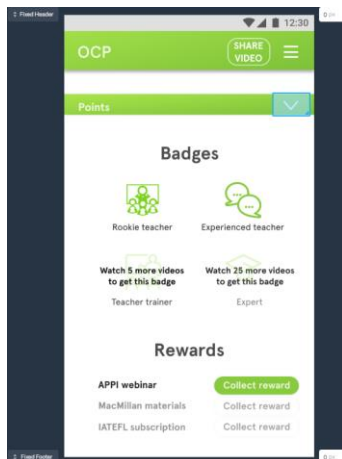


Figure 66 – Achievements and rewards

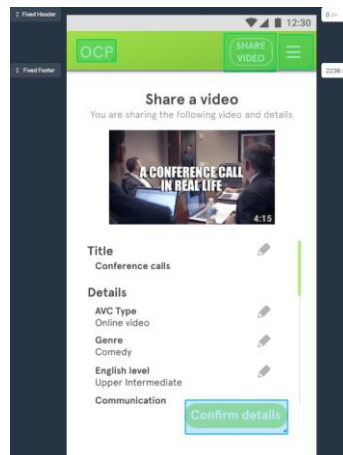


Figure 67 – Edit Details

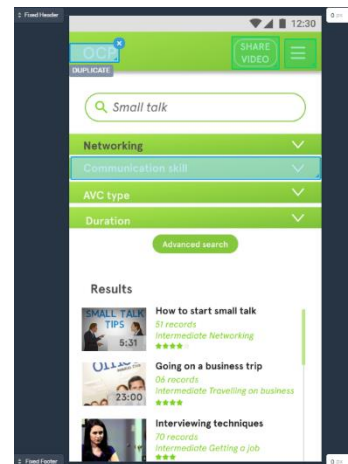


Figure 68 – Search Results

In conclusion, the final *Marvelapp* prototype was a guarantee that the Matrix was embodied in an interactable tool for experimental use. The target-users of this tool are the EFL teachers and BE learners, as identified in the Methodology chapter. The next chapter will concern the trial sessions of this prototype and the feedback received from a group of target users.

CHAPTER 6: PHASE 4 – EXPERIMENTAL USE OF THE OCP PROTOTYPE BY TARGET-USERS

This chapter addresses the feedback of target-users after an experimental hands-on trial with the prototype, following all the steps of Phase 4 described in the Methodology.

The participants, which are characterized in 1. PARTICIPANTS CHARACTERIZATION, consisted of EFL teachers and ESP/BE learners, who were approached in several contexts. Another relevant aspect was that teachers would have the chance to verbalize feedback while conducting the trial. In order to make sure that all teachers conducted the same trial, the researcher installed the prototype in two mobile devices (one main and one for backup) and all the trials were conducted using these devices.

In order to provide a real experience to trial-users, seven set of tasks were outlined:

1. Register as a new user;
2. Watch, rate and map a suggested content;
3. Search for a video, watch, rate and map it;
4. Check messages and *Achievements in the rewards page*;
5. Conduct an advanced search for a video, watch, rate and add it to a playlist;
6. Share and map a video;
7. Check messages, user profile, achievements and log-out.

At the end of these set of tasks, the *Exit* command on the prototype's user menu directed participants to Google Form surveys. Moreover, to facilitate the mention of the set of tasks, each set is henceforth referred to as Task 1 (set 1) to Task 7 (set 7). The script of tasks can be consulted in Appendixes II and III. The next step in the preparation of the trial was to choose which videos would be used in which task. Following the criteria mentioned in Chapter 2, 4. PHASE 4 – EXPERIMENTAL USE OF THE OCP PROTOTYPE BY TARGET-USERS, four videos, listed on Table 17, were chosen. On Table 17, a description (based on the defined criteria) of the AVC used for the trial is listed.

Table 17 – Rundown of AVC used for the prototype trials

| AVC | Description |
|---|--|
|  | <p>Video 1 Title: Email in real life AVC Type: U.G.C. BE Skill: Interacting with co-workers Length: 3:22 URL: https://youtu.be/HTgYHHKs0Zw Channel: Tripp and Tyler</p> |
|  | <p>Video 2 Title: Small Talk - How to Start a Conversation - Tips and Tricks AVC Type: U.G.C. BE Skill: Networking Length: 5:32 URL: https://youtu.be/jiAZUeHD-Ng Channel name: Better Than Yesterday</p> |
|  | <p>Video 3 Title: Interview Techniques - STAR Method AVC Type: U.G.C. BE Skill: Taking part in a job interview Length: 6:19 URL: https://youtu.be/0nN7Q7DrI6Q Channel: Jason Jordan</p> |
|  | <p>Video 4 Title: A conference call in real life AVC Type: U.G.C. BE Skill: Talking on the phone Length: 4:19 URL: https://youtu.be/kNz82r5nyUw Channel: Tripp and Tyler</p> |

All videos were considered suitable for a B2 level according to the description defined in CEFR, and they address different BE communicative skills. [Video 1¹⁷⁵](#) was used to exemplify the “recommended content” experience, [Video 2¹⁷⁶](#) to demonstrate the “refined search” function, [Video 3¹⁷⁷](#) was to illustrate the “advanced search” function, and [Video 4¹⁷⁸](#) was selected for users to experience sharing and mapping a content.

Twenty-two trials were conducted with teachers, one-on-one or in pairs, and four trials were conducted with groups of learners. The trials respected all the steps listed in the methodology, and the activities followed the organization of the script (see Chapter 2, 4.1. STAGE 1 –

¹⁷⁵ <https://youtu.be/HTgYHHKs0Zw>

¹⁷⁶ <https://youtu.be/jiAZUeHD-Ng>

¹⁷⁷ <https://youtu.be/0nN7Q7DrI6Q>

¹⁷⁸ <https://youtu.be/kNz82r5nyUw>

CONTROLLED TESTING SESSIONS FOR TEACHERS). There were no objections from the teachers concerning the recording of the meeting, thus allowing an effective Think-aloud protocol (TAP) that resulted in a rich body of qualitative data. The data collected following the TAP was analyzed resorting to content analysis, as it is mostly composed of textual artifacts. The remaining data was analyzed from the individual answer reports and charts generated automatically by *Google Forms* and *AttrakDiff*. Hence, this chapter is divided into three subchapters addressing the participants characterization, the content analysis of the teachers' TAP, and the analysis of the data gathered from the *Google Forms* and the *AttrakDiff* in the Post-trial feedback questionnaires.

1. PARTICIPANTS CHARACTERIZATION

As mentioned in the Methodology, both groups of participants were given a characterization questionnaire, a post-trial feedback questionnaire, and a User Experience (UX) questionnaire. The teachers were approached in the Annual APPI meeting (11 participants between 27th and 29th April 2018), at International House Pamplona (2 participants on the 5th May and 17th July), at Adam Mickiewicz University (5 participants between the 10th of June and the 13th of July), at hEAD'18 international conference (2 participants between the 20th and the 23rd of June), at CINDOR¹⁷⁹ (1 participant on the 27th July), and at ESTGA - Águeda School of technology and Management – University of Aveiro¹⁸⁰ (1 participant on the 4th October). The field trial of the prototype was conducted with 22 participants, 20 complemented the trial with TAP¹⁸¹, and 20 answers were collected at the Post-trial feedback questionnaires.

Regarding the learners, the trials were conducted at ESTGA during ESP classes. In total, 62 learners from 4 different courses participated in the trial:

Course 1: Higher Technician in IT Networks and Systems (English for IT);

Course 2: Public Sector and Local Government Management degree (English for management);

Course 3: Commercial Management degree (English I);

Course 4: Quality Management degree (English for management).

¹⁷⁹ <http://www.cindor.net/> - CINDOR is a vocational school providing technical courses of high-school equivalency in Gondomar, Portugal.

¹⁸⁰ <https://www.ua.pt/estga/> - ESTGA is a higher education institution connected to University of Aveiro and it provides courses related to technology and management.

¹⁸¹ Subjects 9 and 14 completed the trial and authorized the recording of the TAP; however, they did not complete the questionnaires due to lack of time.

Before the field trial, a characterization questionnaire was filled by the participants; however, due to some technical difficulties (Wi-Fi problems and device crashes), not all learners ended the trial. Table 18 elucidates the number of participants that filled each questionnaire.

Table 18 – Run-down of participants in the three questionnaires.

| | Total Participants | Prototype Feedback | UX Feedback ¹⁸² |
|---------------|--------------------|--------------------|----------------------------|
| Course 1 | 10 | 9 | 9 |
| Course 2 | 15 | 14 | 12 |
| Course 3 | 22 | 20 | 15 |
| Course 4 | 15 | 12 | 8 |
| Totals | 62 | 55 | 44 |

The first questionnaire was focused on the participants' characterization; questionnaire 2 (*Prototype Feedback*) concerned the opinions of the participants regarding the potential they attributed to a future platform, based on their experience with the prototype; questionnaire 3 (*UX Feedback*) was the *Google Form* version of the *AttrakDiff* methodology questionnaire – Questionnaire 3 needed to exclude four random entries to adapt to *AttrakDiff*'s submission limitations.¹⁸³

1.1. TEACHERS

The teachers that participated in the study work mostly with adults (75%, n=15- Figure 69 – see next page) and teach all English levels listed in the questionnaire (Figure 71 – see next page). The most taught level is C1 (80%, n=16), followed by B2 (75%, n=15) and the least are A1 and C2 (30%, n=06). The general perspective is that these participants teach the groups that could potentially benefit from this version of the OCP (B2 and C1), i.e., the target users of the prototype. Only 15% (n=03) of the participants were currently teaching ESP/BE (Figure 70 – see next page), however, before starting the trial¹⁸⁴, none expressed any constraints about the fact that the prototype focused on ESP/BE. Three of these participants were native English speakers.

¹⁸² The answers to this questionnaire are the data collected for the *AttrakDiff*© methodology analysis.

¹⁸³ *AttrakDiff*©'s free version limitations only allow for 20 respondents. For the purpose of this data analysis, only 40 responses out of the 44 were inserted in *AttrakDiff*©'s tool: Questionnaires 14 and 16 were not considered because users answered over 96% of the questions with the number 4. Questionnaires 28 and 34 were removed from the *AttrakDiff*© feedback using *Google*©'s Random Number Generator.

¹⁸⁴ The trial would not be conducted with subjects that expressed any doubts regarding ESP/BE didactics.

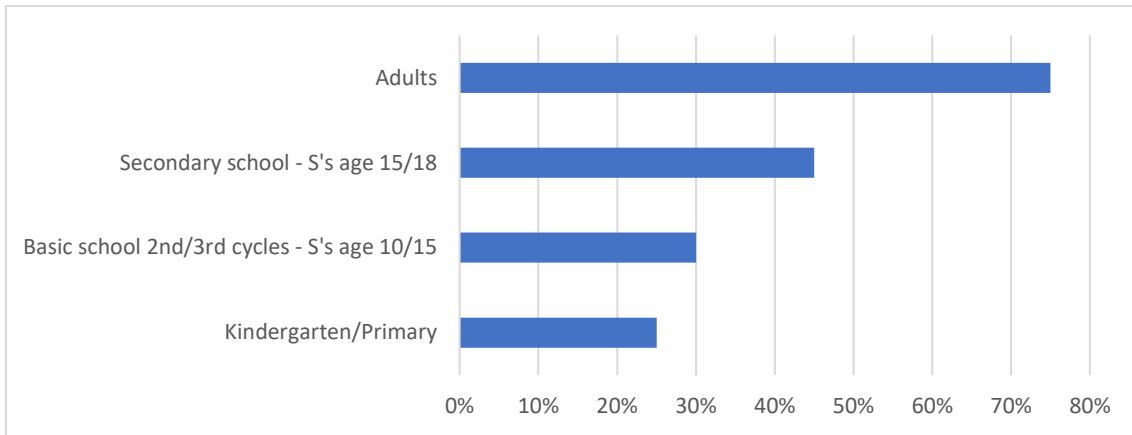


Figure 69 – Q: What groups do you teach to?

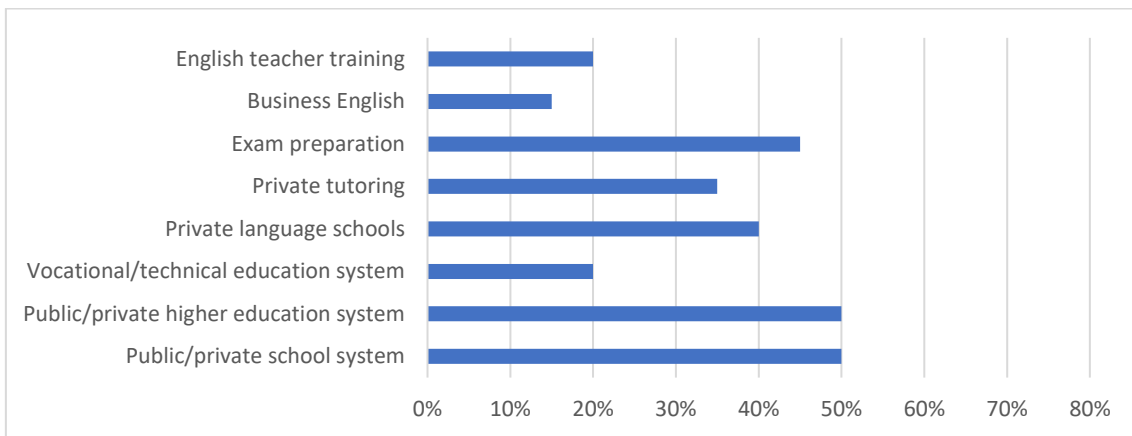


Figure 70 – In which context do you teach?

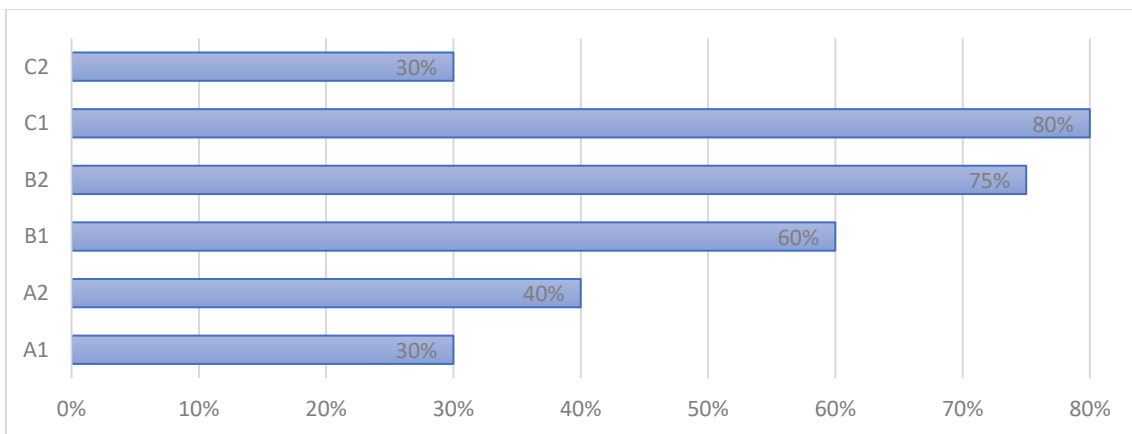


Figure 71 – Q: Which levels of English do you teach?

Concerning the age groups of the teachers, the gathered data shows that there is participation of most of the age groups, i.e. 35% (n=07) of teachers were between 20–29 years old and the other groups (30-39; 40-49; 50-49) were represented by 20% (n=04) of the participants. No questionnaires were answered by teachers over 60 years old.

Addressing attitudes towards AVC and its presence in the EFL classroom, Figures 72 and 73 (see next page) illustrate the frequency that trial-users assume to rely on video as a teaching aid. The

data on the chart indicates that 5% (n=01) of participants do not use AVC at all, 35% (n=07) uses it very irregularly, and 60% (n=12) are regular users of video content as a teaching aid (5.1. and 5.2.). Hence, most of these teachers recognize value to the potential of AVC as an aid in the classroom.

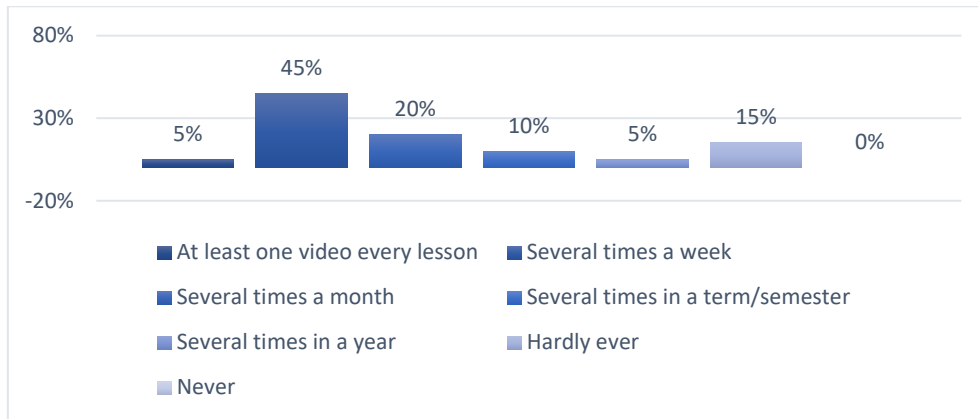


Figure 72 – Q: How often do you use AVC in the classroom?

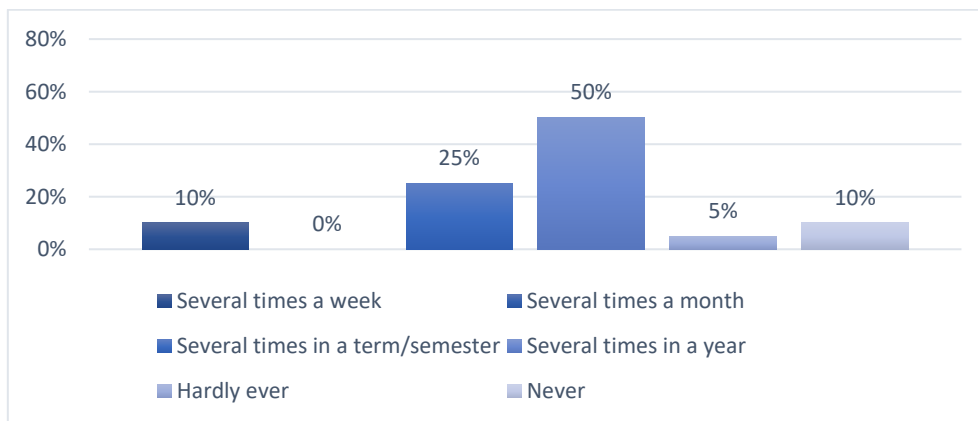


Figure 73 – Q: I take time to search for videos to use in the classroom or to recommend to colleagues/learners

At the same time, Figure 73 indicates that searching for AVC is not a routine practice for participants (50% [n=10] of teachers do it several times a month, and 25% (n=05) conduct some term searches only 15% [n=03] have more regular search habits). From these data it can be inferred that participants share a set of videos they use in the classroom; however, neither the search for new content, nor sharing new AVC with colleagues or their learners is a common practice.

The question concerning Figure 74 relates the use of AVC as a reward in the classroom. The question did not specify what kind of reward, but the idea of this inquiry was to get a sense of how the teachers used AVC in class. In Chapter 1 (4.2. USAGE OF AVC FOR EFL IN FORMAL AND INFORMAL LEARNING CONTEXTS, AVC's use in the classroom was criticized because it served mostly as time filler. Therefore, the researcher wanted to know if these teachers were using AVC in classroom with a didactic purpose or just to fill empty slots of class time. What the chart reveals is that, even though AVC is an aid valued by most participants, these teachers do not feel that videos should be a usual classroom reward but rather an aid to be used with a specific didactic purpose.

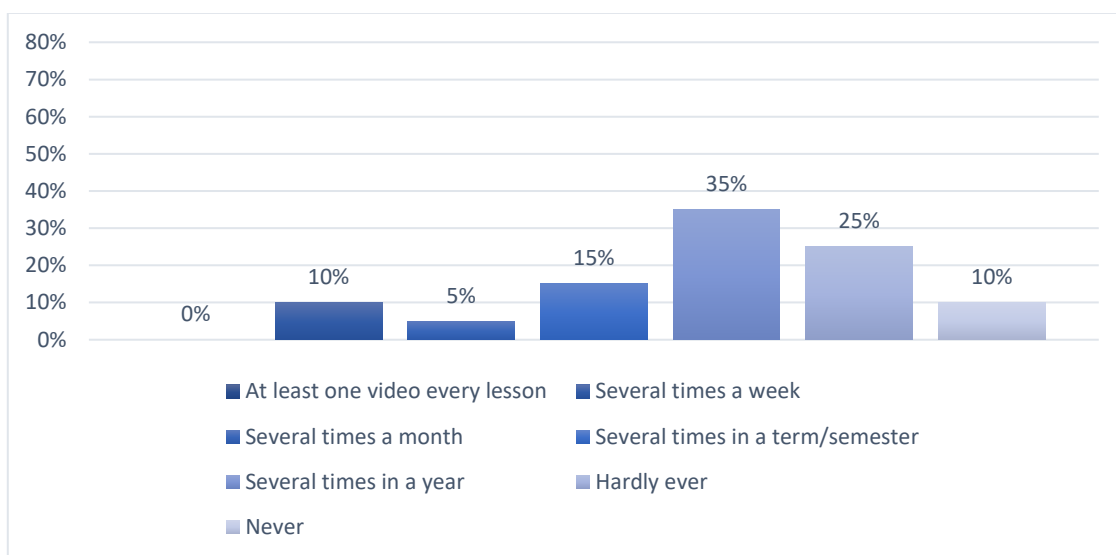


Figure 74 – Q: I use videos in the classroom as a reward

As for sharing or recommending content to their colleagues or learners, data presented in Figures 75 and 76 show that these teachers do not tend to recommend AVC; neither for learners to watch in informal contexts, nor for colleagues to use in their practice.

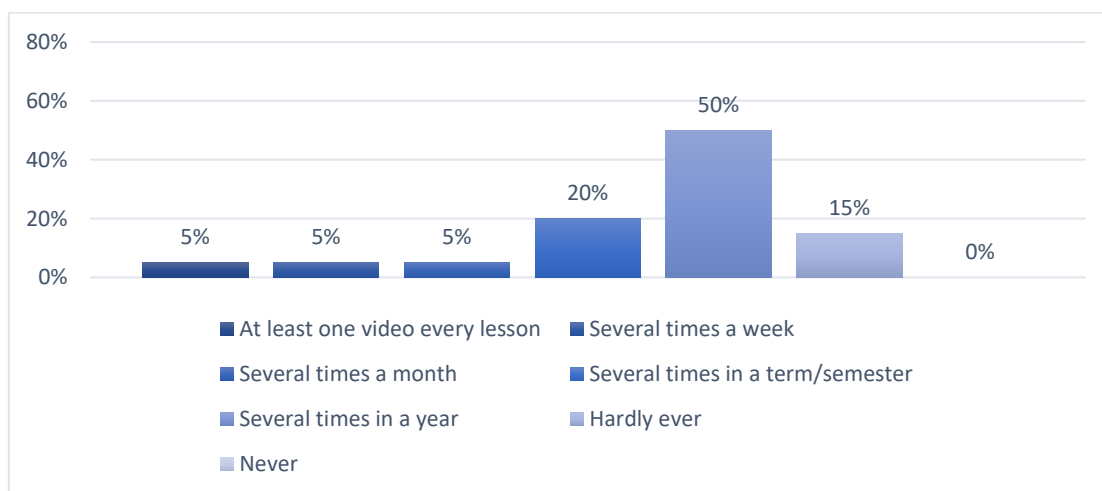


Figure 75 – Q: I recommend specific videos for INFORMAL language learning contexts.

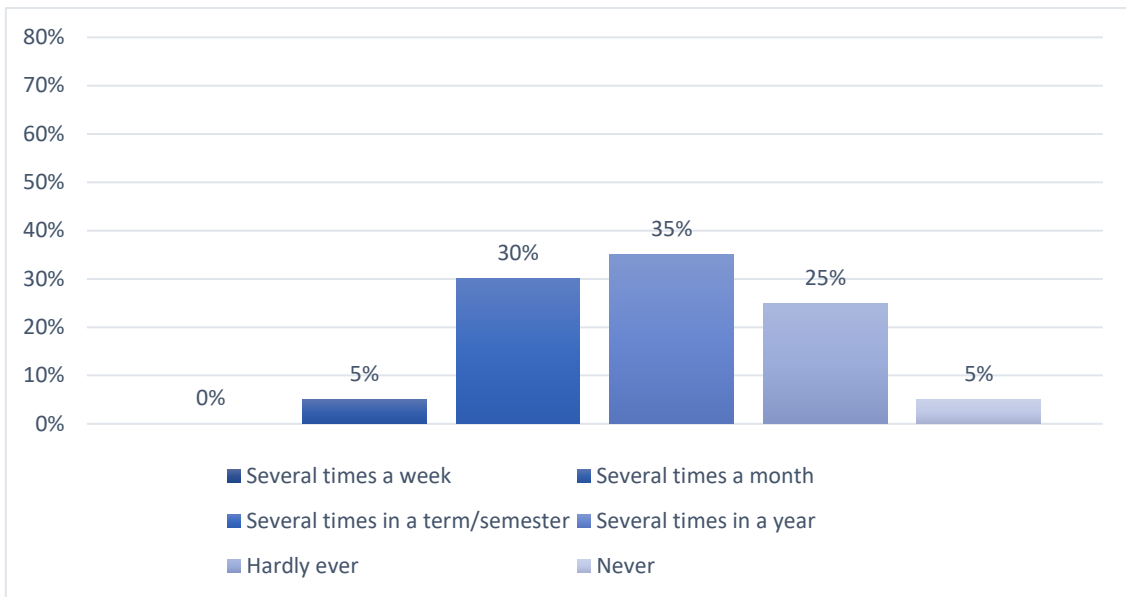


Figure 76 – Q: I recommend videos to my colleagues/learners.

What the charts above indicate is that recommending content to learners, for them to consume in informal learning contexts is not a common practice, since 20% (n=4) do it *Several times in a semester*, and 50% (n=10) do it *Several times in a year*. As for recommending content in general with both colleagues and learners, 35% (n=7) of these teachers only do it *Several times a month* and 25% (n=5) only *Hardly ever* recommends content. This data indicates that these teachers are not recommending AVC to their colleagues or to their learners frequently, even though, as seen above, they recognize the value of using AVC in the classroom.

Participants also believe in the potential of AVC for themselves as only 15% (n=3) admitted not to watch videos to keep their linguistic proficiency up to date which is in line with the number of native speakers of English in the sample). The remaining 85% (n=17) do it, and a remarkable 40% (n=08) admits doing it *Several times a week*.

1.2. LEARNERS

Regarding the learners, considering that the trial took place in a Higher Education Institution, in one Level 4 and three Level 5 courses, Figures 77, 78 and 79 show that 89% (n=55) of participants are between 17–25 years old, 68% (n=42) are between 17–20. 59% of the participants (n=37) have four or more than four learning hours of English a week, and 58% (n=36) place themselves in an intermediate English level (the target group of the prototype). The questionnaires for learners were all in Portuguese, but for this thesis, the questions in the figures and the variables are displayed in English.

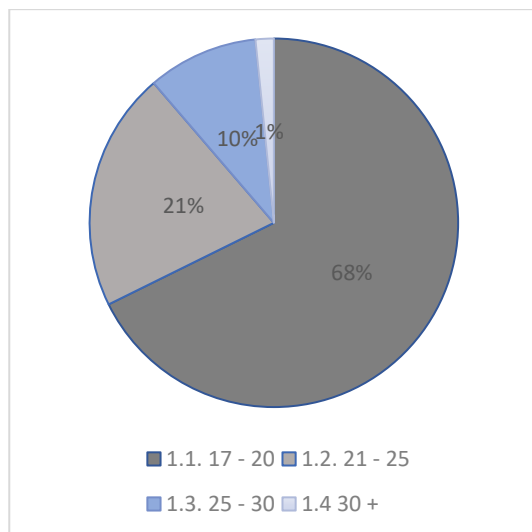


Figure 77 – Q1: What is your age group?

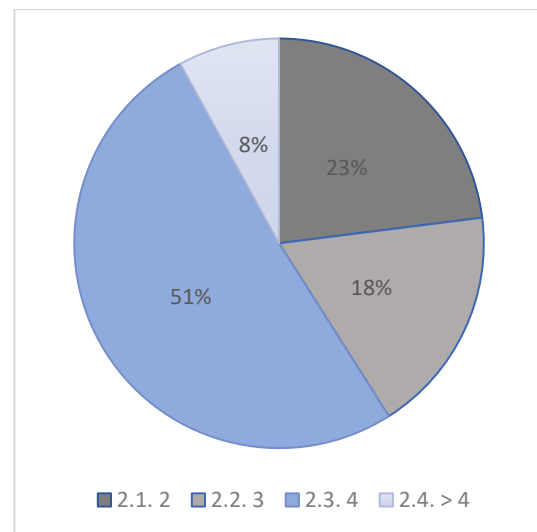


Figure 78 – Q2: How many ESP/BE hours a week do you have?

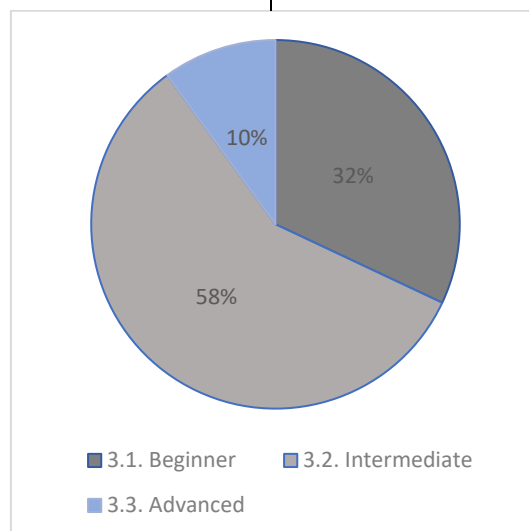


Figure 79 – Q: What is your English level?

Another important issue is the fact that 40% (n=25) of the participants consume AVC for entertainment purposes every day, 23% (n=14) several times a week and 10% (n=06) of subjects do not have regular AVC consumption habits (Figure 80).

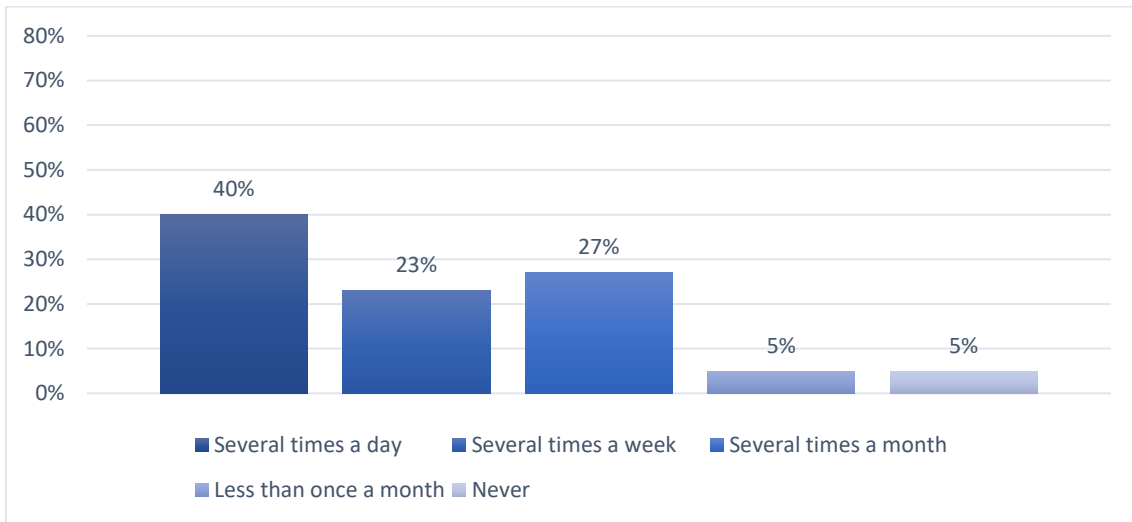


Figure 80 – Q4: How often do you consume AVC for entertainment?

Moreover, one can conclude that 63% (n=39) of the participants are regular AVC consumers, using mostly their computers (82%, n=51) and their smartphones (84%, n=52) as the main devices for AVC consumption (Figure 81). Considering that the prototype was presented as a mobile application, from a device perspective one can assume that it reached the desired target audience.

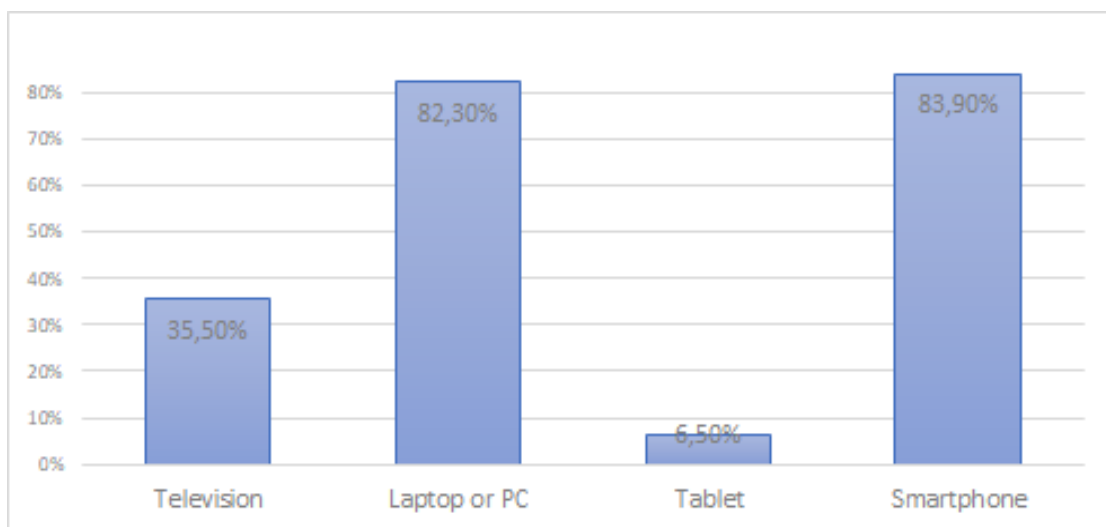


Figure 81 – Q5: What are the preferential devices to consume AVC?

As for using AVC specifically as an ESP/BE learning aid, it is not a common practice among participants. Only around 24% (n=15) does it on a regular basis, whereas the remaining participants do it less frequently (Figure 82) – 23% (n=14) admits not doing it at all.

