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# Challenges of introducing video production tasks into the classroom

**Abstract**

Though text formats still dominate in educational contexts, the use of student-produced videos in the classroom is gaining popularity. Here we analyse how high school teachers in Catalonia, Spain, implemented video production tasks in their classrooms and the various challenges they faced during the process. The main data collection methods were semi-structured interviews and an online questionnaire to which 1,561 teachers responded. The challenges most often cited by teachers are a lack of technological resources, insufficient time to complete more complex video projects, and insufficient training of teachers. Teacher comments also point to concerns about how to make student-produced videos available to different audiences and an imperfect understanding of the ethical procedures. Among suggested solutions to these challenges are the promotion of video-sharing collaboration among teachers, the clear articulation of ethical norms for video production, and the allocation of more time in the school curriculum for video production.

Keywords: *video production, digital innovation, collaborative learning, challenges in pedagogic innovation, video in the classroom*

## Introduction

In recent years, the creation of short videos has become commonplace among young people due to technological advances in mobile telephony, easy access to free editing programs and the immense popularity of video-based social media platforms such as YouTube, Instagram or TikTok. Recent research shows that most Spanish secondary school students not only have video-based social media accounts (Cassany, 2019) but also post videos on such media as YouTube (Pires et al., 2021; Vazquez-Calvo et al., 2020), Instagram (Pérez-Sinusía & Cassany, 2018) or TikTok (Vazquez-Calvo et al., 2022). This means that young people in Spain have already heavily incorporated audiovisual means of communication into their daily life for leisure purposes. Following the perspective of Ito et al. (2013) on connected learning, we argue that it is important to connect these out-of-school practices and aspirations to create a situated and meaningful technology-mediated learning environment.

Though text-based formats still predominate in educational contexts (Chik & Benson, 2020), and many parents, teachers and schools all over the world look at new media as a some sort of distraction rather than a tool to use in the classroom (Ito et al., 2013), studies carried out in both Spain and the USA show that a majority of teachers occasionally show videos to their classes (Hobbs, 2006; Mardis, 2009), while about only one third of teachers occasionally have students produce videos as part of their classes (Santos Espino et al., 2020). This tendency of using media mostly to consume it, could be not enough for media education, following the ideas of Mirra et al. (2018) who urge educators to encourage and form students as media producers and innovators to achieve a more democratic and involved society.

The studies that are centered directly on video production in the classroom are mostly case studies, developed by action or design research. One of the major topics of these studies is media literacy, which is focused on the critical understanding of media genres, technology, and discourses. Video production in the classroom showed positive results on developing the knowledge about multimodality, and the critical reflection on the media after producing some content (Liang & Lim, 2020; Ranker, 2008; Yeh, 2018).

Another popular issue is the connection of the video production and the social capacity of the students. As during video production, the students frequently play different roles in a team (editors, presenters, screenwriters, etc.) the collaboration between peers and social capacity of the students seems to be improving (Bustamante & Bustamante, 2013; Ivković, 2020; Friesem, 2014; Nikitina, 2010). The use of video production as a form to advance curricular knowledge is less common, and mainly consist of individual oral

presentations on the specific subject such as scientific communication (Oechsler & Borba, 2020).

During using video production into the classroom, a few challenges that teachers can face were briefly discussed. Working with an English language schoolteacher, Liang and Lim (2020) were able to note various challenges during video production, such as insufficient time for implementation and little value of the video practices in the curriculum. Some challenges were also underlined by a research on a specific teacher training program (Norton & Hathaway, 2010) in which teachers had to design and moderate a video production task; they faced several challenges including time restraints, technological difficulties and issues with locality, though the majority of these challenges teachers were able to overcome.

In general, the challenges of implementing video production in actual classrooms have otherwise received little attention in the literature, with most studies focusing on how video tasks can address pre-existing pedagogical needs or develop certain learner competencies.

**Multimodality and multiliteracies**

Multimodality describes the communication as constructed by different modes including images, texts, emojis, sounds or shots in the video (Kress, 2010; Jewitt & Kress, 2010). It is an important concept in our research, as the students have to learn how to use these modes effectively while producing videos.

The theory of multiliteracies partly adapts these ideas into education stating that digital multimodal communication disrupt the traditional text-based literacies and have to be introduced into the classroom to create the situated multimodal practices that could enhance learning (Cope & Kalantzis, 2015; Thorne, 2013). This disrupts the position of the teacher who has to be a facilitator of learning rather than the source of it, meanwhile the students become the center of the classroom portrayed as meaning-makers (Cope & Kalantzis, 2009). It also disrupts the notion of authorship and the written text, as in the technology mediated production students play several roles (producers, editors, speakers, etc.) creating a new kind of authorship and agency compared with a text creation (Thibaut & Curwood, 2018).

