# Fostering media literacy and creativity by making videos: a literature review in recent PBL programs implementing student digital video production as a collaborative learning strategy

**by Alejandra Cerrillo de la Rosa**
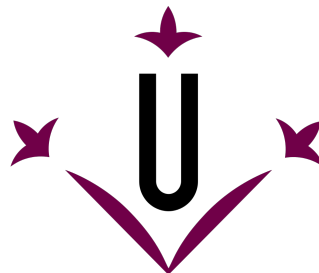
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# Special thanks

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# Abstract

The digital turn of society has boosted digital video sharing (DVS) as a daily basis communicative action, turning cinematographic language into a two-way medium, so our culture is shifting into a more participatory and audiovisual one. Thus, media literacy has become crucial to fully experience it, and the learning scenarios implied by the current Web 2.0 culture need to take in stride the educational use of video-making and DVS. Educational research and pedagogical innovation seem to have recently adopted those attributes as telecommunications mobility and connectivity soar up; yet, new media programs are not common, nor a well-standardized practice. To check on that, the present text comprehends a literary review of a selection of recently published articles treating case studies of PBL programs implementing digital video production and DVS as a collaborative learning strategy to provide a state-of-the-art perspective of this type of pedagogical ICT innovation.

# Resumen

El giro digital de la sociedad ha impulsado el uso compartido del video digital (DVS) como una acción comunicativa cotidiana, convirtiendo el lenguaje cinematográfico en un medio bidireccional, por lo que nuestra cultura se está volviendo más participativa y audiovisual. Así, la alfabetización mediática se ha vuelto crucial para experimentarla plenamente y los escenarios de aprendizaje implicados por la actual cultura de la Web 2.0 necesitan incorporar el uso educativo de la producción de video y el DVS. La investigación educativa y la innovación pedagógica parecen haber adoptado recientemente esos atributos a medida que aumentan la movilidad y la conectividad de las telecomunicaciones; sin embargo, los programas de nuevos medios no son comunes, ni tampoco una práctica bien estandarizada. Para comprobarlo, el presente texto comprende una revisión literaria de una selección de artículos publicados recientemente que tratan sobre estudios de caso de programas de PBL que implementan la producción de video digital y el DVS como una estrategia de aprendizaje colaborativo para proporcionar una perspectiva actualizada del estado en que se encuentra este tipo de innovación pedagógica TIC.

# 1 Introduction

The Web 2.0 is not only transforming the media landscape, but it is also shaping the way people communicate with each other and create new and meaningful social content. Digital video sharing (DVS) is one of the new media's features shifting our cultural model into a more participatory, creative, and audiovisual one (Jenkins, Ford, & Green, 2013), and ultimately, such turn is transforming teaching and learning processes. Project and student-centered curricula have proved to be highly effective to foster media literacy amongst young learners; yet, even if digital video production and new media have already been incorporated into many classrooms and school subjects, this is neither a common nor a well-standardized pedagogic practice yet. Apparently, many teachers still avoid this type of project, as it demands some challenging video-making technical requirements, as well as strategic vision to orchestrate the collective creative process for their students (Cayari, 2015; Palmgren-Neuvonen & Korkeamäki, 2015). Therefore, current educational practices should be reviewed in order to equip teachers with the appropriate tools and media literacy, so that they would be able to cultivate in their students state-of-the-art creative and communicative skills. To a longer extent, media-education should enable citizens to actively participate, with self-determined and literate attitude, in the democratic digital construction of society and culture (Wilson, Grizzle, Tuazon, Akyempong, & Cheung, 2011).

Although technology has played a key role in the proliferation of means by which people can produce and spread audiovisual contents, we cannot solely attribute to that people's natural impulse to interact with each other by sharing audiovisual messages. "*Perhaps nothing is more human than sharing stories, whether by fire or by 'cloud' (so to speak)*" (Jenkins et al., 2013, p.2). The rise of online communication tools that facilitate informal and instantaneous DVS has been long preceded by two factors: first, the symbolic nature of mankind; second and based upon the first one, the communicative strength of cinematographic language. Such dichotomy conveys human epistemic thrive by means of symbolic languages and storytelling.

To start understanding this, let us retake Sartori's *Homo videns* (Sartori, 1998).

According to his proposal, human languages have a symbolic nature, and being so, at least at first instance, we tend to communicate rather visually –and by using the plural form *languages* we can include not only words or spoken languages, but also symbolic languages such as cinematography or any figurative art. Humans, differently from other animals, use a system of signifying signs not only to communicate with each other (*outer speech*), but we use language to talk and reflect about ourselves and understand our world (*inner speech*). Sartori (1998) defines humans as *self-loquacious animals*, since we are beings that constantly talk to ourselves in order to comprehend abstract thought and sentiments. Subsequently, that inner speech is better uttered through complex symbols, images, which signify a whole semantic meaning. For words, conveying such meaning take long compositions, whereas for images it takes only one strike. The rhythm within the lines in one single frame, just light contrast, it already signifies a whole story. This is why human communication has a pictorial origin, and thus, cinematographic language is so appealing to us.

In this context, the key-shifting element is that new media are finally giving audiovisual voice to their users, meaning that mass communication can now actually be interactive by means of digital technology. Being so, the one-way audiovisual symbolic system that cinema once gave birth to has now evolved into a two-way interactive medium, which adds up further expressive forms that require higher cognitive skills involving creativity all along the communicative cycle. The audience is not exclusively receiving and processing information anymore, but it is actively participating in its production, transformation, and spreading (Jenkins et al., 2013).

In the same line, within computer-based learning and e-learning settings, Personal Learning Environments (PLEs) (Atwell, 2007) are changing the fixed roles of teachers as "*knowledge transmitters*" and students as "*knowledge receivers*". If the Web 2.0 has revolutionized the way we communicate it certainly has affected the way we learn collectively, and then, it must have had an effect on dialogical skills such as the *learn to learn together* (L2L2) skill (Pifarré, Wegerif, Guiral, & Barrio, 2012), which requires a certain degree of media literacy and social/communicative skills to be able to undertake such type of collaborative learning experiences. Therefore, developing creativity and media literacy, specifically regarding audiovisual education, has stepped into the spotlight when teaching information and communication skills.

To sum up, in light of such *digital turn* of society, the new media are actually re-shaping the forms and contents of social interaction and are requiring an urgent revision of the pedagogical approaches to media literacy, going from *video-education* to *media-education* (Mele & Ceretti, 2016). Therefore, it is of utmost importance that media literacy skills be included in formal education curricula and that new media ICT mediated learning scenarios be adopted in regular classrooms to enable students to become *fluent* in communicating and learning audiovisually, both via DV production and sharing.

In contribution with that end, in this Master's degree final assignment (TFM, for its initials in Catalan), I review some publications available on the Internet, treating project-based learning programs that have implemented a student DV production as a capstone assignment in collaborative learning scenarios to get an overview of the current state and spreading of such programs and the research about them.

# 2 Theoretical Framework

## 2.1 Why media literacy? Facing the communicative challenges of a society 2.0

Fostered by the constant improvement of telecommunications, with devices increasingly more accessible, portable, and ubiquitously interconnected, digital video (DV) has become an everyday expressive element that comprises great deal of the interactions on the new media landscape (Ceretti, 2015). From this view, DV is being used in two ways: first, as a meaningful *textual object* (form-content), and second, as *pragmatic element of the participatory culture* (form-content+sharing), which embeds the underlying meaning of social interaction (Mele & Ceretti, 2016). Thereby, DVS is one of the specific characteristics of the Web 2.0 – intended as a communicative space formed not only by mainstream media production that is available to be spread and re-

interpreted by the public, but also and most importantly, it consists of user generated content involving a constellation of cognitive actions that individuals project on such networked media when interacting with each other (Ceretti, 2015). In this way, the Web 2.0 has become the medium where we can collectively construct our own identity and experience culture, particularly consisting of our own audiovisual presence and practice; giving way to "*a more participatory model of culture, one which sees the public not as simply consumers of preconstructed messages but as people who are shaping, sharing, reframing, and remixing media content in ways which might not have been previously imagined*" (Jenkins, Ford, & Green, 2013, p. 2).

Immersed into the vast amount of information within the Web 2.0, there seems to be consensus about the imperative need to care and educate towards a critical approach to information, pondering relevance, quality, and reliability of the contents that we share (Cayari, 2015; Ceretti, 2015; Jenkins, Ito, & Boyd, 2016; Martín & Hernández, 2014; Mele & Ceretti, 2016; Sawyer, 2004; Wilson et al., 2011; Yang, 2013). DVS involves a series of socially embedded decisions (Jenkins et al., 2013), which are largely determined by the quality of the information we receive (Wilson et al., 2011). The influence of information upon our social attitude while interacting through new media even alters our capacity to enjoy fundamental freedoms, such as the right to freedom of expression and the right to information access, defining our ability for self-determination and development (Wilson et al., 2011). Thus, it is crucial that civic education includes media and information literacy as one of the main skills in regard to democratic participation of society.

For instance, the Alexandria Proclamation of 2005, states that media and information literacy "empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion of all nations" (UNESCO, 2005). In the same direction, the UNESCO Media and Information Literacy Curriculum for Teachers adds that such literacy is knowledge that should enable "users to engage with media and information channels in a meaningful manner" (Wilson et al., 2011, p.16). This curricular proposal places teachers as the main agents in the shift to a society 2.0 – or media humanity, as Ceretti (2015) names it. Consequently, pedagogical research should enrich such practice with the best possible theoretical

framing and practical resources, both for teachers and students.

In brief, the contemporary digital media landscape, supported by the Web 2.0, offers the opportunity for people to participate in shaping their cultures using digital video as a main textual element, and digital video sharing as a common communicative practice. In doing so, the new media may have a strong potential for supporting democracy (Yang, 2013); yet, comprisal of media literacy in formal education is pivotal for actually enabling people to capitalize what new media can offer them in terms of self-empowerment and social readiness for collaborative and democratic processes.

## 2.2 Why digital video sharing? The shift of cinematographic language into a two-way medium.

The famous Russian film director Tarkovsky (1987), went further from the classical conception of cinema as a language – the one that implies that cinema could be simplified to a system of signs and norms, just like any other language-. He argued that cinema, like music, are immediate arts, as they use materials directly from nature itself, and so, contrastingly with literature, these arts do not need the mediation of words.

> *"Some image of the world arises in the writer's consciousness, which he then, by means of words, writes down on paper. But the roll of film imprints mechanically the features of the unconditional world, which came into the camera's field of vision, and from these an image of the whole is subsequently constructed."* (Tarkovsky, 1987, p. 177)

That being said, we can now understand the natural growth of audiovisual scope in new media, provided digital technology allowed it. Cinematographic images are one the most effective ways to utter our inner speech. Even though, Tarkovsky's point of view about the relationship between the artist and audience is rather individualistic- *"Art is by nature aristocratic, and naturally selective in its effect on the audience"* (Tarkovsky, 1987, p. 164). In such way, it is only one single point of view that an artistic artifact, like cinema, can depict. Nevertheless, he proposed that the artist would then have a duty

with society, being the one who speaks for those who are not in condition to express their own relationship with reality (Tarkovsky, 1987). However, in this sense, the so-called *dialogue* between author and audience is not so, since the audience has some sort of passive role in all this. Whatever understanding the public may have about a cinematographic piece remains only within each person's head, but there is not actual interaction for this relationship to be called *dialogue.* Without interaction, without actual dialogue about it, the author's message is likely to be consigned to oblivion. Perhaps mediation of words, or other interactive medium, is required after all.