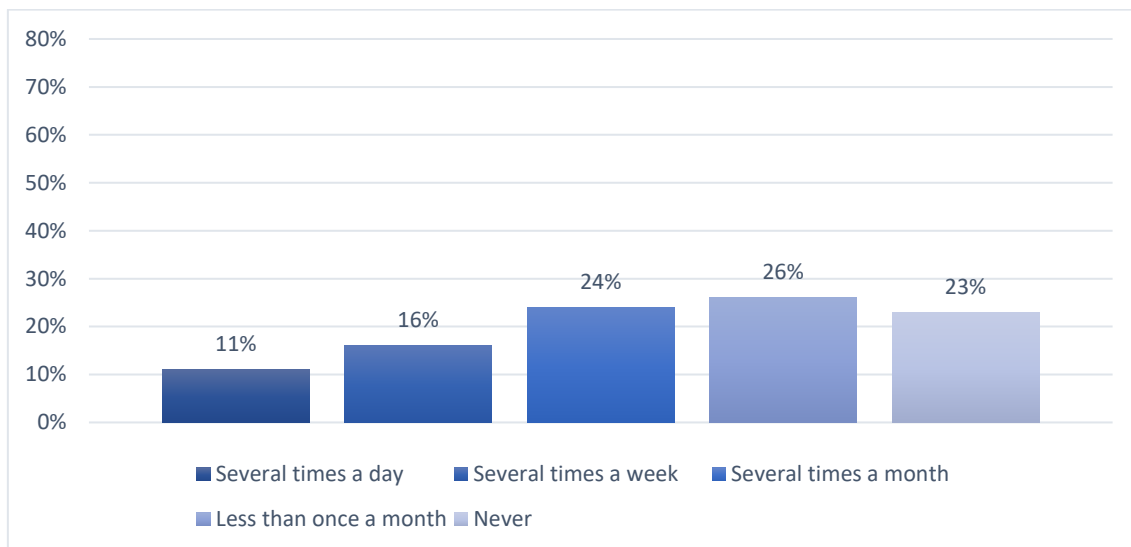


Figure 82 – Q6: How often do you use mobile/online platforms to consume AVC to support ESP/BE learning?

The data on Figure 82 can be corroborated by Figure 83, which shows the habits of using AVC to improve English skills. In this case, it is more about using video in an informal way to improve the proficiency of the English language. One can see that the percentage of learners consuming content *Less than once a month* and *Never* (27%, n=17 and 18%, n=11, respectively) is close to the same group of learners on Figure 82.

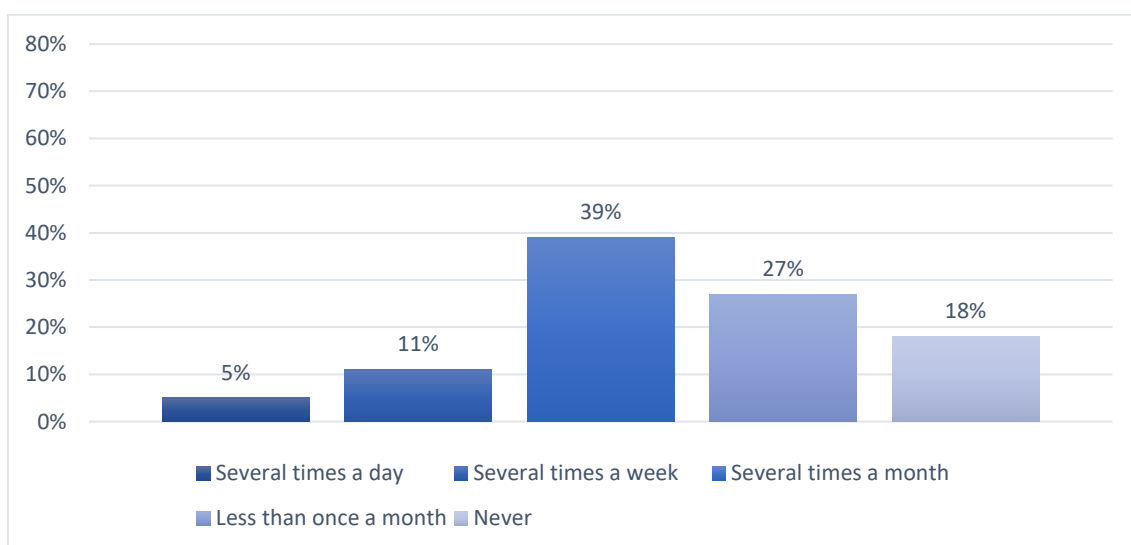


Figure 83 – Q7.1: I use AVC to develop my English skills

The practice of using AVC specifically for aiding the studying practice is shown on Figure 84, and it confirms that only a small number of learners uses videos as a complement to their informal learning practices (11%, n=7 and 19%, n=12 do it *Several times a week* and *Several times a month* respectively). Crossing this data with the data shown on Figure 80, it is clear that AVC has a strong entertainment component for the learners.

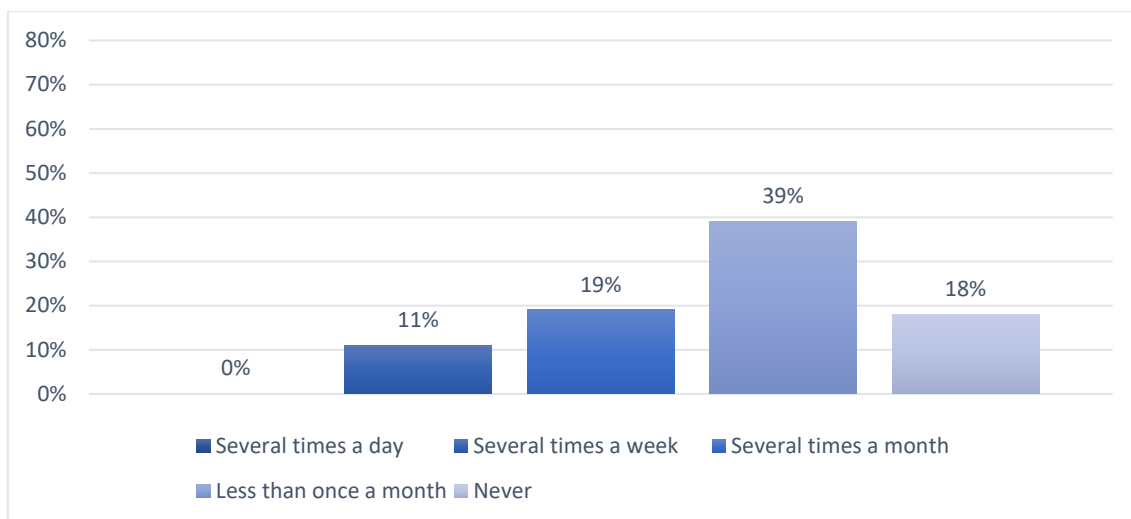


Figure 84 – Q7.3: I use AVC in specific moments of my study

Figure 85 addresses the practice of sharing content for aiding ESP/BE learning between colleagues. The data shows similar results with Figure 84, which leads to the conclusion that the small number of learners that use AVC in their study tend to share what they consume with their colleagues.

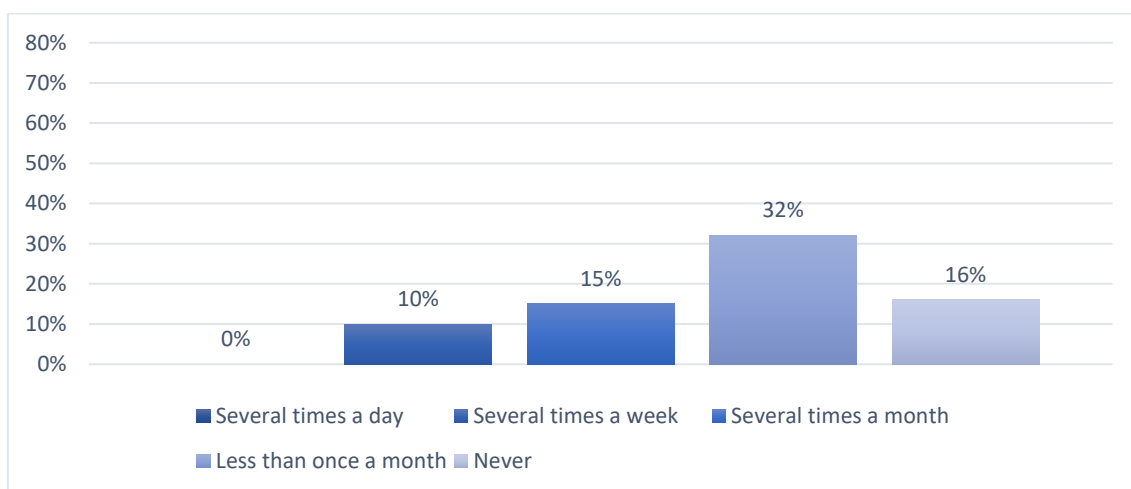


Figure 85 – Q7.2: I share AVC with colleagues that also learn English

All the data displayed and analyzed so far gave a portrait of the consumption habits of these ESP/BE learners. These participants consume AVC mainly for entertainment purposes. A small number of learners uses video to aid their studying practices and their informal learning tasks. However, when it comes to ESP/BE, learners recognize AVC's potential to improve their English skill, even though they do not use it regularly in their studying. Therefore, the AVC consumed to improve the English skills is more connected to what they consume for entertainment purposes.

When asked about the use of a platform to aggregate validated AVC content, 74% (n=46) of the participants expressed the desire in consuming AVC from such a repository, whereas 26% (n=16) of the participants expressed a neutral opinion (Figure 86).

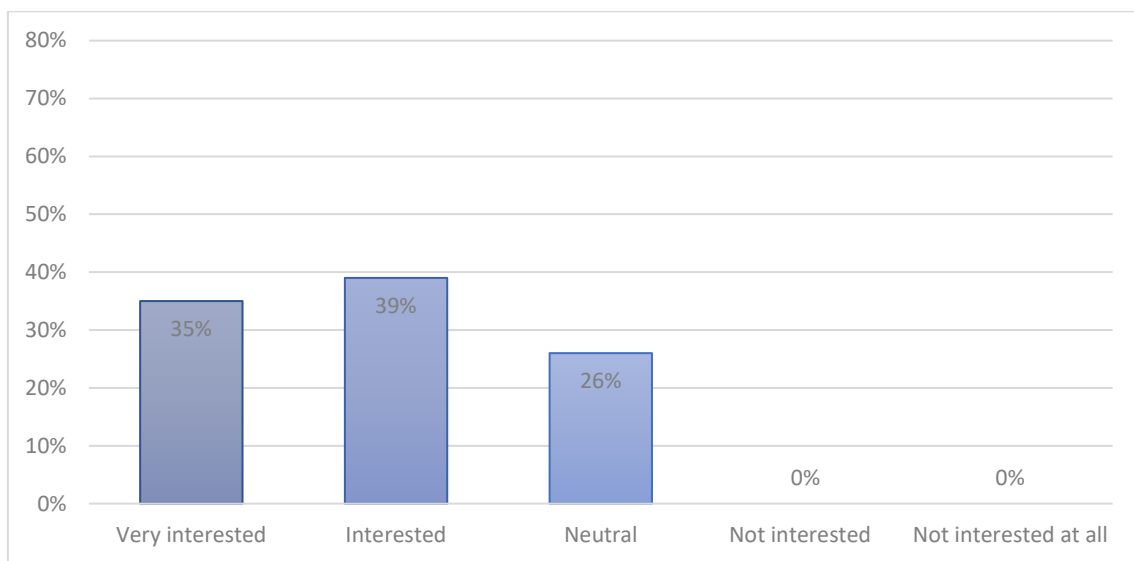


Figure 86 – Q8: If there was a multiplatform (website and mobile application) that collected videos considered (by teachers and students) useful for aiding ESP/BE learning, what interest would you have in using it to search and consume AVC?

2. TEACHER’S VERBAL FEEDBACK

To gather the participants’ opinions while using the prototype these were asked to verbalize what they were thinking. Therefore, the purpose of the TAP was to get feedback from teachers regarding three dimensions: Features; Navigation and Interaction, and; Global Validation of the OCP. In addition to these dimensions, teachers were also asked to pinpoint operationalization threats and share suggestions to be taken into consideration for the evolution of the prototype to the platform. Each subsection identifies a dimension that branches out into category structure underlying the content analysis, where one can visualize the dissemination of the most relevant subcategories identified *in vivo* (Tables 19, 20 and 21). The threats and suggestions will be listed separately, as these were also elements identified *in vivo*. While presenting the opinions of the participants some possible suggestions for the improvement of the prototype may also be highlighted. All the improvements suggested in these subsections will require a designer’s feedback when implementing the OCP.

2.1. FEATURES

The first dimension of the content analysis is *Features*, which was divided into five categories (*Searching AVC; Mapping AVC; Creating playlists; Social interaction; Gamification*) – Table 19.

Table 19 – Content analysis structure for the Features dimension

| <i>Dimension</i> | <i>Category</i> | <i>Subcategory</i> |
|------------------|-------------------------|---------------------------|
| 1. Features | 1.1. Searching AVC | 1.1.1. Search |
| | | 1.1.2. Advanced search |
| | 1.2. Mapping AVC | 1.2.1. Review |
| | | 1.2.2. Catalogue |
| | 1.3. Creating Playlists | |
| | 1.4. Social interaction | 1.4.1. Comments |
| | | 1.4.2. Flagged/dead links |
| | | 1.4.3. Collaboration |
| | 1.5. Gamification | 1.5.1. Rewards/Badges |
| | | 1.5.2. Feedback pop-ups |
| | | 1.5.3. Motivation |

Considering the **Category 1.1.**, *Searching AVC*, it aggregates validation from trial users regarding the tasks to search for content (Tasks 3 and 5). It subdivides into subcategories related to *Search*

and *Advanced search*. Focusing on *Search* (Task 3, Appendix II), S02, S16 and S17 were unclear about the options of the *Choice of AVC* question (*Film, TV Show and Online video*):

S16: *“For me, it is just a question of the medium through which video is consumed”*;

S17: *“Yes, absolutely! When I see the selection, and one of the options is ‘online video’ than what I understand is that all the other videos are not online, and they are [offline] and they are only on my hard drive”*.

Possible improvement:

A possible improvement would be changing “Online video” to “Other type” or “User Generated Content”. Another possibility would be removing the *Online video* option and give more focus to the *Duration* options.

Nevertheless, teachers expressed positive opinions about the time they would save searching for content (S01), and also how *“It would be easier (...) to search for things (...) to try in class”* (S19). One can also infer that other participants validated this feature, as no opinions were doubting the conceptual nature of Task 3 (Appendix II). S12, for instance, was even surprised not to have noticed that the result list was changing while using the refine elements functions (S12: *“Is it already filtered?”*) – a sign of how natural that task was for S12.

Focusing on **subcategory** 1.1.2., while executing Task 5 (Appendix II), S03 and S08 were unsure about the distinction between some of the meso-categorization possibilities:

S03: *“Conducting yourself as an applicant. Oh OK: I don’t see much distinction between those two ‘conducting yourself as a job applicant’ and ‘Taking part in a job interview’”*;

S08: *“Because this [conducting yourself as an applicant] mildly matched my expectations. I don’t really know what the difference is [between the meso communicative skills ‘taking part in a job interview’ and ‘conducting myself as an applicant’]”*.

These participants' doubts dissipated when informed that the categorization stemmed from a study of BE manuals (See Chapter 3, 2.4. LEARNING DIMENSION). More feedback about CS came from S12, S13, and S18, who agreed that choosing just one macro-category was not flexible enough, and that the OCP should provide multiple selections (S12: *I would say it could be both [taking parts in meetings and Talking on the phone]. My first thought was a meeting, but the purpose was talking on the phone. Maybe it should be a multiple choice".*; S13: *"Yes!"*; S18: *"That is a good idea!"*).

Possible improvement:

A possible improvement would be to provide multiple selection possibilities for the CS on the *Advanced search page* (and extend them to the *Share video page* to maintain consistency).

Concerning the concept of choosing and disagreeing with CS information, all participants agreed that the user-opinion about the CS displayed in the content was crucial information¹⁸⁵ – as S06 mentioned *"I quite like it because in business context these roles are required, and it can give an extra learning advantage"*. Moreover, during the execution of Task 5 (Appendix II), S18 appreciated the attention to detail, by confirming the need of mandatory fields in the *Advanced search page* (S18: *"The red ones are obligatory [correct] (...) That would be pretty useful. That would be really useful for the internet in general"*). Again, no opinions were objecting the conceptual nature of Task 5.

The researcher concluded that both search features were validated in their conceptual nature.

Category 1.2. addresses *Mapping AVC*, i.e. a compilation of comments and endorsements of the mapping tasks (Tasks 2 and 6 – Appendix II) and it branches into two subcategories (*Review* and *Catalogue*). Focusing on the latter, S16 mentioned that *"One thing that I would like to have is a box for notes that I would keep attaching to a video I like"*.

¹⁸⁵ During Task 6 of the trial, some teachers (like participants 4 and 5) pointed out their disagreement with the CS attributed to the prototype (purposely) by the researcher. The researcher did this intentionally to start the conversation to lead to the explanation of how the CS mapping would work in the platform.

Possible improvement:

A possible improvement would be including a field of tracking notes that would only be seen by the user in the *Video details page*.

The *Catalogue subcategory*, which is connected to the execution of Task 6 (Appendix II) had comments on two levels: the proficiency calculator and the *Hidden CS* question (mentioned in Chapter 4, 1.1. CATEGORY 1: MAPPING ACCURACY). Regarding the former, teachers validated and there were no objections (S02, S03, S15, and S19 to name a few) to the idea that the proficiency level to be attributed to the AVC should be the average of the opinions given by all users:

S01: *"The things that you can search for, what you want specific to levels (...)"*;

S18: *"Yes, that's good idea"*;

S11: *"That's good!"*;

S19: *"I say 'Intermediate' but someone else says 'upper Intermediate', it will (...) stay in the middle. [nod of validation]"*.

Concerning the *Hidden CS* question, only S12 was asked directly about it, and this participant's reply was very satisfactory *"Maybe it would be good to indent this drop-down menu? I think you need to make it clearer in the actual app. I haven't noticed that it appeared"*. Although S12 replied with an improvement suggestion, the purpose of the question was to understand if the participant had noticed the *Hidden CS* question while executing the tasks – which S12 did not. Moreover, none of the other participants noticed the *Hidden CS* question, thus validating the researcher's solution proposed on Chapter 4.

Sharing and mapping an AVC were purposes of Task 6 (Appendix II) and the feedback was very positive. Again, the positive opinions toward the manner the mapping questionnaire was presented to the participants allows inferring that this type of cataloging would be well accepted in a future real OCP. A relevant confirmation of this inference came from S02, who was verbalizing all steps of the mapping experience showing a clear understanding of all that the prototype was asking. S11 also validated the choice of CS (Meso-categories) stemming from the previous selection (macro-categories) (S11: *"OK, good!"*).

Therefore, the general feeling was that both mapping tasks are well developed and sustained (S11), the process itself is *“intuitive and unproblematic”* (S13), and *“really useful”* (S18) for teachers of EFL.

Category 1.3., *Creating playlists*, regarded the possibility in Task 5 to add the AVC to a previously developed playlist. As no participants presented objections to this specific function, it was considered validated. Only S03 suggested an extra function, namely the possibility to share playlists with other users.

Possible improvement:

A possible improvement would be to create a function to share playlists, videos, and mapped content with other users.

Considering the **Category 1.4.**, *Social interaction*, it aggregates validation from participants regarding the social interaction features proposed by Experts in Chapter 4. It is subdivided into 3 subcategories, specifically, *Comments*, *Flagged/dead links* and *Collaboration*. As to 1.4.1., S08, for instance, had doubts about the *Title* field in Task 6 (Appendix II) – (*“This is not a title to me. How do you describe this video, or what does this video exemplify?”*). After the explanation of what Et1 had already mentioned concerning the difference between *“Title”* and *“Purpose”* (Chapter 4:1.1.), S08 accepted the prototype’s *“Title”* field (S08: *“OK, I get it!”*). Another example provided by the TAP is connected to S19, who was asked to give a different title to [Video 4](#)¹⁸⁶ used in Task 6 (Appendix II):

S19: *“In my opinion, I [would be] sharing this because I believe this could be a good way to show my students how things can go wrong while they are in a phone conversation”*.

This showed understanding by S19 of the purpose of *Title* as a mapping option, thus validating this item.

1.4.2. addressed an element that had been raised by Ed1 (Chapter 4, 5.2. CATEGORY 2: THREATS), i.e., the need to flag inappropriate AVC and the matter of dead links to the videos.

¹⁸⁶ <https://youtu.be/kNz82r5nyUw>

These issues rose when S17 asked “Do you have any protocol or procedure in the event of there not being a video anymore. What if the video is not there at all?”. S16 and S17’s attention was then directed to the “dead link” function on the *Rating/comments page* and inquired if it would be enough as a flag system. Participants presented no objections.

The last subcategory addresses *Collaboration* fostered by the OCP’s social interaction features proposed in Chapter 4 as improvements to guarantee the collaborative element of the OCP. The validation of this subcategory can be divided into three levels. On a first level, participants were focusing on how the OCP would engage teachers to share more with their peers. S18 and S19 were more emphatic about this element, with a consensus opinion that teachers “*should share more*” (S19) and this platform has the right features for this. And, as S19 put it:

S19: “*Of course, because I have several groups in several platforms (...) and we share things online – videos, information, websites; (...) [So someone you know uploaded a video and you’d get a message to watch it and give an opinion] I would watch it*”.

Thus, it can be inferred that the creation of a tool like the OCP, which allows for teachers to share validated content among them, is pertinent.

The second level is related to collaboration between teachers and learners being fostered via OCP. A clear example is stated by S18 and it concerns the use of the OCP, either to map or to search for/consume AVC as in homework assignments (“*You ask them to watch it the day before (...), develop it and get more from it*”) – this idea was already suggested by Ed1 (Chapter 4, 5.1. CATEGORY 1: OPPORTUNITIES). Moreover, S08 was supportive of both teachers and learners giving their feedback on the English level. Finally, S18 also asked if the OCP will allow for the creation of work groups so that “*learners could work together*”.

Possible improvement:

A possible improvement would be the option to create work groups to connect all types of users (learner – learner; learner – teacher; teacher – teacher). This appears to be a valid and a natural upgrade to be included in the development of the OCP.

The third level of this subcategory summarizes generalized praise by the participants:

“So, if 500 people do it you get 500 opinions saying the same thing. What happens then? [In a way it is validated.] (...) OK. Makes sense”. (S03);

“The fact that you have access to stuff that it is being recommended by loads of teachers is, for me, enough”. (S18);

“this is one of the things I look for when I search. Because I know that, so people have used them, so it is probably a good thing to use as well”. (S19).

Category 1.5. of this dimension is *Gamification*, a category that also stemmed from the recommendations of the panel in Phase 2 (Chapter 4, 5.3. CATEGORY 3: SUGGESTIONS FOR OPERATIONALIZATION). This category split into three subcategories: *Rewards/Badges; Feedback pop-ups; Motivation*. As to *Rewards*, S03 reacted very enthusiastically to the idea of getting “prizes”, and S08, S16 and S17 spotlighted the possibility of the OCP branching out externally to seek of partnerships to gather appropriate rewards for both types of target-users:

“Oh! I get [a badge] ... that’s nice! I like that! Having prizes! That’s really cool!” (S03);

“I am going to collect a reward from APPI – I think it’s a good idea!” (S08);

“So, the rewards would be external to the [platform’s] environment? [Yes – (no objection)]” (S16).

Another gamification feature addressed by the participants was connected to the accumulation of V-Points and S-Points (Chapter 5, 5. SURFACE). There was some unclarity in the instructions provided in gamification screens. For example, S16 is unsure about users understanding immediately what S-points and V-points are, and how they connect to the gamification features:

“How does this connect... I want to know pretty early if I have a chance to choose. There were the S-points and V-points mentioned earlier. How do they connect?” (S16)

Moreover, S17 did not understand the concept of the badges right away (S17: *“Badges... I am not getting this. What does it tell me? Am I a rookie, experienced teacher?”*).

During this TAP with S16 and S17, the researcher felt the need to explain all aspects of the gamification features (S-Points, V-Points, badges, and rewards), which clarified all doubts posed

by S16 and S17 about the gamification element. However, both participants agreed that the issue was the lack of clear information about the rewards during the tasks. This led to the conclusion that users will not instinctively understand the reward system. Furthermore, S17 questioned the names defined to the badges, specifically, the *Rookie* badge, which might not be appreciated by teachers.

Possible improvements:

- a. Following S16's recommendations, the OCP will include help icons in all pages and pop up messages related to the gamification features, namely, the gamification pop-up messages and *Achievements and rewards page*:

“On that screen of awards and points, (...) a help icon pointing/directing to (...) [explain that] you are earning badges and possibly rewards (...) Because a user might not know what the S and V points are” (S16).

 - i. The *Help* icons are to be used for all the features of the platform and not just for the Gamification features
- b. Rethink the naming given to the badges and conduct a simple survey with several proposals of badges for teachers to choose one.

Concerning *Motivation*, i.e., whether the gamification features would motivate users to participate, S01 was the only not adhering to this concept: *“I can see it being motivating for others, but it is not for me”*. (S01). However, S12 thinks *“it is a very good idea to actually involve the teacher and the user in general”*, S11 reacted very positively to point accumulation (constant nodding and positive interjections), and S02 appreciated the concept of level ladder, accumulating badges and graduating to upper levels:

“So, it is like first level, second level? And you accumulate the levels? (...) And then you have all the badges here, like when you graduate from rookie to experienced, it shows here. Right!” (S02).

2.2. NAVIGATION AND INTERACTION

The second dimension of the content analysis is *Navigation and Interaction*, which was divided into two categories (*Layout; Icons*) – Table 20.

Table 20 – Content analysis structure for the Navigation and interaction dimension

| Dimension | Category | Subcategory |
|-------------------------------|-----------------|------------------------|
| 2. Navigation and interaction | 2.1. Layout | 2.1.1. Redundancies |
| | | 2.1.2. Instructions |
| | | 2.1.3. Messages |
| | 2.2. Icons | 2.2.1. Advanced search |
| | | 2.2.2. Heart |
| | | 2.2.3. Share video |
| | | 2.2.4. Checkboxes |
| | | 2.2.5. Dashboard |

Considering the **Category 2.1.**, *Layout*, it subdivides into subcategories related to *Redundancies*, *Instructions*, and *Messages*. Concerning *Redundancies*, S17 questioned the redundant amount of clicking for Tasks 2 and 3 (Appendix II):

“[Task 3] Why do I have to click? Because this is not a complex question (...) This feels very redundant (...) Again, I think this box here [gamification pop-up message] is not necessary because that makes me have to click. (...) You [User] want to change something, go ahead! (...) I have a general feeling that it shouldn’t engage the user so much”.

This participant’s opinion regarding the subcategory is grounded on S17’s experience in developing digital media content for EFL and other subjects. Such a background makes S17 a more knowledgeable participant on this particular aspect of material development.

Further comments were made related to the *Redundancies* subcategory in Task 3 (Appendix II), which asked the user to edit details of the AVC based on the choices made in the *Search results page*. S16 and S17 believe that these restrictions are unnecessary. Finally, when executing Task 5 (Appendix II), S16 and S17 considered once again that the amount of clicking could be reduced while interacting with the *Advanced search page*.

A final item concerning this subcategory was raised by several participants who did not see the need to have the “S-“ and “V-Points” hidden in the *Achievements and rewards page* (Figure 87). Not only was it “*Not so clear to see*” (S03), but it was also forcing people to search and click more than necessary – similar opinions were shared by S02, S08. According to S12:

“I was wondering why the points were hidden. (...) It was a bit unclear because I was looking for the points next to the icons”.

S08 proposed an improvement to this issue: “*(...) if ‘points’ were aligned with ‘badges,’ (...) it would be more visible. So, ‘badges’ could be on the left and center; ‘points’ (...) in the same location. These are rewards essentially, ‘points’ and ‘badges’ (...) so if they are lined up, I would maybe see them a bit better”.*

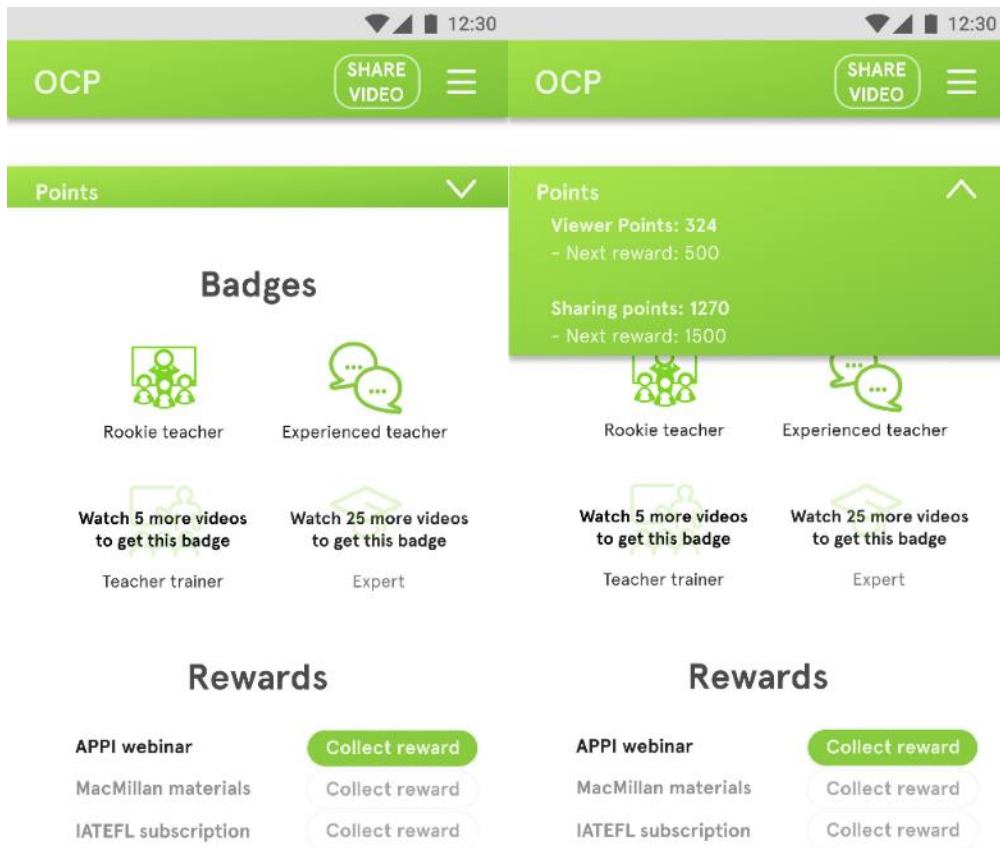


Figure 87 – Achievements and rewards screen (without and with displayed points)

Possible improvements:

- a. Eliminate redundant clicking from Task 2 and 3 by developing the following interaction:
 1. Watch a content -> 2. Rate and comment it -> 3. Receive a gamification message that would fade automatically -> 4. Go straight to the *Edit details page*, and 5 -> Edit details. S17 showed more enthusiasm and validated this improvement (S17: “*Absolutely!*”). This improvement should be taken into account for Task 5 and 6.
 - i. S16 and S17’s background as developers of digital content for EFL makes their opinion very relevant. However, these were the only participants proposing this change. This means that if this improvement is set, there will be a need to conduct a new trial with teachers to see if this change would conflict with S16 and S17’s proposal
- b. Eliminate the restrictions to the editing of details as proposed in Task 3 (Appendix II). Both S16 and S17 agree that the *Edit details page* does not need restrictions. Future users should have the chance to edit all the video details they see fit, either after consuming a suggested AVC or after a search for AVC.
 - i. Again, S16 and S17’s background as developers of digital content for EFL makes their opinions very relevant. However, a free edition of all details of a video by all users can bring problems of excess of opinions. Therefore, this improvement should only be considered if the users of the OCP complain about the excess clicking. Moreover, there will be a need to think about a type of monitoring system of the free edition.
- c. Add a *check/uncheck all* function to both the *Advanced search page* and the *Share video page*.
- d. Have the platform ‘remember’ previous choices in multiple-choice questions and the most written keywords while searching for AVC. This can be done using *cookies* which will personalize the experience with the platform or by using the user-profile to narrow down the video selection possibilities. As S16 and S17 suggested:

“What I am saying, have them all checked because this is pretty fine-grained. Don’t force people into choosing from this (...) I would keep them here but have them all checked already. And uncheck [‘select/unselect all’ function] if you are so fussy and just one specific describing word”. (S17);

Moreover, “If the system remembers my choices (...) You will have all of S17's options, and I would have all of my options off, and we would both be happy”. (S16)

- e. Display points clearly on the *Achievements and rewards* page.

Focusing on the **subcategory** *Instructions*, participants identified unclear instructions both on the *Dashboard* (Figure 88) and on the *Refine Search Screen* (Figure 89). The former was showing the instruction “*What do you want to learn today?*” on the teachers’ profile, hence, an inadequate instruction. The latter lacked a written/explicit instruction for users to refine their search. S19 identified a third unclear instruction on the “*Subtitles*” question (Figure 90). This participant believes that learners may think the subtitles are presented in their native language (and not in English).

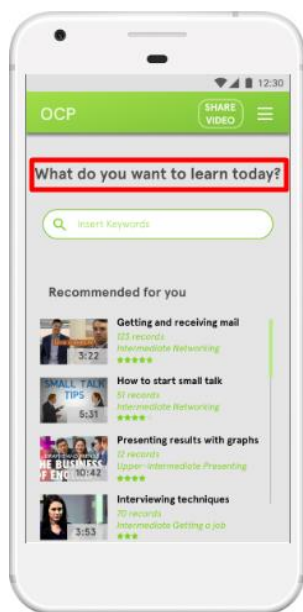


Figure 88 – Dashboard: Incorrect instruction

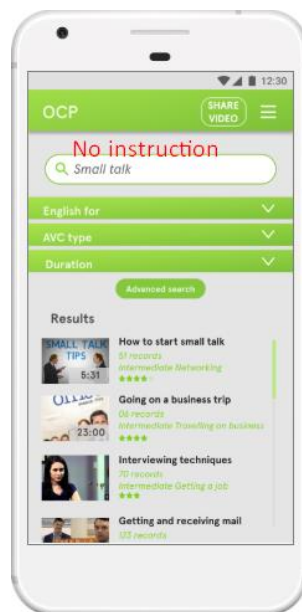


Figure 89 – Task 3: missing instruction



Figure 90 – Task 5: Subtitles question

Possible improvements:

- a. (Figure 88) Change the incorrect instruction on the teacher’s profile to “*What are you looking for?*”.
- b. (Figure 89) Add the instruction “*Filter results*” below the search box – a web designer should validate this improvement.
- c. (Figure 90) Change the heading of the drop-down menu to “*English subtitles*”

Shifting to the *Messages* **subcategory**, S01, S03, and S06 did not distinguish immediately which message was the most recent (Task 7, Appendix II). S02 even added *“I am missing something. Select the message about viewing scores”*.