Previous studies on multiliteracy show that these practices can become more meaningful when connected with the out-of-school contexts boosting the motivation of the students and introducing real-life challenges to them (de los Ríos, 2018). Drawing on the notions of multiliteracies and multimodality, we argue that there is a need to introduce video creation tasks into the classroom to promote digital multimodal communication.

### *Context*

The context for the present study is secondary education in Catalonia, Spain, an Autonomous Region of Spain with a population of roughly 7.5 million. Slightly more than half of the 1,230 secondary schools in Catalonia are public, the remainder being fully private or semi-private (i.e., partially government-subsidised). A majority of Catalan students have a mobile phone and frequently connect to the internet when studying at home (Instituto de Estadística de Cataluña, 2019).

With the use of qualitative (interviews) and quantitative (questionnaire) data, we aim to answer the following two research questions:

1. What challenges do Catalan secondary school teachers encounter when implementing video production tasks in the classroom?
2. How do the teachers overcome these challenges?

In the following section, we will explain our methodological approach to data collection and analysis. In the subsequent Results section, we will first describe the specific challenges that teachers themselves report having encountered related to the planning, shooting, editing or sharing of student-produced videos. We will then point to a few issues that are made patent in the results but not directly identified as challenges or problems *per se* by teachers. Finally, in the Discussion and conclusions section, we will compare the results obtained here with the findings of previous studies and discuss areas for further research on the topic.

## Materials and methods

We used mixed methods with a more qualitative approach, following Hesse-Biber (2010). As previous research in this area consisted mostly of case studies, we opted to look for a more general overview by applying two methods of data collection: semi-structured interviews with teachers who had carried out student-produced video tasks in class, and an online questionnaire. Following the overall qualitative approach, we put the individual stories and perspectives as the center of the knowledge construction, meanwhile the questionnaire as an additional broader data with which we were able to compare the interviews. The study was approved by the ethical committee of the university The Institutional Committee for Ethical Review of Projects (CIREP-UPF). All participants took part in research voluntarily and

anonymously, the research was explained to them, and the informed consent forms were signed.

***Data collection***

We contacted in late 2020 with teachers who had collaborated with us in previous projects, regarding their interest in participating in the present study. Applying what is known as the 'snowball method', we asked them to reach out to any other teachers they knew who might also be interested. The key requirement was that the teacher had carried out student-produced video tasks in their class on at least several occasions. This process resulted in affirmative responses from teachers at 20 different schools. We were able to carry out semi-structured video-recorded 11 interviews (592 minutes of recording and 32.379 words in transcription).

Teachers were interviewed individually by one of the researchers, with a previously prepared questionnaire about the content and genre of the videos their students had produced, the pedagogical goals of this task, the procedure followed by students to produce, edit and show their videos, the evaluation of the final product by the teacher and the problems the teacher had encountered in executing this task. In addition, we asked teachers to make available to us (ethical considerations permitting) prior to the interview samples of student-produced videos from their classes; viewing these products allowed us to tailor the interview to each interviewee by asking specific questions.

We used the transcribed interviews as a basis for a questionnaire intended for distribution online, looking for data from a much larger sample of teachers. The 37 question items reflected four broad areas: teacher profile (six questions), viewing videos (nine items, including goals, tasks and frequency), production (15 items about genre and content of the videos, scaffolding activities, technology used and problems encountered) and reception (7 questions about video sharing and evaluation). Respondents were given a choice of multiple-choice answers to select, and most items also included an 'Other' option that allowed them to provide further information.

We discussed our preliminary draft of the questionnaire individually with two experts in the field of education, who had a high level of agreement on the changes concerning the sections of video production and reception. We then piloted it with 13 secondary school teachers who also gave us individual detailed feedback based on which we prepared a final revised version of the questionnaire and uploaded it to the SurveyMonkey online application. We send then, with the government permission, an email with the survey link to the staff of

all 1,230 secondary Catalan schools, which then distributed it to all of their teachers. In the end, 1,561 teachers completed the online questionnaire.

To interpret the interview and survey data, we presented and discussed the results in one group session with 20 members of the *Department of Education,* who were familiar with the Catalan educational reality, our discussions being audio-recorded. This gave us three separate perspectives on teachers' view of using student-produced videos in the classroom: the perspective of teachers themselves (interviews and questionnaire) and the perspective of education experts.

***Analysis***

Our main unit of analysis is a "challenge during video production tasks". We identify "challenge" as a problem connected to learner video production and brought up during the interviews and/or could be seen in the results of the questionnaire. Our analysis consisted of the following four steps:

1. Following a holistic scrutiny of both interview and questionnaire results, we made note of the main topics that arose in the context of secondary education in Catalonia. Our first exploratory results are described in detail in a previous publication (Cassany & Shafirova, 2021) and are partially resumed in section below.
2. The interview transcripts were analysed using qualitative content analytical methods. We identified the main challenges and possible solutions, and we grouped them into broad categories such as *Time-related issues, Technological challenges during production and editing, Student objections to being filmed* and *Video distribution*.
3. SurveyMonkey allowed us to process the questionnaire results with descriptive statistics. We also subjected responses to the open-answer 'Other' category using content analysis, to determine the most frequently recurring comments. This allowed us to add a new category, *Ethical issues*.
4. We compared the results of the questionnaire and previously detected categories. The data from the interviews was triangulated including the categories of *Time-related issues, Technological challenges during production and editing, Student objections to being filmed* and *Video distribution*.