In a less rhetorical tone, yet still on the same direction, Vygotsky (1978), while tracking down the role of language in human development and learning, ascertained that inner speech is *thinking in pure meanings* (Vygotsky, 1978). It is the condensation of meaning derived from social interaction, a form of understanding more intricately interconnected to oneself and one's world: *"inner speech assists the person in creating new meanings"* (Sawyer et al., 2003, p. 75). It is only when we re-interpret information, when we re-encode it in order to enunciate it, only then, when we actually acquire that information as knowledge and become able to use it in further creative tasks.

This is the reason why social interaction, by means of constructive dialogue, has been pointed out by dialogical pedagogues, from Freire, (1969) to Wegerif (2001), whose methods stemmed from the Vygotskian framework, as the key learning strategy to transit from one edge of the *zone of proximal development* (ZDP) to the other. This is how the Web 2.0 and DVS mediation to cinema revolutionized its communication dynamics and turned it into an actual dialogic medium; for there are much more tools currently available that enable audiences, even regular public of mainstream block busters, to re-interpret audiovisual content in highly accessible and immediate ways. Audiences might not be interacting in direct dialogue with the cinematographic author, as Tarkovsky might have suggested, but they are having peer interaction; yet, still they are acquiring whatever knowledge audiovisual content may have delivered to them.

Thus, even by commenting and sharing clips of a film, audiences are participating in the construction of some collective knowledge that, most assuredly, needs to be guided and instructed so as to make it actually meaningful, and not only *cumulative* or *disputational* talk (Wegerif, Mercer, & Dawes, 1999). Ceretti (2015) coincides with this

view and states that media education has already demonstrated that media competency is not a *natural quality* own by every media user; and so, it is an educational goal that should be achieved by means of structured pedagogical methods. He named such type of pedagogy *media-education*. To that end, media-education should enable people to digitally communicate in a correct and effective way their own relationship to reality; in other words, students of the digital era should be equipped to collaborate with peers via new media in the construction of participatory cultures.

## 2.3 Why creativity? From constructivism to creative pedagogy.

In light of the transformation of cinematographic language into an interactive medium, we could then compare the artist's role – that of being the communicatively *qualified* one who speaks for the *unqualified* rest of the people – with a teacher's role, or with the duty of a media literate person that instructs others in the new media and participatory cultures. Within the Vygotskian framework, we would be talking of the more capable person that assists the learner to walk along the ZPD. Thereby, a media literate teacher should be then a facilitator who enables students to participate in and interact through the new media in a meaningful and autonomous manner, so that, in the end, every learner is enabled as an *active* and *constructive* media user.

However, in the media-education, a teacher's role is not hierarchically discursive anymore like in conventional teaching: "Scripted instruction is opposed to constructivist, inquiry-based, and dialogic teaching methods that emphasize classroom collaboration" (Sawyer, 2004, p. 12). In incorporating dialogical methods, with which distributed cognition happens, teachers still keeps some authoring extends, even in dynamic orchestration – the emergent classroom management of class talk and flow of activities (Sharples & Anastopoulou, 2012). Nevertheless, beyond the planning of sophisticated hands-on activities, it is the teacher's and students' talk around the activities what matters to guide the development of learners' understanding (Mercer & Howe, 2012). Still, learner's autonomous learning by doing (questioning, inquiring, searching, manipulating, experimenting, designing, creating, and even playing, which all require an

active role of the learners) will eventually come in place.

The core idea of constructivism – which, ultimately, implies a processual and developmental understanding of creativity – is that children participate in the creation of their own knowledge (Sawyer et al., 2003). Although, student's creative agency of their own learning is not realized individually and spontaneously just a result of maturation. To the contrary*, "the developmental process lags behind the learning process"* (Vygotsky, 1978, p. 90), and so, cognitive development is the *intramental* outcome of *intermental* activity, and here is where the teachers and peers are decisive to promote an individual's development. According to Mercer (2000), an updated notion of the intermental activity, derived from teacher's scaffolding, occurs as a teaching-and-learning *interthinking* process. Thus, if cognitive development is to be understood as acquisition of a new mindset resulted from social interaction, we could then establish that learning in constructivist scenarios would be analogous to collective creative processes.

Then, we can understand why creativity theorists, such as Sawyer (1999), conceive creativity as an emergent process that involves a group of individuals engaged in complex and unpredictable interactions, and propose creative teaching as an improvisational performance guiding a collective creative process (Sawyer, 2004). In this way, *"by moving from explicit content-related guidance (enhancing students' knowledge) to more implicit process-related support that promotes learners' active roles, the teacher leads novices to gradually take more responsibility for their learning"* (Palmgren-Neuvonen & Korkeamäki, 2015)*.*

Such teaching-and-learning process could be equivalent to the creative pedagogy described by Lin (2011). In creative pedagogy, which has drawn attention since the mid twentieth century when researchers started exploring innovative classroom practices to expand higher-level thinking and develop problem solving skills by building up students' motivation and creative behavior (Lin, 2011), the teacher stills plays a role in terms of *ethos* (knowledgeable expertise), but does not deliver knowledge in the traditional discursive way where teaching and learning were two separate processes that rarely met each other (see Figure 1*)*. Contrastingly, as Lin (2011) brilliantly points out, creative pedagogy has three interconnected elements that complement and result in each other, rendering it a resonant process (see Figure 2).

Teaching: Delivering knowledge

The teacher

The learner

Learning: listen and accept what is taught.
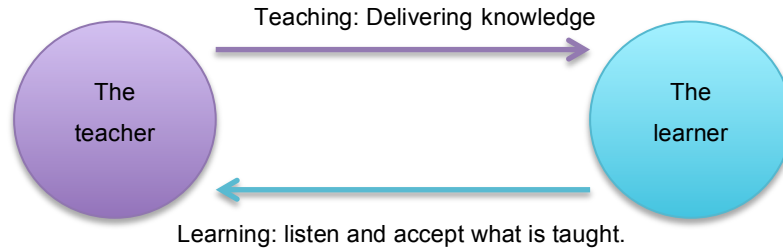
Figure 1, *Conventional teaching and learning process* (Lin, 2009).



Creative Teaching

Creative Pedagogy

Teaching for creativity

Creative Learning
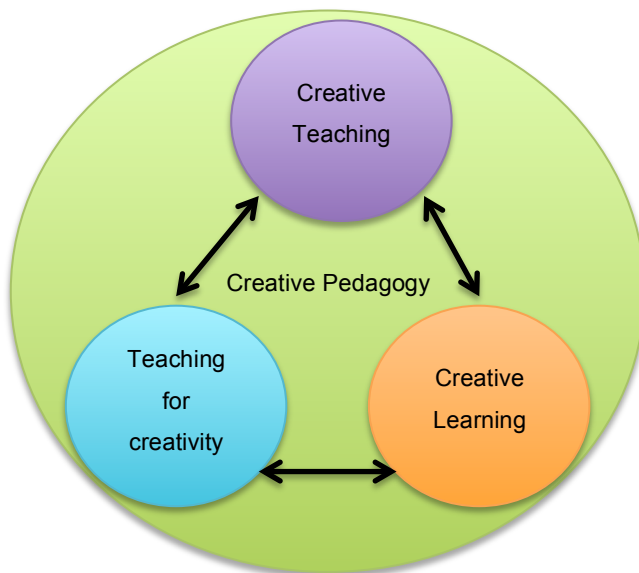
Figure 2 *The three elements of creative pedagogy.* (Own elaboration, adapted from Lin, 2009).

According to this author, there is a difference between *teaching creatively* and *teaching for creativity* as the first one is more centered in teachers' performance and their approach to teaching methodology, whereas the second one includes the learners' active role as well, and so, its focus is more on designing curricula and even planning classroom dynamics. In this way, combining these three elements, in creative pedagogy "*a supportive climate for developing creative abilities and qualities is created through the interaction between inventive and effective teaching (by the creative facilitator), and creative learning (by the active learner)*" (Lin, 2011, p. 152).

Under such intent, we could then say that those three interlaced elements of creative pedagogy are as well at the very origin of project-based learning (PBL) or any other methodology centered on students' agentic role. In this type of learning scenarios, students select, plan, investigate and produce a product, presentation or performance that answers a real world question or responds to an authentic challenge; following Holm's definition of PBL (2011). As it is evident, in all of these student-centered

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methodologies the creative process is the driving motor to accomplish a purposeful pursuit for students, and thus, the teaching should be centered on scaffolding such process so that it is feasible and actually meaningful or instructive for them. Subsequently, it becomes obvious why plenty of authors support the idea that PBL is the best pedagogical methodology to promote media literacy in a creative environment (Holm, 2011; Lin, 2011; Sawyer & DeZutter, 2009; Wilson et al., 2011).

Moreover, if we take the same structure of Lin's (2011) creative pedagogy, and we apply it to the specific example of a PBL classroom meant to promote media literacy, teacher's orchestration to engage with the audiovisual participatory culture in a meaningful way could become the *creative teaching*, the dialogic interaction through Web 2.0 platforms could be equivalent to the *creative learning*, and a new media PBL program including a student DV production and DVS could then be a ideal *teaching-for-creativity* scenario (see Figure 3).
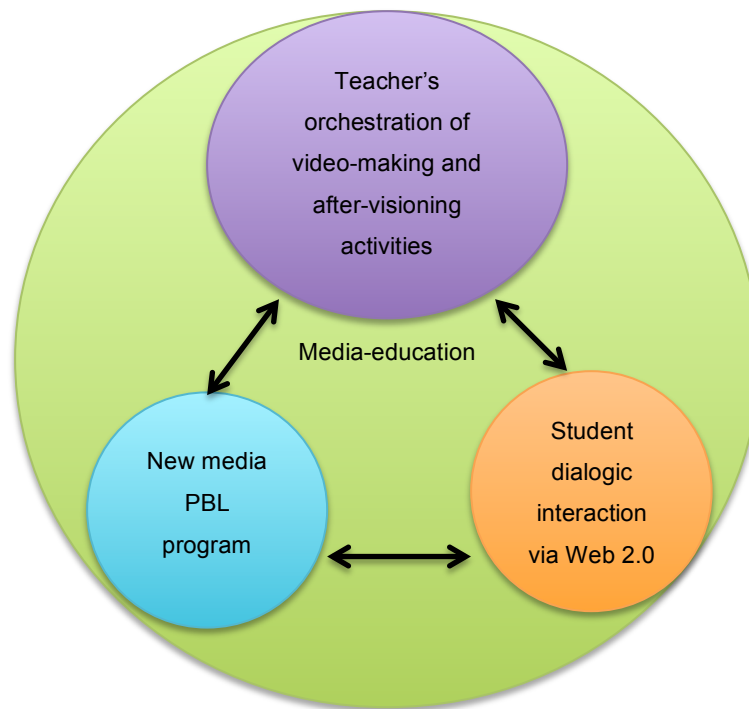


Figure 3 *Creative pedagogy applied to media-education* (Own elaboration, adapted from Lin, 2009).

Anyway, a hands-on program in student-generated DV production implies numerous unpredictable events and factors in terms of interrelational dynamics, intellectual ability, and technical challenges, and even experienced in DV projects, the teachers might not

completely control such challenges (Sawyer, 2004). Thus, a balance between improvisation and design must be found to make the best of such open-ended tasks. This is just the kind of challenge that I, as an educational psychologist, intend to tackle, first, by reviewing some case studies of programs somewhat similar to the figure above.