Possible improvement:

S17 hinted that a reason for the Inbox not to be so clear might be the lack of *“dates or hours of the messages”*. Hence, the future OCP’s Inbox this information to the *Messages* page. A web designer should be consulted for this improvement.



As to the **Category 2.2.**, *Icons*, it subdivides into the *Advanced search*, *Heart*, *Share video*, *Checkboxes*, and *Dashboard* subcategories. As stated, *Advanced search* was one of the prototype’s commands that raised some issues. From the users’ perspective, it did not have enough relevance on the screen. This led to some hesitation by, for instance, S01, S09, and S19 (S19: *“Probably you should put it in a different color. Just to highlight it. (...) I didn’t really notice that it was there”*).


Possible improvement:

Improve visibility and outline of the “Advanced Search” icon.

Subcategory 2.2.2., i.e. *Heart*, focuses on the  button. S03, S08, S13, and S17 were participants that would prefer first to see an outlined “heart” button and a colored-in button after clicking on it: *“I don’t think the heart should be colored in. It should outline, and when I click on it, it would be solid”*. (S08).



Possible improvement:

Follow the participant’s suggestion and place an outlined heart () , when unclicked, and a full heart () , when clicked.



Concerning the **subcategory** *Share video* some participants also complained that () was not very visible (S02, S03, and S08: “OH! There is a ‘share video’ button”).


Possible improvement:

Improve visibility and outline of this command.


Another **subcategory** (*Checkboxes*) relates to the checkboxes used in Tasks 5 and 6 (Appendix II), which, according to S01, S03 and S13, were too small. S13 also found somehow frustrating that a user needs to press a very small checkbox ( ; ) – S13: “I am frustrated over the Internet when I browse and select things, that it forces me to click at the very boxes – I would like more to click on the word, for me that is one entity.”

Possible improvement:

Devise a clickable area which is the combination of checkbox + choice ( ; ) , which is the standard for checkboxes in mobile operating systems.

One of the most common comments (S03, S06, S13, S14, S15, and S16) regarded the **subcategory** *Dashboard*. Participants did not recognize the logo  as a connection to the Dashboard of the prototype (“I would like it to be more visible: like a homepage [icon]. OCP does not mean anything to me yet.” [S15]).

Possible improvement:

A simple improvement for this restraint is to replace the logo with a *Homepage*  symbol (S06) and add the same command on the *User-menu* (S13).

2.3. GLOBAL VALIDATION OF OCP

The third dimension of the content analysis is *Global validation of the OCP*, which was divided into three categories (*Concept; Structure; Mobile environment*) – Table 21.

Table 21 – Content analysis structure for the Global validation of OCP dimension

| Dimension | Category | Subcategory |
|-----------------------------|-------------------------|--------------------|
| 3. Global Validation of OCP | 3.1. Concept | |
| | 3.2. Structure | |
| | 3.3. Mobile environment | |

Concerning **Category 3.1.**, i.e. participants' opinions about the *Concept* of the platform, it is relevant to share some endorsements that validated the purpose of developing such a tool:

"That was good, I enjoyed that. I think it is a very good idea, (...)" (S01);

"I would love to use it with my students". (S10);

"First of all, I think it is a great tool. I would definitely use it". (S15);

"The whole experience was really interesting. This could be a very helpful too indeed. A sort of curated YT for BE/ESP purposes" (S20).

More information about the validation of the OCP will be addressed in the analysis of the data collected in the post-trial feedback questionnaires.

In **Category 3.2.**, trial-users also commented on the *Structure* of the OCP by sharing positive testimonials of the prototype's user-experience, namely:

"Very straightforward to use. Very easy". (S01);

"It is quite easy in the sense that it is clear. I can see the details, and I can see who it is for through the video, as well. I think it is important to know what I am doing. So far, it's been quite clear what needs to be done and how it works. (...) I really like the layout. It is straightforward". (S10);

"Quite intuitive and unproblematic" (S13).

Concerning **Category 3.3.**, only S18 expressed a positive opinion about the OCP's "Mobile environment", however, none of the participants expressed any doubts about the embodiment of the prototype in a mobile app. All accepted the trial in a mobile device, and none raised questions as to the possibility of having a web-platform to complement the mobile one. Hence, one can infer that the participants validated the mobile nature of the OCP.

In conclusion, the TAP addressed three dimensions: *Features, Navigation and Interaction* and *Global validation of the OCP*. More data about these trials will be later analyzed in the *Post-trial feedback*. However, from the rich qualitative data provided by the TAP, it was also possible to identify threats and propose improvements to the OCP's conceptual nature and suggestions that the teachers believe will be useful for the operationalization of the platform. These will be discussed in the next subsection.

2.4. THREATS, CORRECTIONS AND SUGGESTIONS

One of the threats was the danger of users with a low-level of English proficiency providing inaccurate mapping. This issue was raised by S09 and S17, and it was already addressed by Ed1 (Chapter 4, 5.2. CATEGORY 2: THREATS)

"allowing people to choose. Great! But not so great if their own language level isn't very high, they might be choosing things which have mistakes, or just badly made. And that would influence other learners to also choose and see less correct examples. But I don't see how you would be able to control that. (...) [a video] could be teaching people things that are incorrect and when you learn something, it is really difficult to unlearn". (S09);

"What if there is a bunch of rogue users who do the nasty thing so... maybe not on purpose, but just because they are not competent enough" (S17).

The latter threat (S17) refers to the possibility of low-linguistic quality AVC being uploaded to the OCP by the low-level users. Firstly, these may not be competent enough to recognize mistakes in the AVC, due to their limited language level (S09). Secondly, the fact that low-level users tend to upload *"too much of what they like, rather than what they need or benefit from. Because with massive input influences the results quality"* (S09). The combination of these two behaviors may pose a threat to the AVC quality provided by the OCP. Low-level users may even

be attracted by ACV that is *“made with good digital cover/look; but the language is really bad, bad pronunciation, mispronunciation, (...)”* (S09).

Possible improvements:

- a. The implementation of a validation system where high-level users will be invited to confirm the mapping of low-level users, in exchange for rewards. S17 proposes that *“It may also be an idea to incorporate/embrace/accept the modifications more willingly when they come from experienced teachers [the badge], or those who are ranking high in the badge scale. Because they are experienced, they probably know what they are doing”*.
- b. The trust in the collaborative element of the OCP, which (as Ed1 had put it) will marginalize inaccurate mapping (S17 agreed with this view). This improvement also includes the “flag” system mentioned above, which raised doubts to S09 (*“I don’t see how you would be able to control that. If you have open access to anything (...) if you create a flag system, then that would mean some administrator would have to control and delete it often. That would be a lot of work because you’d have to see it every day”*).
- c. The platform can avoid overloading high-level users with mapping requests by immediately allowing content from trustworthy platforms (*“If you use BBC English or stuff from the British Council [or .org websites] ... that stuff is always being screened. The language level may be too difficult, but the language in itself is correct”*). [S09]).

During the TAP teachers expressed some operational suggestions which, in their view, could improve user participation and thus, guarantee the collaborative element. One of the recommendations was related to the use of the OCP to support teaching practice, i.e., teachers could use the OCP not only to upload and map AVC but also to share *“tasks that accompany the videos”* (S18). This suggestion was shared by S14, who believed that *“a comprehension and a follow-up [related to the shared video] (...) is very convenient. You do not have to prepare your lesson from the beginning”*. S14 reinstated the risk (already mentioned by Ed2) which is that teachers will only adopt a tool if they see a value to their practice (Chapter 4, 5.2. CATEGORY 2: THREATS).

Possible improvement:

To foster this suggestion, a new URL is to be included in the User Dimension of the Matrix, where users would be directed to a template of a lesson plan developed for the OCP specifically. Users could complete this lesson plan and it would be included in the *Video Details Page*.

S16 also suggested rethinking the rating system of the Teachers' environment. In this participant's opinion, "*The rating skill is too flat as you are only giving us one scale here. Maybe you need two or three choices. (...) The teacher user is more knowledgeable. This (rating system) might work with students*". S17 complements this suggestion by saying that the teacher does not evaluate a coursebook with a flat system of five stars.

Possible improvement:


S16 and S17 suggested that the rating system of the teachers' experience should be based on a set of indicators (appropriateness to student, quality of speech, or maybe accuracy) – S16 and S17 were not clear as to the rating indicators. The OCP will propose teachers a rating system based on five stars addressing three indicators (like the Airbnb [www.airbnb.com] rating system).

- I. Once again, S16 and S17's background as developers of digital content for EFL makes their opinion very relevant. However, this improvement would only be considered if there was critical feedback from users about the conceived rating system for the OCP.

Another essential feature for S16 was the possibility to know distinctively how many teachers and how many learners mapped a content. For this participant, this information is essential because "*Teachers are better cataloguers, but they have a very specific view of the world of didactics*", whereas "*the opinion of the learners puts the AVC closer to what they really need/want*". – the latter opinion was already shared by Ed1 in Chapter 4, 5.1. CATEGORY 1: OPPORTUNITIES. S16 thinks there is value in knowing "*what the students advertise and what teachers like*". However, Et2 believed this type of fine-grained information on the *Search results page* was unnecessary (Chapter 4, 4.1. CATEGORY 1: FILTER).

Possible improvement:

The OCP should have a click option on the number of records, where an information message would pop-up and inform the detailed information of how many mapped the AVC. As both groups of users will select if they are *teachers* or *learners* while registering in the OCP, it will be possible to know how many of each group mapped an AVC.

Another suggestion was provided by S03, who wanted the OCP to have a page dedicated to the uploaded and cataloged content, i.e., a “My shared videos” page – considering that the prototype shows a link to *My favorites page* ([Favorites](#) ). This participant believed there should also be a link on the “User menu” to “Shared videos”. This suggestion is corroborated by S16 and S17 “*Going back to the idea that we are using a teacher’s account. Teachers might want to start collecting the videos that they want*”. (S16); “*Yes. Build their own favorites*” (S17).

Possible improvement:

Considering this feedback, this suggestion will enrich the OCP and therefore, it will be implemented.

A final issue raised by S03, S08, and S12 was the guarantee that users who map keep anonymous to the community: “*Let’s say I got a video which is private on YT. One of the videos that I have hidden (...) that I wouldn’t mind sharing with other teachers [but not with students]*”. (S03); “*And then, would it show my name? I don’t think it should show my name. I don’t really want it*”. (S08); “*I prefer to stay anonymous. It would be my choice. In other software you have the opportunity to choose if you want to sign with your name or remain anonymous*”. (S12). Their general thought is that the mapping work is unknown, and they will only share it, if they wish it, with users to whom they are socially connected – and here they should be able to choose which communication platform to use.

Possible improvement:

The OCP will need to safeguard all the privacy issues of its users using the standard data protection practices.

Other suggestions include:

- Considering branching out to GE (S01: *“but you need to branch out from BE”*)
 - This suggestion is naturally logical and valid for future work ideas (the future work section will address it in more depth), but it was not in the scope of this research project.
- Building a content base before asking users to start uploading and mapping (S15: *“It will need some kind of basic content before you start with the idea of everybody pitching in”*)
 - This suggestion was already stated by Et2 (Chapter 4, 5.3. CATEGORY 3: SUGGESTIONS FOR OPERATIONALIZATION), and the researcher is aware that the OCP would need to handle the “cold start”. And for that, a set of AVC would be uploaded into the platform before making it public.

Summary

The TAP with teachers was a complementary methodological strategy to **i.** test the prototype in what concerns usability and functions; **ii.** collect feedback concerning the interaction of the target-users with the prototype; and **iii.** collect comments on the experience of using such a platform in the future. By validating the prototype globally and specifically its features, teachers were validating the core concept of the OCP and the value it would have in the EFL community. By validating the prototype’s navigation and interaction functions, trial-users were corroborating the embodiment of the Matrix into a usable tool, thus confirming that the future OCP would be user-friendly and able to be used by the target users.

After following all methodological procedures and subsequent analysis of the collected data, it was clear that participants saw value in the development of this OCP, thus stressing the validity to the main goal of the research project. They understood all the functions and features of the prototype and how they would be beneficial to the goal of the OCP. Finally, they agreed that the way the prototype was built was intuitive and user-friendly. The gathered data allowed identifying corrections to be made in the operationalization of the OCP, threats that might influence the success of the platform and suggestions to circumvent the threats. These items will be listed on the next page.

The structural corrections can be sorted into two groups: 1. Improvement to the user experience, and; 2. Corrections and revisions. Table 22 provides the summary.

Table 22 – Summary of corrections to be made when evolving the prototype to an OCP

| Group 1 –improvements and upgrades | Group 2 – Corrections and revisions |
|--|--|
| <ul style="list-style-type: none"> a. Help buttons to explain Gamification features; b. Make points visible; c. Provide multiple selection options in “Genre” and CS; d. Select/unselect all buttons; e. Make the clickable area of checkboxes more prominent; f. Change logo with a home icon (for now); g. Add dashboard option in the User-menu; h. Highlight “Advanced search” button; i. Highlight “Share video” button; j. Redesign “Heart” button; k. Remove redundant screens from “Refine search experience”; l. Notifications disappear automatically. | <ul style="list-style-type: none"> a. Rewrite <i>Dashboard</i> landing page question; b. Insert instruction in the <i>Search results page</i>; c. Specify “English subtitles” in the <i>Advanced search page</i> and mapping questionnaires; d. Review badges’ names; e. Review AVC type option “Online video”; f. Review “Inbox”. |

The main pinpointed threats relate to a lack of features to control the quality of content that is being uploaded to the platform, which allows low-level users to upload low-quality AVC from any open repository and, at the same time map it inaccurately. Another threat is the possible uncertainty selecting the Meso-categorization of the CS. A final threat relates to the users not understanding the Gamification features, namely, how does the point > badges > rewards work. Users with teacher profile might also not appreciate the names of the badges suggested in the prototype.

Naturally, due to the nature of the TAP, as participants were conducting the trial, some operationalization suggestions to the threats were shared. These suggestions/improvements can be organized into three dimensions clarified in Table 23:

Table 23 – Sorting of suggestions in dimensions

| | |
|--|--|
| <p>Dimension 1 – Improve the teacher experience in the OCP</p> | <ul style="list-style-type: none"> a. Give information about how many teachers and learners have already mapped an AVC; b. Integrate the user accounts and <i>cookies</i> to improve the personalization and content retrieval from previous sessions.; c. Add a “My shared videos” page; d. Assure private social-interaction tools; e. Build a content base before launching the OCP. |
| <p>Dimension 2 – Guarantee quality AVC in the OCP</p> | <ul style="list-style-type: none"> a. Ask High-level users to validate the mapping of AVC shared by low-level users; b. Automatically allow AVC from trustworthy repositories and when a content from an untrustworthy repository is uploaded, send it for high-level users to validate the mapping before appearing on search results; c. Improve the rating system of the teachers’ experience. |
| <p>Dimension 3 – Use the OCP for teaching purposes</p> | <ul style="list-style-type: none"> a. Provide a lesson plan template which teachers can complete after sharing new AVC; b. Insert a field for private tracking notes about the AVC; c. Give teachers the possibility to define new search/ catalog criteria; d. Allow for the construction of teacher and learner Groups; e. Develop a similar research project to branch out to GE. |

Taking all the information of this subsection into account, that the results seem to indicate that teachers would be interested in this platform, as participants believe it fulfills a purpose for both teachers and learners and it has value to add to the ESP/BE teaching/community. In the next section, the goal is to confirm whether the teachers post-trial responses validate the qualitative data collected before. Moreover, the learners’ feedback will also be analyzed.

3. POST-TRIAL FEEDBACK QUESTIONNAIRES

This subsection will focus on the feedback from the teachers and learners that participated in the study after their trial of the prototype. Data were collected via a post-trial questionnaire (Appendixes II and III) implemented in the tool *Google Forms*. The participants accessed the survey after the completion of the hands-on trial with the prototype, so there was no need for the researcher to intervene.

3.1. TEACHER POST-TRIAL FEEDBACK QUESTIONNAIRES

The questions displayed in the charts below (Figure 91) concern the teachers' opinions about the collaborative element to validate AVC according to EFL/ESP/BE needs of teachers and learners. 90% (n=18) of participants consider that community validation is essential to use specific AVC in the classroom. Hence, teachers in this trial appreciate platforms which provide them with validated content to use in formal teaching contexts – this reiterates Ed2's opinion about teachers being very keen on having tools to help their practice (Chapter 4, 5.2. CATEGORY 2: THREATS).

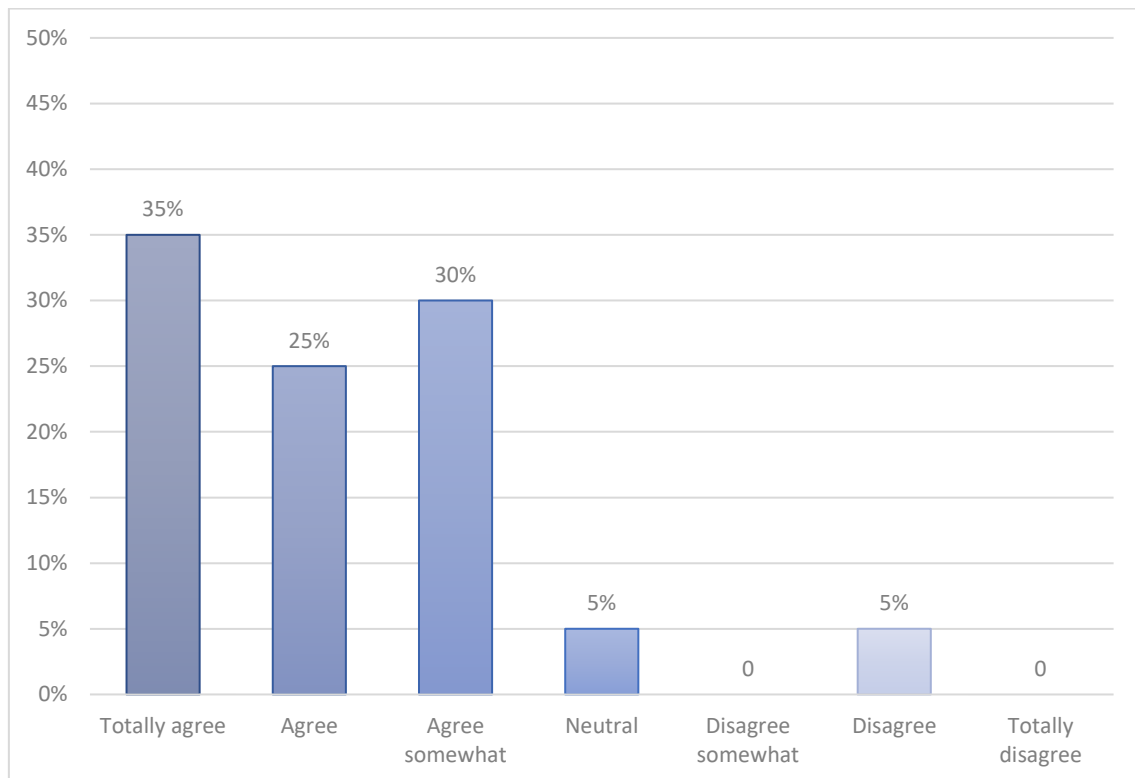


Figure 91 – Q: The opinions of the EFL community about a video are crucial to validate it as a learning aid.

Focusing on the data displayed in Figure 92, 85% (n=17) agree that the mapping experiences, i.e. the ones provided by the prototype – post-viewing mapping and share video mapping –, are of added value to the OCP. Even though the participants pinpointed aspects to improve, the core concept of the mapping experience was validated by a significant majority of participants. Moreover, there was no disagreement concerning the idea that user participation will improve the quality of the information provided by this OCP.

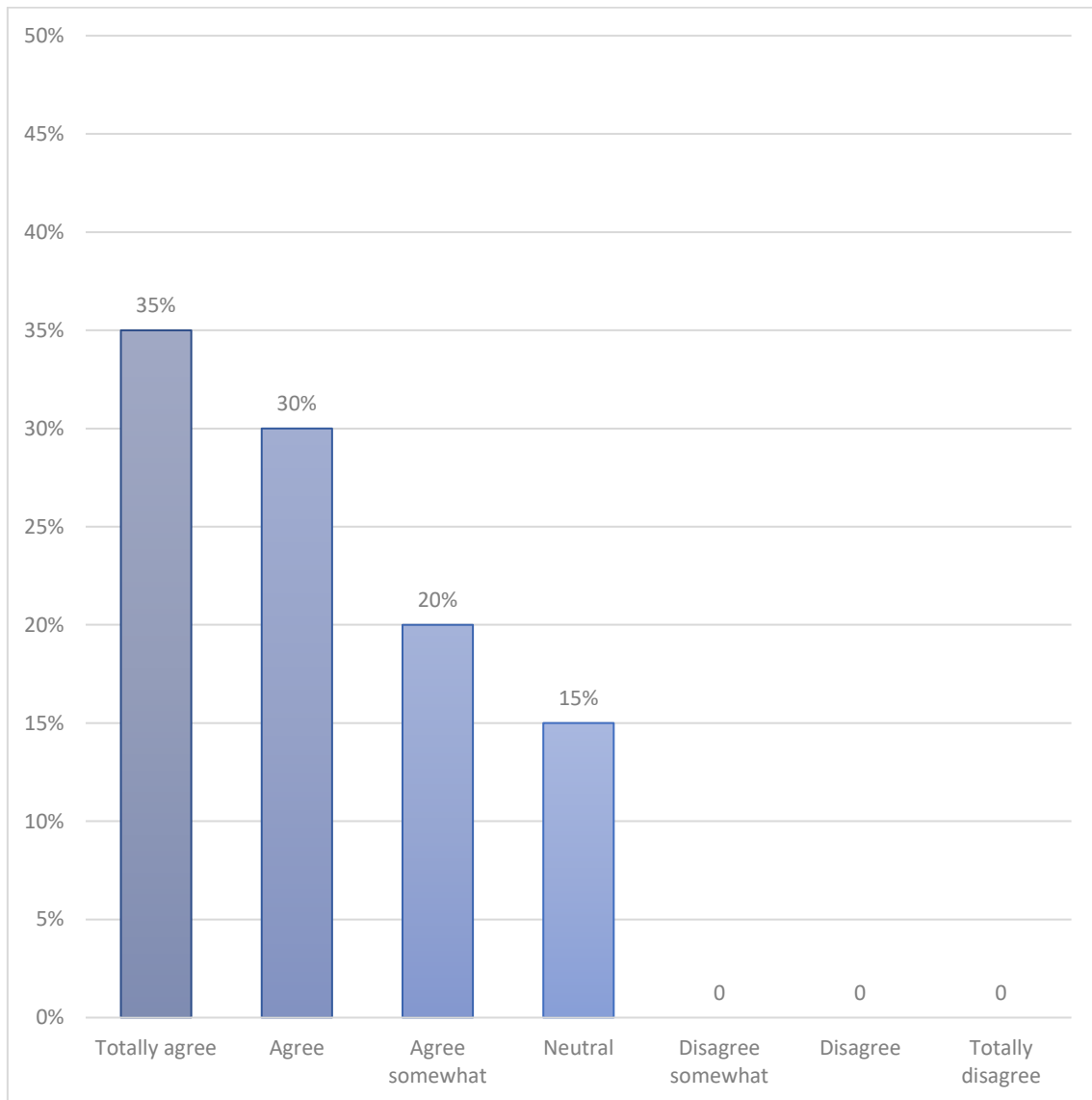


Figure 92 – Q: The ability to contribute to the classification of a video (by editing or adding information) improves the quality of information provided by the platform.

Considering that the participants validated the mapping experience, it would also be pertinent to get feedback on the mapping features of the prototype itself, namely if the mapping range allows for mapping AVC efficiently and if these participants found the mapping experience

cumbersome. Figure 93 and Figure 94 address these questions; Figure 95 provides evidence that these participants are mostly satisfied with the number of categories of the mapping experience (55%, n=11). Only 15% (n=3) would like to have more mapping possibilities.

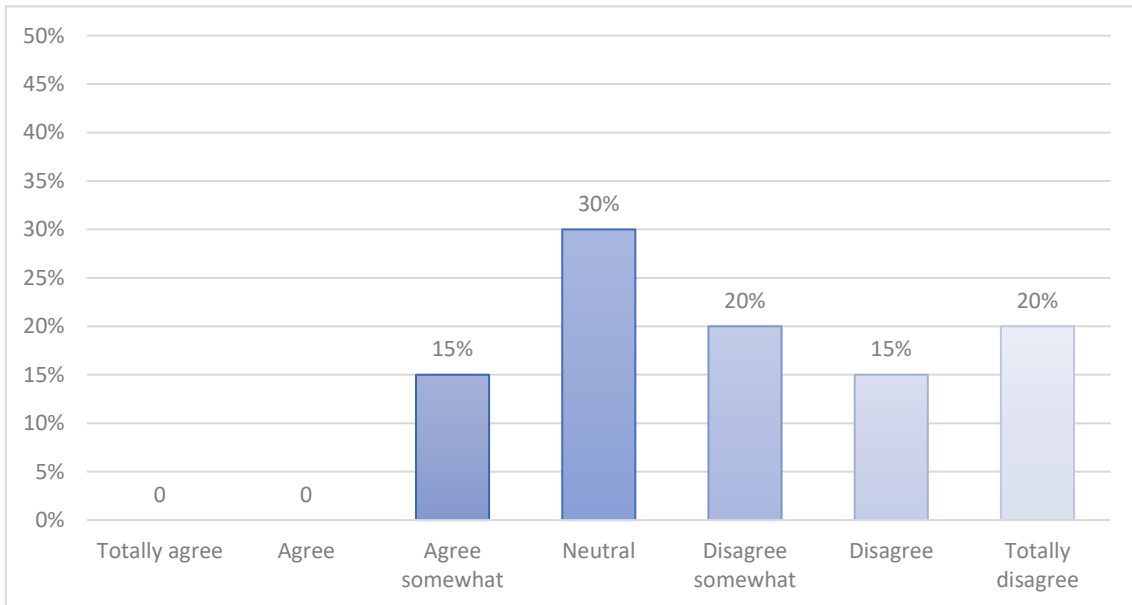


Figure 93 – Q: The platform needs more categories to allow a suitable match between AVC and users' needs.

Figure 94 indicates that most of the participants found the amount of information asked to map videos accurate. Only 10% (n=02) believed the amount of video information is excessive, as opposed to the 70% that showed disagreement.

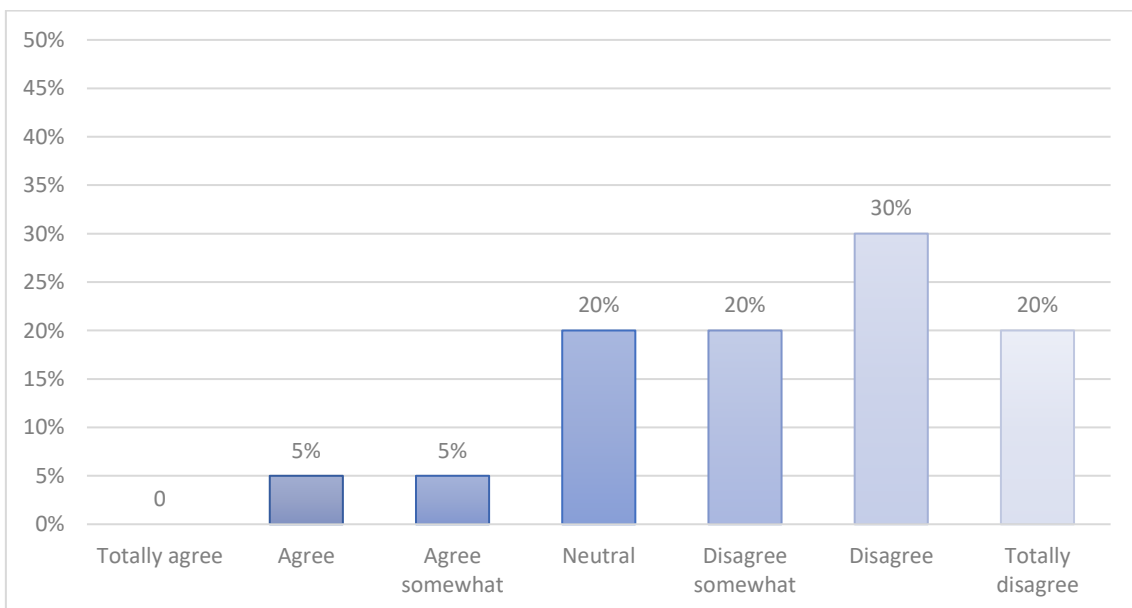


Figure 94 – Q: The amount of video information to insert is excessive.

A third aspect to focus on this post-trial feedback was the Gamification concept in the OCP. As it can be seen of Figure 95 and Figure 96, 65% (n=13) of these participants see value in the collection of points and in the attribution of rewards – the latter have a more explicit acceptance than the former. The remaining 35% (n=07) showed less motivation towards the points, badges and rewards system. Given these results, Gamification features need to be revised to be more engaging or better understood by the users.

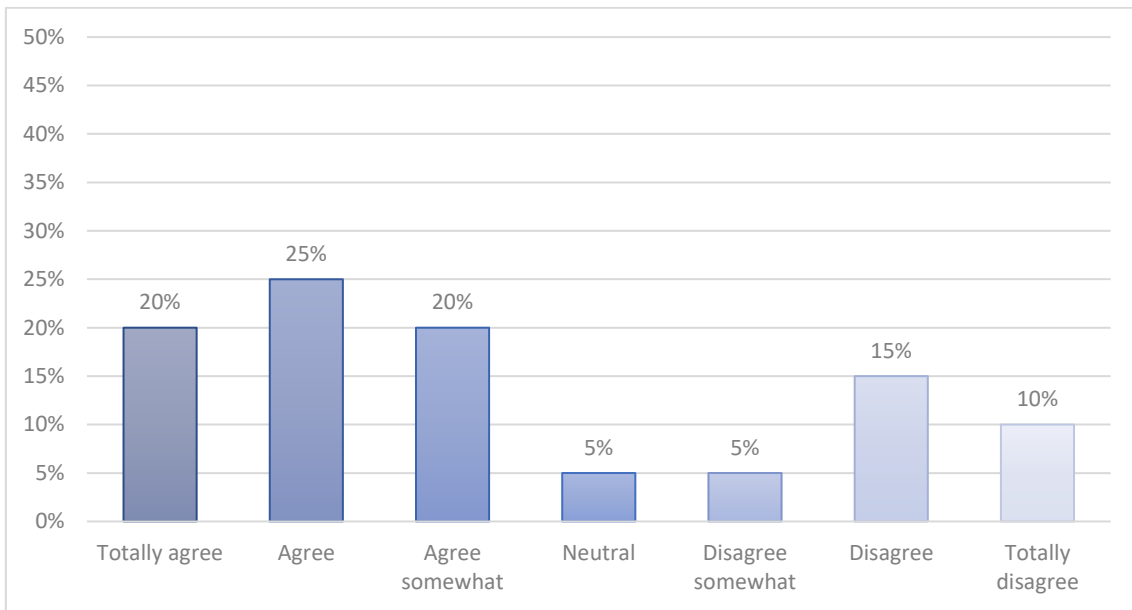


Figure 95 – Q: Receiving points for doing tasks on the platform motivates me to participate.

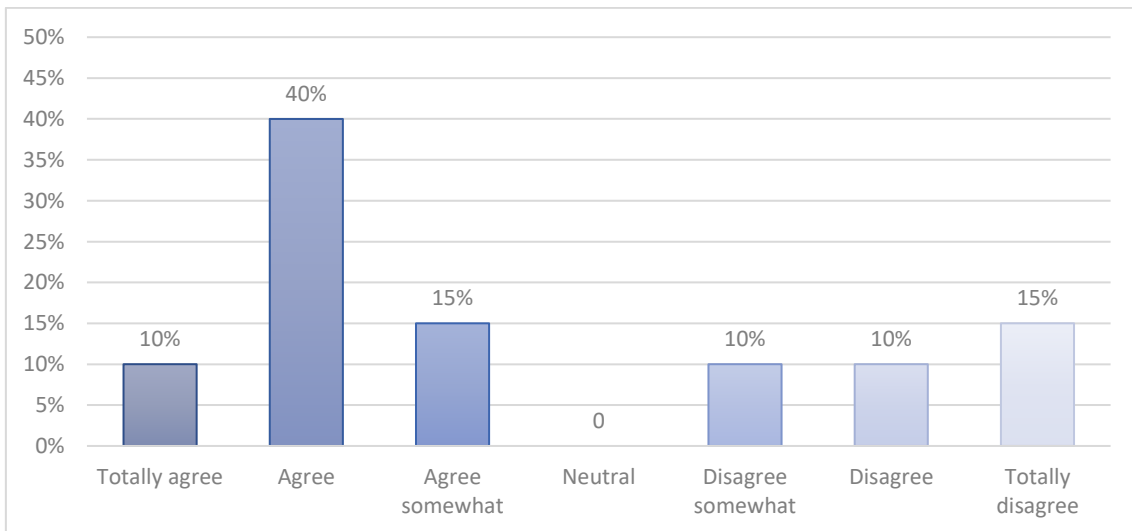


Figure 96 – Q: Receiving badges to unlock rewards targeting my constant improvement as a teacher/educator motivates me to participate more.

Participants were also asked to predict their behavior in case they would have the possibility of using the final version of the OCP as a product. Figure 97 compares the data from Figure 73 (p. 180) with answers about a specific use of the platform. This chart allows to see an increase in the frequency of searching and using AVC in class. [Figure 73](#) (pag. 180 – represented on Figure 97 with blue bars) shows that these participants were not very regular in searching and sharing content with the community, since most of them did it only sometimes a year. However, the orange bars on Figure 97 show that the OCP could have an influence in shifting their habits, i.e., 40% (n=08) of users would use this platform to search for AVC to employ in class (i.e., an increase of 35% (n=07) “several times a week”, and “several times a month”).