**Results**

Our research questions center around teachers' views of the challenges involved in implementing student-produced video tasks in their classrooms. However, our results quickly showed that the challenges depended directly on the tasks teachers implemented. So, it is of interest here to first discuss the types of tasks teachers reported using. Figure 1 below shows questionnaire results regarding the types of video production tasks that teachers reported having implemented in their classrooms.[1]

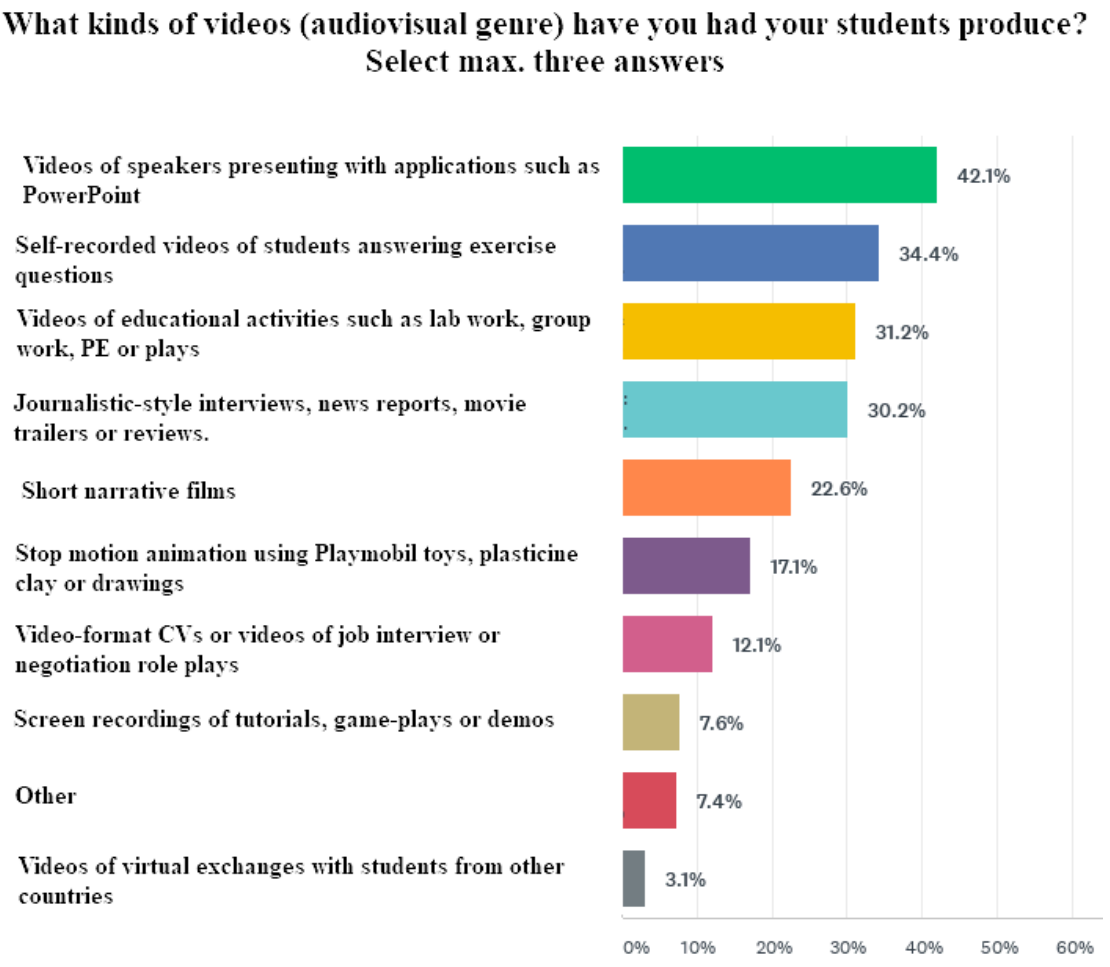


Figure 1. Online questionnaire results regarding the sorts of student-produced video tasks they had carried out.

It will be seen that video tasks can be broken into two broad categories. The first one and the most frequent consist of simply recording activities which are not in themselves dependent on video, such as Answers to the tasks "in front of the camera" (34.4%), Oral presentations with pptx (42.1%), Video recording of role plays: interviews, CV (12.1%), or

[1] The language used in interviews and questionnaire responses was Catalan or Spanish (the Catalan education community is thoroughly bilingual). All materials and participant responses or comments have been translated here into English by the authors.