# 3 Literature review questions and objectives

The general aim of this paper is to provide an updated overview of the empirical research being performed in nowadays classrooms regarding in-class digital video production to foster media literacy skills and creative thinking so as to identify the common features of such programs and their reported outcomes.

## 3.1 Questions

- Are pedagogical researchers studying and innovating in toolkits and resources for teachers to implement student-produced digital video assignments as a collective learning strategy?
- Are such papers published in internationally ranked journals?
- How varied are the school subjects and the educational levels these programs are addressed to?
- Which research methodologies are they using?
- What pedagogical approach was used to implement such programs?
- What sort of video projects are they carrying on and what is their reported impact on students' creative thinking and media literacy skills?
- Was the creative process somehow scaffolded as the video-making process went on?
- Which findings coincide and which ones differ?

## 3.2 Objectives

- Evaluate how well spread and deepen is this type of empirical educational research.

- Point out which are the common elements enabling and motivating teachers and researchers to undertake this pedagogical use of video-making.

- Observe coincidences and differences amidst research methodologies, pedagogical approaches and their position towards creativity and media literacy.

- Identify a research line that might lead to further pedagogical innovation to create toolkits and resources that foster media literacy and creative skills in high school classrooms.

# 4 Methodology
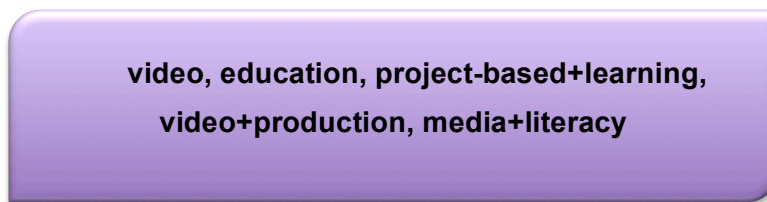
In this section I describe the steps followed to search and select the articles to be reviewed. It is necessary to mention that the articles search started in June, 2017, and was finished by mid August, same year, as I started looking for articles intuitively to get myself situated in this topic, and then, so as to obtain an attainable quantity of papers for the purposes of this review, I repeated the web query until I have got an refined selection of articles.

## 4.1 Web search and keywords

Firstly, let us step back and take a look to the whole picture of how the articles were chosen and which are their general characteristics. The web search for the selected literature was done through *ScienceDirect* (*Scopus'* database searcher), and *ERIC* (a database dedicated to educational research exclusively). At first, I began using the words *"video", "education", "collaborative",* and *"video production",* whose results were daunting numerous. Moreover, some of the first results from that query seemed to be off topic, and just few of them were articles about empirical research in educational

programs using video-making as a hands-on learning strategy.

Then, I tried a combination of words adding "*creativity*", or "*creative*", and *"student-produced video*". However, the variation of topics from one query to another evidenced that these words were not accurate enough to locate empirical research about the educational use of video-making within creative pedagogy. Thus, I changed the word "*collaborative*" for "*project-based learning*", in attempt to target the pedagogical approach I was looking for, and added "*media literacy"* to close up the search towards the skills that new media involve. Using the following keywords (see Figure 4) the results appeared in more manageable number and were more accurate. - in ScienceDirect, 90 results from 2016 and 103 from 2017; whereas in ERIC, 46 in 2016 and 8 in 2017, by 20/Aug/17.

**video, education, project-based+learning, video+production, media+literacy**

Figure 4 *Web query keywords* (Own elaboration)

It is worth to be mentioned the fact that some of the first results that seemed adequate led me to find other articles alike, as I used the tool "*recommended articles*" from ScienceDirect, and sometimes, I also typed in Google Scholar the title of an article or an author's name that seemed interesting looking for open access PDF versions not available neither in ScienceDirect or ERIC. In turn, those searches displayed further results that I also considered in this review and did not appeared as a direct result from the keyword query.

## 4.2 Articles' selection criteria

All in all, under the aforementioned keywords, I have got a considerable number of results from very recent publication years, so I still had to filter the results in order to select just a representative sample of papers. As for the papers addressing the targeted

type of research, many of them depicted a program that had been implemented in STEM university courses, so I followed a criteria that would make me come up with a selection comprising a wider variety of fields of study, but targeting only formal education settings, mostly at high school level, which is the educational level I intend to come into later on.
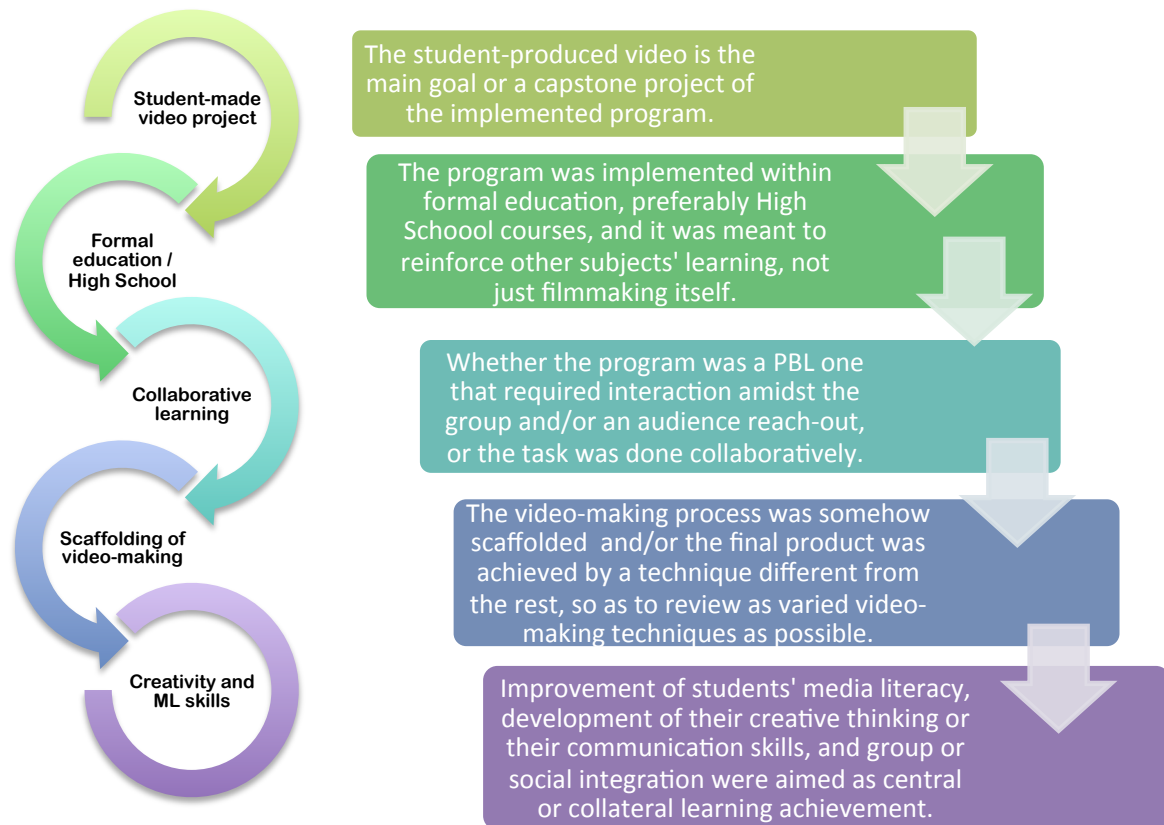


Figure 5 *Selection criteria* (Own elaboration).

Finally, I selected 16 case studies from 15 different publications, as one is a book that comprises many cases from where I picked the two that seemed more representative, yet different from the rest. I also picked a wide diversity of school subjects and types of video productions so as to see how flexible is the spectrum of video-making as a teaching-for-creativity scenario. In other words, I chose variety over specificity to see how diverse are the fields of study employing this type of DV production project and which are their different modalities of implementation.

# 4.3 List of articles from internationally ranked journals

| # | AUTHOR & YEAR | JOURNAL | COUNTRY | TITLE | WEB SEARCHER | KEY WORDS BY AUTHOR |
|---|---|---|---|---|---|---|
| 1 | **Smith (2016)** | **Q2** - Interdisciplinary Journal of Problem-Based Learning | Canada | **(Re)Counting Meaningful Learning Experiences: Using Student-Created Reflective Videos to Make Invisible Learning Visible During PjBL Experiences** | ERIC | Project-based learning, PjBL, STEM, reflection, alternative assessment |
| 2 | **Cayari, (2015)** | **Q1** - International Journal of Community Music | USA | **Participatory culture and informal music learning through video creation in the curriculum** | ScienceDirect ("Recommended articles" tool) | YouTube; music video; participatory culture; informal music; learning virtual ensemble; project-based learning |
| 3 | **Palmgren-Neuvonen & Korkeamäki (2015)** | **Q2** - Learning, Culture and Social Interaction | Finland | **Teacher as an orchestrator of collaborative planning in learner-generated video production** | ScienceDirect | Scaffolding; Creative processing; Pedagogical dialogue; Meaning making; Movie making |
| 4 | **Ornellas & Muñoz Carril (2014)** | **Q2** - Open Learning | Spain | **A methodological approach to support collaborative media creation in an e-learning higher education context** | ERIC | e-learning 2.0; PBL; CSCL; Web 2.0; social video; collective media creation |
| 5 | **Aksel & Gürman-Kahraman (2014)** | **Q2** - Procedia - Social and Behavioral Sciences | Turkey | **Video Project Assignments and Their Effectiveness on Foreign Language Learning** | ScienceDirect ("Recommended articles" tool) | Information and communication technologies (ICTs), video project assignment, English language learning |

| # | AUTHOR & YEAR | JOURNAL | COUNTRY | TITLE | WEB SEARCHER | KEY WORDS BY AUTHOR |
|---|---|---|---|---|---|---|
| 6 | **Hobbs, Donnelly, Friesem, & Moen (2013)** | **Q2** - Educationnal Media International | USA | **Learning to engage: how positive attitudes about the news, media literacy, and video production contribute to adolescent civic engagement** | ERIC | Media literacy; secondary education; news literacy; civic engagement; curriculum; learning; outcomes; measures; media production; youth media |
| 7 | **Masats & Dooly (2011)** | **Q1** - Teaching and Teacher Education | Spain | **Rethinking the use of video in teacher education: A holistic approach** | ScienceDirect | Teacher education; Video technology; Media literacy; Reflective teaching; Project-based learning |