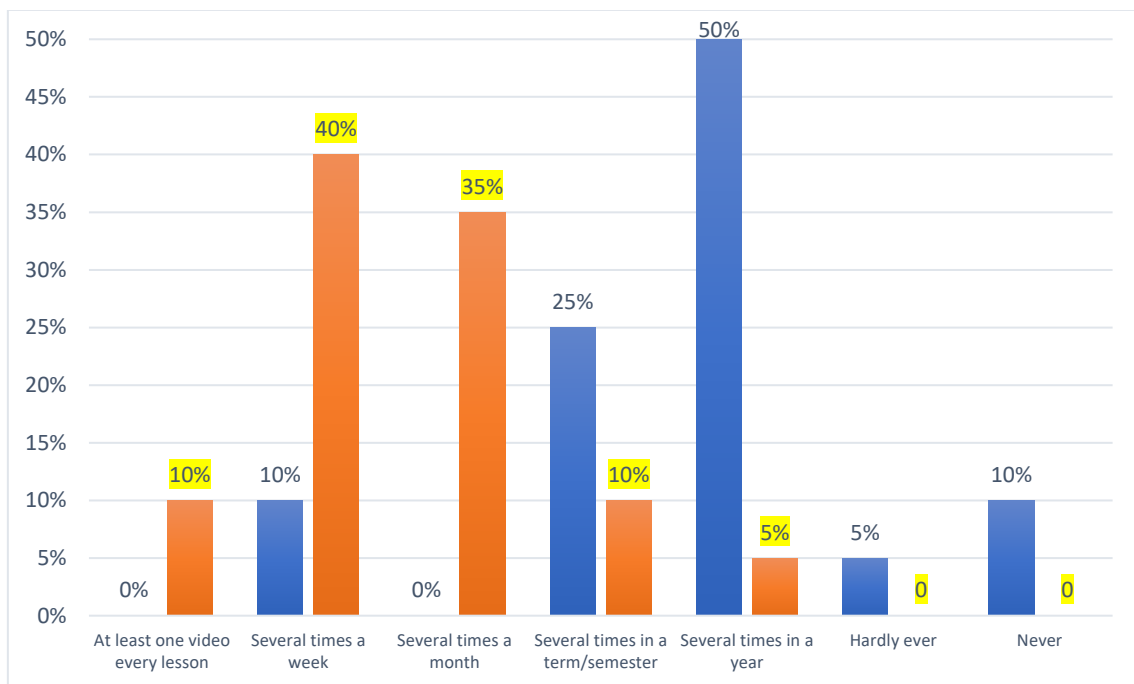


Figure 97 – Comparison between “Q: I take time to search for videos to use in the classroom or to recommend to colleagues/learners.” (blue bars) and “Q: I would use this platform to search for AVC to use in class.” (orange bars and highlighted percentages).

Sharing content with others also looks quite promising (Figure 98) with 45% (n=9) more users claiming they would use the OCP to share and recommend AVC on a more frequent basis.

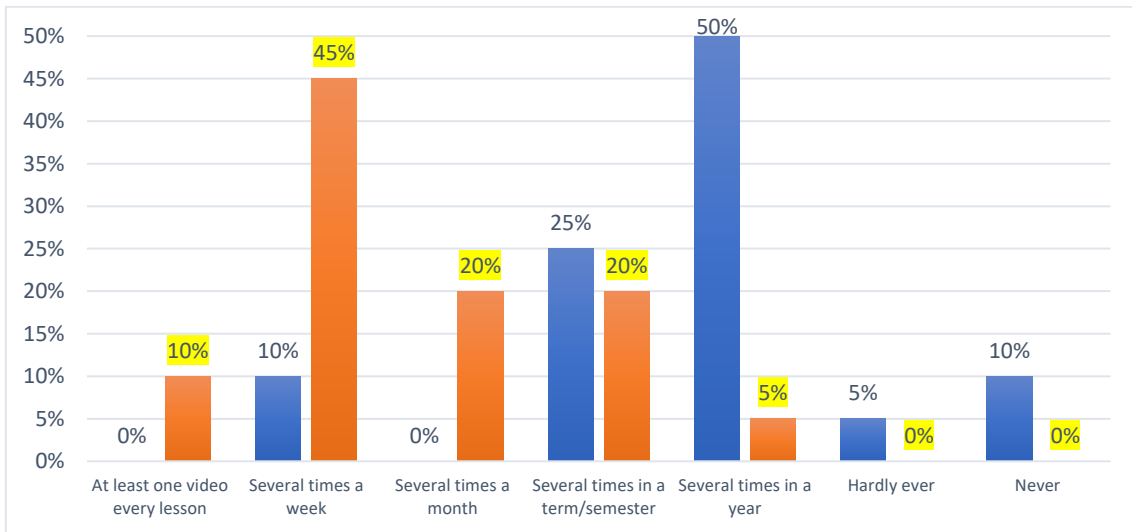


Figure 98 – Comparison between “Q: I take time to search for videos to use in the classroom or to recommend to colleagues/learners.” (blue bars) and “Q: I would use this platform to recommend videos to my colleagues/learners.” (orange bars and highlighted numbers).

Respondents were also asked to predict their mapping habits using the OCP. Figure 99 addresses data concerning using the OCP for sharing and cataloging of videos, thus revealing participants’ attitudes towards post-viewing mapping of previously uploaded content (Blue bars) and sharing and cataloging content (orange bars).

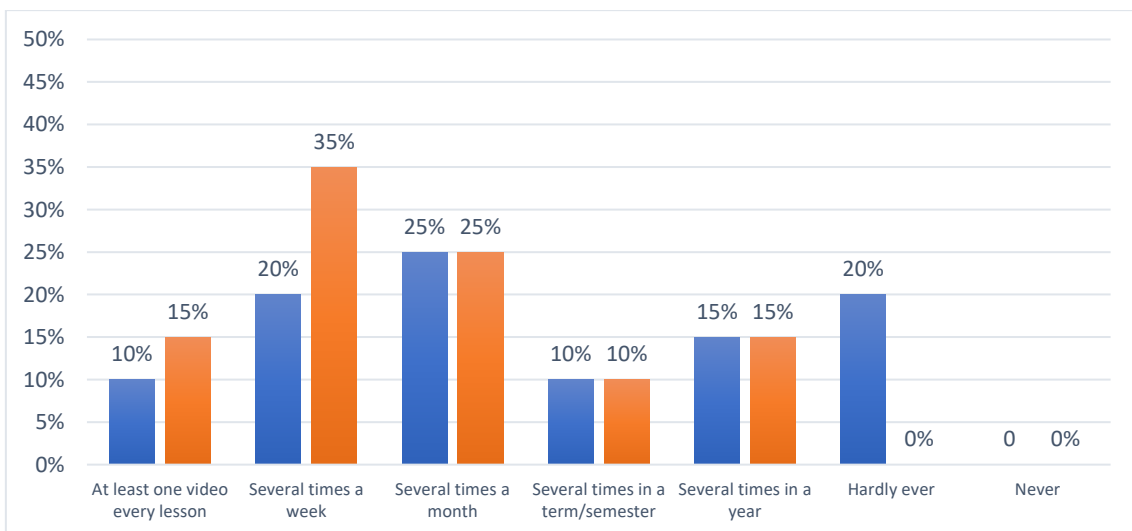


Figure 99 – Comparison between adherence to Task 3 (Q: I would take a bit of my time to access the platform and add/edit information about videos shared by others) – blue bars; and to Task 6 (Q: I would use this platform to share videos and catalog them.) – orange bars.

The data indicates that sharing and mapping new AVC seems to be a more engaging and fulfilling experience for the participants with the OCP, whereas giving quick opinions about previously uploaded appears to be a less favored behavior. Nevertheless, the results are positive towards

an engagement with the improvement of the platforms content. The 60% (n=13) stated to be available to contribute to mapping others' content in a weekly or monthly basis, which is very positive for this type of task.

Respondents also had the chance to leave comments on the Post-trial survey. In these comments it was possible to identify more opinions to validate the conceptual nature of the OCP:

- *"I like the idea of a dedicated platform/repository to search for AVC content for classes, and especially one where the content can be vetted/rated/categorized by our peers, which I believe is the great strength of this app".*
- *"Looking good!!!!"*
- *"Quite an intuitive and potentially useful resource for both students and teachers"*
- *"although I don't think I would use it on an everyday basis, I think it will be an extremely useful tool both for teachers and learners"*

Summary

In this section the goal was to list the results of the data collected from the post-trial feedback questionnaires filled by teachers. Relevant data about the experimental tasks was presented, and the main findings encompass three levels: a conceptual level, a practical level, and a behavior level.

On a conceptual level, these participants validated concepts, such as gamification, i.e., the notion that their participation in the tasks of the platform will bring about some sort of compensation. Another validated element was the collaboration, which is the participation of the community to share, map and validate AVC to aid teaching/learning practices (all this done in a free-access platform that provides tools for all registered users to catalog and state opinions). These teachers showed appreciation for platforms which offer them validated content to use in the classroom – and they consider this OCP fits this type of platforms.

On a practical level, respondents validated items like the gamification features – although a considerable number (35%) still does not feel motivated by these. The mapping tasks executed by participants were also considered of added value. Not only did they show an appropriate range of mapping, but they also asked for a balanced amount of information to catalog the AVC – thus making the mapping tasks easy and intuitive.

Finally, the participants' answers pointed towards a future use of the OCP on a regular basis. Not only did participants admit using the OCP to search for AVC on a regular basis, but they also see themselves sharing and mapping AVC (that they discover on their own) in the platform. Finally, concerning giving quick post-viewing opinions on previously shared content they were less engaged but still with a positive attitude.

Considering the feedback from these participants, it seems plausible to assume that: if this OCP becomes a reality, there will be a substantial amount of teachers operating it to search, map and share AVC.

3.2 LEARNER POST-TRIAL FEEDBACK QUESTIONNAIRE

This following section will focus on the feedback from the learners after their trial of the prototype. As with the teachers, the information was collected via the post-trial questionnaire (Appendix III) using *Google Forms*.

Regarding Question 1, Figure 100 shows that 57% (n=31) of participants *Agree/Strongly agree* that this OCP has worth as an aid for ESP learning, as opposed to the 20% (n=11) of participants that *Disagree/Strongly disagree*.

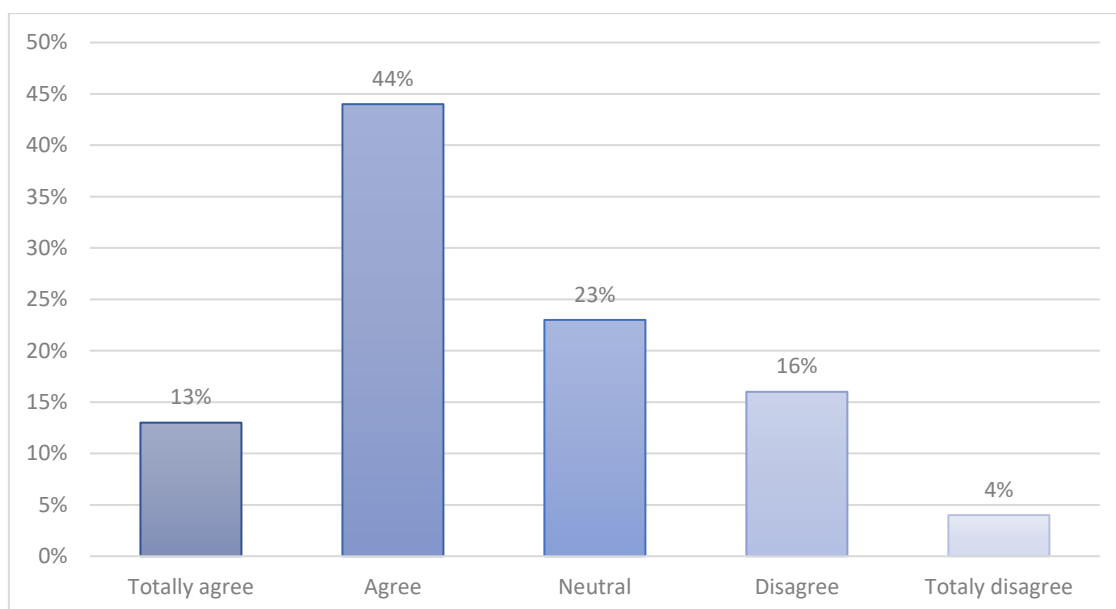


Figure 100 – Q1: This platform is useful for me to use videos to support my learning of English.

Figures 101 and 102 provide feedback about the mapping range and information display of the OCP. The data displayed in the former reveals that 52% (n=28) of participants would be willing

to go through a longer mapping questionnaire. This percentage is relevant because it is a confirmation that the cumbersome questionnaire executed by the Experts¹⁸⁷ has evolved into an intuitive and quicker task. On the other hand, 30% (n=17) of participants see no need to add more categories to the questionnaire. The data depicted in Figure 101 reveals that participants were not displeased with the way information about the videos was displayed. Considering the 30% (n=17) of neutral opinions and 42% (n=23) of participants willing to accept the display of further information, one can infer that a complete *Video details page* (as conceived for the OCP) would not contain too much information.

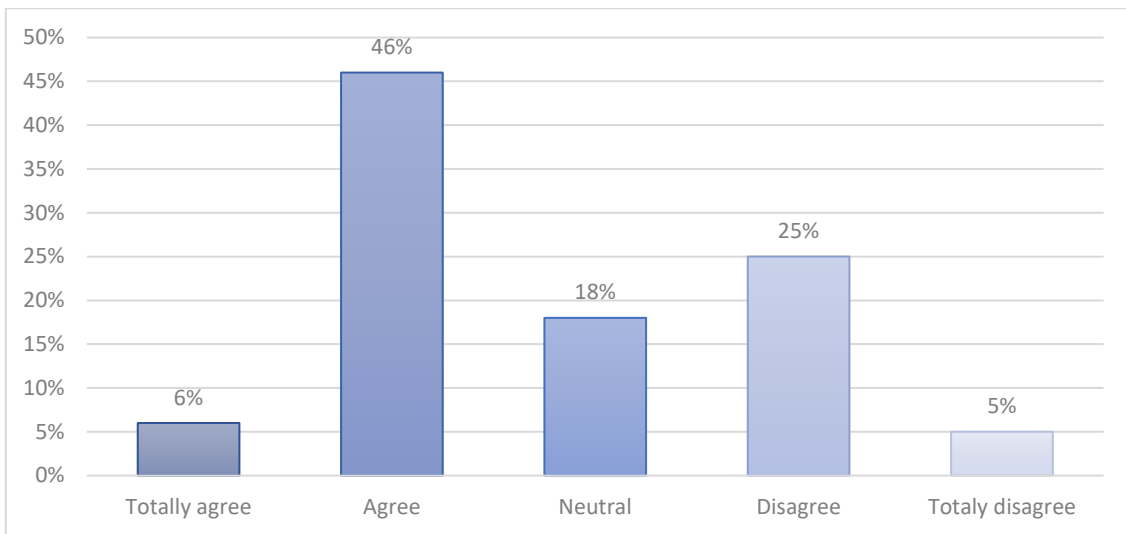


Figure 101 – Q3: 1.1. The platform needs more categories to catalog the videos.

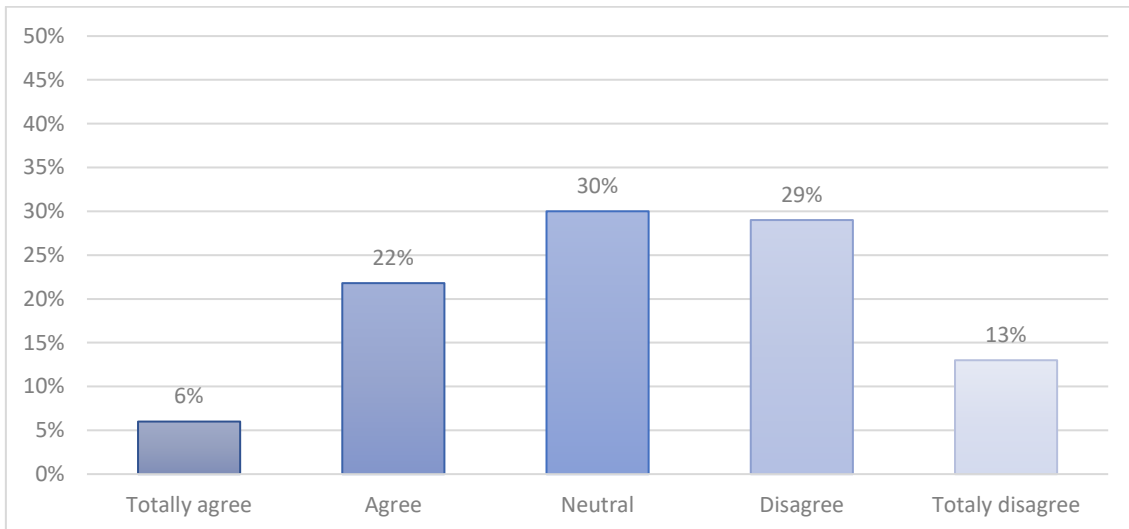


Figure 102 – Q3: 1.2. The amount of information requested / made available on the videos is excessive.

Figure 103 addresses the collaborative element/experience proposed by the OCP and a mere 13% (n=07) of users show an unfavorable opinion of crowd-mapping of AVC. The 29% (n=16) of

¹⁸⁷ The Et1, Ed1 and Ed2 considered answering the Matrix questionnaire a cumbersome and long task (Chapter 5.2).

neutral participants also will be taken under consideration, as one can infer that some of these users are not convinced of the possible benefits of the collaborative element. As a platform that will thrive with user participation, it is essential to persuade future users to participate without hesitation. Nevertheless, 58% (n=32) of learners have a favorable opinion about the value of the collaborative features.

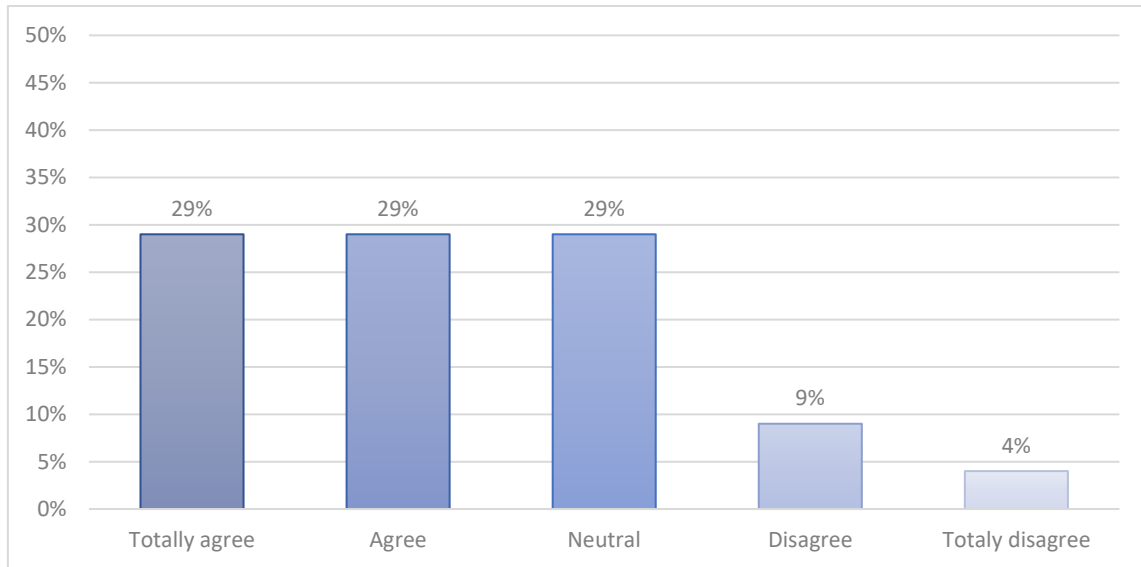


Figure 103 – Q3: 1.3. The ability of teachers and students to contribute (editing or adding information) to the classification of a video improves the quality of the information provided by the platform.

Figures 104 and Figure 105 (see next page) are related to the gamification features of the OCP. What stands out the most is the low number of participants that show little interest in the gamification features (20% [n=11] according to Figure 104 and 22% [n=12] according to Figure 105). Again, when adding the number of neutral participants (29% [n=16] on both charts), the sum of the three groups (*neutral + disagree + strongly disagree*) is relevant, and one needs to further think of strategies to engage these groups. However, the number of participants interested in the gamification features is around 51% (n=28) according to Figure 104 and 49% (n=27) according to Figure 105, which is a positive number considering the users were interacting with a prototype.

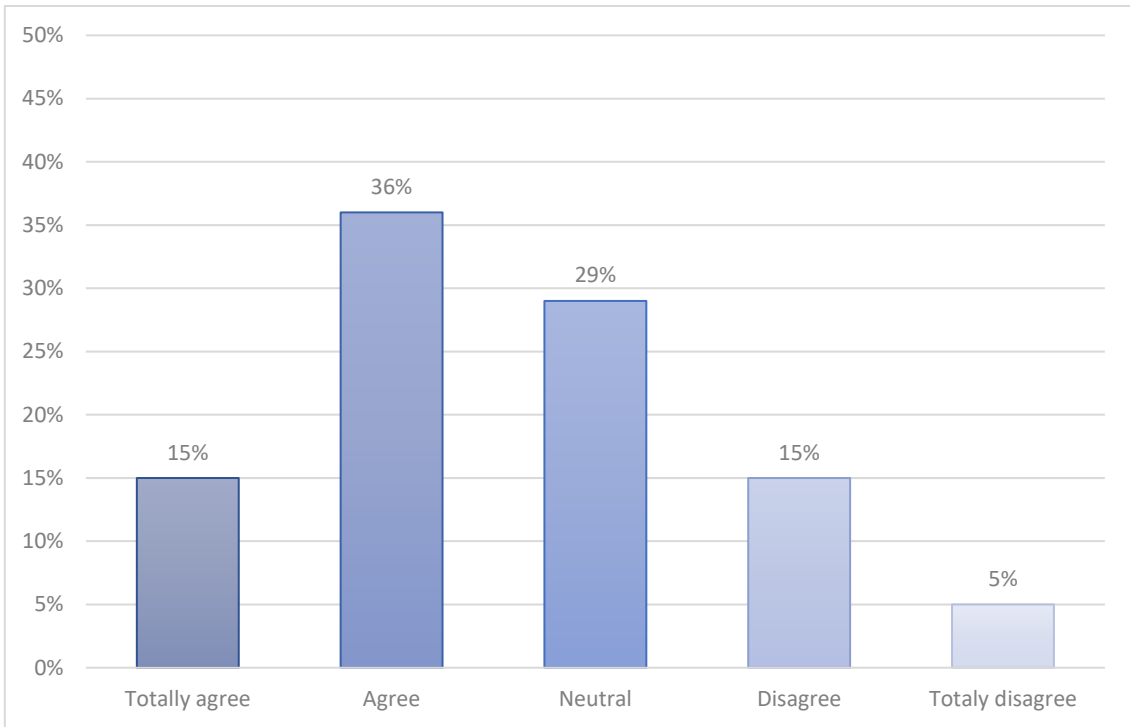


Figure 104 – 1.5 Receiving points for performing tasks motivates me to participate.

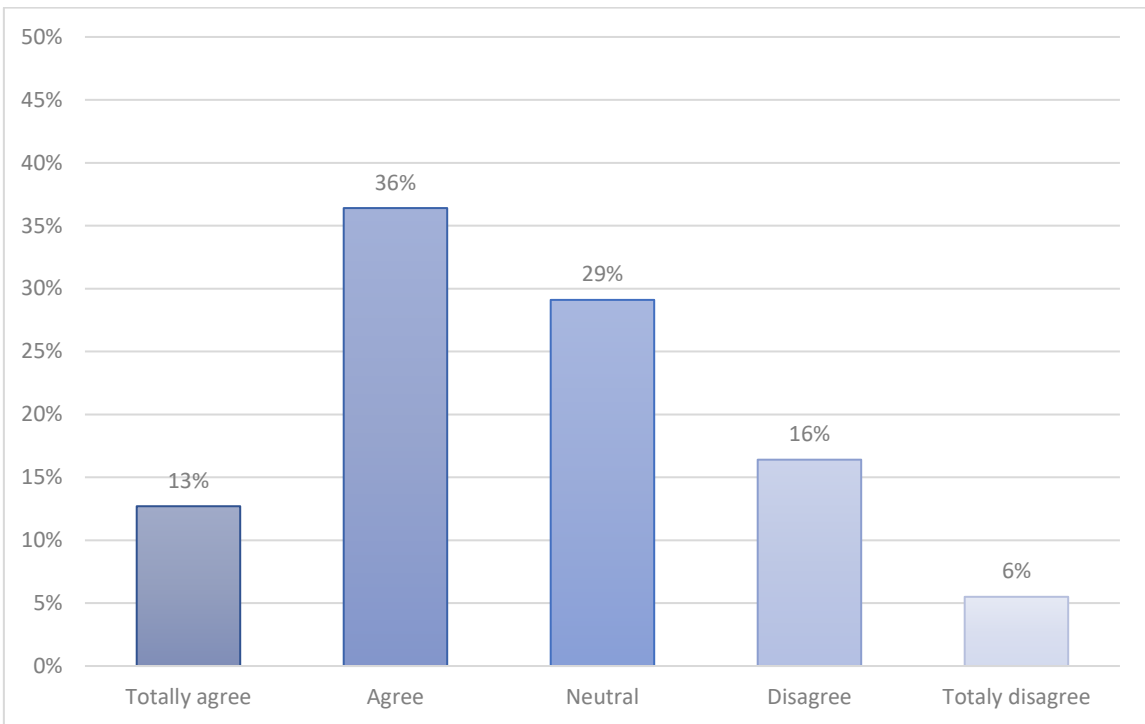


Figure 105 – 1.6. Receiving badges motivates me to participate more.

Concerning the information collected in Question 2, Table 24 shows how many participants answered each of the questions and its conversion into percentages.

Table 24 – Q2: 2. Considering that this prototype would evolve to a multiplatform (web and mobile) application, indicate its degree of agreement with the following statements.

| | Several times a day | Several times a week | Several times a month | Less than once a month | Never |
|--|---------------------|----------------------|-----------------------|------------------------|---------|
| 2.1. I would use this platform to search for videos to use in my study. | 2 4% | 12 22% | 23 41% | 16 29% | 2 4% |
| 2.2. I would use this platform to recommend videos to my colleagues. | 2 4% | 12 22% | 24 43% | 15 27% | 2 4% |
| 2.3. I would use this platform to recommend videos to my teachers. | 3 5% | 12 22% | 21 39% | 16 29% | 3 5% |
| 2.4. I would use this platform to share videos and catalog them. | 1 2% | 9 17% | 20 36% | 20 36% | 5 9% |
| 2.5. I would use this platform to add / edit information about videos added by others. | 0 | 13 24% | 18 33% | 19 34% | 5 9% |

Two levels of conclusions can be drawn from this chart: **i.** Searching and recommending level; and **ii.** Sharing and mapping level. As to the former, one can conclude that this platform would motivate learners, who were not using any platforms at all, to use this aggregator sporadically. When comparing percentages of questions 2.1., 2.2. and 2.3. (as reflected in Table 24 – and expressed in Figure 106, bars) with the rates of [Figure 78](#) (Q6 – represented on Figure 106 with the line and highlighted percentages) one can see a shift in the opinions of learners towards a more frequent use of such platform. In the first questionnaire 23% (n=14) of learners said not using any platform to assist the learning process. In the second one, the most relevant use intention is *Several times a month*. Moreover, no relevant shift was noticeable in regular users.

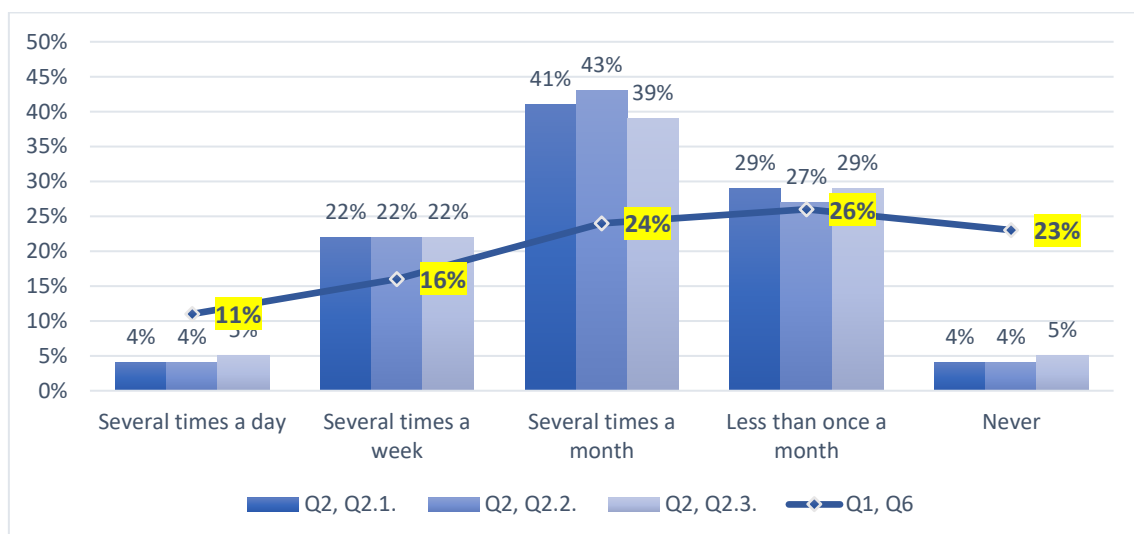


Figure 106 – Comparison of percentages between Questionnaire 1, Question 6 and Questionnaire 2, Questions 2.1., 2.2., and 2.3., to verify the migration of user frequency from the pre-trial Questionnaire (Q1, Q6) to the post-trial Questionnaire.

The second level of conclusions relates to sharing and mapping of content. When comparing opinions about sharing AVC from the pre-trial questionnaire (Figure 107 – grey line) with the views from the post-trial Questionnaire (Figure 107 – blue bars), it is clear that there is a shift from learners who do not share content with others at all (44% n=25) to *Less than once a month* and *Several times a month* (72%, n=40). There is also a small shift identified in the *Several times a week* variable: one can see that the 10% (n=6) in Questionnaire 1 raised to 16% (n=10) adding *Several times a Week* with *Several times a day* in Questionnaire 2.

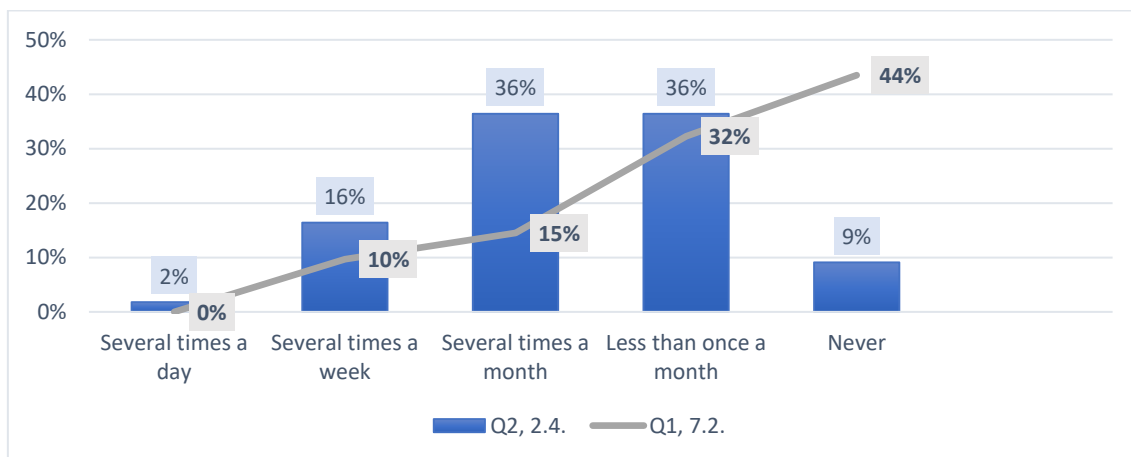


Figure 107 – Questionnaire 1, Question 7.2. I share videos with colleagues that are also learning English (Q1, 7.2). Questionnaire 2, Question 2.4. I would use this platform to share videos and catalog them (Q2, 7.4.).

When asked about mapping AVC, and as can be evidenced in Figure 108 most of the trial-users chose to use this feature of the OCP with an irregular frequency (68% [n=37]), whereas 24% (n=13) admit using it regularly. 9% (n=5) of the users admit they would not use this feature at all. From these results one can infer that the learners would use this OCP mostly for search and consumption of content, thus leaving the mapping for more occasional times.

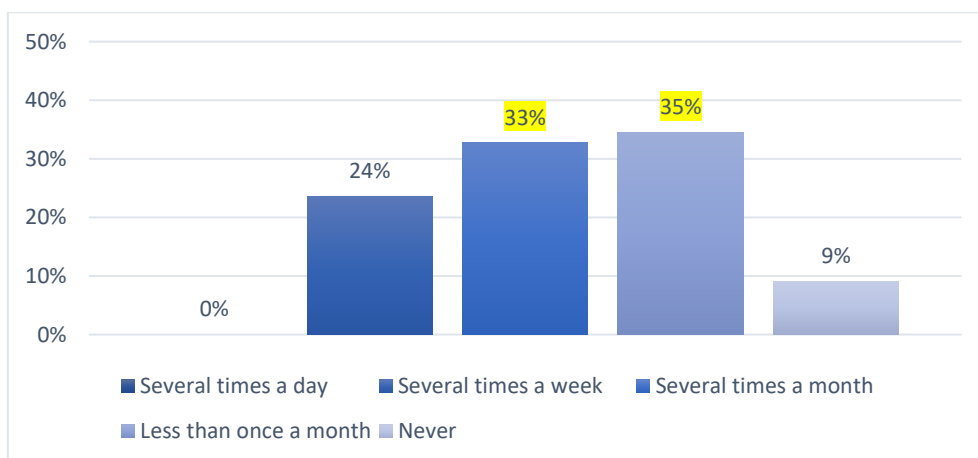


Figure 108 – Questionnaire 2, Answer 2.5. I would use this platform to add/edit information concerning videos shared by other users.

Regarding the willingness of participants to use this platform for searching, sharing, consuming, and cataloguing AVC (Figure 109), 52% (n=28) of respondents expressed an interest in using it, 35% (n=19) have a neutral opinion, and 13% (n=7) expressed a minimal interest.