Screen recording (7.6%). Usually, the focus of these activities is on merely recording verbal content or delivery rather than creating content that is conceived as a truly audiovisual construction.

In our interview data, teachers described such simple video recording tasks as a way to develop communicative skills or to simply adapt a writing task to a video format. In the words of an economics teacher: 'I think that for the students of my subject, economics, it is quite useful for them to know how to express themselves well, whether it is for a job interview or to present a project, so nothing is better than training them with it [video].' Most of the video tasks carried out by teachers seemed to be of this sort because they represent less of a time commitment in terms of planning and execution.

The second broad category of video tasks comprises the creation of more elaborate videos that focus not only on the verbal discourse but also on the audiovisual format. Short narrative films, longer journalistic-style productions and animation would fall under this category. Such videos have a greater production value, may take weeks or even months to produce, and are typically created by students working in groups. Much more time is required to plan such videos—the students usually have to write and edit a script for the video. Naturally, such video production tasks can impose more challenges on the teachers, and indeed it is logical to surmise that when respondents to our questionnaire noted challenges they had this sort of more sophisticated video in mind.

***Challenges reported by teachers***

Questionnaire results for the question 'What problems have you encountered during video production tasks?' are shown in Figure 2 below. The problem most often reported was 'Lack of technological resources' (26.3%), followed by 'Lack of time' (21.3%). Lack of training on the part of teachers and students were noted by roughly equal numbers of respondents (15%–16%). Importantly, very few respondents (1%) felt that they had received insufficient support from the school administration. Also noteworthy is the fact that 13.5% of respondents claimed that they had encountered no problems at all. In the open-answer 'Other' (5.7%), teachers mostly brought up the issue of student reluctance to be filmed, though a few noted training issues.

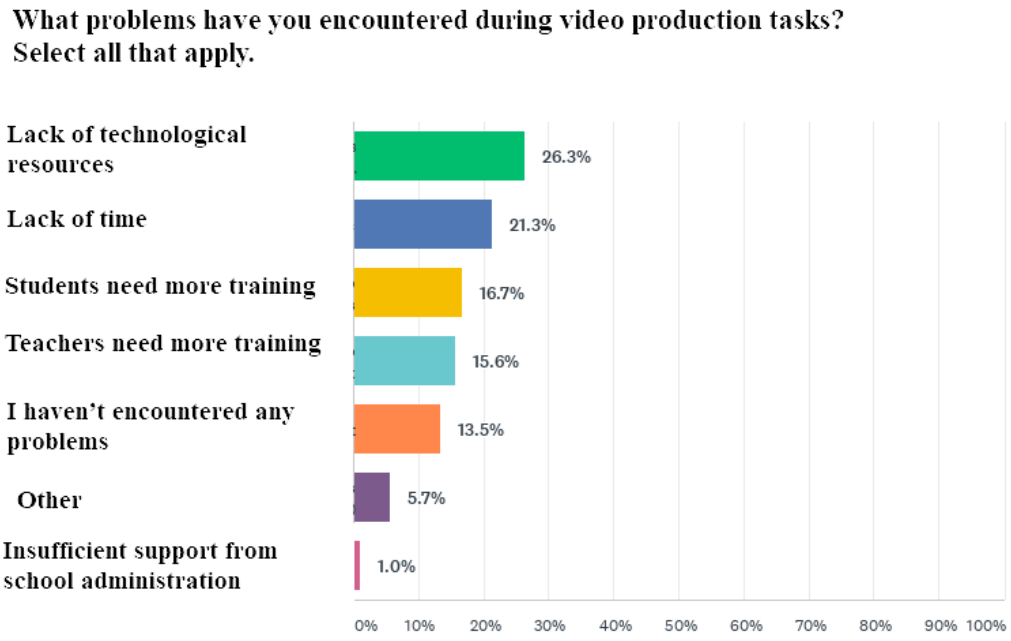


Figure 2. Challenges encountered during the implementation of video production tasks as reflected in questionnaire responses.

### *Lack of technological resources*

As we have noted, this was the problem most often selected (26.3%) by questionnaire respondents. We checked this finding against what our questionnaire results said about the equipment used to record and edit videos, where a majority of respondents reported that their students used their own equipment to film (89.2%) and also used editing tools freely available online to edit their work (71.9%) with only 5.7% of students using editing software of the school. These options seemed like easy solutions for teachers to have the students responsible for technological resources during video production tasks.