## 4.4 List of articles from not ranked journals

| # | AUTHOR & YEAR | JOURNAL / BOOK / CONFERENCE | COUNTRY | TITLE | WEB SEARCHER | KEY WORDS BY AUTHOR |
|---|---|---|---|---|---|---|
| 8 | **Vasilchenko et al. (2017)** | ITiCSE '17 (Conference proceedings) | UK | **Media Literacy as a By-Product of Collaborative Video Production by CS Students** | ScienceDirect ("Recommended articles" tool) | Media literacy; mobile video; co-production; user-generated content |
| 9 | **Dune, Bidewell, Firdaus, & Kirwan (2016)** | Journal of University Teaching & Learning Practice" (JUTLP) | Australia | **Communication Idol: Using popular culture to catalyze active learning by engaging students in the development of entertaining teaching and learning resources** | ERIC | Interprofessional education, popular culture, consumerism, transformatory pedagogy, student engagement, student-led learning, tertiary education, student creativity, video production, health science |

| # | AUTHOR & YEAR | JOURNAL / BOOK / CONFERENCE | COUNTRY | TITLE | WEB SEARCHER | KEY WORDS BY AUTHOR |
|---|---|---|---|---|---|---|
| 10 | **Wen & Khera (2016)** | Chemical Engineering Education | USA | **Identify-solve-broadcast your own transport phenomenon: Student-Created YouTube to Foster Active Learning in Mass and Heat Transfer** | ERIC | (Not specified) |
| 11 | **Clayton & Murphy (2016)** | Journal of Media Literacy Education (JMLE) | USA | **Smartphone Apps in Education: Students Create Videos to Teach Smartphone Use as Tool for Learning** | ERIC | Digital literacy, mobile apps, 1:1, collaboration, smartphones in education, project-based learning, technology, hands-on learning, cross-curricular lesson, lesson design |
| 12 | **Casinghino (2015)** | Journal of Media Literacy Education (JMLE) | USA | **The Role of Collaboration and Feedback in Advancing Student Learning in Media Literacy and Video Production** | ERIC | Media literacy, video production, revision, collaboration, feedback, learning |
| 13 | **Ezquerra, Manso, Burgos, & Hallabrin (2014)** | International Journal of Education and Development using Information and Communication Technology (IJEDICT) | Spain | **Creation of audiovisual presentations as a tool to develop key competences in secondary-school students. A case study in science class.** | ERIC | Key competences, project-based learning, didactic video, non-obligatory secondary-schooling, kinematics. |
| 14 | **García & Solano (2014)** | Pedagogía audiovisual: monográfico de experiencias docentes multimedia (Book) | Spain | **El Quijote Sincopado: Pedagogía audiovisual y clásicos universales, de la teoría a la práctica** | (Colleague's recommen-dation) | (Not specified) |

| # | AUTHOR & YEAR | JOURNAL / BOOK / CONFERENCE | COUNTRY | TITLE | WEB SEARCHER | KEY WORDS BY AUTHOR |
|---|---|---|---|---|---|---|
| 15 | **Martín et al. (2014)** | Pedagogía audiovisual: monográfico de experiencias docentes multimedia (Book) | Spain | **¡Estudiantes creativos! Creación de vídeos educativos en redes sociales educativas** | (Colleague's recommen-dation) | (Not specified) |
| 16 | **Friesem (2014)** | Journal of Media Literacy Education (JMLE) | USA | **A Story of Conflict and Collaboration: Media Literacy, Video Production and Disadvantaged Youth** | ERIC | Media literacy, video production, collaboration, disadvantaged youth, portraiture |

# 5 Findings and discussion

In this section, I present and discuss the findings of the literary review, analyzing several common or contrasting features of the articles, first, to observe how spread this type of studies are, discussing features such as their keywords, their geographical origin, the publication year and the ranking of the publications. Secondly, I analyze the articles' contents, evaluating them in two tiers: the research features and the pedagogical features.

## 5.1 Analysis of articles' keywords frequency

Alas, retracing a web search can be tricky since any *SERP* (Search Engines Results Page) evolves constantly due to ever changing relevance and popularity of web pages. Those qualities make pages crawl up or down a SERP correspondent to a certain keyword query, but they vary due to many factors such as regional web browsing demand, or even location and language settings of the IP address that is being used (https://moz.com, 2017). As it is my case, on changing from the University's computers to my own PC, I have not been able to retrieve and report exactly the SERPs from my first queries. Thus, after the whole selection process, using an online tool

(https://www.online-utility.org), I have done a word frequency rating of the 131 keywords provided by the authors of the selected articles to verify that the keywords of my web queries actually lead to the type of research papers that I am analyzing in this review.

| Top phrases containing 2 words (without punctuation marks) | Occurrences |
|---|---|
| media literacy | 4 |
| video production | 2 |

| Top phrase containing 3 words (without punctuation marks) | Occurrences |
|---|---|
| project based learning | 4 |

| Order | Unfiltered word count | Occurrences | Order | Unfiltered word count | Occurrences |
|---|---|---|---|---|---|
| 1 | learning | 9 | 16 | secondary | 2 |
| 2 | video | 8 | 17 | engagement | 2 |
| 3 | media | 7 | 18 | e | 1 |
| 4 | literacy | 5 | 19 | information | 1 |
| 5 | project | 5 | 20 | technologies | 1 |
| 6 | education | 4 | 21 | stem | 1 |
| 7 | production | 4 | 22 | co | 1 |
| 8 | based | 4 | 23 | creativity | 1 |
| 9 | student | 3 | 24 | participatory | 1 |
| 10 | 0 | 2 | 25 | technology | 1 |
| 11 | 2 | 2 | 26 | teaching | 1 |
| 12 | culture | 2 | 27 | dialogue | 1 |
| 13 | making | 2 | 28 | processing | 1 |
| 14 | music | 2 | 29 | collective | 1 |
| 15 | youth | 2 | 30 | movie | 1 |

As it can be seen on the above tables, the three phrases included in my web queries match many of the articles' keywords proposed by their authors. Nevertheless, when looking at the top 30 single words table, words like "*learning*", *"video"* or *"production",* have more occurrences than the phrases, since they appeared in combinations such as "*e-learning*", "video-making" or "*co-production*".

It is also relevant to observe different semantic groups. One group seems related with the Web 2.0 – e.g. *"2.0", "participatory", "collective"* –, another one is related to ICT and media – e.g. *"information", "technology(ies)", "processing"* –, some other group seems related to arts and media – e.g. *"movie", "music", "culture"*–, and finally, there is a group related to students' motivation and/or student-centered curricula – e.g. "teaching", *"engagement", "secondary, "youth", "dialogue", "student".*

Later on, by means of an online word cloud generator, and using the values from the previous table, I created this image where the bigger words are the ones with more occurrences, in order to get a visual impression of the words frequency. I find it remarkable how difficult is to spot the word *"creativity"* in it, which appeared only once in the articles' keywords (see Figure 6).



Figure 6. *Keywords cloud* (Own elaboration)

## 5.2 Analysis of articles' geographical origin

Once the texts were selected, on skimming them I have noticed that there is a considerable amount of papers published by Spanish universities and researchers, even though the web search was done in English. Being so, I have got 5 out of 16 papers from 4 different Spanish universities: Universidad Complutense de Madrid, Universidad Rey Juan Carlos, Universitat Oberta de Catalunya, and Univesitat de Barcelona. Even if the web search might have been influenced by the search settings of my browser, which has a Spanish IP location, the fact that in Spain this type of educational innovation is

being implemented and Spanish researchers are already studying the topic suggests that Spain's educational system is considerably receptive to this kind of pedagogical innovation. Furthermore, most of the programs I found addressed to K-12 students are from these Spanish sources.

Even though, there are other 6 articles from American universities, and one from each of the following countries: Australia, Canada, Finland, United Kingdom, and Turkey. All of this aside, it is noticeable when scrolling down any SERP of a web query on media education how many American researchers are undertaking research quests on this matter, and it is not a surprise as it can be assumed that for American institutions and organizations innovation in media literacy and promotion of professionals in this field is highly important as information and communication industries – which include private industries such as publishing industries (except internet, but including software), motion picture and sound recording industries, broadcasting and telecommunications, and data processing, internet publishing, and other information services – have been conforming close to 6% of the US gross domestic product since 2009 to the date (U.S. Bureau of Economic Analysis, Aug.19th, 2017). Therefore, it could deliver considerable economical empowerment for other countries to invest in media literacy so as to form national professionals who innovate and locally provide services to that sector.

## 5.3 Analysis of publication year and journal ranking

All publications are dated within the last 6 years, 14 of which are from 2014 onwards. As it is evident, research in this matter seems to have boomed quite recently and so it does its appearance on internationally ranked journals. For the purpose of checking on the publications' ranking, I used the Scimago Journal Ranking (SJR), and only 7 journals appeared on this ranking. In the following chart I relate the publication year, the number of papers, and type of publication.
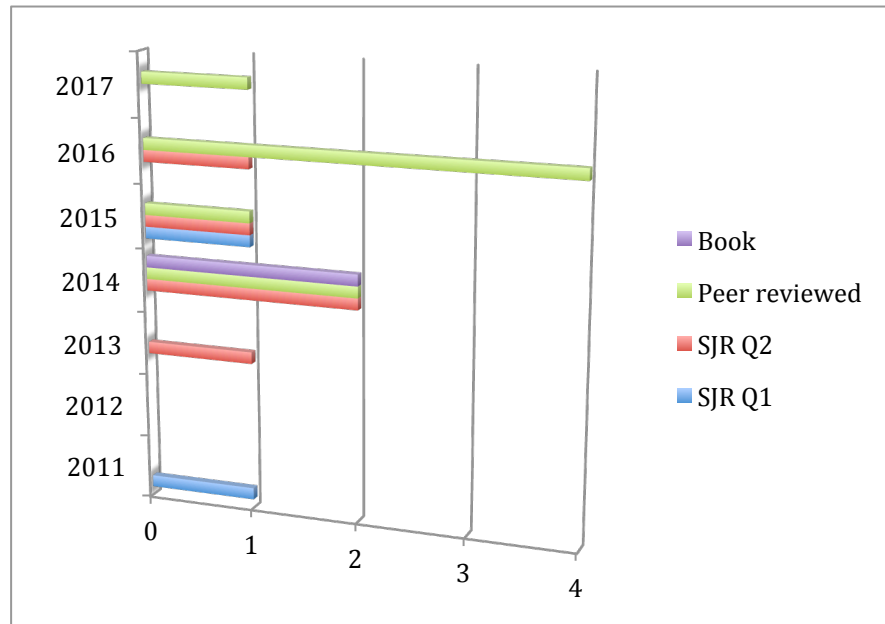
Figure 7 *Publications' type and ranking. (*Own elaboration, based on the Scimago Journal Ranking and the peer-checked notification in ERIC)

The Q1 ranked journals from where I have chosen articles treat educational research and music respectively (*Teaching and Teacher Education* and *International Journal of Community Music*), whereas the Q2 ranked journals involve ICT mediation in education or PBL education, and Social Sciences (*Educational Media International*, *Open Learning*, *Interdisciplinary Journal of Problem-Based Learning, Learning Culture and Social Interaction,* and *Procedia Social and Behavioral Sciences*). None of these sources were repeated though. Differently, 3 articles from the not ranked sources came from the very same journal, *Journal of Media Literacy Education* (JMLE), which of course appeared in my SERPs since part of its title are two words form my keyword query *("media literacy").* It is worth to be mentioned that, from now on, it would be recommendable to keep eyes on this journal not only because of its affinity with the research proposal laid out at the end of the present review, but also because PBL video-making programs and pedagogical innovations regarding media literacy, in general, seem to be increasing in number and relevance over the last years; thus, this kind of publication might ascend in the international rankings anytime soon.

Although, the fact that most of the search results including the words "*media literacy*" are not internationally ranked journals could mean two things: first, that the concept of

media literacy has been coined quite recently, and therefore, it has been fostered by educational research programs since very little time – just six years ago, the UNESCO proposed an inclusive Media and Information Literacy Curriculum (Wilson et al., 2011) –; and second, as a result of that novelty, such programs are not yet achieving top scientific research standards, for the concept itself has not been sufficiently spread and adopted yet. Teachers and researchers still have to deepen into its definition and establish how it is best to teach and acquire the optimal level of media literacy and what competences should a *digital citizen* have (Ceretti, 2015) Henceforth, when analyzing the research methodology, I will split my analysis commenting first the articles appearing in ranked journals, and then, those published in not ranked ones, so as to see if there is any consistent difference in their research standards or not.