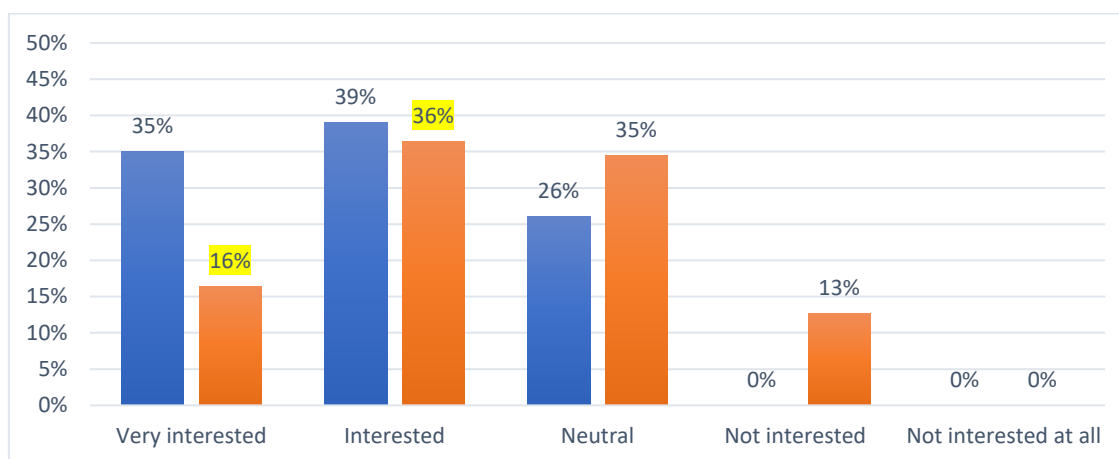


Figure 109 – **Blue:** If there was a multiplatform (website and mobile application) that collected videos considered (by teachers and students) useful for aiding ESP/BE learning, what interest would you have in using it to search and consume AVC?; **Orange:** How interested would you be to use this platform as an aid to your ESP/BE learning habits?;

When comparing these results with [Figure 86](#) (Q8) represented on Figure 109 by the blue bars, one can conclude that, even though learners are interested in this type of platform, the way this prototype is organized is not to their complete satisfaction. This is pinpointed by the decrease of *Very interested* respondents (35% to 16%) and by the increase in respondents that answered *Not interested* (0% to 13%). No respondents answered *Not interested at all*, which can be inferred as a window of opportunity for an OCP of this sort to be introduced in the market.

Respondents also had the chance to leave comments, which would be useful to understand what improvements would be helpful to improve the learner experience. These comments are transcribed and commented below:

- Confirmation of informal education potential.
 - “(...) *daria mais jeito para uso pessoal*” (“it would be better for personal use”);
- Need to improve the interaction functions.
 - “*Feed mais interativo e simples, layout mais apresentado, possibilidade de linkar com outras redes (YouTube, Moodle)*” (“more interactive and simple feed, better presentation layout, possibility to link to other platforms [YouTube, Moodle]”);
- Mapping improvements

- “*Propósito, área de interesse, Grau de formação*” (“*Purpose, area of interest, academics*”);
- Validation of the platform
 - “*Esta aplicação tem imenso potencial pelo facto de filtrar os vários vídeos de YouTube em categorias e graus de dificuldade aliado a um sistema de recompensa semelhantes ao de os jogos de computador... Genial*” (“*This application has a lot of potential by filtering the various YouTube videos into categories and degrees of difficulty allied to a reward system similar to that of computer games ... Great*”);
 - “*Esta plataforma pode ser um bom meio para pessoas com dificuldade em línguas visto que podemos escolher vários níveis de inglês*” (“*This platform can be a good medium for people with language difficulties since we can choose different levels of English*”).

Summary

In similarity with the summary presented for the teachers, the data about the experimental tasks of the learners organizes its main findings into three levels: a practical level, a behavior level, and a conceptual level.

On a practical level, learners believed the mapping and search tasks were intuitive and simple – they even consider that there could be more options in the mapping/searching questionnaires. Furthermore, they feel *Video details page* could have more information about the AVCs, which is relevant to the construction of the OCP – it is relevant to mention that the prototype only showed a small amount of information due to its limitations. Therefore, it is positive that these learners would like to see more information about the AVC as the real OCP will present a more detailed *Video details page*. Another aspect was the gamification features, which were not engaging enough for a considerable number of these learners. Despite validating gamification conceptually, 49% (n=27) of learners did not feel enough affinity with the chosen gamification features.

On a behavioral level, these learners do not view mapping AVC in the OCP as a regular activity (which is in line with one of this study’s hypothesis). On a positive note, it was clear that some of these learners would use this OCP as regularly as they use other platforms, i.e., their habits of using platforms to support their informal learning would not decrease in frequency. Moreover, this platform would increase their AVC sharing habits. However, the furthestmost

outcome was to realize that learners who did not use platforms as an informal learning aid considered changing their habits in benefit of this OCP.

On a conceptual level, over 58% (n=32) of participants validated the collaborative element inherent to the OCP. As mentioned, these learners validated the gamification concept; and another positive aspect was the validation of the conceptual nature of the platform by 52% (n=28) of learners (35% [n=16] were neutral, and 13% (n=7) were not convinced). One can infer that the learner experience needs to be improved based on learner qualitative feedback to engage the remaining 48% (n=23). This is a matter to include in the “Future Work” section.

Considering the feedback from these participants, it seems plausible to assume that: with a revised learner environment, there will be a substantial amount of ESP/BE learners operating it to search, map and share AVC.

3.3. ATTRAKDIFF RESULTS

This subsection will address the results of the *AttrakDiff* questionnaire, which intends to get trial-users’ feedback on the prototype’s Pragmatic qualities (PQ)¹⁸⁸, Hedonic qualities (HQ)¹⁸⁹ and the Aesthetic qualities (ATT)¹⁹⁰. Figure 110 summarizes the measurements of all trial-users.

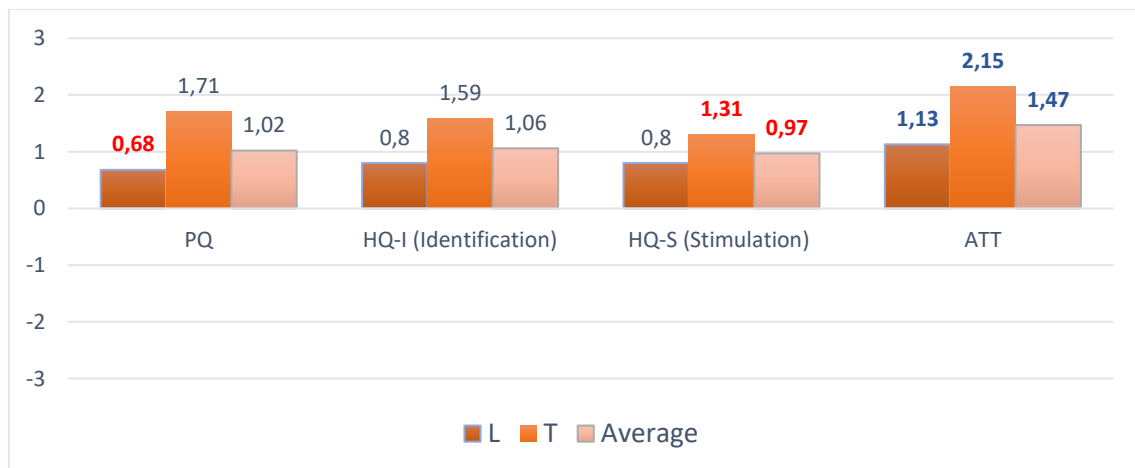


Figure 110 – Global AttrakDiff results (Minimum value is -3 and the maximum value is 3)

¹⁸⁸ Describes the usability of a product and indicates how successfully users in achieving their goals using the product. (http://www.attrakdiff.de/files/demoproject_results.pdf)

¹⁸⁹ 1. HQ-I – Indicates to what extent the product allows the user to identify with it. (http://www.attrakdiff.de/files/demoproject_results.pdf); 2. HQ-S – Mankind has an inherent need to develop and move forward. This dimension indicates to what extent the product can support those needs in terms of novel, interesting, and stimulating functions, contents, and interaction – and presentation – styles. (http://www.attrakdiff.de/files/demoproject_results.pdf)

¹⁹⁰ Describes a global value of the product based on the quality perception. (http://www.attrakdiff.de/files/demoproject_results.pdf)

The Aesthetic qualities achieved the best score in all groups (L =1,13; T=2,15). As for the Hedonic qualities, Stimulation was the quality with the lowest score in the average of all groups (0,97), and the one where learners’ opinions were closer to the teachers’ (L=0,8; T=1,31). The highest disagreement between the two groups was the Pragmatic qualities dimension, which is the element that learners consider needs more improvements (L=0,68; T=1,71). The discrepancy of results between the teachers and learners is quite noticeable in all dimensions. This may be because learner trials were less guided than the teacher trials¹⁹¹. In future trials with beta versions of the OCP, this researcher believes that the learners should have the chance to conduct TAP. Their verbal feedback during the trial will be of value to conduct improvements to the OCP.

When looking at the *AttrakDiff* “Portfolio presentation” (Figure 111), one has an overall perspective of the trial-user feedback. The two colored squares represent the average opinions of each group (already represented numerically on Figure 110) and the colored rectangles represent the margin of confidence. Results show that the learner group’s opinion is very close to the *desired* quadrant and quite far from the superfluous quadrant (Figure 111, L – blue). Teachers’ opinions of the prototype are globally highly positive as their overall result is well in the desired quadrant (Figure 111, T – green). This overall opinion of participants feedback is, therefore, positive as the teacher feedback is in *desired* and the learner feedback is very close to *desired*.

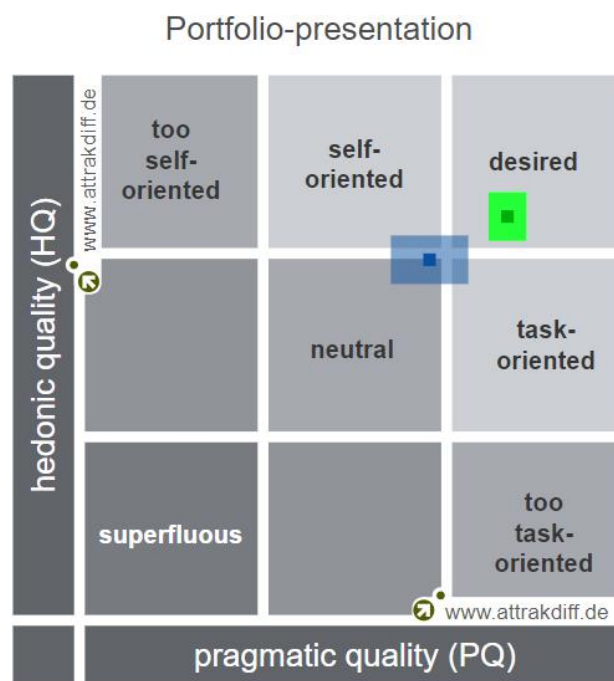


Figure 111 – Comparison of AttrakDiff questionnaires

¹⁹¹ Due to lack of time, it was not possible to conduct a one-on-one (or one-on-two) trial with the learners.

Teachers were also invited to leave comments about the experience inspired by the pairs of adjectives connected to the *AttrakDiff* questionnaire. The comments are consistent with the *AttrakDiff* evaluation and pinpoint the aspects to improve for the future platform:

- Attention to mapping / Add more commenting options.
 - *“Videos need to be chosen carefully... They need to provide a good model”*;
 - *“community sharing usually benefits from extra written comments that go outside the pre-programmed categories / Matrix. I would suggest adding a commenting option”*;
- Improvement of the interaction / Introduction of tutorials and help functions.
 - *“I quite liked the interface, though it could be made simpler, and/or more explicit, at places”*;
 - *“Just needs demo video and ready to use”*; *“help or find out more button”*; *“explaining the essence of point gathering, and the difference between S-points and V-points”*;
- Positive feedback.
 - *“Very intuitive and easy to use...”*; *“I really liked the layout of the app”*; *“Overall, a nice and likable concept”*.

One learner also left a comment in the *AttrakDiff* questionnaire:

- Make it simple and interactive
 - *“a proposta deve caminhar para simplicidade e interatividade (..) que cumpra o objetivo [de] uma experiência contínua do usuário”* (*“the proposal should head towards simplicity and interactivity to fulfill the goal of user continuous experience”*).

Based on the results put forth in this section, we may conclude that the TAP trial with the teachers produced more positive opinions about the Prototype than the plenum group trial with the learners. This information is relevant in the sense that it is not possible to tutor all future users of the platform how to use the OCP individually. One of the recommendations is that the OCP should also provide tutorials and help functions to make usability more intuitive and interactive.

On a positive note, the general opinion is that the prototype has high aesthetic value, it has very positive hedonic and pragmatic qualities, and it seems to be very close to what users expect this type of platform to be/do.

CONCLUSIONS

This chapter will be focused on analyzing the overall gathered results. Firstly, it will address the importance of this study, which presented a solution to an identified gap, along with the solution's impact in the EFL/ESP/BE community. The next section will be directed at the dissemination of the four Phases of the adopted DRM and how they were chained to present the final product, as well as some of the connected limitations of the study – instead of dedicating a whole section to the limitations of the study, it made more sense to connect them to the Phases, as different limitations were identified in the operationalization of the different methodological Phases. The final section will focus on future work.

This study intended to present a prototype of an OCP, which would be directed at EFL teachers and BE learners, to satisfying teachers' needs as to finding validated AVC to use in the classroom, to sharing purposeful AVC with colleagues and to recommending validated AVC to their learners; and learners' needs, i.e. to find AVC that would support their informal learning habits, thus taking advantage of their conducts towards video consumption for entertainment purposes. After an exploratory study of digital platforms, language learning software, and mobile apps, it was clear that there was no such aggregator/repository, thus confirming the purpose of this doctoral project. Thus, the main problem driving this research project was conceived as follows:

Considering that there is an opportunity to develop an OCP where the teachers and learners could, in a community, **i.** recommend/share/search for AVC to support the learning process; **ii.** map AVC using pre-determined markers which translate the assumptions expressed in the CEFR; and **iii.** map AVC considering the CS most commonly associated with BE; this project proposed to conceptualize and structure a prototype of said OCP, in order to verify whether teachers and learners would use such a tool in their teaching/learning practices.

Moreover, it was conjectured that, should such an OCP be developed, the teachers would place equivalent value on all features of the platform, whereas the learners would be more interested in searching for validated AVC and not so keen on performing mapping tasks.

To develop the OCP and to confirm these assumptions, the following research objectives were drafted:

1. to identify criteria to map AVC taking in account what are the CS related to BE – the guidelines of the CEFR; items learners value when consuming AVC as an informal

- learning aid; items teachers value when choosing AVC as a classroom aid; and the relevant meta-data for an AVC repository;
2. to assemble a Matrix that deconstructs the gathered conceptual framework into mapping options to catalog AVC;
 3. to test the Matrix with an expert panel, and, at the same time, collect information on how useful an OCP sustained on this Matrix would be for teachers and learners of BE;
 4. to embody the Matrix in an OCP prototype which would allow target-users to experience what it would be like to map AVC according to their educational needs, as well as search and consume AVC which was previously mapped by other users;
 5. to test the prototype with target-users, and, at the same time, collect information on how useful an OCP of this nature influence their habits of consuming and sharing AVC.

Considering the Problem and the research objectives, a Development Research Methodology was adapted in order to create an object (OCP prototype) from an educational prism. Given the exploratory and developmental needs of the project, four sequential methodological phases were conceived: **1.** the design of the Matrix; **2.** the validation of the Matrix by an expert panel; **3.** the construction of the OCP's prototype; and **4.** the validation of the OCP by the target-users. Each phase had either a conceptual or an experimental layer, as well as its own goals, techniques, participants and data collection and treatment instruments and techniques.

The information collected from the literature review, from the initial exploratory study (Phase 1 – Design of the Matrix) of EFL teaching/learning software and from two-side studies regarding the **i.** what learners value when using AVC as an informal language learning aid (Carvalho and Almeida, 2015); and **ii.** categorization of BE communicative skills (Carvalho et al., 2017) provided the conceptual framework for the Matrix. From this exploratory study, four dimensions were identified: **i.** Video information dimension; **ii.** Learner value dimension; **iii.** User review dimension; and **iv.** Learning dimension. The conceptual framework was then deconstructed into measurable options in order to accurately map AVC.

While developing the Matrix, a side problem presented itself when trying to identify and organize the most relevant BE communicative skills into macro- and meso-categories – the literature did not provide any solid categorization proposal. The paper developed by Carvalho et al. (2017) provided a description of the exploratory work done to propose a sustained macro- and meso-categorization of BE communicative skills, that would be integrated in the Matrix, thus covering the stated gap.

After the deconstruction of the conceptual framework, the *Google Form* tool was used to organize the options in a logical and interactive way. The purpose of this task was to develop an operational version of the Matrix and test it resorting to an expert panel in Phase 2. This embodiment of the Matrix consisted of one mapping questionnaire and one searching questionnaire (Appendix II).

The exploratory nature of Phase 1 addressed research objectives 1 and . Thus, as to the former, the criteria to map AVC, regarding its use in BE teaching/learning were defined according to the results of the literature review and the exploration of online AVC repositories. This provided the conceptual framework, which was deconstructed into a set of mapping inquiries and answer options. As to the latter, the Matrix was embodied in the form of an online questionnaire, and therefore ready to be experimented with by an expert panel.

Phase 2 of this research project tapped in the knowledge of an expert panel to validate the core concept of the OCP, the structure of the Matrix, and to collect suggestions about ways to incorporate the Matrix into the OCP. Experts recognized this OCP would cover a gap in the set of available teaching/learning aids provided by online services, stressing the validity of the research project and its main goal. Furthermore, the experts considered all items of the Matrix necessary for accurate mapping, as well as the quality of the conceived search filters.

The expert panel also provided crucial feedback which can be summarized in: **i.** strategies to increase participation of target users; **ii.** strategies to facilitate user interaction; **iii.** strategies to improve the Matrix's questionnaire; **iv.** strategies for the didactic dimension; **v.** threats related to the size and rigidity of the questionnaire; and **vi.** didactical opportunities.

Among the most relevant solutions to improve the OCP was the need to include gamification features (related to item **i.**), which would guarantee more reliable user participation. A second aspect to highlight regards the notion of two types of mapping, i.e., a complete mapping task when uploading new content, and a more straightforward mapping task to catalog previously uploaded content after viewing. Finally, some minor adjustments were suggested in order to improve details related to items **ii.**, **iii.**, and **iv.** However, the overall feedback from the experts was that the concept of the OCP was valid, the Matrix that was tested was effective in the mapping of AVC, and that it could present an opportunity to create an educational tool for both teachers and learners. This Phase was summarized in Carvalho et al. (2018), and it provided aspects to take into consideration for Phase 3, i.e. the development of the prototype.

Phase 2 followed [research objective 3](#), and it was essential to confirm that the Matrix to sustain the OCP was conceptually valid, and that it was possible to develop a functional Matrix to map

AVC according to BE educational needs. The main concern at this point was how to develop an interactive and appealing prototype of the OCP to test with the pinpointed target-users.

The purpose of Phase 3 was to embody the Matrix in an OCP prototype, which would allow for target-users to experience what it would be like to map AVC according to the needs of BE teachers/learners, as well as search for AVC which was previously mapped by other users. This construction of a prototype followed the guidelines outlined in Garrett (2010), concretely the elements of user-experience: Strategy, Scope, Structure, Skeleton, and Surface.

The choice of presenting a prototype and not a beta-version of the OCP was grounded on some of the limitations to this project, namely: **i.** the author had neither knowledge of coding nor the background to design a functional website; **ii.** the project received no extra funding, which did not allow for hiring neither the services of web-designers nor programmers; and **iii.** there was no opportunity to get an in-time integration of the proposal in this thesis. Taken all this into consideration, the decision was to proceed with more agile prototyping tasks, by using free online software to develop the flowchart, the low- and high-fidelity wireframes, and the prototype.

The development of Phase 3 addressed research objective 4, and it was clear that the prototype provided the target-users with all the experiences that were considered essential when conceptualizing the OCP, namely: promoting the consumption of AVC previously validated by other users; stimulating the consumption of AVC adjusted to individual teaching/learning needs; providing basic and advanced searches for AVC; encouraging the upload and mapping of AVC sustained on the Matrix.

Phase 4 of this research project intended to present target-users with the prototype to conduct hands-on trials. The purpose was to get feedback that would validate the core concepts that sustained the creation of the prototype, specifically, the Strategy, the Scope, the Structure, the Skeleton and the Surface planes. The subjects represented both groups of target-users (teachers and learners); however, teachers were given the possibility to give verbal feedback of their experience via Think-aloud Protocol, whereas learners were only given the possibility to share qualitative feedback via *Google Form* in the post-trial period.

By going through this experimental phase, participants were validating **i.** the need for a platform where teachers and learners could, in a community, recommend/share/search for AVC to support the learning process; **ii.** the task of analyzing AVC bearing in mind markers, which translate the assumptions expressed in the CEFR, as well as the communication skills most

commonly associated to BE. Participants were also asked to predict their future usage habits of the OCP.

In the verbal feedback, teachers validated all the planes the prototype was sustained on, consequently recognizing a purpose and a value of the OCP. The main findings can be organized in three levels. On a conceptual level, teachers validated the gamification concept and the collaborative element. On a practical level, they confirmed usefulness of the gamification features, the mapping and searching tasks, and the intuitiveness of the teachers' experience. On a behavioral level, teachers admitted using this OCP to search, share, map and recommend content in the future.

Still addressing the behavioral level, the participants displayed intent to use the OCP, which brings good perspectives for the collaborative element of the OCP. Only some participants (mostly learners) assumed that they would use the OCP with an irregular frequency; consequently, it can be assumed an optimistic and sustained growth of AVC consumption and participation, which would eventually change the habits of these participants in what concerns using platforms for learning. A positive behavioral note goes to the group of learners that were not using platforms at all. In fact, after the trial, these learners showed an inclination to use this OCP irregularly. On a conceptual level, about two thirds of the learners validated the collaborative element, and 51% validated the gamification concept.

The suggested structural changes can be divided into i. changes to improve the user-experience; and ii. review of unclear items. Moreover, teachers identified threats concerning the use of the platform by users with low-proficiency levels in English and the uploading of low-quality content. Solutions were also pinpointed to avoid these threats, and they could be sorted into three dimensions:

- To improve the teacher experience in the OCP by, for example, giving information about how many teachers and learners have already mapped an AVC; integrating the user accounts and cookies to improve the personalization and content retrieval from previous sessions or assuring private social-interaction tools; or building a content base before launching the OCP;
- To guarantee quality of AVC in the OCP by asking high-proficiency level users to validate the mapping of AVC shared by low-level users; or improving the rating system of the teachers' experience;

- To use the OCP for teaching purposes, by inserting a field for private tracking notes about the AVC; giving teachers the possibility to define new search/ catalog criteria; or allowing for the construction of teacher and learner Groups.

A limitation of this Phase (4) was the fact that it was not possible to use the Think-aloud Protocols with the group of learners. Before taking this OCP into a development stage, it is still considered important to conduct a focus group with BE learners with a revised version of the OCP prototype – namely concerning the gamification features. Data shows that about 20% of learners have a neutral opinion about the OCP. Therefore, it is crucial to get learner feedback on how to make the OCP more engaging and more present in the learners' informal context. These results confirm the stated conjectures mentioned in the beginning of the *Conclusions* section.

The final set of data from Phase 4 stemmed from an UX questionnaire following the *AttrakDiff* methodology. The analysis of the collected data unveiled that: the Aesthetic qualities achieved the best score in all groups; the hedonic quality "*Stimulation*" was the one with the lowest score in the average of all groups, and the one where learners' opinions were closer to the teachers'; the highest disagreement between the two groups was the Pragmatic qualities dimension¹⁹², which is the element that learners consider needs more improvements. When looking at the *AttrakDiff* "*Portfolio presentation*", results show that the teachers' opinions of the prototype are globally highly positive as their overall result is well in the "*desired*" quadrant. This overall opinion of the participants' feedback is, therefore, optimistic as the teacher feedback is in the "*desired*", and the learner feedback is in close proximity to "*desired*".

The overall impression when gathering all conclusions is that this proposal of OCP was validated in all planes, thus confirming its purpose and value. These results confirm that both types of users would be keen on adopting this OCP as an aid to their practice. It also confirms that learners would be more interested in the Search features of the OCP, whereas teachers see equivalent value in all aspects of the platform.

Phase 4's experimental nature is related to objective 5, as it tested the prototype with target users, it collected valuable sets of data about these trials, it provided validation for the conceptualized tool, and it made it clear that an OCP of this nature would, indeed, change the trial-users behaviors. Considering the positive feedback from Phase 4, there is a window of opportunity to take the concept of this tool to a superior level.

¹⁹² Pragmatic dimension relates to how realistic does the prototype feel to testers.

Regarding future work, as the end product of this research project was a prototype, it seems that the next step should be the development of the OCP as a web-based software and mobile application. In this next development stage, the suggestion would be the adoption of a user-centered design methodology, to allow for gathering additional feedback about some of the features of the platform.

Some future work proposals can stem from this doctoral project, namely:

- A version of the OCP focused on a wider variety of “Englishes” (communicative skills);
 - GE; legal English; academic English.
- The introduction of playlists that would certify users in certain communicative skills;
 - The conceptual nature of this proposal conceives the aggregation of AVC in a playlist. This pre-defined number of AVC’ minutes consumed would guarantee a user proficiency in a certain CS, were the user to consume all the content of said playlist.
- The aggregation of Artificial Intelligence features that would “learn” from user collaboration in order to create algorithms that would automatically map AVC.

All these proposals are activities that explore the efficient introduction and utilization of this OCP namely, to clarify how it contributes to the teaching/learning practices and to the consolidation of the collaborative element. Considering the massification of AVC consumption on mobile devices, this tool can truly contribute to creating a learning aid platform fed by free resources and validated by a worldwide community of teachers and learners.

Notwithstanding, the development of the OCP was not totally confined to this thesis’s phases and time scope, since, in the second semester of the 2018/2019 academic year, it was possible to develop a working platform – designed, coded and experimented by third year students of the degree “New Technologies in Education”¹⁹³ ministered at the University of Aveiro¹⁹⁴. The work developed by the students was supervised by the main advisor of this research project and with the assistance of the author, and, for the students, it was a final project work to complete their degree program.

As the work was essentially developed by the students, it was decided that the platform to develop was an adaptation of the OCP prototype described in this project (henceforth, the platform developed by the students will be referred to as OCP[S] and it can be explored via the

¹⁹³ Original title of the degree program: “Novas Tecnologias em Educação”.

¹⁹⁴ This project was proposed to students of the same program in the second semester of 2017/2018, but at that time it was not possible to develop such project.

link: <http://benglish.web.ua.pt/>. OCP[S] is a functional development of the prototype, and, as such, grounded on the same Matrix which was developed for the OCP. A quick exploration of OCP[S] can confirm (Figure 112):

- The inclusion of the URL (*Video Information Dimension* Chapter 3, Section 3.2.1);
- The identification of Genre and Subtitles (*Video Content Dimension*, Chapter 3, Section 3.2.2);
- All options from the *User Review Dimension* (Chapter 3, Section 3.2.3);
- The identification of the English Level and macro- and meso-communicative skills (*Learning Dimension*, Chapter 3, Section 3.2.4).

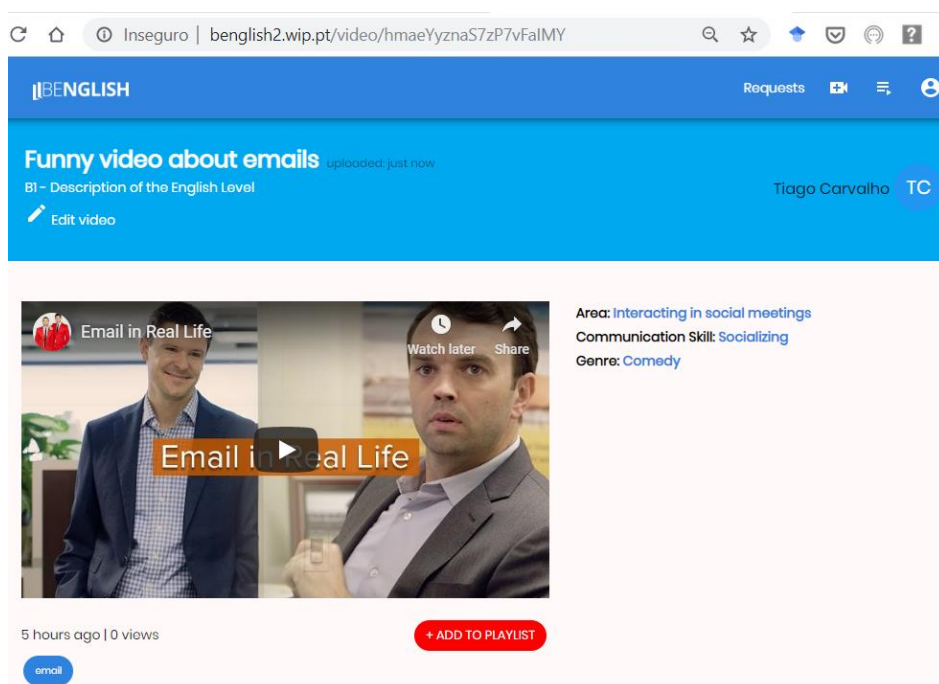


Figure 112 – Video details screen of OCP[S].

The main difference that characterized OCP[S] was the definition of the target-users: EFL teachers and mobility students (ERASMUS and similar). This group of target-users was chosen because the team felt it would be more in the interest of the students to develop a tool that would meet the interests of people they could engage with. Other common features and functions include the creation of a user profile for teachers and learners; a section for video suggestions; basic and advanced search features; creation of playlists; gamification features (badges and points); a user profile.

As the target-users are different, and the students were asked to creatively improve aspects of the OCP prototype, some interesting changes were made. Firstly, it was necessary to revisit the Macro/Meso-communicative skills, in order to accommodate the different communication

needs that mobility students need during their exchange experience. Seeing that there was no time for an in-depth study of communicative skills (in the same way it was done for the BE communicative skills mentioned in Chapter 3), the adopted methodology to gather the skills for OCP[S] was an exploration of several *YouTube* videos about mobility experiences, which would lead to a definition of macro/- and meso-communicative skills. The result of this exploration is presented in Table 25:

Table 25 – Macro- and meso-communicative skills of the OCP[S]

| Macro skills | Meso skills |
|---|------------------------------|
| Interacting with teachers and students | Making a presentation |
| | Negotiating |
| | Participating in a meeting |
| Interacting in social meetings | Socializing |
| | Playing games |
| | Planning a trip |
| Interacting at your home | Discussing domestic issues |
| | Talking to roommates |
| | Shopping for groceries |
| Interacting with university staff | Discussing paperwork affairs |
| | Making requests |
| | Asking for assistance |

Figure 113 shows how the macro- and meso-skills table was embodied into a cataloguing element. The students opted to use a dropdown menu to map the communicative skills.

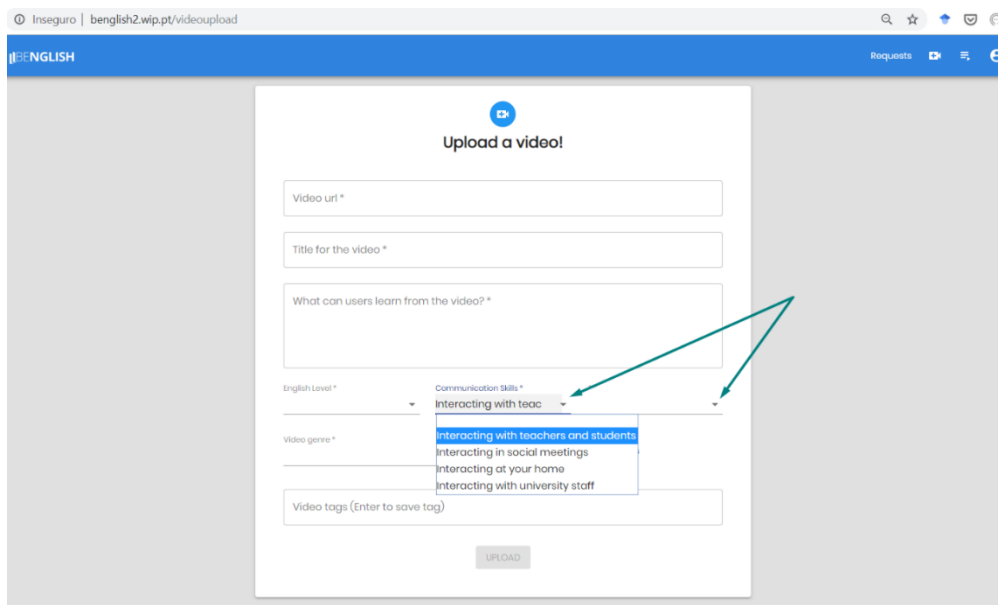


Figure 113 – Screen of the upload feature of OCP[S] with the highlight of the macro-skills menu

Another different feature was the inclusion of “Requests”, which were considered important for target-users to engage with other users’ previous experiences and knowledge. With this feature, it was possible to ask the community for help with a specific communicative situation or communicative context – like *talking to roommates* or *negotiating a grade* (Figure 114). Other differences included a tutorial video; and the possibility to follow a user and someone’s playlist.