However, leaving students to their own devices for filming and editing may actually have been seen as a problem by teachers, as some interview data revealed, especially for more sophisticated projects, such as documentaries, interviews or short narrative films, which required high quality editing and/or sound recording. A number of teachers complained that it was impossible to obtain quality sound recordings without using proper microphones (as opposed to, for example, built-in telephone microphones), especially if more than one person was being recorded simultaneously or if the video was recorded outside the classroom. Teachers reported several solutions to these problems that involved adapting the task to the resources already available, notably:

- Recording the video in voice-off mode and then adding a separately recorded audio track to ensure higher sound quality;
- Requiring students to do all video recording in the classroom, where ambient noise could be limited;
- When a group was recording itself, using only one or two microphones.

Video editing also raised other issues. Teachers who undertook more complex video tasks found that freely available editing software was sometimes unable to cope with large amounts of content, so the teachers had to fall back on simpler tasks. Also, teachers found that if students were asked to find editing software on their own, those who could afford to pay for more sophisticated programs were able to produce more impressive results than those with fewer resources, which was demotivating for their classmates and raised issues of inequality.

On the other hand, if the teacher sought to get around this problem by requiring all students to use the same editing resources, this could frustrate students who were already tech-savvy and accustomed to using more sophisticated software. In such instances it might be useful if each school had a uniform policy. In this connection, two teachers recommended the use of Ipads for recording and editing, since they found that the proprietary I-movie application was well able to handle large as well as small video editing projects.

Another challenge related to using editing software is the long learning curve, which can be longer for some students than others. An interesting solution proposed by several teachers for group video work was to make sure that each group contained one student who was already skilled at digital technology. In the words of a language teacher:

> In secondary school classes, I would find out which of the students were good at digital technology, so I put all the computer geeks in one list. Then I would ask who was good at languages or public speaking, I mean, who had good linguistic abilities, and I put all of them in another list. Then I made a third list with all the students who were artistic or creative. Finally, the students had to form teams to do the videos, with one student from each of the three groups present in each team, so all abilities were represented.

This is an interesting solution because it ensures that all groups have similar degrees of video editing expertise, but student agency is reinforced by the fact that every student is responsible

for a specific part of the task. Hence, it can develop students' autonomy, agency and also help with this technological challenge of editing.

***Lack of time***

In Figure 2 we saw that the second most often noted problem for teachers was a lack of time to properly complete video tasks. The time issue was also brought up during the interviews, as seen in these comments like: 'Of course, when you make FlipGrids, prepare EdPuzzles… preparing them requires many, many hours…' or 'Yeah, I go nuts, I spend all morning at school, I stay in the evening after classes are finished, weekends…'. However, other teachers noted that they avoided complex video projects (such as those that do not involve merely recording student work) precisely because they required so much time, and it was particularly difficult with such projects to predict with any precision how long production and editing would take.

Part of the heavy time demand on teachers who are implementing video tasks in the classroom is related to the preparation of instructional guides for students and rubric tables for final evaluation of student work. An interesting solution to this problem was found in one school which offered an extracurricular course in audiovisual media. The teacher and the students in this extracurricular course helped other teachers to manage classroom video tasks by providing instructional guides and assessment rubrics, as well as general support and encouragement.

***Lack of training***

A relatively small number of respondents regarded inadequate training (Figure 2), either on the part of students (16.7%) or on their own part (15.6%), as an obstacle to implementing video tasks in the classroom. Their comments did not shed any particular light on the issue, nor did the matter of insufficient training for teachers or students arise in any of the semi-structured interviews. With regard to teaching training, this is probably because all eleven teachers interviewed had in fact received some formal training in creating videos, and this training was clearly important to them since it gave them not only the necessary technical skills and self-confidence but also the inspiration to try out those skills in their classrooms.

***Student reluctance to be filmed***

One problem reported by a small majority of questionnaire respondents (under the 'Other' response option in Figure 2) but also noted in four of the interviews was that in every

classroom there is at least one camera-shy student who does not want to be filmed, and in a few cases teachers reported that parents refused to give permission for their child to appear in videos. It is important that such students not be pressured to appear in videos as this can be stress-inducing and go against ethical protocols.

Solutions to this problem were suggested by teachers themselves. In group video projects, for instance, camera-shy students can take responsibility for parts of the task that do not require them to appear on camera, such as preparing the script or doing the filming or editing. When what is being video-recorded is individual work, another kind of solutions can be adopted, as explains this social sciences teacher:

> Sometimes there is a very shy student, and it is difficult for him or her to share videos. So I normally give them the option of not publishing the video on FlipGrid but instead sharing it directly via Google Classroom or any other platform. [...] In some cases, I accept audio instead of video. However, I don't think the vast majority of students have this kind of problem.

The quote highlights this teacher's flexibility and acceptance of the student's desire not to be filmed. Nevertheless, such students can miss out on the opportunity to develop their video production skills, which points to the main advantage of doing video tasks as group projects.

***Other potential challenges***

Though not specifically identified as such by teachers either in the interviews or in their responses to the questionnaire, we singled out two additional issues that could be described as problematic or challenging for teachers based on our findings.