## 5.4 Research features summary

Now, let us zoom into the picture and see in detail the research methodologies, the video-making projects, the questions and outcomes, as well as the pedagogies used in the selected cases. To begin this analysis I present a summary table breaking down the specific research features of each of the articles, following the same article numbering from the prior table (see tables on pages 29-33). Then, I discuss the different features in the following subsections right after the summary tables.

| ART # | AUTHOR | STUDY FIELD | SCHOOL LEVEL | FOCUS OF STUDY | VIDEO PRODUCTION | FINDINGS |
|---|---|---|---|---|---|---|
| 1 | Smith (2016) | Special Project/ STEM | K-12 | **Comparative analysis, qualitative ethnographic study: To explore the students'** reflective videos capturing their learning experience throughout a yearlong PjBL project. *Data collection:* **Student-created reflective videos,** and **interviews** of focus group. **Thematic analysis** was done through: (a) open coding to breakdown and categorize the data, (b) axial coding to make connections between categories, and (c) selective coding to validate the relationships. | 9 team **self-reflecting videos** after participating in the yearlong PjBL program. | Meaningful learning took place in addition to the planned curricula. Videos can document meaningful learning that can be used as a creative form of self-expression and an alternative form of measuring the learning process throughout PjBL. |
| 2 | Cayari (2015) | Music Education | University | **Case study, mixed approach:** To understand how music video creation can be used to facilitate informal music learning through technology. *Data collection:* **surveying** whole group, **interviewing** focus group. **Video data** was categorized into musical video styles and performance trends. | Creating a **personal music video clip,** shared with the group through YouTube (optionally, share publicly). | Participants felt as confident or more confident in their abilities to create other music videos, and reported a sense of pride, a feeling of accomplishment from the positive feedback on-line. |
| 3 | Palmgren-Neuvonen & Korkeamäki (2015) | Special Project/ Social Sciences | Primary school | **Case study, qualitative approach:** Identify teacher-student types of dialogue in whole-class and small group settings and how the teachers scaffolded their students to achieve the goal to create a joint storyline. *Data collection:* **Class observation** (video recording + field notes). Selected episodes were **transcribed verbatim** and analyzed inductively using SQR NVivo to generate a category system. | Three learner-generated DV productions. In the "Future" project, Class A produced a **whole-class video about a futuristic school day,** whereas in the "Mirror" project, Class B students made **fictional movies in small groups.** In the "Newsroom" project, Class A students created **documentary news clips** in small groups. | The study identified tension between learner-centered practices and teacher authority implying freedom and structure. Careful planning with a structured design, taking into account the pedagogical goal and content and group designation, is needed; yet power positioning is unavoidable. |

| ART # | AUTHOR | STUDY FIELD | SCHOOL LEVEL | FOCUS OF STUDY | VIDEO PRODUCTION | FINDINGS |
|---|---|---|---|---|---|---|
| 4 | Ornellas & Muñoz (2014) | Audiovisual Communication | University | **Case study, mixed approach:** To determine whether the ICTC course was effective to enable students to initiate, develop and practice media literacy skills in an integrated and interrelated way. *Data collection:* **a) Survey** of student's satisfaction; **b) Questionnaire** regarding the activities undertaken in the framework of the ICTC course. | Creating a **collective documentary** on a team agreed topic. | Students' overall evaluation of the program was positive; however it is required specific pedagogical planning, selection of online tools, continuous personalized monitoring, and feedback following the evaluation criteria to maintain the course standards. |
| 5 | Aksel & Gürman-Kahraman (2014) | English as a Foreign Language | University | **Case study, quantitative approach:** To determine the effectiveness of video project assignments (VPA) on foreign language learning. *Data collection:* **post-program questionnaire,** analyzed using the Statistical Packages for Social Sciences (SPSS). | **Two video production assignments** (VPAs) done in small groups of curricula related topics assigned to each group by the teacher. | Students had positive or neutral perceptions and perceived that they acquired the knowledge of how ICTs can be used to make their learning more creative. |
| 6 | Hobbs, Donnelly, Friesem, & Moen (2013) | Media Production | High school | **Pilot study, mixed approach.** To observe range of knowledge and skills learned; to determine whether or not active participation in such course is related with student's vocational interest. *Data collection:* **Survey** on student self-reported technical and nontechnical multimedia production skills, vocational interest, and media attitudes (such as intention towards civic engagement and media literacy). | **12 different media production activities** that occurred during the class, divided into three types of experience: *Production 1* (pre- production), *Production 2* (production), and *Production 3* (post-production) . | Students self-report more nontechnical than technical skills. Engagement in production activities showed the highest level of interest in media and journalism careers. Civic engagement was associated with positive attitudes about the news, media literacy competencies, and in-class pre-production experience. |
| 7 | Masats & Dooly (2011) | Education (Teachers' Training) | University | **Comparative case study, mixed approach:** To determine whether an integrative approach to video use in teacher education is effective. *Data collection:* **surveys,** in-depth semi-elicited **interview** to a **focus group,** and **student output** (posted comments and reflections on the Moodle). | **4 different types of non-fiction and self-reflecting videos** named *Re-winding* (video-reviewing), *Zooming in* (video-modeling), *Freeze framing* (video-coaching), and *Bird's eye viewing* (video-making). | The student-teachers were positive about the experiences and felt that they had achieved higher critical awareness of their own teaching strategies, had clearer ideas of how to design and plan project-based learning sequences, and they felt certain that they would integrate different uses of video into their teaching. |

| ART # | AUTHOR | STUDY FIELD | SCHOOL LEVEL | FOCUS OF STUDY | VIDEO PRODUCTION | FINDINGS |
|---|---|---|---|---|---|---|
| 8 | Vasilchenko, Green, Qarabash et al. (2017) | STEM (Computer Science) | University | **Case study, mixed approach:** To describe the process by which students collaborate to create meaningful multimedia content and their acceptability and experience of creating media as a form of assessment. *Data collection:* **System logs from Bootlegger** platform; **post intervention semi-structured interviews, student videos** (10% most popular clips used in student edits, and **final questionnaire** with closed- and open-ended questions based on the quantitative analysis. | **Collaborative video tutorial** production. As part of their learning, each student was asked to produce three video tutorials on Raspberry Pi programming, using a collaborative video production tool for mobile phones. | Modern CS students are ready and mainly willing to deal with media creation as a form of learning and assessment, however they can easily become demotivated when they encounter technical issues with the tools used. |
| 9 | Dune, Bidewell, Firdaus, & Kirwan (2016) | Health Programs | University | **Case study, mixed approach:** To determine whether the introduction of popular culture can promote learners' agency and engagement with their own learning. (Descriptive, exploratory cross-sectional design) *Data collection:* **Online surveying** to student-participants and student-audience, closed and open-ended questions. | **Educational videos about communication in professional health practice** were to compete in a **friendly competition** based on high-rating television musical and vocal talent quests. Students also recorded and shared their experiences of doing so. | Despite external incentives (extra marks and cash prizes) and reported intrinsic motivators, only a small minority of students elected to produce a video. The partial level of engagement may reflect practical barriers such as the perceived difficulty of the task, limited time and lack of student acquaintances with whom to form a team. |
| 10 | Wen & Khera (2016) | STEM (Chemical Engineering) | University | **Case study, mixed approach:** To describe a novel three stages active-learning method — Identify, Solve, and Broadcast. *Data collection:* Comparison of student performance on (A) the **control problem** and (B) **final exam** between Fall 2013 (without) and Fall 2014 (with broadcasting), descriptive analysis of **students' work** (drafting and videos). | Each student group was required to create a 3- to 5-minute **video of their demonstration/simulation;** then, **disseminate the project** to not only their peers but also a **broader audience** over the internet via a **multimedia platform** like YouTube or Vimeo. | The broadcast component of the three-staged course project played a critical role in improving the student learning of mass and heat transfer. This project encourages learning while enhancing self-motivation, creative thinking, and critical analysis. |

| ART # | AUTHOR | STUDY FIELD | SCHOOL LEVEL | FOCUS OF STUDY | VIDEO PRODUCTION | FINDINGS |
|---|---|---|---|---|---|---|
| 11 | Clayton & Murphy (2016) | Special Project / Mobile Apps | K-12 | **Case study, mixed approach:** To provide context to unit on smartphone use in the classroom. *Data collection:* Online/digitally distributed **surveys** to both to teachers and students. Then, post intervention, qualitative analysis of **online students' peer-feedback** and **videos**. | **18 YouTube style tutorials on the educational use of mobile apps for classroom use** (produced in collaboration of students from two schools). | Students and teachers realized just how beneficial a smartphone could be in education. Connecting students from two schools using peer-to-peer feedback also improved the quality of student work while providing a greater level of engagement. The smartphone could quickly become an incredible classroom resource that is seen more as a tool than a toy. |
| 12 | Casinghino (2015) | Digital Video Production | High school | **Case study, qualitative approach:** Participant observation to illustrate the importance of planning and course structure for the development of effective collaborative skills and communicative abilities. *Data collection:* Document review of **students' class production** (scripts and such), and **students' self-assessment writings** at the end of the course. | **Two different Public Service Announcements (PSA),** one to enhance the effectiveness of transition programs for the incoming freshmen to the school, and another one to promote safe driving. | Students who struggled to identify or articulate methods of visual communication developed more aptitude — and more willingness — to apply analyses to works that would have previously been too demanding or unfamiliar, kindling their critical thinking and writing proficiency. |
| 13 | Ezquerra, Manso, Burgos, & Hallabrin (2014) | STEM (Physics) | High school | **Case study, qualitative approach:** To evaluate how the program enables students to collaborate, acquire key competences, work on school science topics and develop audiovisual abilities. *Data collection:* **Initial and final open-ended questionnaire** of students' audiovisual and scientific knowledge. Qualitative analysis of **evaluations** and **student-produced class documents.** | **Didactic documentary videos** describing different aspects of kinematics as a final project for Physics class. | A learning improvement was observed, which could be due to many factors such as the initial search for information, the creation of the text and its posterior re-elaboration to create the script, the filming process or to the teachers comments throughout the process. |

| ART # | AUTHOR | STUDY FIELD | SCHOOL LEVEL | FOCUS OF STUDY | VIDEO PRODUCTION | FINDINGS |
|---|---|---|---|---|---|---|
| 14 | García & Solano (2014) | Spanish Language and Literature | High school | **Case study, qualitative approach:** To address two main challenges of nowadays Basic Competencies curricula: reading of classics and media literacy. *Data collection:* Descriptive analysis of **program's evaluative documents** (students' self- evaluation, their marks accordingly to a given rubric, and the teacher's written report about this inter-school collaborative project). | Inter-school collaborative **stop motion project**, recreating chosen chapters from **"The Quixote"** within the Spanish Literature class. | The correct teaching in media literacy could become key element to develop text comprehension. The social interaction and its implication with the learning process kindled students' consciousness about their learning and their production, resulting in a true learning community. |
| 15 | Martín, Gértrudix, Urqiza-Fuentes, Haya, Losada, & Castellanos (2014) | STEM | High school | **Case study, qualitative approach:** To develop a web-space that manages data storage and interoperation between e-learning components for students to participate in a reflective learning process that combine social and collaborative learning principles. *Data collection:* Descriptive analysis of **teacher's written report** about implementing *Juxtalearn (program's methodology)*, and teacher-guided **student interaction through *ClipIt*** (video supportive social media platform). | **Short videos to explain and demonstrate different threshold concepts** from STEM curriculum | The learning experience does not finish with the finalization of the video, but it continues throughout the reflective process that comes afterwards with the peer-feedback using a social and collaborative on-line environment. |
| 16 | Friesem (2014) | Special Project / College familiarization | High school | **Case study, qualitative approach:** By portraying the learning and collaborative process of a team of two girls, describe how does the issue of collaboration develops when working with disadvantaged teenagers experiencing collaborative movie making. *Data collection:* **Participant observation, in-depth interviewing.** Data interpreted using descriptive methodology by Lawrence-Lightfoot **"Portraiture"**, which regards researcher involvement. | Three video projects: a **commercial**, a **music video**, and **a final video**, for which participants could choose any format. | Participants were able to detach themselves from unpleasant memories and look at their own life through the eyes of a distant observer. So, collaboration in media production helped disadvantaged teenagers to articulate their identity and regain the sense of control over their lives. |