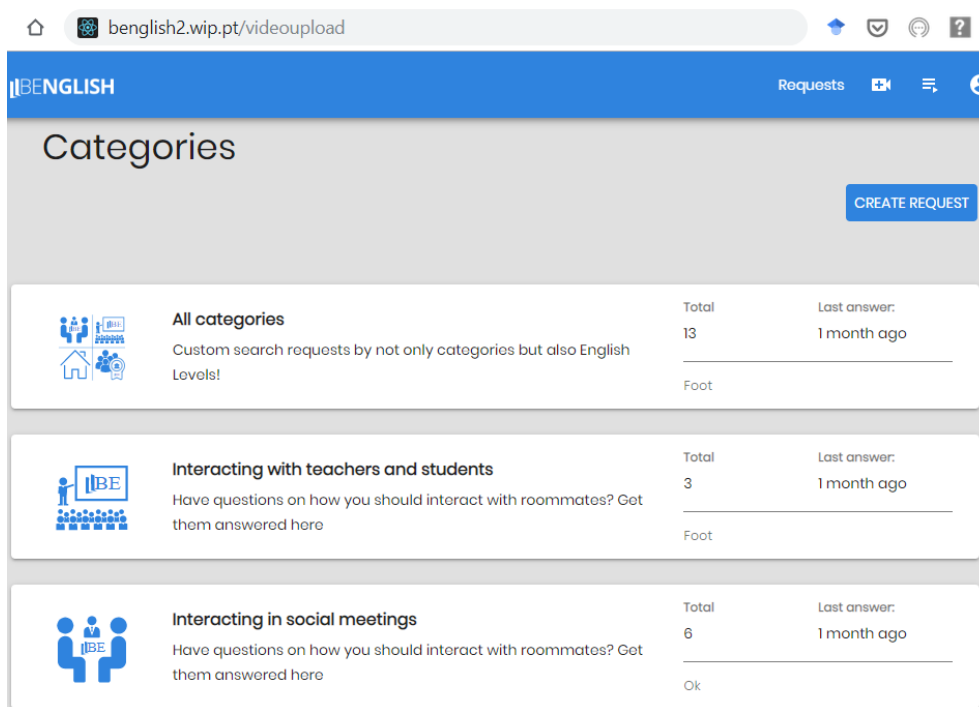


Figure 114 – Screen of the Request feature of OCP[S]

The final evaluation of OCP[S], done by their jury panel at University of Aveiro, concluded that the platform still lacked some features that would make it a complete tool to be launched in the market, like for example: more attention to the gamification features in terms of badges design and point attribution; spelling errors; an unclear menu for attributing English Proficiency to the videos; or random bugs. However, this version of OCP[S] positively demonstrates i. the usefulness a platform of this type mobility learners; ii. the potential of the original OCP prototype to be adapted to other contexts; and iii. the potential of this research project to develop tools that would be useful for teachers and learners in their practice. This positive demonstration should serve as an additional incentive to a final implementation of the concepts of this doctoral project.

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APPENDIX LIST

Appendix I – Interview with the expert panel – pages 248 - 253

Appendix II – Prototype trial with teachers – pages 254 - 259

Appendix III – Prototype trial with learners – pages 260 - 261

Appendix IV – Prototype images – pages 262 - 279

Appendix V – Screenshots of the Excel version of the Matrix – pages 280 - 285

| | |
|-------------------------|---|
| Appendix: | I |
| Title: | Interview with expert panel |
| Description: | General matters, Structure and Script of the semi-structured interview to the Expert panel |
| Videos: | Matrix questionnaires: |
| Video 1 | https://drive.google.com/open?id=1DyWA1wSimPdkxkovPx-GAvTx2FS9bYe2FieV-OM2bqc |
| Video 2 | https://drive.google.com/open?id=1pGeUuET2FGXmyNZXsmFL7EOhNDWgdrINckzNnNs5V3g |
| Video 3 | https://drive.google.com/open?id=1Y3TW8c8v-ycZiKJ1qqqiClMRtXNbGM5SnyDzc7LRCLU |

INTERVIEW PLAN TO THE EXPERTS

(SEPTEMBER 2017)

A. GENERAL MATTERS

Subject: Validation of AVC Matrix

The interviews to an expert panel are the milestone of Phase Two of this research project that views to validate a Matrix of AVC, considering the teaching/learning needs of BE teachers and learners.

Objectives

Gather information about the structural aspects of the AVC Matrix, and of the operational aspects to consider for the embodiment of the Matrix in the OCP. To achieve this goal, an expert panel will be gathered to share opinions based on their expert knowledge. Their feedback will be fundamental to:

1. Identify conceptions and perceptions that interviewees have concerning the mapping accuracy and range of the Matrix.
2. Validate the discourse and answer options used in the Matrix.
3. Validate organization of the inquiries.
4. Validate the search tool questionnaire.
5. Conduct an analysis of the operational aspects to embody the Matrix in an OCP.
6. Predict reactions and behaviors of the target-users towards the Matrix.

Interview type: Semi-structured and audio recorded interview

B. STRUCTURE

Duration: circa 45 minutes

STAGES

1. Introduction – 3 minutes
 - a. Greetings.
 - b. Summarize the objectives of the study.
 - c. Clarification about the objectives and structure of the interview, request to record the interview and confidentiality assurance.
 - i. Refer to information sheet if necessary.

2. Development – 40 minutes
 - a. Part 1: Trial utilization of the Matrix using TAP (10 minutes).
 - i. Mapping a previously selected audiovisual document that falls in the AVC type TV show.
 1. R will use an observation grid to document E's progress, difficulties and TAP feedback.
 - ii. Mapping a previously selected audiovisual document that falls in the AVC type U.G.C.

 - b. Part 2: Interview directed to the structural validation of the Matrix. (15 minutes).
 - i. Questions about mapping accuracy and range of the markers.
 - ii. Questions about appropriateness of discourse and answer options.
 - iii. Questions about organization of the inquiries.

 - c. Part 3: Trial utilization of the search tool (5 minutes).
 - i. E guides R in the filling out of the search tool.
 - ii. R watches the video that resulted from this search.
 1. Comments on the accuracy, language and the basic/advanced features.
 2. Previous feedback is a motto for Part 4.

 - d. Part 4: Interview directed to the analysis of the operational aspects of the OCP (10 minutes).
 - i. Operational suggestions to the embodiment of the Matrix in the OCP.
 - ii. Prediction of reactions and behaviors of target-users.

3. Conclusion – 2 minutes
 - a. Other issues considered relevant on behalf of interviewee.
 - b. Acknowledgements.

4. Final notes: To support this meeting and to guarantee a flowing pace, R will provide E with a set of paper copies that will contain:
 - a. Introductory topics and instructions;
 - b. Relevant links;
 - c. Matrix for trial 1;
 - d. Matrix for trial 2;
 - e. Unfilled search Matrix + result;

C. INTERVIEW SCRIPT

INTRODUCTION (3 minutes)

1. Formal introductions between Researcher (R) and Interviewee (E).
2. R will clarify E about purpose and structure of the meeting.
 - a. R will begin with the scope of the research:
 - i. Objectives of research: Develop an OCP
 1. to support crowd mapping of AVC using the Common European Framework for language, as well as the communication skills most commonly associated to BE, thus organizing and categorizing content.
 2. to serve as an online information repository for teachers and learners to consult when they need suggestions about which AVC would be most suited for their informal learning needs.
 3. sustained on a Matrix that will correlate the aural speech in AVC with:
 - a. the CEFR (to determine items like language level or situational context;
 - b. the communicative skills specific to BE;
 - c. the items filtered from the Literature Review process (like what do learners value in AVC);
 - d. the cataloging fields related to AVC (also filtered from the Literature Review).
 - ii. R will summarize the outline of the interview:
 - i. The interview is expected to last about 45 minutes and E can choose to end or prolong the interview if both participants agree.
 - ii. R will request that meeting is audio-recorded and inquire if E accepts that the details of the meeting remain confidential.
 - iii. R will instruct E to execute a trial of the Matrix and should feel free to share opinions while doing the trial.
 1. The first trial: E will watch a pre-selected audiovisual document from an online repository and map it using the Matrix.
 2. The second trial: E will repeat the first task with a different type of AVC.
 - iv. R will ask the Part 2 questions script related to the structural aspects of the Matrix.
 - v. R will guide E through the fields of the search tool, simulating the steps of a searcher, giving E suggestions to fill out the form.
 - vi. R will ask the Part 4 questions script related to the efficiency of the search tool.
 - vii. R will make the connection from the structural validation of the Matrix to the open conversation about operational aspects of embodying the Matrix in the OCP.

DEVELOPMENT¹⁹⁵ (40 minutes)

PART 2: STRUCTURAL VALIDATION OF THE MATRIX (Interview Questions)

Objective A. Validate the mapping accuracy and range of the markers.

Agora que já utilizou a Matriz, acredita que esta Matriz mapeia com precisão o CAV?

Pode dar exemplos concretos?

Objective B. Validate appropriateness of the discourse and answer options of the Matrix.

No que respeita o discurso utilizado nas perguntas, tem algum comentário a fazer em relação a: clareza do discurso; densidade textual; extensão; adequação aos diferentes tipos de utilizador

Compreende como responder às perguntas?

Objective C. Validate the organization of the inquiries of the Matrix

Que lhe parece o número de perguntas?

Tem alguma sugestão em relação à organização das perguntas?

PART 3: VALIDATION OF THE SEARCH TOOL (Interview Questions)

Objective D. Validate the search tool questionnaire

Pedia agora um comentário à linguagem do questionário de pesquisa.

(Clareza do discurso; densidade textual; extensão; adequação a aprendentes?)

Concorda com as duas modalidades da pesquisa?

(simples: sem as communicative skills; avançado: com as communicative skills)

Que lhe parece a qualidade desta filtragem?¹⁹⁶

PART 4: ANALYSIS OF THE OPERATIONAL ASPECTS OF THE OCP

Objective E. Conduct an analysis of the operational aspects to embody the Matrix in an OCP.

Objective F. Predict reactions and behaviors of the target-users towards the Matrix.

¹⁹⁵ Relating to the interview, R will ask direct questions about the structural aspects of the Matrix. At any point during the interview, E has the liberty to dissert on questioned aspects. There will be space for dialogue between R and E, being the former's task to direct the conversation to the topic, by using specific questions. The goal is to reach the set-out goals of the interview and understand the E's feedback.

¹⁹⁶ This question needs to be at the end of this part as it will make a transition from the structural to the operational aspects of the OCP.

Possible questions:

- Em relação à pesquisa e resultados, deverá aparecer nos resultados uma discriminação dos mapeadores?
 - Ou seja, este vídeo foi mapeado por: x% de professores + x% de alunos.
- Qual é a sua opinião acerca de surgirem resultados de uma busca que não cumpram 100% dos critérios definidos?
- Deverá haver categorias com mais peso? Quais?
- Uma pesquisa avançada vale mais que uma pesquisa simples?
- Que outros elementos deveriam aparecer nos resultados das pesquisas que garantiriam ao utilizador maior credibilidade nos mesmos?
- Que oportunidades trará a PCO?
- Que ameaças podem surgir à implementação desta PCO?
- Enquanto professor de BE, utilizaria ou recomendaria esta plataforma?
 - Porquê? Em que medida? Com que objetivos?
- Acredita que aprendentes de BE estariam interessados em usar esta PCO?
 - Porquê? Em que medida? Com que objetivos?
- Quão otimista é o elemento de crowdsourcing desta PCO?
 - Porquê?
 - Como motivar os utilizadores de forma a garantir o sucesso do elemento colaborativo?

CONCLUSION (2 minutes)

Inquire E about any relevant details or information pertaining the research.

Inquire E about the possibility to contact again, in case some questions arise relating the subjects that were discussed in the interview.

Thank for the cooperation and request E to maintain the work that is being developed by the R confidential.

TRIAL OBSERVATION GRIDS

| Trial 1 | | |
|----------------------------------|--|--------------------------------------|
| Part 1 - AVC ID | | |
| 1.1. a b c d | | 2.1. a b c d |
| 1.2. a b c d | | 2.2. a b c d |
| 1.3. a b c d | | 2.3. a b c d |
| 2. a b c d | | 2.4. a b c d |
| 3. a b c d | | 2.5. a b c d |
| 4. a b c d | | 2.6. a b c d |
| 5. a b c d | | 2.7. a b c d |
| 6. a b c d | | 2.8. a b c d |
| 7. a b c d | | |
| 8. a b c d | | 3.1. a b c d |
| 9. a b c d | | 3.2. a b c d |
| 10. a b c d | | 3.3. a b c d |
| 11. a b c d | | 3.4. a b c d |
| 12. a b c d | | |
| Part 2 - MAPPING SKELETON | | |
| 1.1. a b c d | | 4.1. a b c d |
| 1.2. a b c d | | 4.2. a b c d |
| 1.3. a b c d | | 4.3. a b c d |
| 1.4. a b c d | | 4.4. a b c d |
| 1.5. a b c d | | 4.5. a b c d |
| 1.6. a b c d | | 4.6. a b c d |
| 1.7. a b c d | | 4.7. a b c d |
| 1.8. a b c d | | 4.8. a b c d |
| 1.9. a b c d | | |
| 1.10. a b c d | | 5.1. a b c d |
| 1.11. a b c d | | 5.2. a b c d |
| 1.12. a b c d | | 5.3. a b c d |
| 1.13. a b c d | | 5.4. a b c d |
| 1.14. a b c d | | 5.5. a b c d |
| 1.15. a b c d | | 5.6. a b c d |
| 1.16. a b c d | | 5.7. a b c d |
| 1.17. a b c d | | 5.8. a b c d |
| 1.18. a b c d | | 5.9. a b c d |
| 1.19. a b c d | | 5.10. a b c d |
| 1.20. a b c d | | 5.11. a b c d |
| 1.21. a b c d | | |
| 1.22. a b c d | | 6.1. a b c d |
| 1.23. a b c d | | 6.2. a b c d |
| 1.24. a b c d | | 6.3. a b c d |
| 1.25. a b c d | | 6.4. a b c d |
| 1.26. a b c d | | 6.5. a b c d |
| 1.27. a b c d | | 6.6. a b c d |
| 1.28. a b c d | | 6.7. a b c d |
| 1.29. a b c d | | 6.8. a b c d |
| 1.30. a b c d | | |
| | | Part 3 - COMMUNICATIVE SKILLS |
| 7.1. a b c d | | 1.1. a b c d |
| 7.2. a b c d | | 1.2. a b c d |
| 7.3.1. a b c d | | 1.3. a b c d |
| 7.3.2. a b c d | | 1.4. a b c d |
| 7.4.1. a b c d | | |
| 7.4.2. a b c d | | |
| 8.1. a b c d | | 2.1. a b c d |
| 8.2. a b c d | | 2.2. a b c d |
| | | 2.3. a b c d |
| | | 2.4. a b c d |
| 9.1. a b c d | | |
| 9.2. a b c d | | 3.1. a b c d |
| 9.3. a b c d | | 3.2. a b c d |
| 9.4. a b c d | | 3.3. a b c d |
| 9.5. a b c d | | 3.4. a b c d |
| 9.6. a b c d | | 3.5. a b c d |
| 9.7. a b c d | | |
| 9.8. a b c d | | 4.1. a b c d |
| 9.9. a b c d | | 4.2. a b c d |
| 9.10. a b c d | | 4.3. a b c d |
| 9.11. a b c d | | 4.4. a b c d |
| 10.1. a b c d | | 5.1. a b c d |
| 10.2. a b c d | | 5.2. a b c d |
| 10.3. a b c d | | 5.3. a b c d |
| 10.4. a b c d | | 5.4. a b c d |
| 10.5. a b c d | | |
| 10.6. a b c d | | 6.1. a b c d |
| 10.7. a b c d | | 6.2. a b c d |
| 10.8. a b c d | | 6.3. a b c d |
| 10.9. a b c d | | 6.4. a b c d |
| 10.10. a b c d | | 6.5. a b c d |
| 10.11. a b c d | | 6.6. a b c d |
| 10.12. a b c d | | 6.7. a b c d |
| 10.13. a b c d | | |
| 10.14. a b c d | | 7.1. a b c d |
| | | 7.2. a b c d |
| 11.1. a b c d | | 7.3. a b c d |
| 11.2. a b c d | | 7.4. a b c d |
| 11.3. a b c d | | 7.5. a b c d |
| 11.4. a b c d | | 7.6. a b c d |
| 11.5. a b c d | | |
| 11.6. a b c d | | 8.1. a b c d |
| 11.7. a b c d | | 8.2. a b c d |
| 11.8. a b c d | | 8.3. a b c d |
| 11.9. a b c d | | 8.4. a b c d |
| 11.10. a b c d | | 8.5. a b c d |
| 11.11. a b c d | | |

a) Completed without a problem; b) Hesitated; c) Needed help; d) Did not answer

| | |
|--------------|---|
| Appendix: | II |
| Title: | Prototype trial with teachers |
| Description: | General matters, structure, and script of the trial with teachers |

A. GENERAL MATTERS

Subject: Prototype trial with teachers

The goal of this stage was to get feedback and validation of three key dimensions:

1. Features

a. This dimension includes feedback about the searching experiences, the mapping experiences, the social interaction tools and the gamification features.

2. Navigation and interaction

a. In this dimension, participants will direct their focus to the layout and iconography of the prototype.

3. Global validation of the OCP

a. This global validation will focus on the concept and on the structure of the OCP.

T are also going to be asked about threats to a successful implementation of the OCP, corrections that the OCP may need, and suggestions to improve the three dimensions to be analyzed.

B. STRUCTURE

1. Introduction – 5 minutes

- a. Greetings.
- b. Summarize the objectives of the study.
- c. Clarification about the objectives and structure of the trial, give instructions on how to navigate a prototype environment, request to record the interview and confidentiality assurance.
 - i. Refer to information sheet if necessary.

2. Development – 23 minutes

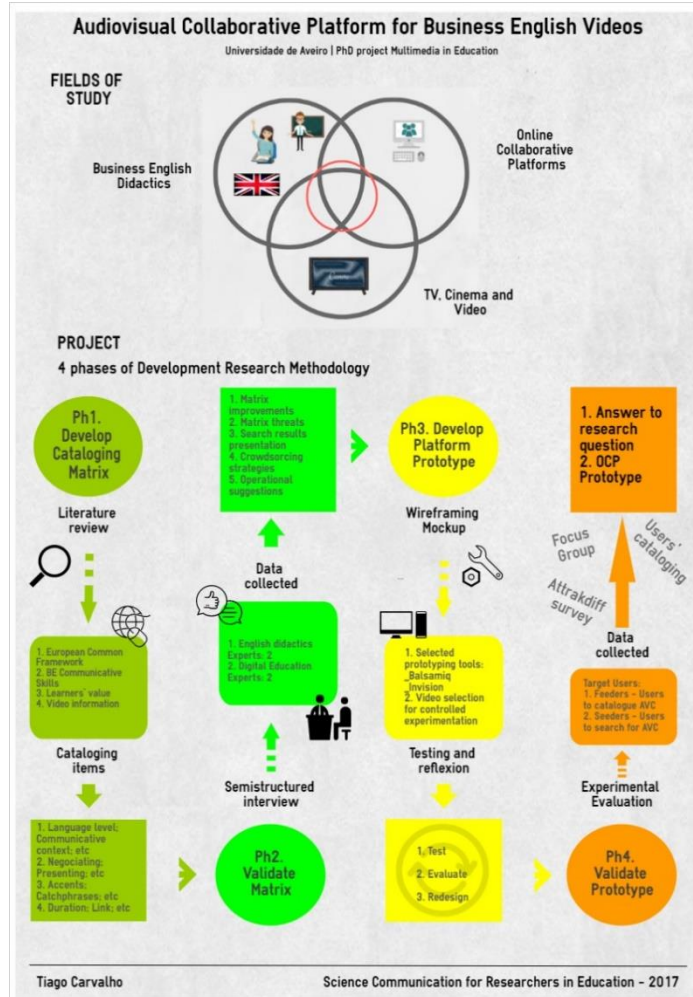
- a. Trial utilization of the Prototype using TAP
 - i. Register as a new user (1 minute)
 - ii. Visualize and evaluate a recommended content (3 minutes)
 - iii. Search for a video via refined search and edit the search criteria information (4 minutes)
 - iv. Check your messages and consult achievements (1 minute)
 - v. Use an advanced search to find a video (5 minutes)
 - vi. Share a video and insert information about it (5 minutes)
 - vii. Read your most recent message and return to your dashboard (30 seconds)
 - viii. Check your profile, recheck your achievements and log out (30 seconds)
- b. Give your feedback on the questionnaire (3 minutes)

3. Conclusion – 2 minutes

- a. Other issues considered relevant on behalf of interviewee.
- b. Acknowledgements.

C. SCRIPT

1. Presenting the project



2. Explanation of the prototype

- a. What type of tool is this prototype – It mimics the concept of an app to provide a user experience as close to the real app as possible;
- b. Most of the commands do not work; scrollbars do not work; Dashboard 1
- c. Some commands will lead to a dead end and ask to return to the previous screen; Example with screen 0
- d. You will not write. All the texts have been written beforehand;
- e. The “Back” button of the device works normally, but use it only when instructed by me;
- f. The first page of the app is a sort of safety measure in case the device crashes.

3. Instructions for the trial

- a. This experiment is also based on a “*Think-out-loud*” protocol, which entails that you verbalize your opinions freely while conducting the trial;
- b. Therefore, for me to collect accurate information, and still follow your trial attentively, I would like your permission to record this trial;
- c. I will give you all the instructions, but at the same time, I’ll intervene as little as possible. The goal is that you execute the tasks following the instructions. However, feel free to ask if you get stuck;
- d. You will be given 9 tasks. Each task has instructions. Read the instructions carefully before starting. Feel free to consult the instructions at any time during the task;
- e. I will intervene more openly in task 6, as we need to switch apps and a transition intervention may be necessary.
- f. This trial includes videos. Feel free to make the choice to pause the video and continue with the task.
- g. I will not collect any relevant personal data from you, and all your answers here will be treated confidentially.

4. Tasks

Task 1 – Register as a new user

Instructions:

1. Initiate a register procedure;
2. Insert the information requested by the platform;
3. Log in to your dashboard.

Task 2 – Visualize and evaluate a recommended content

Instructions:

1. Select the first recommended video from the dashboard;
2. Watch the video and rate it with 4 stars;
3. Do not insert any comment on the video;
4. In the video details page:
 - a. Change the English level to “Intermediate/Upper intermediate”;
 - b. Add the Communication Skill “Interacting with co-workers”;
5. Submit your opinion and return to your dashboard.

Task 3 – Search for a video via refined search and edit the search criteria information

Instructions:

1. Search for a video with the key words “small talk”;
2. Refine your search – you want:
 - a. Online videos about networking;
 - b. To train the Communication Skill “Socializing”;
3. Select the first video of your results;
4. Watch the video and rate it with 3 stars:
 - a. Justify your choice;
5. Demonstrate you are not pleased with the video;
 - a. Add “collecting new contacts” to the Communication Skills;
6. Submit your opinion and return to your dashboard.

Task 4 – Check your messages and consult achievements

Instructions:

1. Go to the main menu and check your messages;
2. Select the message about watched videos;
3. Analyze your achievements and your viewing scores;
4. Return to your dashboard.

Task 5 – Use an advanced search to find a video

Instructions:

1. Use key words to search for a video about job interviews;
2. Refine the results with an advanced search:
 - a. Search for an online learning video with subtitles, 6/7 minutes long, for the first class with a group of unemployed intermediate learners, about tips to perform well in job interviews at firms or companies;
3. Watch the suggested video and attribute it a top rate – no comments necessary;
4. At the video details page hit the like button and add the video to a playlist;
5. Return to your dashboard.

Task 6 – Share a video and insert information about it

Instructions:

1. Introduction:

- a. We are now leaving the app to have the experience of a user who wants to share a video. This means that first we watch a video on YouTube and then we use the app to share. Is it clear?;
2. Go to YouTube and watch the following video:
 - a. <https://youtu.be/kNz82r5nyUw> ;
 - b. Copy the link and share it (paste it) on the app;
3. Share the **mandatory** information about the video:
 - a. Please respect the order of the menus;
 - i. Avoid jumping up and down on the menus;
 - b. In case you made a wrong choice, no problem. Just go back and try again;
 - c. Submit your opinion as soon as the app allows you to;
4. Confirm the inserted details and return to your dashboard.

Task 7 – Read your most recent message and return to your dashboard

Task 8 – Check your profile, recheck your achievements and log out

Task 9 – Give your feedback on the questionnaire

QUESTIONNAIRE LINKS

Characterization and evaluation of the prototype:

https://docs.google.com/forms/d/1RWpZNt_Qec4MqlAonilieVgma3qp28ap1c6PloGxp-Y/prefill

Attrakdiff questionnaire:

<https://docs.google.com/forms/d/1To1l-xz1u-rT4-8zvfuhyx8L4bfNGEB43e7EHAXNFUA/prefill>

OBSERVATION GRID

Volunteer nr.

| Task 1 | | | | | | |
|-------------|---|---|---|---|---|---|
| Instruction | 1 | a | b | c | d | e |
| Instruction | 2 | a | b | c | d | e |
| Instruction | 3 | a | b | c | d | e |

| Task 2 | | | | | | |
|-------------|---|---|---|---|---|---|
| Instruction | 1 | a | b | c | d | e |
| Instruction | 2 | a | b | c | d | e |
| Instruction | 3 | a | b | c | d | e |
| Instruction | 4 | a | b | c | d | e |
| Instruction | 5 | a | b | c | d | e |

| Task 3 | | | | | | |
|-------------|---|---|---|---|---|---|
| Instruction | 1 | a | b | c | d | e |
| Instruction | 2 | a | b | c | d | e |
| Instruction | 3 | a | b | c | d | e |
| Instruction | 4 | a | b | c | d | e |
| Instruction | 5 | a | b | c | d | e |
| Instruction | 6 | a | b | c | d | e |

| Task 4 | | | | | | |
|-------------|---|---|---|---|---|---|
| Instruction | 1 | a | b | c | d | e |
| Instruction | 2 | a | b | c | d | e |
| Instruction | 3 | a | b | c | d | e |
| Instruction | 4 | a | b | c | d | e |

| Task 5 | | | | | | |
|-------------|---|---|---|---|---|---|
| Instruction | 1 | a | b | c | d | e |
| Instruction | 2 | a | b | c | d | e |
| Instruction | 3 | a | b | c | d | e |
| Instruction | 4 | a | b | c | d | e |
| Instruction | 5 | a | b | c | d | e |

| Task 7 | | | | | | |
|-------------|---|---|---|---|---|---|
| Instruction | 1 | a | b | c | d | e |
| Instruction | 2 | a | b | c | d | e |
| Instruction | 3 | a | b | c | d | e |
| Instruction | 4 | a | b | c | d | e |

| Task 6 | | | | | | |
|--------|---|---|---|---|---|---|
| | 1 | a | b | c | d | e |

| Task 8 | | | | | | |
|--------|---|---|---|---|---|---|
| | 1 | a | b | c | d | e |

| Types of operations | | | | | |
|-------------------------------|---|---|---|---|---|
| 1 Navigating between areas | | | | | |
| | a | b | c | d | e |
| 2 Using the navigation menus | | | | | |
| | a | b | c | d | e |
| 3 Navigating to the dashboard | | | | | |
| | a | b | c | d | e |
| 4 Comprehension of the icons | | | | | |
| | a | b | c | d | e |

- | | |
|---|---|
| <p>a User executed with no problems</p> <p>c User needed help</p> <p>e User asked to stop the trial</p> | <p>b User hesitated</p> <p>d Researcher had to complete the instruction</p> |
|---|---|

| | |
|--------------|---|
| Appendix: | III |
| Title: | Prototype trial with learners |
| Description: | General matters, structure, and script of the trial with objectives |

A. GENERAL MATTERS

In Stage 2 the researcher organizes a visit to classrooms of ESP/BE to have contact with the target-users. The purpose of this Stage was to gather L feedback about the potential use of the OCP in their informal learning practice. In this sense the main feedback to gather related to:

1. Would L appreciate the gamification features?
2. Would L value the conceptual, structural and educational value of the OCP?
3. Would this OCP change their habits of consuming and sharing content?
4. Would L be active mappers?

B. STRUCTURE

1. Introduction – 5 minutes
 - a. Greetings.
 - b. Elevator pitch of the OCP
 - c. Clarification about the objectives and structure of the trial, give instructions on how to navigate a prototype environment, request to record the interview and confidentiality assurance.
 - i. Refer to information sheet if necessary.
2. Development – 25 minutes
 - a. Complete characterization form (1 minute)
 - b. Trial utilization of the Prototype
 - i. Register as a new user (1 minute)
 - ii. Visualize and evaluate a recommended content (4 minutes)
 - iii. Search for a video via refined search and edit the search criteria information (4 minutes)
 - iv. Check your messages and consult achievements (1 minute)
 - v. Use an advanced search to find a video (5 minutes)
 - vi. Share a video and insert information about it (5 minutes)
 - vii. Read your most recent message and return to your dashboard (30 seconds)
 - viii. Check your profile, recheck your achievements and log out (30 seconds)
 - c. Complete post-trial forms (3 minutes)
3. Conclusion – 1 minute
 - a. Acknowledgements

C. SCRIPT

The script was the same as presented in Appendix II, but in Portuguese.

QUESTIONNAIRE LINKS

Characterization:

<https://docs.google.com/forms/d/1hPenEH3yDzdusS-cSb4P9KXDdlcONvxWlvHO9mKHhqA/prefill>

Evaluation of the prototype

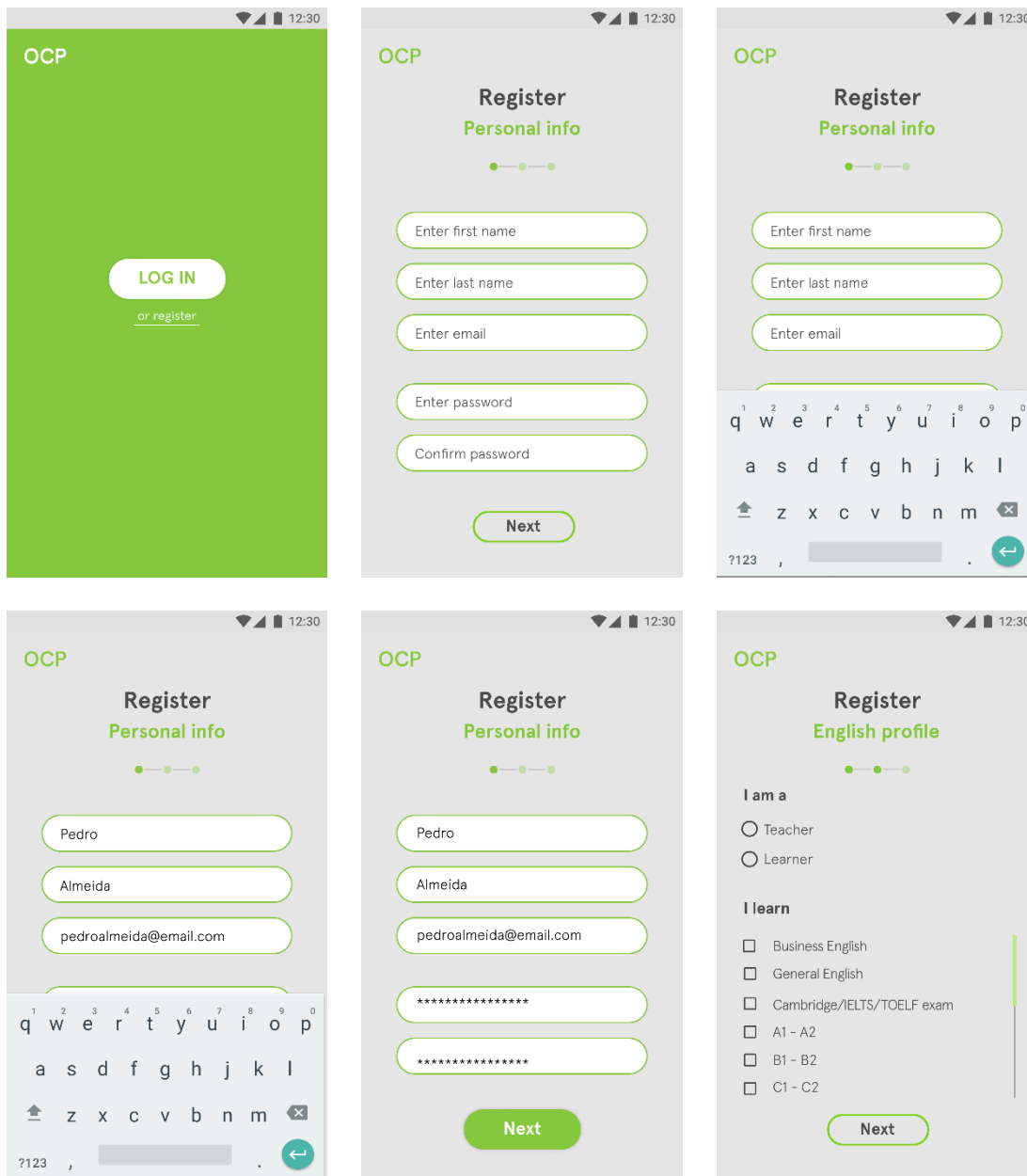
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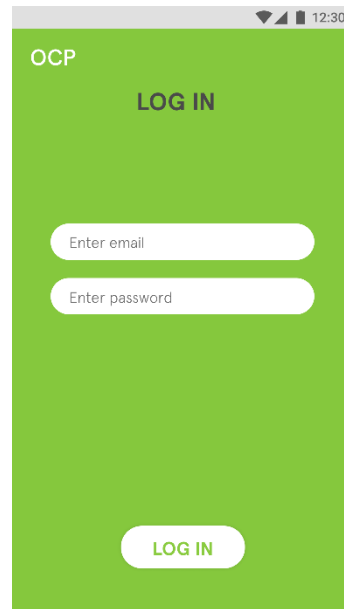
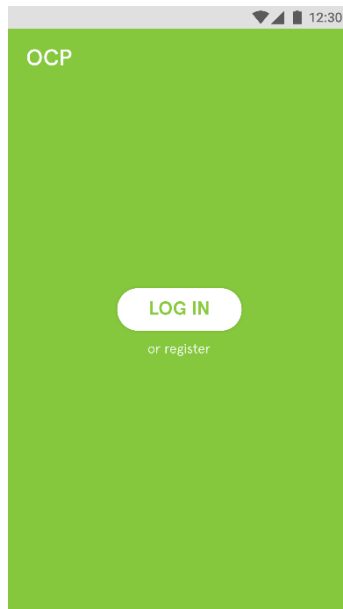
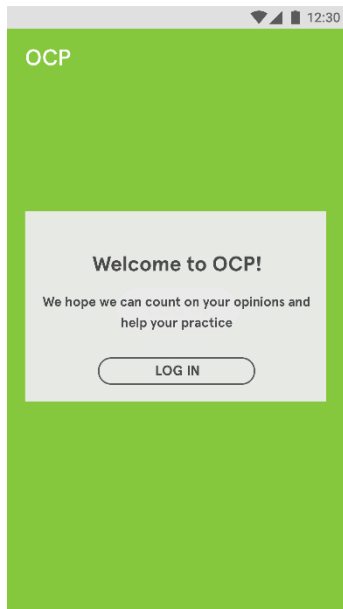
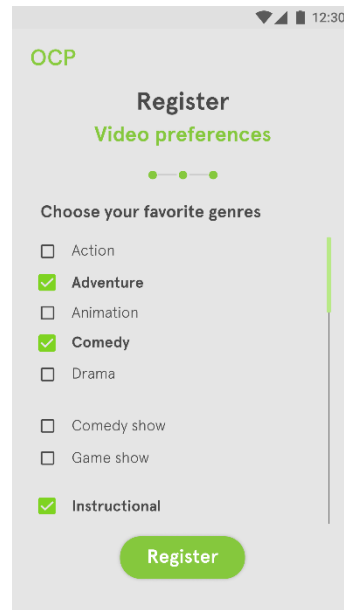
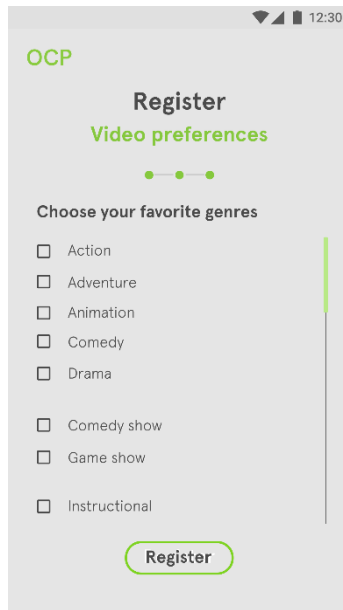
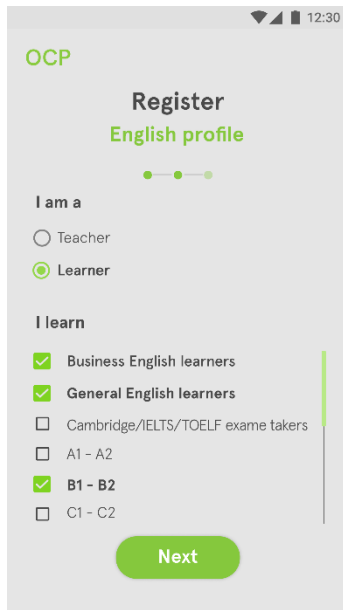
Attrakdiff questionnaire:

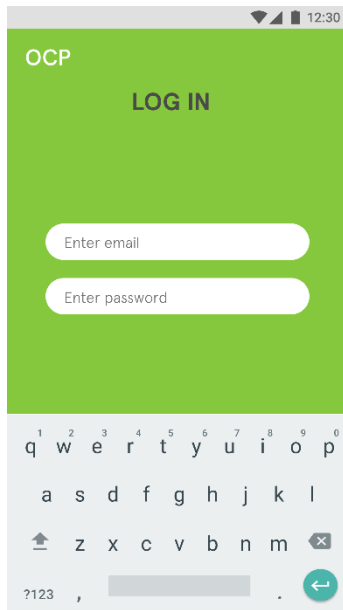
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| | |
|--------------|--|
| Appendix: | IV |
| Title: | Prototype images |
| Description: | Images used in the prototype of the OCP divided by tasks |

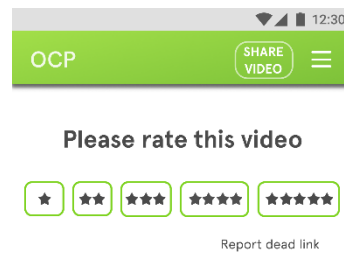
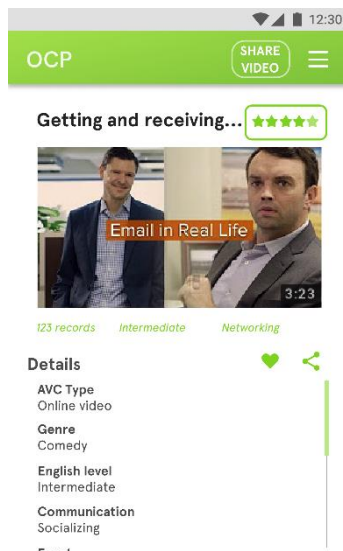
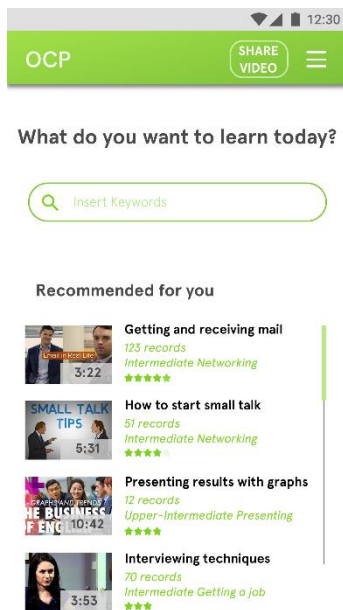
Task 1 – Register as a new user (1 minute)

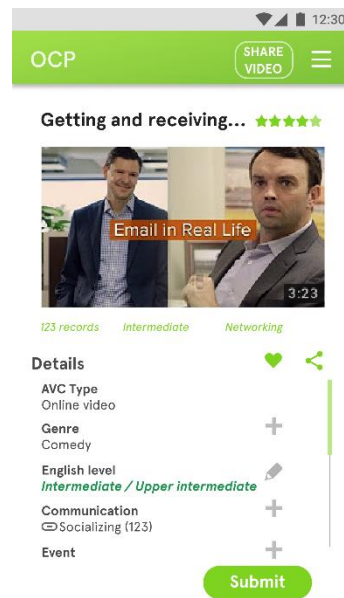
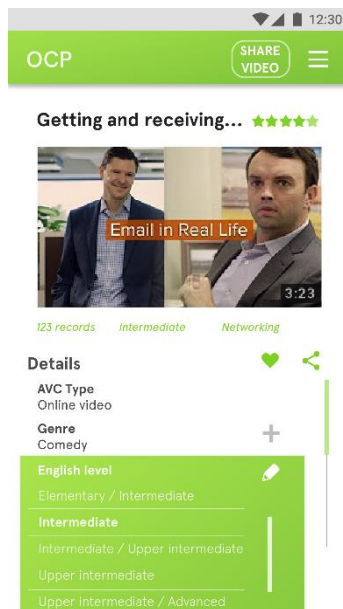
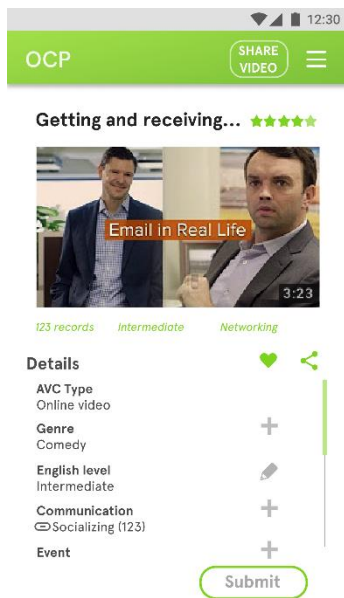
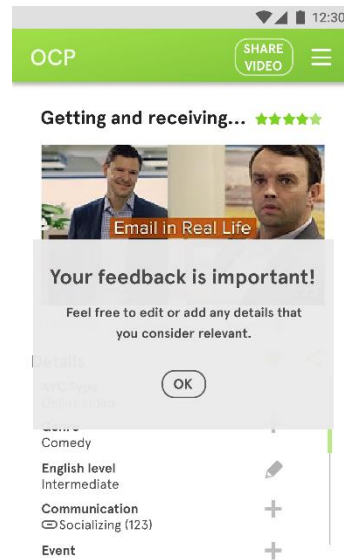
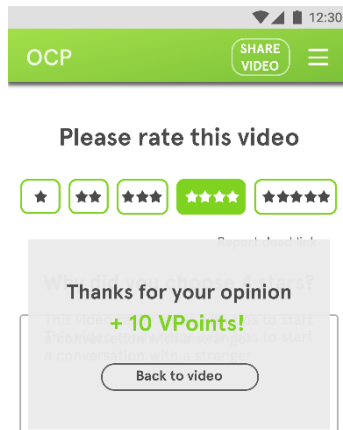
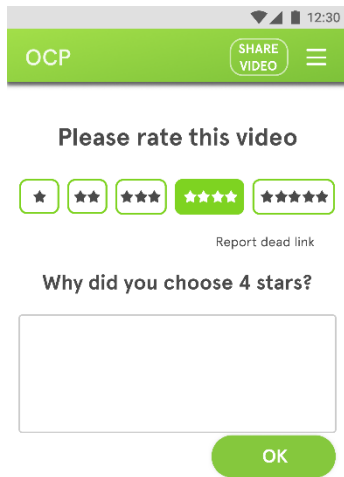


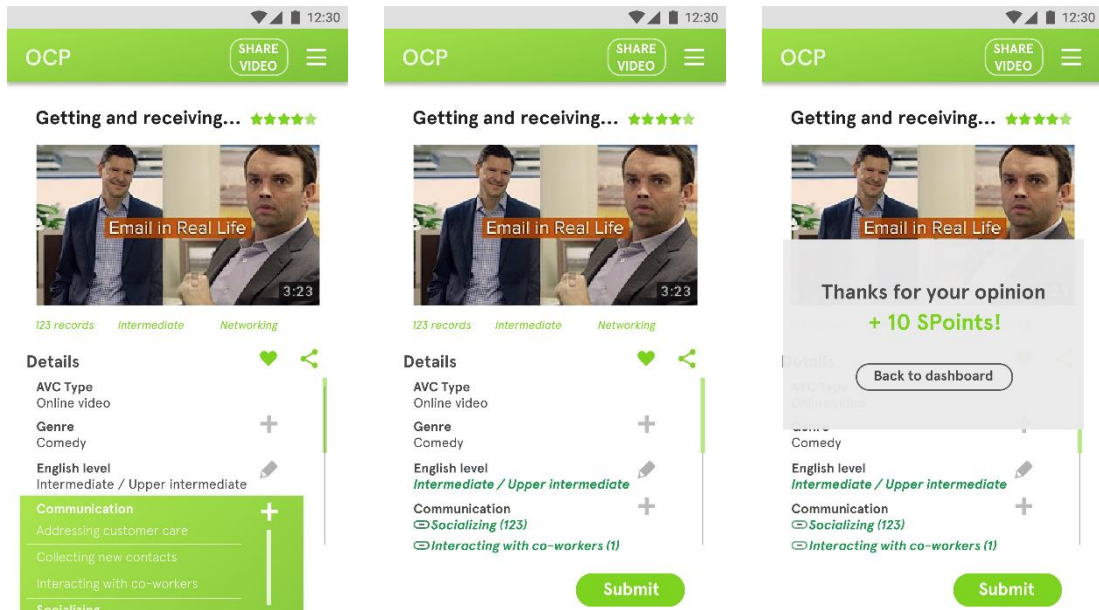




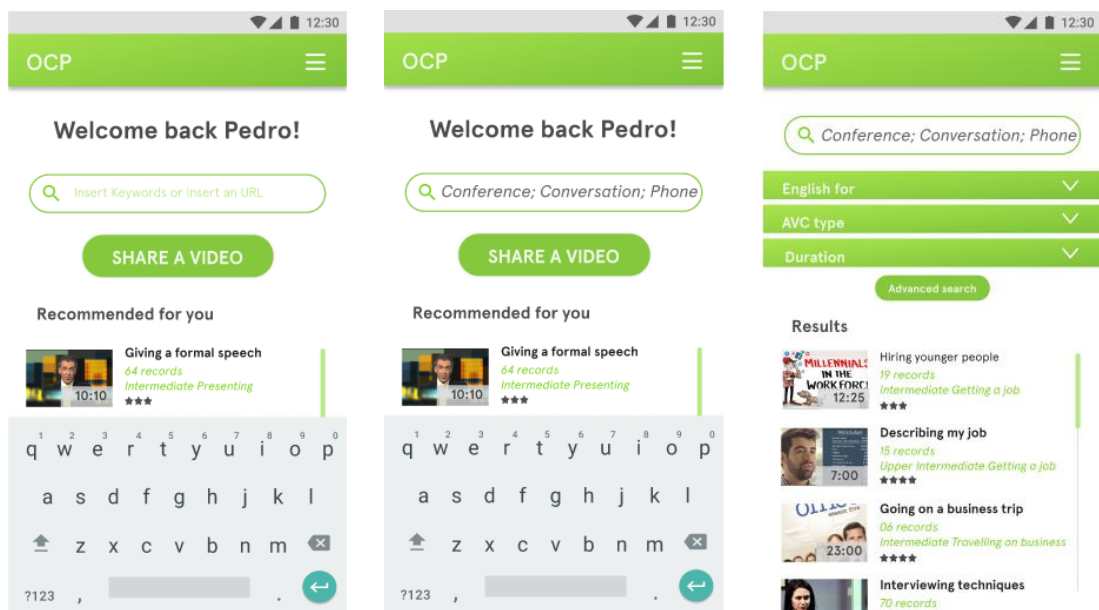
Task 2 – Visualize and evaluate a recommended content (3 minutes)







Task 3 - Search for a video via refined search and edit the search criteria information (4 minutes)



OCP 12:30

Conference; Conversation; Phone

English for

AVC type

Duration

- Up to 4 minutes
- From 5 to 9 minutes
- From 10 to 19 minutes
- From 20 to 34 minutes
- From 35 to 74 minutes
- From 75 to 119 minutes
- From 120 to 179 minutes
- Over 180 minutes

06 records
Intermediate Travelling on business
23:00
★★★★

Interviewing techniques
70 records

OCP 12:30

Conference; Conversation; Phone

English for

AVC type

Up to 4 minutes

Advanced search

Results

- Conference calls
321 records
Intermediate Talking on the phone
4:15
★★★★
- Getting and receiving mail
123 records
Intermediate Networking
3:22
★★★★
- Interviewing techniques
70 records
Intermediate Getting a job
3:55
★★★
- Presenting results with graphs
12 records

OCP 12:30

Conference calls ★★★★★

A CONFERENCE CALL IN REAL LIFE
4:15

321 records Intermediate Talking on the phone

Details

AVC Type
Online video

Genre
Comedy

English level
Intermediate

Communication
Listening / Talking on the phone

Event

Rate

OCP 12:30

Please rate this video

★ ★★ ★★★★★

Report dead link

OCP 12:30

Please rate this video

★ ★★ ★★★★★

Report dead link

OCP 12:30

Please rate this video

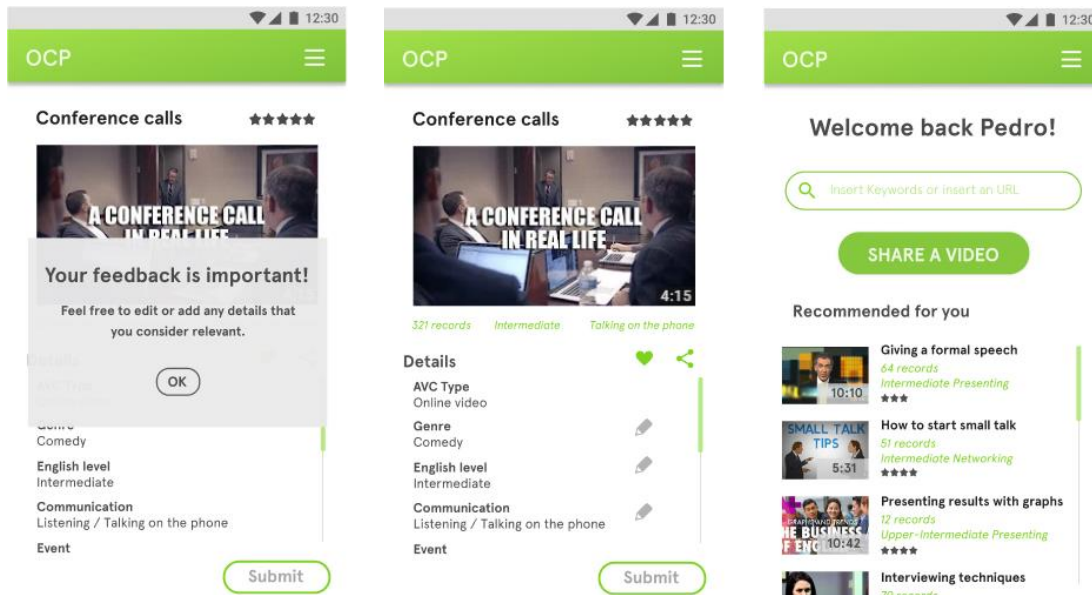
★ ★★ ★★★★★

Why did you choose 5 stars?

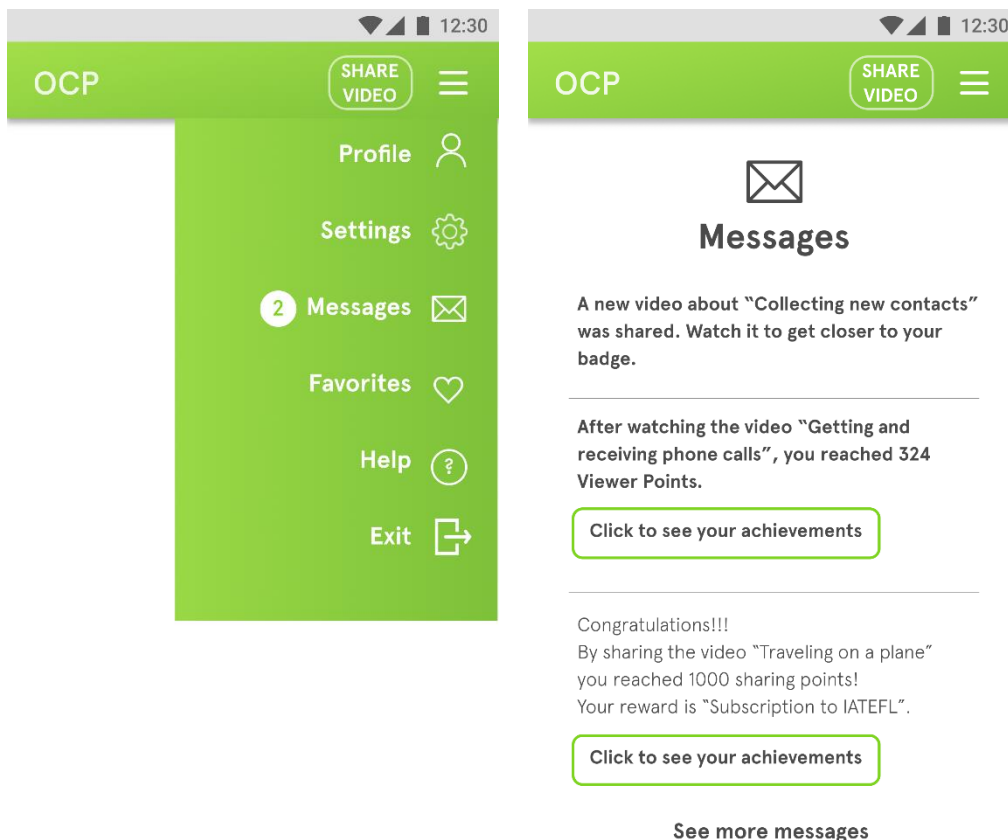
Thanks for your opinion
You get 10VPoints!

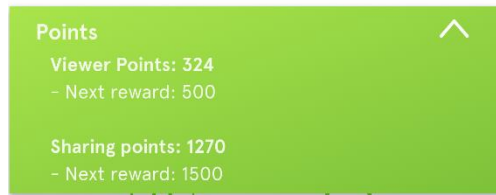
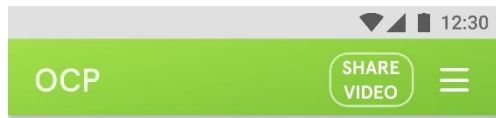
Back to video

Skip

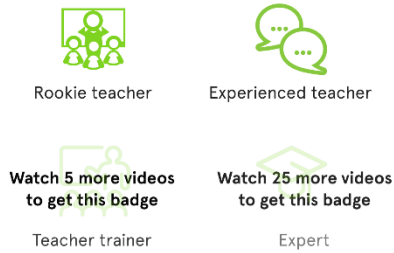


Task 4 – Check your messages and consult achievements (1 minute)

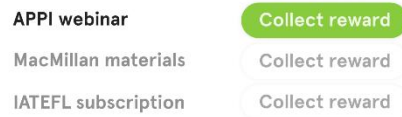
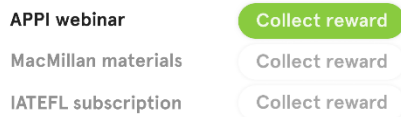




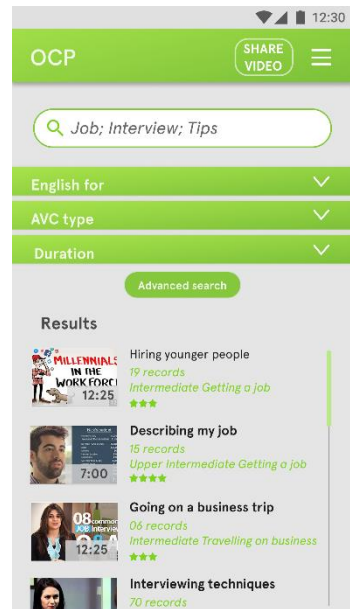
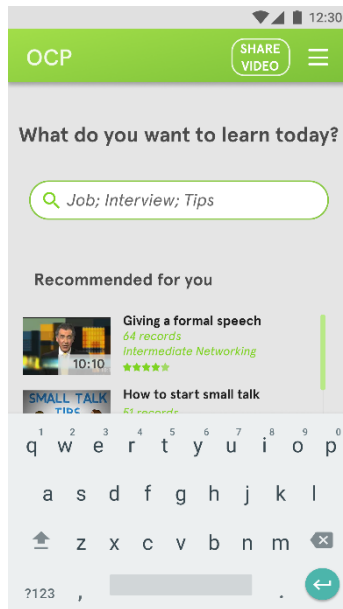
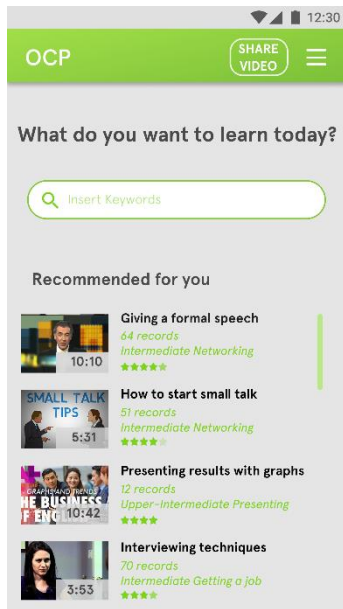
Badges

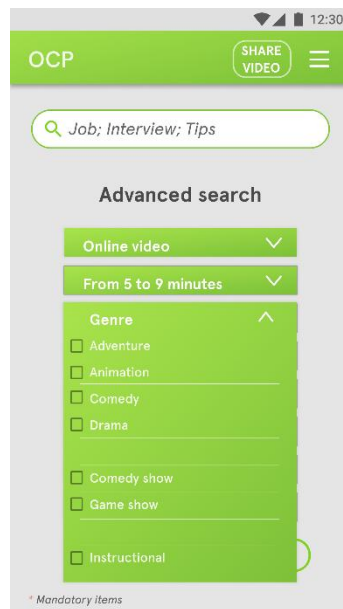
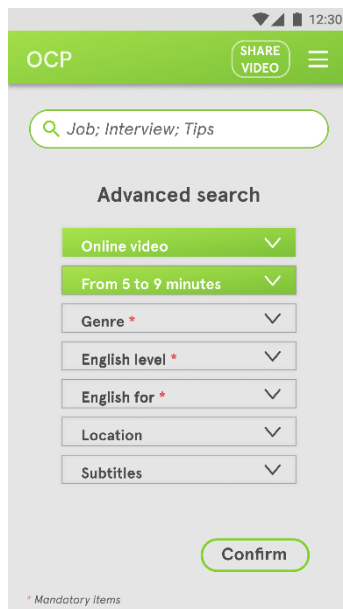
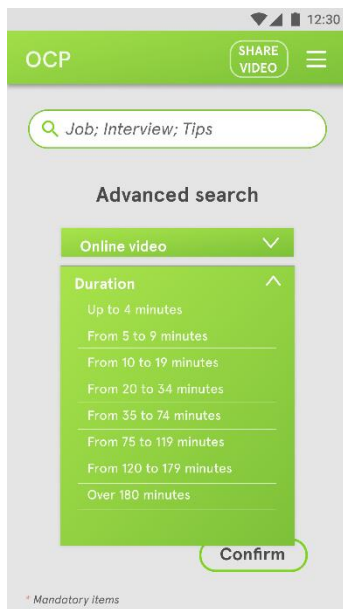
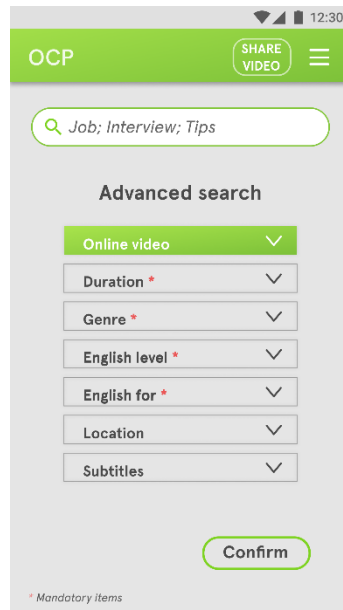
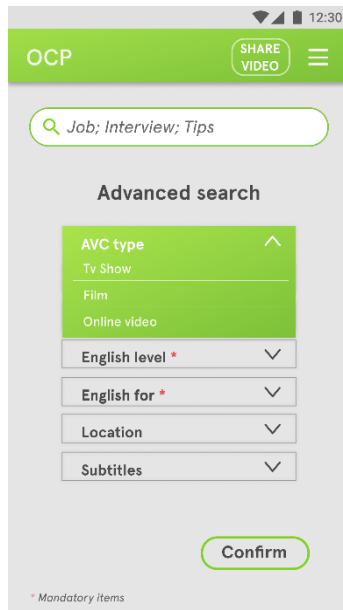
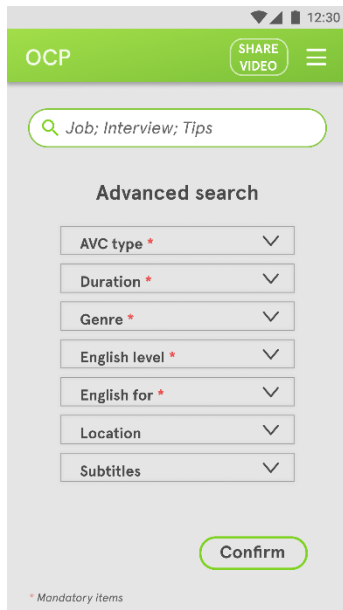


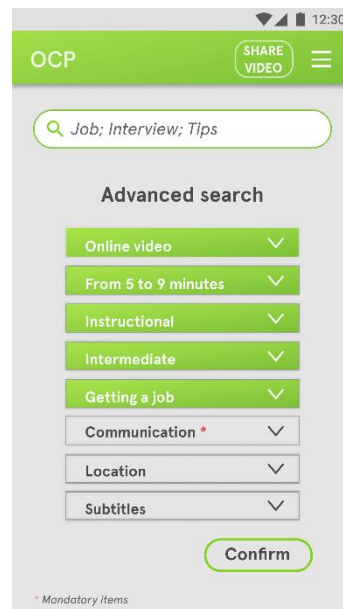
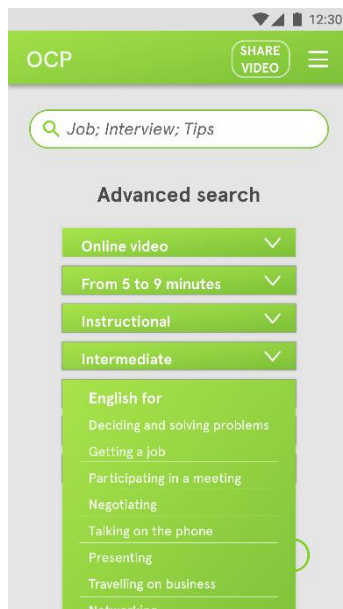
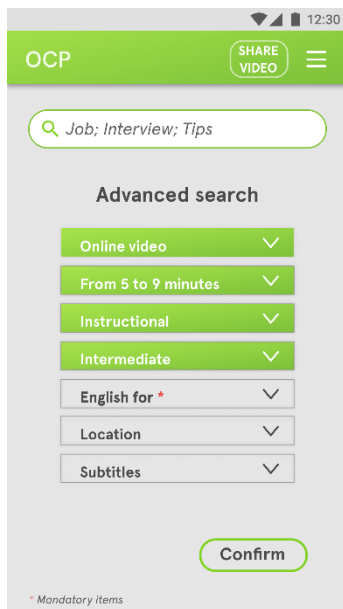
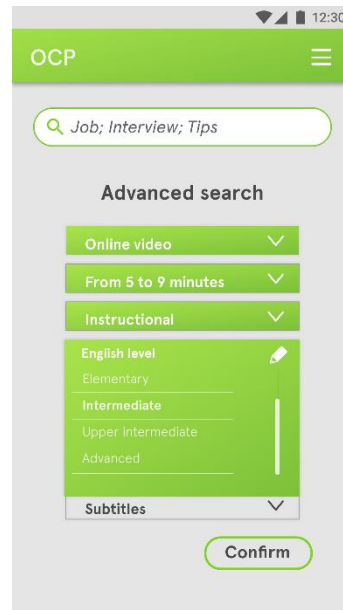
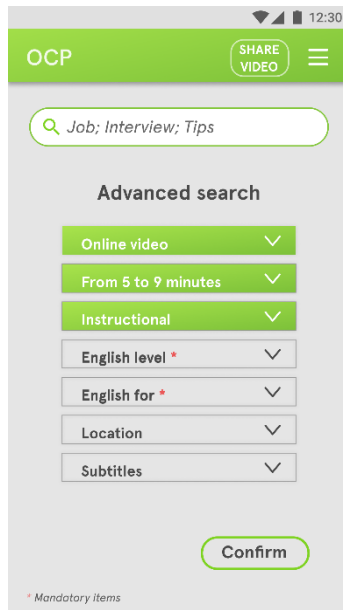
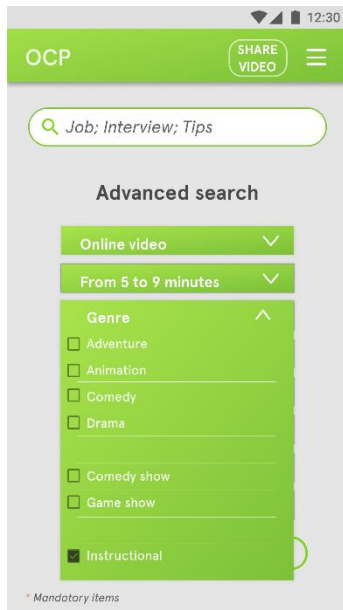
Rewards

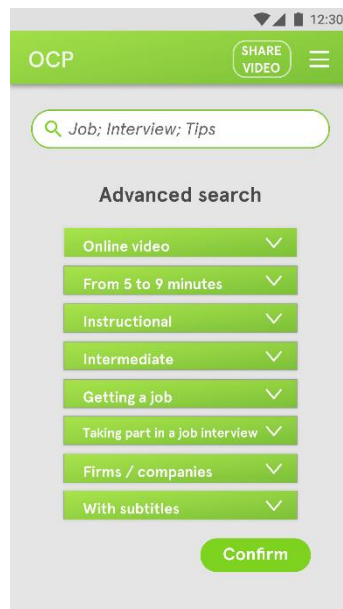
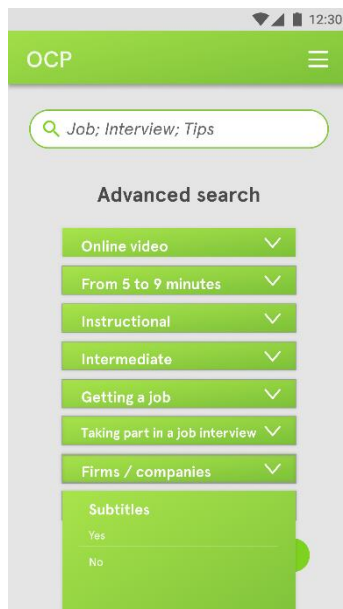
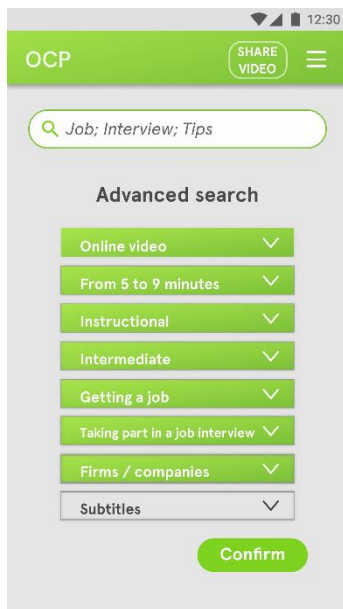
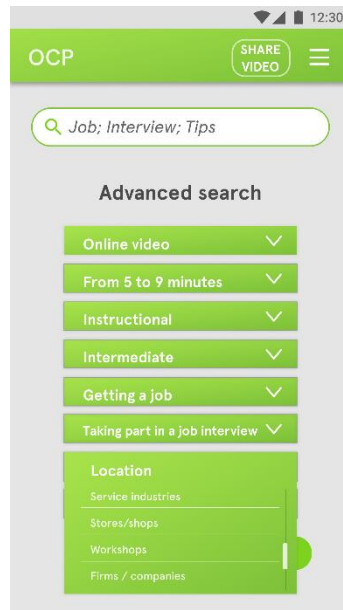
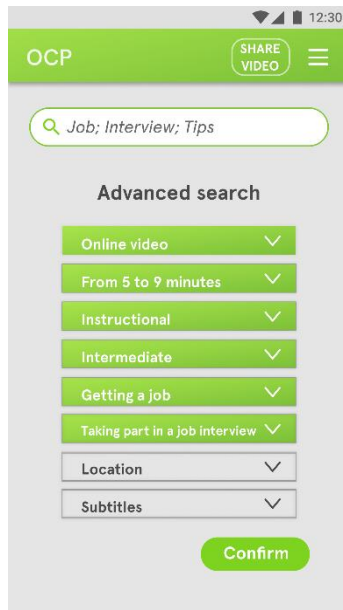
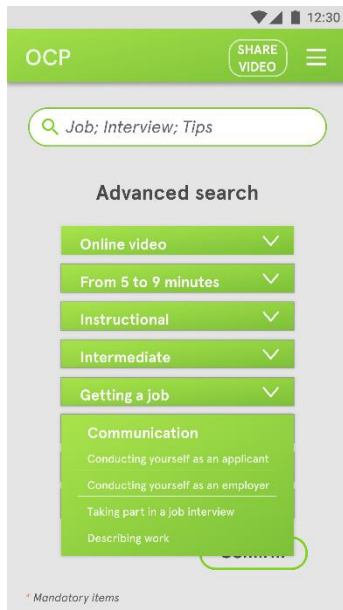