***Ethical requirements***

Because student-produced videos involve minors, there are certain ethical considerations that teachers must be aware of. In particular, if minor students are going to appear in a video, careful thought must be given to what audiences will subsequently be allowed to view it. Following the Spanish laws on minors' protection, informed consent forms should be signed by parents in order for the students up to age of 16 to appear in a video, which may end up being viewed by the wider public (Berrocal Lanzarot, 2016). Also drawing on recommendations of Mann et al. (2018), the topic of the use of copyrighted materials in the video should be discussed with the students.

Figure 3 shows the distribution of responses to the questionnaire item asking respondents how they dealt with the ethical issues involved in classroom video production and use. Only 22% of respondents reported having parents sign consent forms as part of their video production procedures. Some 31.2% said they explained ethical issues to students at the beginning of the school year, and another 27.6% did the same for parents but did not have them sign a formal consent form. Most alarmingly, however, 10.9% felt that there was no need to take ethical issues into account at all.

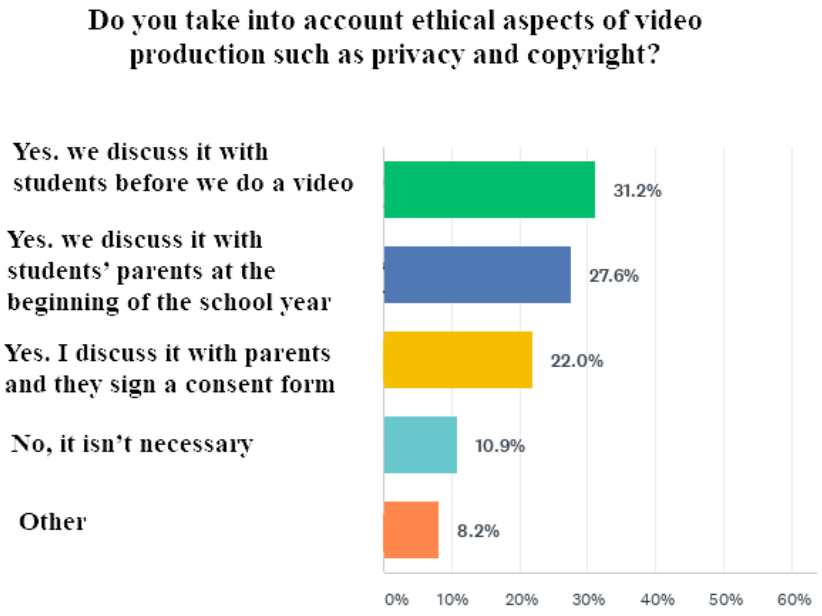


Figure 3. Questionnaire responses regarding the ethical aspects of video production tasks.

Open-ended responses to the 'Other' option (8.2% of responses) generally reflected an awareness that ethical issues are important but made it clear that the respondent was not sure how to address it. In the words of one respondent, 'I am not doing it [anything in this regard], but I think it is necessary. I am not sure how to handle this issue.'.

Due to the interviews, the easiest way to organize the ethical protocol of video production is to inform the parents at the beginning of the course. It seems easier when the school administration takes responsibility for this issue.

***How student-produced videos are shared and who views them***

Most of the teachers claim that sharing the video beyond the classroom can boost the motivation of the students as it will be not only a school task but a project with a real

audience. In the majority of the cases, the sharing or distribution of the videos becomes a responsibility of the teacher. So on top of the planning, ethics consideration and technological issues the teachers try to plan ahead how to distribute the final results in order to motivate the students. Of course, sometimes this task could be challenging, which we observe in the answers to the question: "How are the videos distributed?" of the questionnaire (Figure 4).