### 5.4.1 Ranked articles' approaches, instruments, data types and their analysis

According to the previous table, there are some similarities among these papers. First, most of them (four out of seven) used a qualitative approach with a mixed methodology for data analysis. There is only one case (Smith, 2016) that performed a qualitative thematic analysis, proper of ethnographic studies, and one more paper that analyzed the class observations data by coding episodes into a category system, yet still approaching qualitatively. Differently, only one study (Aksel & Gürman-Kahraman, 2014) approached quantitatively to the data analysis. Even though, none of the studies here was done over large randomly selected samples of population (the largest sample comprehend 100 participants); rather, the numerical data functioned as crosschecking stats to support the qualitative interpretation of the data. Overall, we can say that there is a qualitative tendency strongly sizing up the methodology approach of these papers.

Secondly, in all of the studies employing a mixed method or quantitative data analysis, questionnaires and surveys, many of which were applied through online platforms, were the instruments used to collect numerical data about the students' self-assessment as well as about their level of satisfaction, in terms of motivation, and their evaluation of the educational value for their respective program, whereas interviews and videos (documental recording of the sessions along with the students' video production) were used to gather qualitative data about students' dialogic learning processes or their own self-reflective discourse about their performance and development throughout the program. As for the studies doing interviews, these were applied only to a focus group of students, and textual analysis of the verbatim transcripts of those interviews came in place. In short, the questionnaires and surveys provided information about the success and/or impact of the program on students' cognition, while interviews and videos provided the information about participants' metacognition of their learning and creative process.

### 5.4.2 Not ranked articles' research features compared

Now, if we take a look at the not ranked publications, we can still see a strong

qualitative tendency, even if four them took a mixed approach to the data analysis. For those studies, surveys and post factum questionnaires were still an instrument to collect quantitative data of the students' perception about the program. Nevertheless, in this group of articles, we find different data being analyzed quantitatively, such as before and after quizzes about the curriculum and questionnaires about students' media literacy, their performance on final tests compared with a control group, or system logs from a platform that was used to share and create the videos collectively.

This sort of data provided information not only about students' rating of the experience, but also about how they like the video contents produced during the program, their knowledge on the subject, and their self-assessment of media literacy and the acquired video production technical skills. Therefore, we can say that these studies went deeper in measuring the impact of the video-making process on students' knowledge acquisition and skill development.

"Researchers generally use case studies, teacher action research, participant observation, and interviewing – not survey research – to understand how and what students learned in their use of video" (Hobbs, Donnelly, Friesem, & Moen, 2013, p. 234). Under this statement, these authors supported their data collection prerogative, although it seems to me that in many of the articles (6 out of 16) surveying was a regular practice to gather information on students' self-assessment of what they learnt and their perception of the program's effectiveness. However, it is true that those techniques were used in most of the articles from not ranked publications or with a broad qualitative approach to have a deeper understanding of students' reflections of their experience.

Even though, there is a non-structured type of data ruling most of the cases: the student-produced videos. The analysis of videos was approached in many different ways, from thematic categorization, counting of the usage of clips inserted in the final edits, or students' rating of the videos. It is evident that this material provides plenty of information, both qualitative and quantitative, and thus it could become quite useful to provide adequate data for mixed approach research.

### 5.4.3 Displayed focus of study

From this summary I want to emphasize on the type of objectives and the variables measured observed on the column *Focus of study*, which draw a very defined research line. The big majority of the cases, both from ranked and not ranked publications, were implemented to determine the effectiveness of an expressly designed program and the way they evaluated that was by post-intervention surveying, asking the students not only about their perception of the teaching adequacy or the motivational appeal of the video-making process, but also about their own learning achievements. So the students' positive perception of the program involved some sort of self-assessment of their own performance and the skills that they were supposed to develop, but little "objective data" or specific assessment method supported the findings of learning improvement.

Of course, some people might argue that questionnaires like these only provide subjective information; and this is why researchers who were seeking to elaborate upon subjective experience attributions preferred in-depth interviews of a focus group and carried on a qualitative analysis of that. Differently, researchers who were trying to provide a little bit more validity to their findings, the ones that were focusing more on learning improvement or collaborative learning processes, also measured other variables such as students scores on tests, control questionnaires, and even analyzed system logs and social media interactions to describe the impact of their program on students' knowledge. Apparently, adding such type *structured data* to mainly qualitative studies do not seem that popular even when using a mixed approach, and in contrast with Hobbs et al. (2013) position, studies seem to adopt more and more post-intervention questionnaires to measure the programs' effectiveness and students perception on the learning experience and achievements, instead of applying control tests, taking into account the marks and students' performance, or getting into measuring and categorizing non-structured data such as the video features or student interactions.

### 5.4.4 Common findings

Lastly, in regard to the findings, it amazes me how rich is the range of use of video-

making learning experience. It can go from fostering confidence and autonomy in a foreign language, to open up one's musical performance to contemporary vernacular ways. Still, there are some key results, characteristic of most video-making programs. According to these findings, video-making programs are:

- *Intrinsically motivating* – Students seem more engaged and usually had a positive perception of this type of learning. Self-motivation, a sense realization and retaking control of one's life, were some of the positive self-encouraging effects reported by students.

- *Technologically challenging* – At first, technological requirements and technical skills might seem intimidating for both, teachers and students. Additionally, technical problems with software or platforms were found discouraging.

- *Highly demanding of teacher orchestration and continuous follow-up feedback* – Since this type of project requires a complex orchestration of curricula demands, timing, technical requirements, and creative processing scaffolding needs, teacher must plan out with thorough consciousness the *teaching-for-creativity* process.

- *Social and communication catalyzers* – Confidence to speak up and engage civically, autonomy in a foreign language, writing proficiency and text comprehension, awareness of one's communication strategies, creation of learning communities, and students' openness to collaborative learning or participatory environments were some popular findings.

- *Integrated promoters of media literacy and other basic competences* – As video-making involves several tasks, social, digital, information, communication, and artistic skills are just few of the basic competences integrated in such projects.

- *Critical and creative thinking kindlers* – By fostering students' agency of their own learning, they became more effective and innovative to solve problems as well as to enunciate and apply practically threshold concepts from curriculum.

- *Means for reflection and metacognition* – Digital video proved to be an optimal mean to portray self-reflective processes and the students'

metacognitive narrative about their learning experiences.

In light of the above, we can affirm that project based learning programs implementing video-making assignments are quite spread as teacher action and participant observation research for a rich variety of learning objectives. However, these programs are still limited to small not randomly selected samples as it is neither a common nor a standardized practice in schools yet. Being so, there is still a gap on integrating structured data, beyond surveying students' satisfaction, to back up the external validity of qualitative analyses already existent.
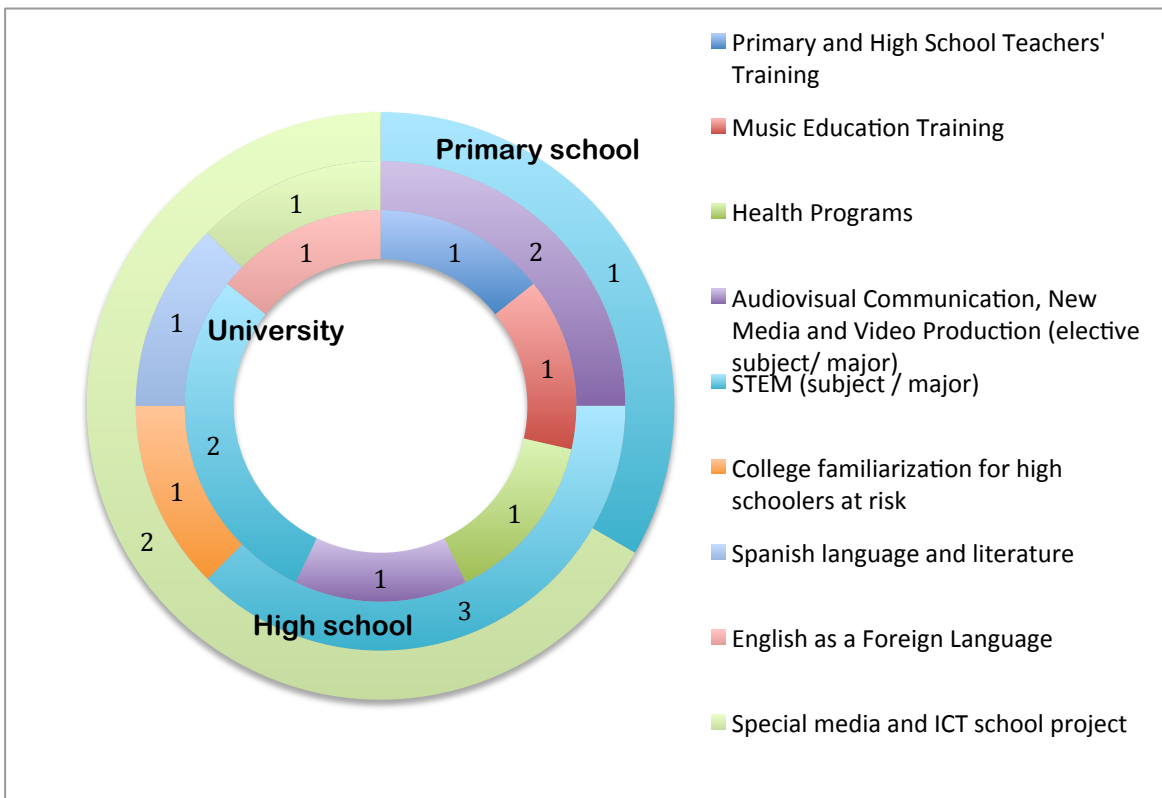
# 5.5 Pedagogical features summary

To continue this review, I display a table presenting the articles in chronological order, and rating them according to the programs' pedagogical features, which I will discus in the following subsections so as to treat every feature separately. Even though all of the programs implemented a video-making assignment, there are differences between them that seem to have had a direct effect on their findings. On this table I rate with 2 marks the features that were fully developed or specially addressed, with 1 mark for the partially or vaguely developed ones, and with 0 for the not present or not addressed ones. The rated features are *video-making* and *creative process scaffolding*, as well as the *ICT mediation*, so the full score would be 6 points, which would mean that the pedagogy implemented was very close to the standards of current-day media education pictured back in the theoretical framework.