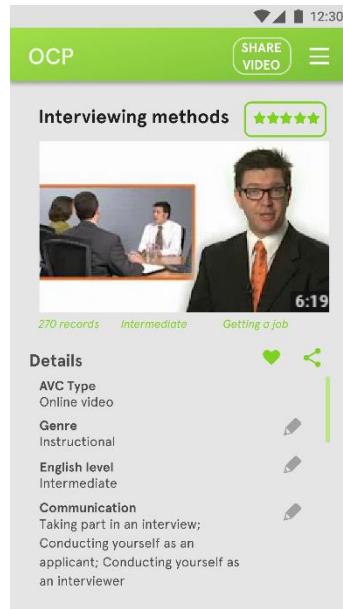
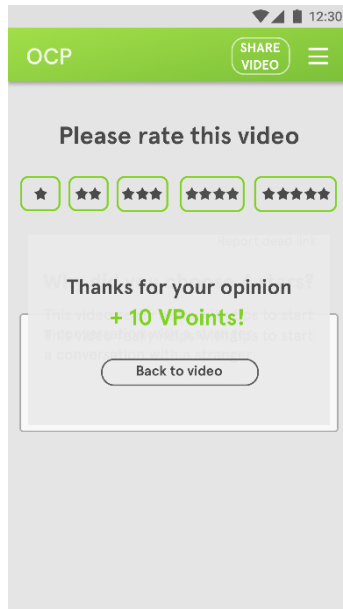
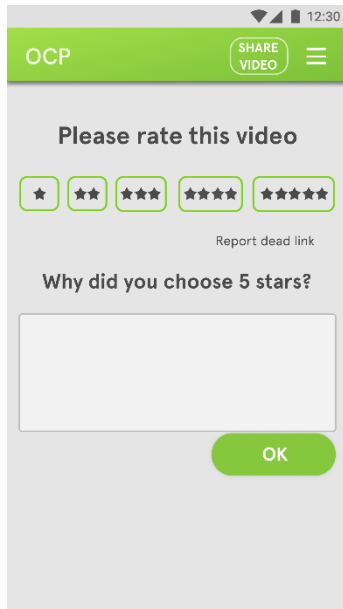
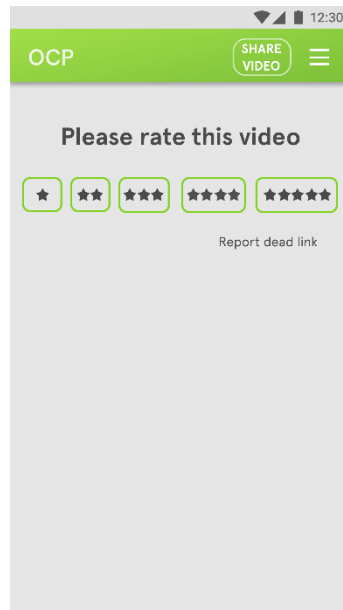
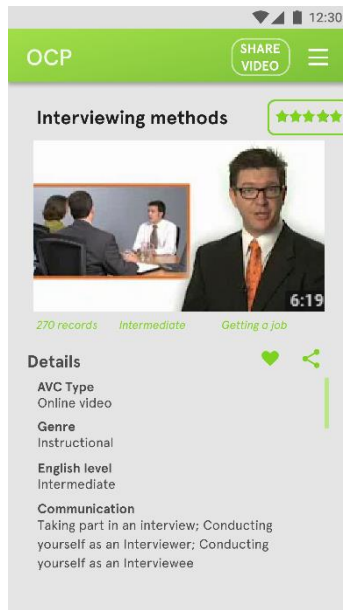
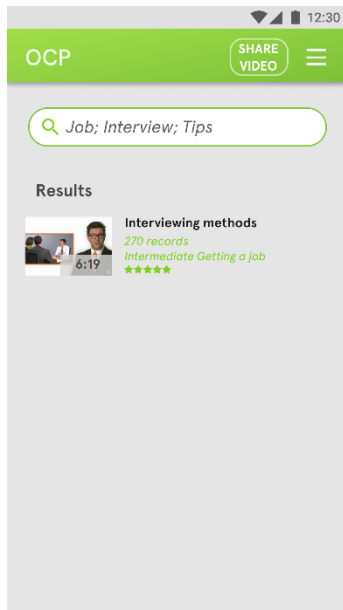
Task 5 – Use an advanced search to find a video (5 minutes)

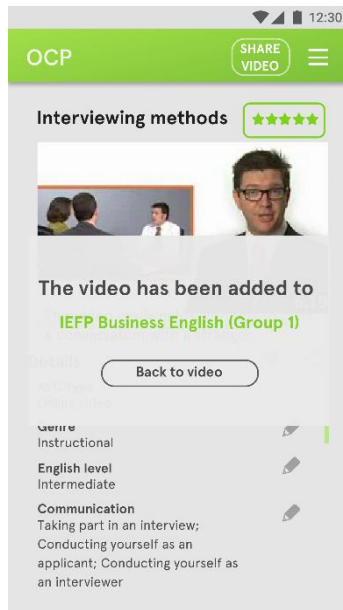
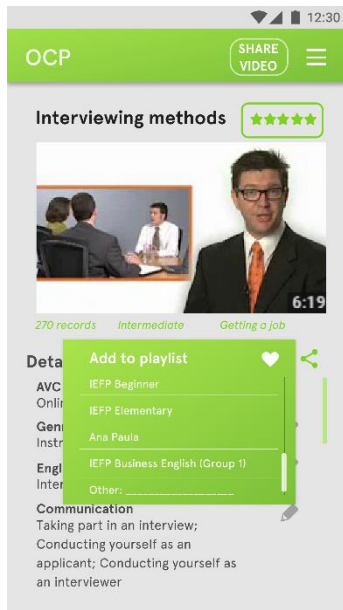




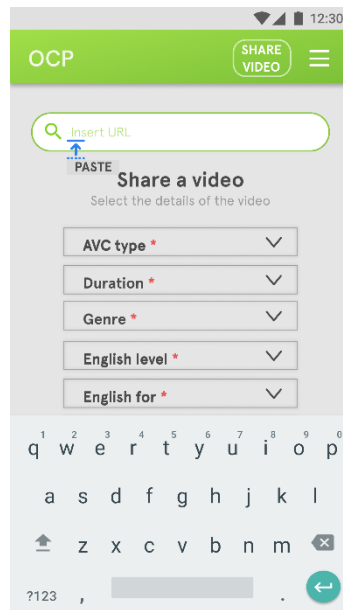
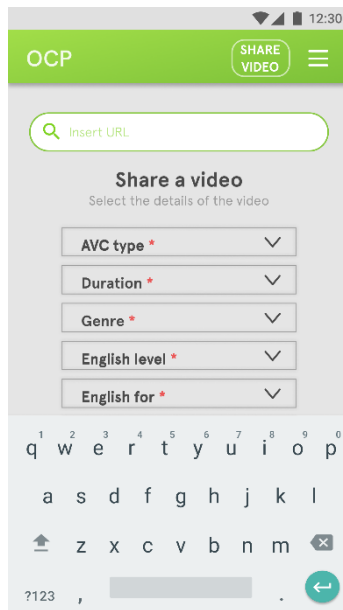
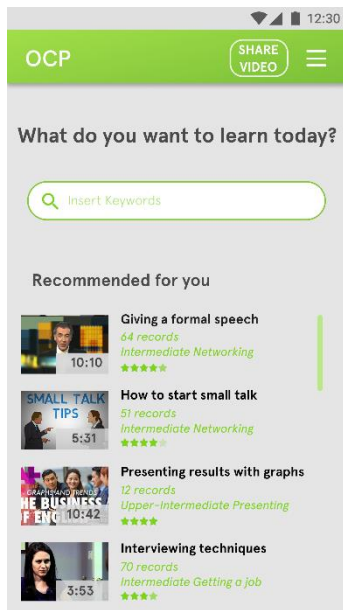


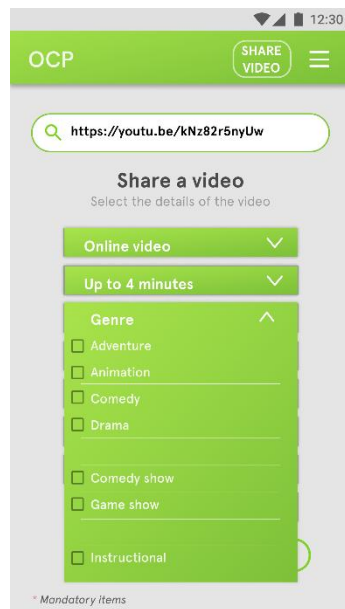
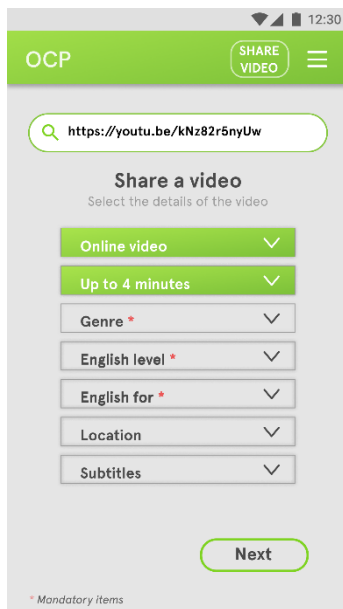
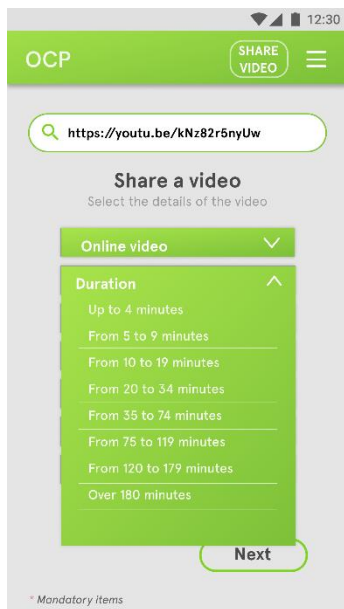
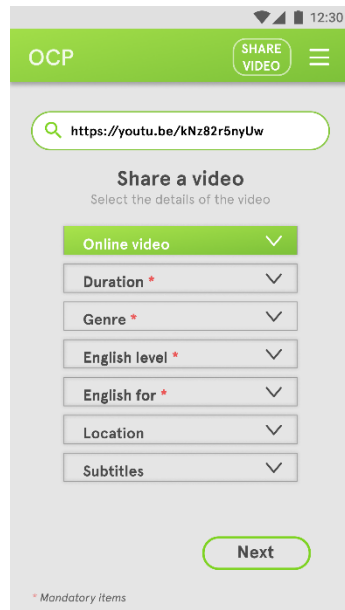
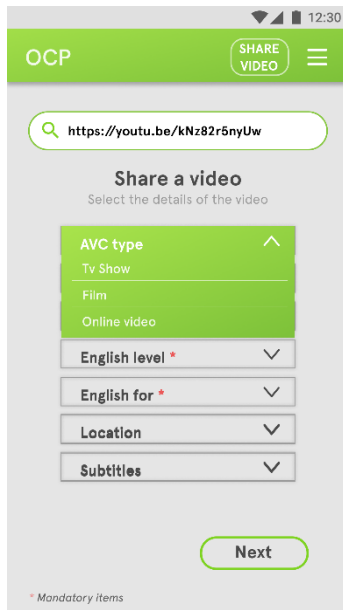
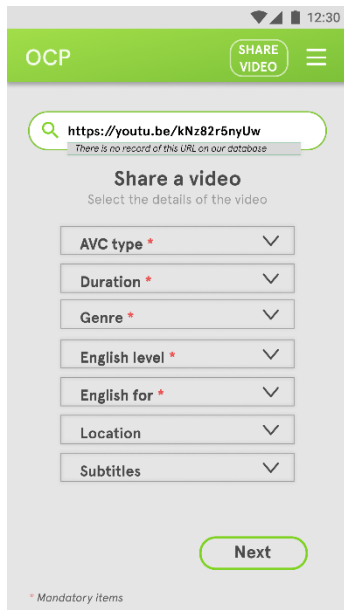


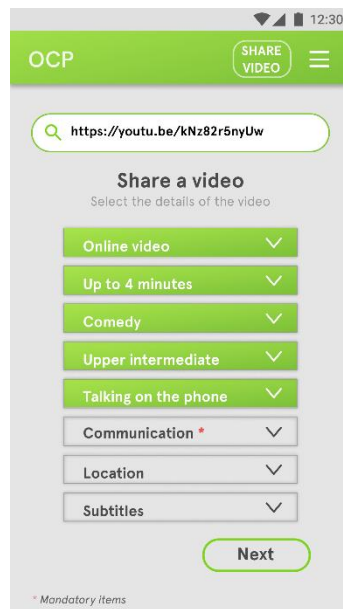
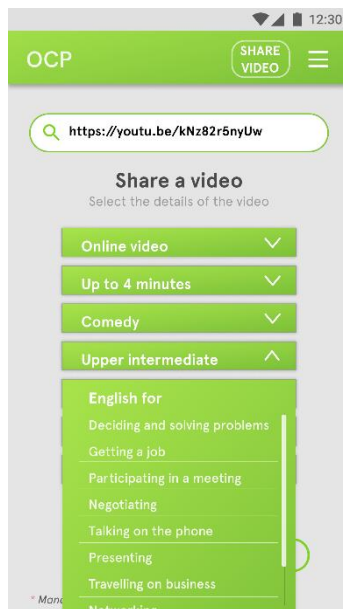
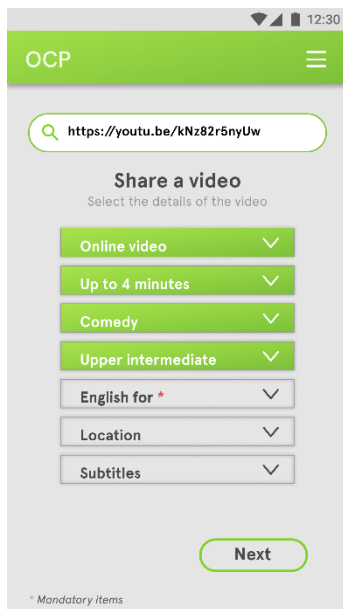
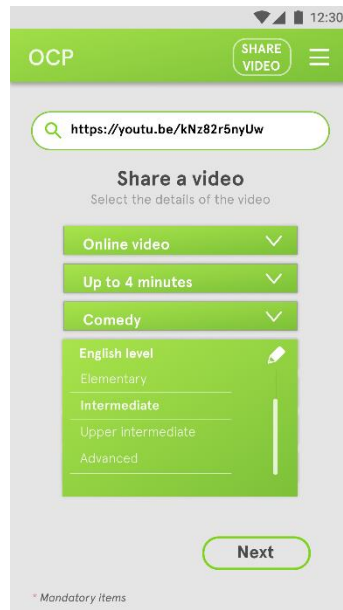
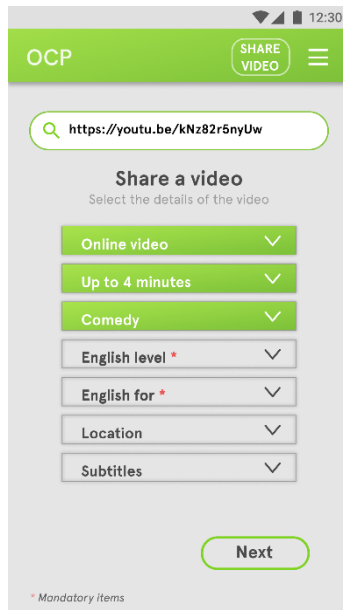
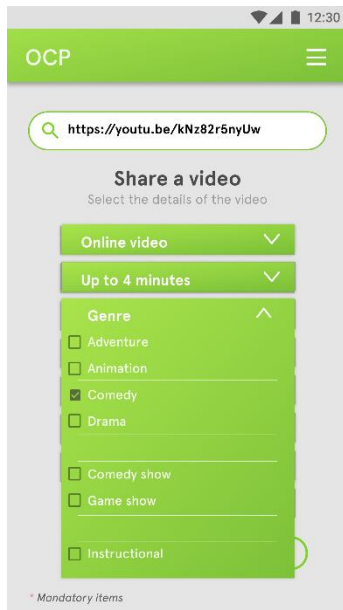


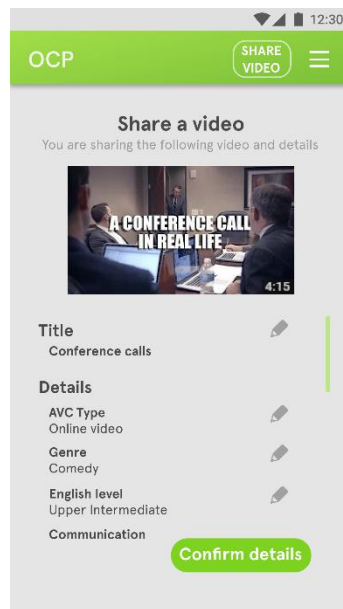
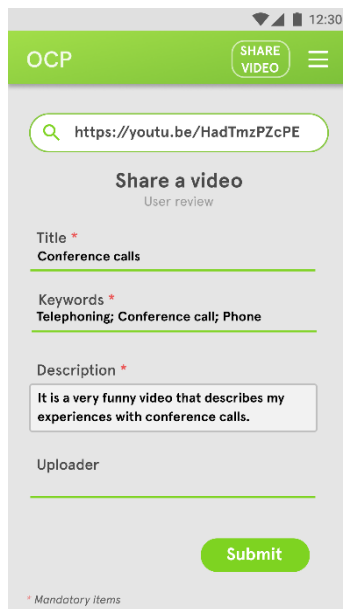
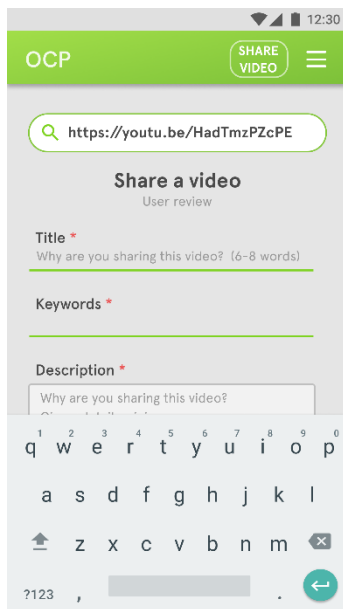
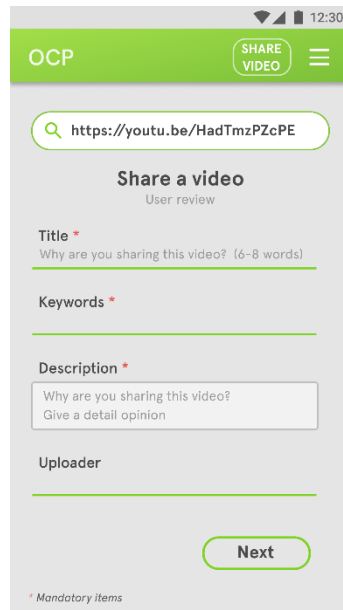
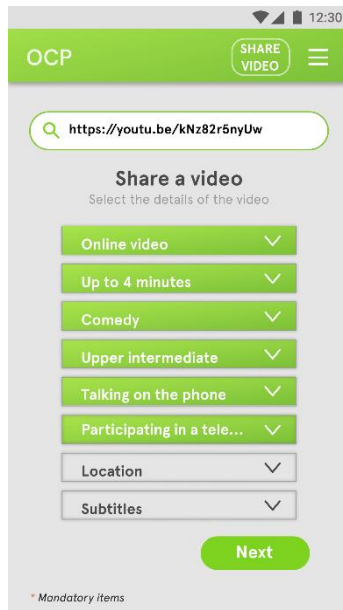
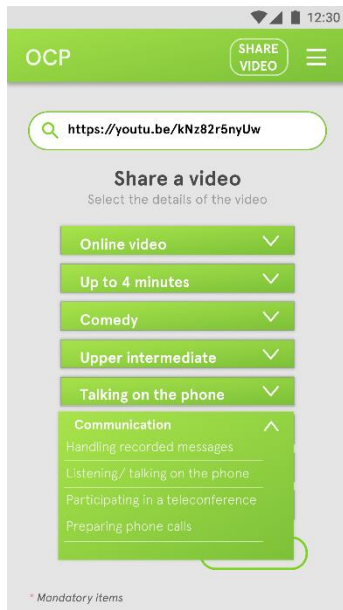


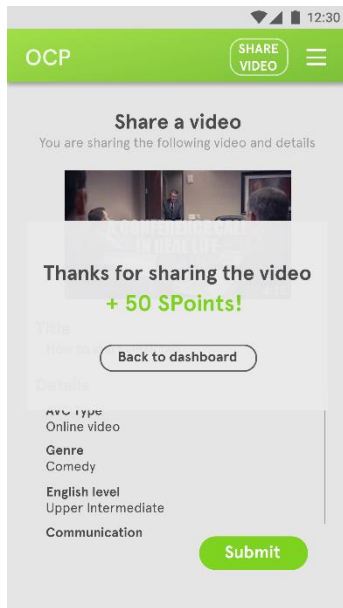
Task 6 – Share a video and insert information about it (5 minutes)



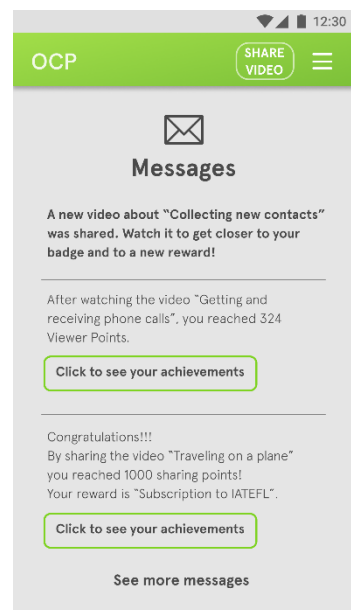
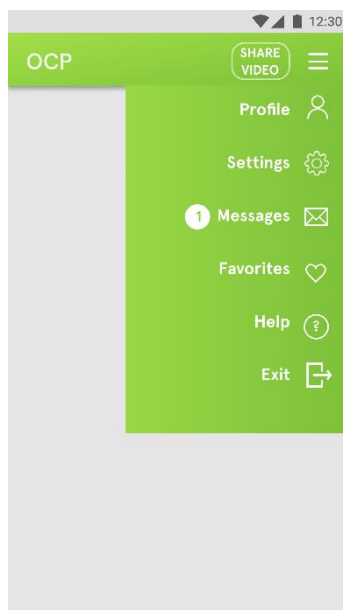
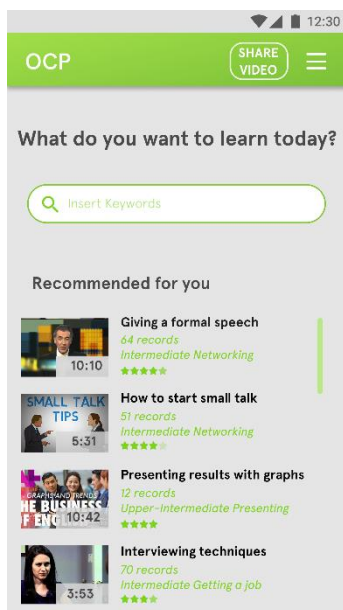


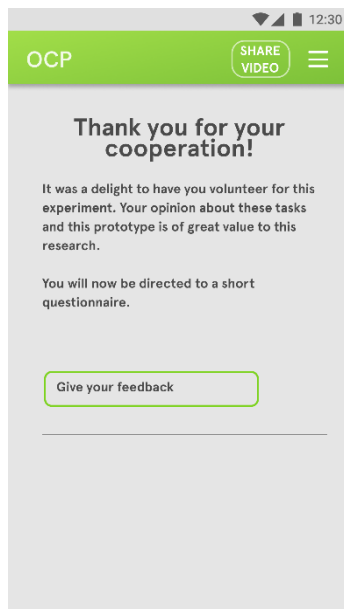
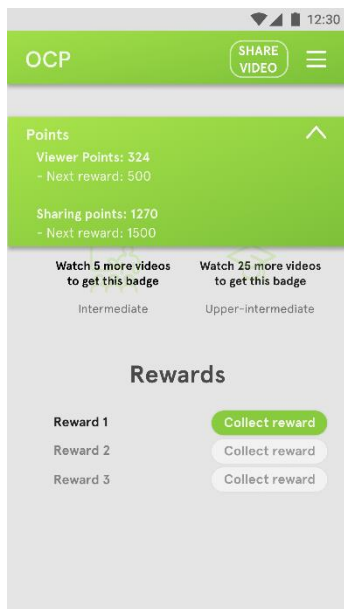
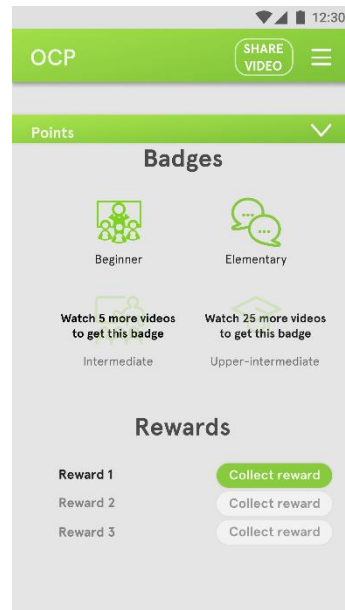
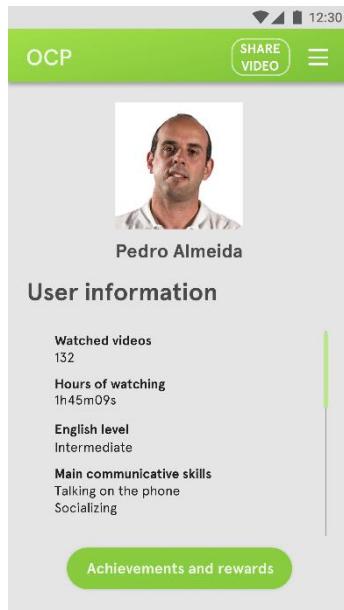
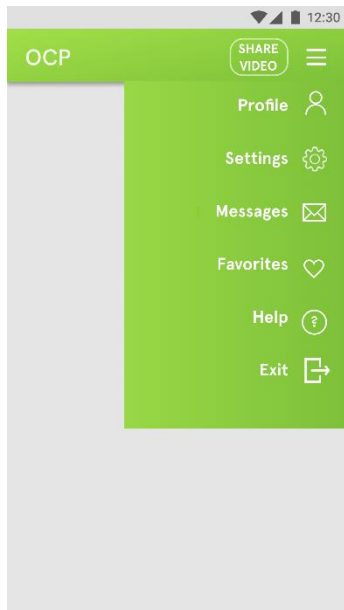






Task 7 and 8 – Read your most recent message and return to your dashboard (30 seconds);
Check your profile, recheck your achievements and log out (30 seconds)





| | |
|--------------|--|
| Appendix: | V |
| Title: | Screenshots of the Excel version of the Matrix |
| Description: | Division of the conceptual framework of the Matrix into the four dimensions: AVC information, Learner value, User review, and Learning |

Dimension 1: AVC Information

| | | |
|--------------------------|----------------------|-----------|
| 1. Url/Link | _____ | |
| 2. Duration (in minutes) | 2.1. Up to 4 minutes | |
| | 2.2. From 5 to 9 | |
| | 2.3. From 10 to 19 | |
| | 2.4. From 20 to 34 | |
| | 2.5. From 35 to 74 | |
| | 2.6. From 75 to 119 | |
| | 2.7. From 120 to 179 | |
| | 2.8. Over 180 | |
| | 3. Type | 3.1. Film |
| 3.2. TV show | | |
| 3.3. Internet video | | |
| 4. Season | _____ | |
| 5. Episode | _____ | |
| 6. Director | _____ | |
| 7. Year of release | _____ | |
| 8. Uploader/Producer | _____ | |
| 9. Support url | _____ | |

Dimension 2: Learner value

| | | |
|--------------------|-------------------|--|
| 1. Genre | | |
| | Fictional | |
| 1.1. | Action | |
| 1.2. | Adventure | |
| 1.3. | Animation | |
| 1.4. | Comedy | |
| 1.5. | Crime | |
| 1.6. | Drama | |
| 1.7. | Fantasy | |
| 1.8. | Film-noir | |
| 1.9. | Horror | |
| 1.10. | Musical | |
| 1.11. | Mystery | |
| 1.12. | Romance | |
| 1.13. | Sci-fi | |
| 1.14. | Soap | |
| 1.15. | Thriller/suspense | |
| 1.16. | War | |
| 1.17. | Western | |
| | Entertainment | |
| 1.18. | Comedy show | |
| 1.19. | Game show | |
| 1.20. | Reality show | |
| 1.21. | Sports | |
| 1.22. | Talk show | |
| 1.23. | Variety show | |
| 1.24. | Talent show | |
| | Factual | |
| 1.25. | Biography | |
| 1.26. | Documentary | |
| 1.27. | Magazine | |
| 1.28. | News | |
| 1.29. | Debate | |
| 1.30. | Religious | |
| 2. Target audience | | |
| 2.1. | Adult | |
| 2.2. | Young | |
| 2.3. | Children | |
| 2.4. | Family | |

| | | |
|-----------|---------------------|--|
| 3. Accent | | |
| | 3.1. British | |
| | 3.2. American | |
| | 3.3. Australian | |
| | 3.4. South African | |
| | 3.5. Other English* | |
| | 3.6. Foreigners** | |
| | | |
| | 3.7. Standard | |
| | 3.8. Regional | |

| | | |
|-------------------------|---------------------------------|-------------------|
| 4. Are there subtitles? | | |
| | 4.1. Yes | |
| | 4.2. No | |
| | | |
| | 4.3. If "Yes" ... | |
| | | 4.3.1. In English |
| | | 4.3.2. In _____ |
| | 4.4. Accurate English subtitles | |
| | | 4.4.1. Yes |
| | | 4.4.2. No |

| | | |
|-------------------------|----------|--|
| 5. New content feedback | | |
| | 5.1. Yes | |
| | 5.2. No | |

Dimension 3: User review

| | |
|-------------------------|--|
| 1. Title | |
| 2. Keywords | |
| 3. Description/ comment | |

Dimension 4: Learning

| | | |
|-------------------|------------------------------------|--|
| 1. English for... | | |
| | 1.1. Deciding and solving problems | |
| | 1.2. Getting a job | |
| | 1.3. Participating in a meeting | |
| | 1.4. Negotiating | |
| | 1.5. Talking on the phone | |
| | 1.6. Presenting | |
| | 1.7. Travelling on business | |
| | 1.8. Networking | |

| | | |
|------------------|--|--|
| 2. English level | | |
| | 2.1. Beginner | |
| | 2.2. Beginner / Elementary | |
| | 2.3. Elementary | |
| | 2.4. Elementary / Intermediate | |
| | 2.5. Intermediate | |
| | 2.6. Intermediate / Upper-Intermediate | |
| | 2.7. Upper-intermediate | |
| | 2.8. Upper-intermediate / Advanced | |
| | 2.9. Advanced | |
| | 2.10. Advanced / Fluent | |
| | 2.11. Fluent | |

| | | |
|--|---------------------------|--|
| 3. Are the characters participating in an event? | | |
| | 3.1. Conferences | |
| | 3.2. Consultations | |
| | 3.3. Industrial accidents | |
| | 3.4. Industrial disputes | |
| | 3.5. Interviews | |
| | 3.6. Meetings | |
| | 3.7. Receptions | |
| | 3.8. Seasonal sales | |
| | 3.9. Trade fairs | |
| | 3.10. Other: _____ | |
| | 3.11. Not important | |

| | |
|---|--|
| 4. In which location(s) is the plot taking place? | |
| 4.1. Airports | |
| 4.2. Civil services | |
| 4.3. Factories | |
| 4.4. Farms | |
| 4.5. Hotels | |
| 4.6. Offices | |
| 4.7. Ports | |
| 4.8. Railways | |
| 4.9. Service industries | |
| 4.10. Stores/shops | |
| 4.11. Workshops | |
| 4.12. Firms/companies | |
| 4.13. Other: _____ | |
| 4.14. Not important | |

| | |
|--|--|
| 5. What are the occupations of the characters? | |
| 5.1. Client | |
| 5.2. Colleague/workmate | |
| 5.3. Employee | |
| 5.4. Employer | |
| 5.5. Manager | |
| 5.6. Receptionist | |
| 5.7. Secretary | |
| 5.8. Subordinate | |
| 5.9. Technician | |
| 5.10. Other: _____ | |
| 5.11. Not important | |

| Communicative Skills | |
|---|--|
| 1 Deciding and solving problems | |
| 1.1. Making decisions inside the company | |
| 1.2. Making decisions towards the outside | |
| 1.3. Solving problems indoors | |
| 1.4. Solving problems outdoors | |
| 3 Participating in a meeting | |
| 3.1. Being active in a meeting | |
| 3.2. Conducting a meeting | |
| 3.3. Discussing general affairs | |
| 3.4. Discussing internal affairs | |
| 3.5. Analyzing and checking information | |
| 5 Talking on the phone | |
| 5.1. Handling recorded messages | |
| 5.2. Listening/talking on the phone | |
| 5.3. Participating in a teleconference | |
| 5.4. Preparing phone calls | |
| 7 Travelling on business | |
| 7.1. Attending or organizing an event | |
| 7.2. Discussing business topics | |
| 7.3. Planning a trip | |
| 7.4. Surviving out of town | |
| 7.5. Working off-site | |
| 7.6. Learning about cultural differences | |
| 2 Getting a job | |
| 2.1. Conducting yourself as an applicant | |
| 2.2. Conducting yourself as an employer | |
| 2.3. Taking part in a job interview | |
| 2.4. Describing work | |
| 4 Negotiating | |
| 4.1. Closing | |
| 4.2. Negotiating before deal | |
| 4.3. Addressing post negotiating situations | |
| 4.4. Planning a negotiation | |
| 6 Presenting | |
| 6.1. Attending a presentation | |
| 6.2. Interacting with crowd | |
| 6.3. Planning a presentation | |
| 6.4. Influencing | |
| 6.5. Describing trends, facts and figures | |
| 6.6. Reporting | |
| 6.7. Presenting | |
| 8 Networking | |
| 8.1. Addressing customer care | |
| 8.2. Collecting new contacts | |
| 8.3. Interacting with co-workers | |
| 8.4. Socializing | |
| 8.5. Engaging staff | |