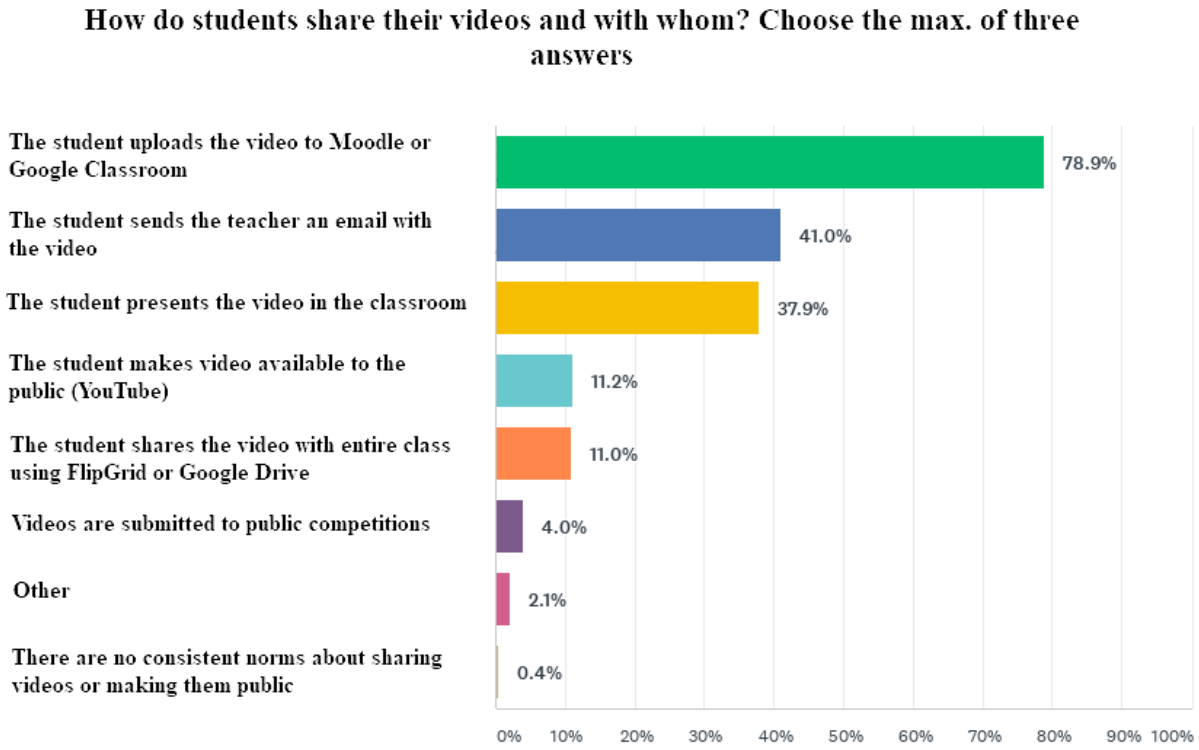


Figure 4. Questionnaire responses regarding how student-produced videos are shared and with whom.

As can be seen, student-produced videos were most often (78.9%) made available to teacher and classmates by sharing on platforms such as Moodle or Google Classroom, though videos were also either made available to the teacher by means of email (41.0%) or viewed on a large screen in class (37.9%) (note that respondents may have employed more than one of these modalities, since multiple responses to this item were allowed). Only 11% of the respondents reported asking their students to share their work with the class via a specific platform such as FlipGrid or make it available to the public via YouTube or Vimeo. This indicates that the videos are mostly not shared virtually among students. Interestingly, only 4% of the videos were submitted to public competition or film festivals. Finally, practically no respondent (0.4%) reported leaving the question of video sharing and publication in the hands of the students alone.

These questionnaire responses would tend to indicate that student-produced videos are rarely shared beyond the classroom. But it should be borne in mind that videos of the simpler 'recorded activity'—which make up the vast bulk of student-produced videos—are seen as part of the usual class planning and it therefore makes sense that their audience should be limited to teacher and classmates. Teachers note that part of the utility of sharing platforms like Moodle or FlipGrid is that other students can not only view their classmates' products there but also comment on them. By contrast, it makes sense that more complex videos conceived as creative audiovisual works such as artistic or journalistic projects should be available to wider audiences.

In fact, most of the teachers who participated in the interviews noted that making student-produced videos available to audiences outside the classroom increased the motivation of students to participate because it validated the final product as a 'real' video rather than simply a class exercise. For this reason, some teachers said they posted student-produced videos in their personal blogs. Some teachers also felt that videos produced by students in their classes could be viewed in other classes at the same school, perhaps in a kind of 'video exchange', where videos made in one class would be viewed in another class and vice versa. However, most of the teachers interviewed admitted to being the only teachers at their school who had students produce videos. This kind of complaint is reflected in the following comments by a teacher of Catalan:

> I, of course, showed the videos to my colleagues at school. I published them in my social media accounts, which are not very popular. But to my fellow teachers I said, "You could show it in the classroom and it will serve to close the lesson, and also to motivate the students... Maybe they will also be motivated to do something like this." But it wasn't really successful.

Unfortunately, the fact that teachers feel often alone in their interest in video tasks may well discourage them from continuing to carry out these activities. One possible solution described by teachers could be to share videos not through other teachers but through the students themselves. One way to do this could be through contests. Such a contest was organized by one interviewee, a teacher of Spanish, who assigned his students to create very short silent movies in which the students had to express themselves without words and then reflect on the use of non-verbal language. The students had to upload their videos to a website set up by the teacher to which they could grant access to friends and family, who then voted for various

categories such as ‘best video’, ‘funniest video’ or ‘best music’ video and wrote feedback comments. The teacher reported that the fact that they had a real audience to show their project generated a very high level of motivation in his students.