| AUTHOR & YEAR | STUDY FIELD | SCHOOL LEVEL | VIDEO-MAKING SCAFFOLDING | CREATIVE PROCESS SCAFFOLDING | ICT MEDIATION | TOTAL |
|---|---|---|---|---|---|---|
| **Masats & Dooly (2011)** | Education (Teachers' Training) | University | 2 | 2 | 2 | **6** |
| **Hobbs, Donnelly, Friesem, & Moen (2013)** | Media Production | High school | 2 | 0 | 0 | **3** |

| AUTHOR & YEAR | STUDY FIELD | SCHOOL LEVEL | VIDEO-MAKING SCAFFOLDING | CREATIVE PROCESS SCAFFOLDING | ICT MEDIATION | TOTAL |
|---|---|---|---|---|---|---|
| Aksel & Gürman-Kahraman (2014) | English as a Foreign Language | University | 1 | 0 | 0 | 1 |
| Ezquerra, Manso, Burgos, & Hallabrin (2014) | STEM (Physics) | High school | 1 | 1 | 0 | 2 |
| Friesem (2014) | Special Project / College familiarization | High school | 1 | 1 | 0 | 2 |
| García & Solano (2014) | Spanish Language and Literature | High school | 1 | 0 | 1 | 2 |
| Martín et al. (2014) | STEM | High school | 2 | 2 | 2 | 6 |
| Ornellas & Muñoz (2014) | Audiovisual Comunication | University | 2 | 0 | 2 | 4 |
| Palmgren-Neuvonen & Korkeamäki (2015) | Special Project/ Social Sciences | Primary school | 1 | 2 | 0 | 3 |
| Casinghino (2015) | Digital Video Production | High school | 1 | 0 | 1 | 2 |
| Cayari (2015) | Music Education | University | 1 | 0 | 1 | 2 |
| Smith (2016) | Special Project/ STEM | K-12 | 0 | 1 | 0 | 1 |
| Wen & Khera (2016) | STEM (Chemical Engineering) | University | 2 | 2 | 1 | 5 |
| Clayton & Murphy (2016) | Special Project / Mobile Apps | K-12 | 0 | 0 | 2 | 2 |
| Dune, Bidewell, Firdaus, & Kirwan (2016) | Health Programs | University | 0 | 0 | 2 | 2 |
| Vasilchenko et al. (2017) | STEM (Computer Science) | University | 1 | 1 | 2 | 4 |

## 5.5.1 Study fields and school level



To begin reviewing the pedagogical features, I discuss the variety of study fields and the school level that these programs were meant for. As two of the articles addressed more than one single educational level, the total number of programs in this chart seems to be 18, but actually I counted only the 16 programs, even if two of them were meant for K-12 students, which includes primary and high school.

As it can be seen in the above chart, programs addressed to university level were addressed to a wider range of study fields such as Teacher Training, Music Education, Chemical Engineering, Computer Science, and Health Studies; yet, the programs addressed to K-12 or high school showed a smaller variety of study fields. Most of them used video production as a mean to learn a STEM topic (science, technology, engineering and mathematics. In fact, the higher the educational level goes, the more varied the subjects are. Although, the majority of the programs were addressed to high school level, and three of them were implemented in STEM subjects. Apart from two special school projects or extracurricular courses, only in one case (García & Solano,

2014) one different subject (Spanish language and literature) implemented a video-making program in high school. As for primary school, it seems that these programs usually occur within the settings of a special school project, as none of the cases addressed to primary school was carried out as part of a regular course. This might indicate that at basic education, teachers of other subjects that are not STEM or classes specifically on media and audiovisual communication, do not feel compelled yet to take up video production as a teaching and learning tool, or that teacher of basic education are not as often involved in teacher action research, whereas in high school or university, many of the researchers were as well teachers implementing the program.

The reasons for that phenomenon should be a matter to be discussed in further research with bigger reach out than this brief literary review; yet, this can lead us to infer that video production projects might be avoided as they involve a technical requirements that are unfamiliar and intimidating to both teachers and students (Cayari, 2015); a challenge that might seem even bigger when working with young learners.

## 5.5.2 Pedagogy of video-making learning experiences

### 5.5.2.1 Dialogical and collective learning approach

There is one common characteristic to all of the cases: the collaborative approach. Even in the programs where video-making assignments were done individually, sharing the videos with the classmates and provide peer feedback or contribute with an after-visioning class discussion was part of the assignment; whether face-to-face or mediated by Web 2.0 platforms. Actually, in all the programs employing ICT mediation, such reflective collaborative learning was one of the main features promoted by the on-line platforms.

As for the two programs addressed to primary or K-12 students, as it can bee seen in the above table, the fact that 2 out of 3 cases did no have any ICT mediation stands out. Actually, in those cases (Palmgren-Neuvonen & Korkeamäki, 2015; Smith, 2016), students were guided to interact with their peers during class time in order to develop

their project collectively by means of dialogical methodology. Per example, in Smith (2016) case, the program's main project was to collectively develop a peer-leveled pop-up non-fiction book, and the student-produced videos were meant to bring out students' reflection of how they felt and behaved when developing such project within teamwork settings. In other words, video production was a mean to seal up metacognition about collaborative learning, and thus, to furnish students with social strategies and awareness about interactive processes towards a shared in open-ended challenge.

In the same line, in Palmgren-Neuvonen & Korkeamäki (2015) case, even if the focus was on teachers rather than on students, they were interested in characterizing the types of teacher-student dialogue that fosters *distributed creativity*, coinciding with Sawyer's proposal (Sawyer & DeZutter, 2009). In this way, dialogical learning (*creative learning)* and teacher's orchestration (*teaching-for-creativity* planning and *creative teaching* scaffolding) were the main tools in guiding the students along collective open-ended projects.

In contrast, yet still within a collaborative learning approach, in Hobbs et al. (2013) case, where neither there was ICT mediation, students were on a course specifically on media and video production; so, instead of having only one video production, there were many different media and video in-class activities that were designed and developed collectively in attempt to learn about the different stages and sub-products of media and filmmaking, such as media analysis and report, information gathering, scriptwriting, storyboarding, shooting, editing, and so on. Nonetheless, all activities were developed, presented, and discussed in collaborative settings, providing peer feedback and constructing knowledge though group talk at all times. Therefore, these cases might seem considerably different from each other, but the dialogical element and the collaboration to carry through the video production were still the essence of the programs.

### 5.5.2.2 ICT Mediation

As for the ten cases implementing ICT mediation, there are three relevant common characteristics that most of them share: 1) reflective learning assignments; 2) DVS AND

social media commenting features supporting online platform; 3) cloud storage and/or Web 2.0 environment to collectively develop digital documents.

For instance, there are two studies meant to describe the impact of a platform expressly designed to implement video-making as a collaborative learning tool. Additionally, the social media features of their platforms are crucial for their methodology. One platform is named *ClipIt* (Martín et al., 2014), and the other one *Bootlegger* (Vasilchenko et al., 2017). The first one is the platform of a European project called *Juxtalearn* (Llinás et al., 2014) which actually implements an online step-by-step scaffolding for creative activities, like video-making, to help students understand topics they find difficult to grasp. After visioning the student-generated production, a reflective discussion is done through the social media tools to finalize the learning process. By doing so, the *learning by doing* principle of PBL pedagogy is enhanced by the *learning by teaching* principle, where students consolidate knowledge by explaining the studied concept to their peers.

The second platform is a mobile app that supports cloud storage of video clips and has basic video editing tools, accompanied by different shooting templates to help students to improve the quality of their shots, all of which intends provide all users access to everyone's clips so that they can use them freely in their final edits. In this case, what has been scaffolded is the video-making process itself; nevertheless, the learning still happens not only by making a video, but also and most importantly, by sharing the final works and discussing it through the social media mechanisms of these ICT tools.

Now, it is not surprising to see that the rest of the programs implementing any sort of ICT mediation (e.g. *Moodle, Sakai, Blackboard*, etc.) referred *YouTube* as the main DVS complement. These aforementioned educational platforms have begun to expose flaws with their all-in-one model, since they lack of social direct communication when using rich-media tools (Dagger, O'Connor, Lawless, Walsh, & Wade, 2007). In contrast, YouTube allows video-related discussion right beneath the video contents, and thus, spontaneous or user-encouraged (by both, teacher or students) reflective learning happens in a more visual way.

To close this subsection, let us summarize the different uses of the ICT tools and software employed in all programs:

- *YouTube* was used as a video storage and play platform, as a research source, but most importantly, as a socializing and video sharing medium, complementing or even substituting educational platforms like *Moodle, Sakai.*
- *Clipit* and *Bootledger*, seemed the two platforms providing the most complete set of tools, supporting social media, video cloud storage and video editing features.
- Non-linear editing programs were used in all interventions, being the most common *iMovie, Windows Movie Maker*, and *Adobe Premiere*, for the final edit, and *Garage Band* or *Audacity* for editing the sound track.
- *Dropbox, Google Drive* and *Moodle* were the most common online storage clouds used to share digital resources amidst the group.
- *Google Docs* was the most used programs to collectively devise the written part of the video projects (script writing, planning, etc.).
- *Google Forms, Monkey Survey*, and *Moodle* were used to provide peer assessment, as well as to perform pre/prost intervention surveying.

### *5.5.2.3 Creative process and Video-making scaffolding*

When speaking of creative teaching, we could understand scaffolding of the teaching-for-creativity scenarios as a main strategy of a teacher's orchestration. In this same track, as seen in the previous table, some programs were actually chosen for this review because in their interventions the video-making process was scaffolded, whether by planning different in-class activities or by following several tasks outlined by the ICT expressly designed tools. Still, it is worthy to make special mention of those programs that sought different learning benefits by producing specific types of videos and scaffolding their creation. In several programs brainstorming was appointed as a starting point for the creative process, but then, they focus on reporting the type of DV production that was achieved, but did not kept developing the different steps that

students followed to produce the videos. In some cases, the video production was a deep-end assignment, not scaffolded at all, and they even report that students might have felt intimidated by the task, discouraging participation- e.g. Dune, Bidewell, Firdaus, & Kirwan (2016). However, Wen & Khera (2016), Martín et al. (2014), and Masats & Dooly, (2011) did scaffold DV production in quite interesting and detailed ways.

Let us start with the one with simpler structure; Wen & Khera (2016). In this program students followed a three steps process – identify, solve, and broadcast -. The program was implemented in a *Mass and Heat Transfer* course, from Chemical Engineering major at University of Michigan. Students enrolled in the course had to identify a concept from the curriculum from layman point of view. This was the first step: identifying a *threshold concept,* a first step also shared by Martín et al. (2014). Then, the second step, *Solve,* was to come up with some experiment that would demonstrate the concept from a scientific point of view. Up to then, the process followed was very similar to the inquiry or challenge-based pedagogy; yet, the media part of the project was to *broadcast* the experiment, which required for students to re-enunciate the whole problem in audiovisual meaningful clips, again in laymen terms, so that anyone watching the clip could understand that scientific concept. This re-encoding action is one of the top pedagogic features of video-making assignments. In this case, the authors did well on scaffolding the laying out of the problem previously, so that students would be able to come up with effective educational video production once the problem and its solution were clear for them. Differently from those cases treating media production as a deep-end task, in this case the students' perception and success in completing the task was remarkably high.

Still in the same direction, but breaking down the process a little bit more and placing more attention to the orchestration by means of a social media platform, (Martín et al., 2014)proposed an 8 steps program. In this case, the teacher is the one who starts the process by assessing the group and identifying the threshold concepts to be learnt by means of this video-making task. The teacher is intended to intervene at all times, be it by the resource planning and providing, as well as provoking and moderating the social media discussions. The 8 steps are as it follows:
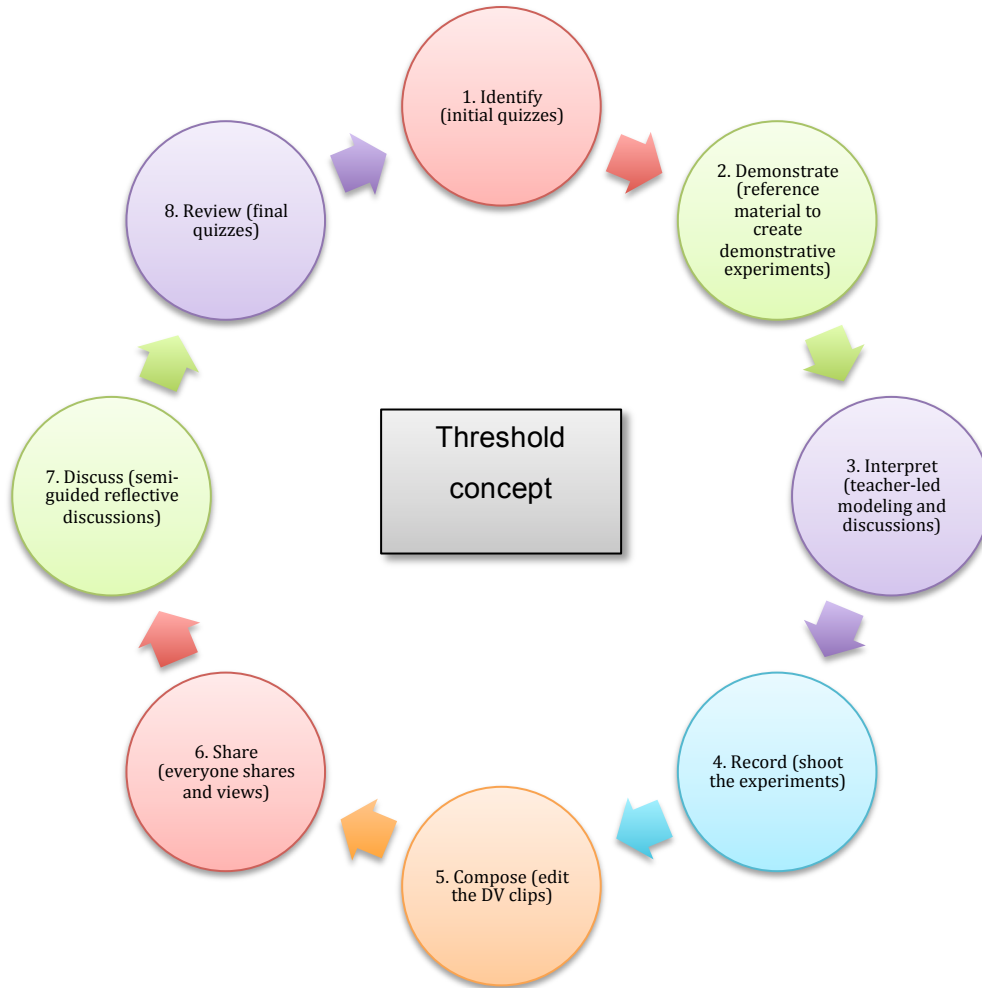
Figure 8 *The Juxtalearn steps* (Own elaboration based on Martín et al., 2014)

From this program it is remarkable the fact that most of the teacher orchestration and student interaction were done through their online platform, *ClipIt,* not only enhancing or augmenting the learning experience via the ICT tool, but they modified and even revolutionized the learning experience rendering the ICT mediation the pivotal element of this teaching-for-creativity scenario and not just some fancy complement. This is one of the most important, if not the top, goals for ICT mediation in education (Hockly, 2009).

A case proposing a more complex structure the one studied by Masats & Dooly, (2011), which consisted in a four-pronged video-coaching intervention. The educational goal of this program was to coach the practicum of pre-service teachers through video. Students were to produce an educational video, devise a lesson plan for teaching with it,

teach that lesson recording several aspects of their teaching practice, and finally, share their videos and discuss them in specific forums on their school's Sakai that worked as a private social media environment. The interesting part here was the program's orchestration, which led the forum reflective discussions in four different perspectives that are endemic of audiovisual language – *re-winding, zooming in, freeze-framing,* and *bird's eye-viewing,* which corresponded to four different educational uses of video – *video-viewing, video-modeling, video-coaching,* and *video-making* respectively. In this way, this teacher training was implementing the three traditional aspects of video-education, yet it included video-making to expand the learning experience toward media-education standards. They did redefined the video-coaching, speaking in Hockly's terms (2009). In the end, Masats & Dooly (2011) proposed a 9 phases process covering all four educational uses of video and combining already made videos, student-teacher generated videos, and a making-of video of their own learning process as it follows:

| Phase | Task | Outcome |
|---|---|---|
| 1 | Reflect on the usefulness of video materials | Comprehend advantages of creating own materials |
| 2 | Brainstorming of ideas for video | Script |
| 3 | Planning the video | Storyboard |
| 4 | Recording the video | Raw video clips |
| 5 | Editing | Final video |
| 6 | Viewing of teacher-students' production | Draft for a lesson plan using the video |
| 7 | Using the video in school placements | Field notes on implementation |
| 8 | Discussion | Sharing results & reflections on implementation |
| 9 | Viewing the making-of video | Reflect on what PBL entails for both teachers and students in the learning process |

*Table of four-pronged video-coaching intervention tasks and outcomes* ( Own elaboration, based on Masats & Dooly, 2011)

By means of thematic trainer-led discussion forums, this program allowed students to co-construct knowledge and help each other to accomplish open-ended individual tasks – in a way, a form of peer-scaffolding of the creative process. Again, *learning by doing* was complemented with *learning by teaching* – or *learning by coaching*, so to speak. Hence, in Freirian terms, we can say that this 9 phases program implies a series of cognitive actions that cover all three necessary cognitive and metacognitive actions for

knowledge acquisition (encoding – decoding – re-encoding). Moreover, in Bloom's terms, we can see as well that it goes all up from low order thinking skills (identify, understand, etc.) to high order thinking skills (analyze, evaluate, create, etc.). Therefore, it seems to me that this scaffolding is the most complete from all reviewed programs, as it truly applies all the educational uses of video and equips learners for autonomous agency of their own media creation.

# 6 Conclusion

To sum up, in reviewing these articles and the related theoretical framework we have seen that since the digital turn of society has boosted DVS as a daily basis communicative action (Ceretti, 2015), turning our culture into a more participatory and audiovisual one, media literacy (ML) has become crucial to experience culture (Jenkins et al., 2013). To a longer extent, ML enables us to make full use of rights like information access and freedom of expression (Wilson et al., 2011). Therefore, ML is also a necessary competence to learn; mostly, if there is any ICT mediation, whether in PLEs or in L2L2 settings.

Researchers state that even if there is a proliferation of user-generated content, media competency is not a *natural quality* own by every media user (Ceretti, 2015), and youth video production usually lacks quality, originality and creativity (Black, 2014). Additionally, ICT mediation alone, or video-education so to speak, does not make learning *agentic*; it merely facilitates unidirectional information transfer (Quinlan, 2014). Differently, students who develop their own learning content acquire a sense of ownership over the information, enabling them to acquire and deliver knowledge in their own terms, enhancing class engagement and student performance (Ezquerra, Manso, Burgos, & Hallabrin, 2014; Friesem, 2014; Lin, 2011; Palmgren-Neuvonen & Korkeamäki, 2015; Quinlan, 2014; Wen & Khera, 2016). In this way, media-education differs from video-education as it involves actual dialogic interaction and students' agency in their own learning. Due to this quality, PBL and ChBL methodologies seem to be the fittest options when it comes to teach ML.

Research currently exploring this type of teaching seems to be well-spread and increasing in number in the last three years, appearing already in several internationally ranked journals. It also seems that this type of programs are being implemented in a wide range of study fields in higher education, but the subject variety reduces as the program addresses younger learners. However its proliferation, media education is not yet a common practice and its study sets up in small specific cases, so external validity of their findings still demands to keep putting special effort towards its democratization.

Resounding with this demand, all the analyzed authors are vouching for offering students more and sufficient learning experiences integrating new media in curricula to equip them with current-day ML and L2L2 skills. They also coincide that video-making learning experiences provide numerous benefits, among which catalyzing ML skills is the one learning benefit making this type of school projects so relevant. Additionally, development of creative and critical thinking, reading comprehension, communication skills, and improvement of curricula comprehension are some further learning benefits of such video-making learning experiences.

Even if all of these case studies have proved their programs to be quite effective and many authors even point out the need to train pre-practice teachers in media-education (Cayari, 2015; Ezquerra Martinez, Burgos Jimenez, & Manso Lorenzo, 2016; Masats & Dooly, 2011; Palmgren-Neuvonen & Korkeamäki, 2015; Wilson et al., 2011), very few of them provided ready-to-use video-making orchestration tools that in-practice teachers can adopt to implement media-education in their own classrooms as soon as possible. So, in-practice teachers seem to still be left on their own to improve their ML skills and to update their teaching-for-creativity programs. Moreover, ICT all-in-one educational platforms lack of DV and DVS supporting tools, so teachers and students usually rely in a complex combination of software and online platforms to develop projects involving video. Being so, in order to spread and standardized these teaching-for-creativity scenarios in current-day classrooms, it seems urgent for pedagogues, educational researchers and ICT developers to create and publish such type of resources.

Finally, it is evident that even if this type of programs and resources are becoming increasingly popular, their pedagogical standards in regard to creativity and the

redefining mediation of the ICT tools are eclectic, and thus, we could support the opening statement that this type of programs are not yet well standardized and specific pedagogical design and research deepening in the field are still required.

## 6.1 Future research towards media-education

As smart phones and tablets become increasingly accessible for youngsters and present in nowadays classrooms (Clayton & Murphy, 2016), developing a mobile app that scaffolds the video-making process so as to accompany teachers and students to carry through open-ended video projects seems the right stride for educational researchers and app developers to collaborate in providing teaching-for-creativity resources in new media settings. That is the type of research project I intend to bring about in continuing my path as a pre-doctoral researcher.

The main goal of my project will be to design and develop the DV and DVS techno-pedagogical features of a mobile app to help teachers to orchestrate video-making experiences for students within collaborative creativity learning scenarios, to finally test the effectiveness of its implementation at obligatory high school (ESO). To that end, this thesis should employ the structure of a design-based research.

This methodology includes different stages to obtained a completed final product. These stages are: researching to design, creation of the tool, implementation to test the tool, analysis of the implementation outcome and refinement of the design according to the case study findings, and publication of the tool. In this way, the main outcome of my research would be a published ICT tool that will be furnishing teachers and students with a ready-to-use pedagogical tool kit to boost creative thinking and media literacy via video-making assignments. Additionally, the findings of the case study, will contribute with empirical evidence of how does this ICT mediation, as well as the in-class video-making experience, impact on students' acquisition of ESO curriculum, deepening in the field of the media literacy and creative skills necessary to move at ease in nowadays *media-society* and the learning scenarios that it implies; which, of course, need to take in stride the educational use of DV and DVS to be considered fully consolidated.

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