A very small number of teachers (4.0%) sought out specific video festivals or competitions to which their students could submit videos of the more highly crafted sort. Though participation in such external activities may motivate students a great deal because the audience is even more ‘real’, being outside the educational institution and immediate social circles of students, it involves a lot of extra work for the teacher in terms of first searching for and then making contact with competition or festival organisers. Other teachers, especially in the case of documentaries, short narrative or animation films, opted for linking the video project with a social cause or institution. One student-made documentary, for instance, featured elderly people who had lived under the Franco dictatorship.

As noted above, some schools have an extracurricular film club which can take over responsibility for sharing videos outside the classroom, searching for festivals or producing videos for particular school subjects. This can save teachers who implement video tasks in class considerable work and produce impressive results. However, most schools are not so fortunate, and the burden of planning and organising video tasks and then sharing the results falls entirely on the teacher’s shoulders.

**Discussion and conclusions**

Taken together, the results of the study show that teachers in Catalonia who seek to implement student-produced video tasks in their classrooms feel that they face various challenges, notably a lack of technological resources and insufficient time in the class planning to complete more sophisticated video projects. We consider these sophisticated video projects as multiliteracy practices, as most of the time they are collaborative, project-based, student-oriented and encourage students to use different modes of communication (Cope & Kalantzis, 2015; Cassany & Shafirova, 2021). These practices are the most challenging for the teachers pillared on students’ inequality (including the degree of knowledge about video production and the economic resources of the students), time demand from the teachers and the students, insufficient training of the students and the teachers and difficulty of sharing the videos beyond the classroom.

Students’ and schools’ inequality is one of the major reasons for making video multiliteracy practices so difficult to achieve. The schools’ inability to provide sufficient and adequate technological resources, can reinforce the financial inequalities among the students.

As teachers mentioned, if we do not ask the students to use the same software for editing, the students with better laptops would have more impressive results which can be discouraging for other students. It is still difficult to produce long videos with a little budget, though, fortunately previous studies showed that short videos could also be used for multiliteracy development even with critical perspective (de los Rios, 2018). Another big technological constraint for the teachers is the sound, like with image editing, it is very difficult to reach a good audio without proper equipment. The teachers resolve these problems creatively, sometimes finding specific software to edit or ask students to use voice in off after the video shooting. However, we argue that these are obvious constraints for teachers and students, which are limiting the teachers' creativity of designing the task and students' creativity and passion for editing who can find it difficult to pursue it as the school does not allow a specific software or has no funds to provide it to the student. Following Ito et al. (2013), it is essential to help the students to follow their interests and passions in the school to create a connected learning environment.

Teachers' concern with insufficient time is another great challenge which was shown in various previous studies (Norton & Hathaway, 2010; Liang & Lim, 2020). Some of the more sophisticated genres of video production such as short narrative films or journalistic reports can be extremely demanding of teacher's and students' time, and the amount of classroom time required for student filming and editing—with or without assistance from the teacher—is often unpredictable (Liang & Lim, 2020). This is especially true when teachers are novices to implementing video tasks in the classroom, though this is similar to the challenges teachers face when introducing any type of innovative teaching (Rotherham & Willingham, 2009).

This brings us to the issue of teacher training. As we have seen in the results section, experienced teachers already have interesting and creative solutions for a lot of the observed challenges. Following Norton & Hathaway (2010), we suggest that teacher training with specialists in video production, and more importantly with fellow teachers who implemented video-based multiliteracy practices, would be able to help with a lot of the challenges that novice teachers usually face. Experienced teachers with video production can show effective solutions to different types of technological constraints: choosing video genres in order not to reinforce inequality among students, better time management and planning, adopting good ethical practices, or the best possibilities of sharing or connecting the videos with other students, teachers, parents, and the community.

Moreover, there is a noteworthy and encouraging absence of reference to students using the video medium—or their smartphones—inappropriately during production tasks. Apparently, in these teachers' experience there is no tension between the entertainment value of video production and teaching, as reported in other research, such as Hobbs (2006) in connection with video viewing. This also implies that usual classroom management was not made more difficult for teachers by the implementation of video tasks.

Finally, although few teachers mentioned the lack of support from the school administration as a problem, it is clear that secondary institutions could play a stronger role in promoting the implementation of classroom video recording tasks. Especially when we talk about collaborative, longitudinal, student-centred video tasks in which the students will be able to develop collaborative, multimodal and multiliteracy skills (Cope & Kalatzis, 2009, Thibaut & Curwood, 2018).

First, schools can promote the collaboration among teachers which can be helpful to teachers in a variety of ways (Rotherham & Willingham, 2009). It can help teachers to broaden the audiences for student-produced videos outside the classroom but within a monitored context. Viewing videos made in other classes can also motivate students and teachers to produce their own, generating video exchange practices among teachers. Also, if teachers are encouraged by the school to share lesson plans or evaluation rubrics—to say nothing of brainstorming solutions to problems related to classroom video tasks—this can motivate other teachers to try implementing video production tasks in their classrooms.

Secondly, the study shows that a united policy on students' video production in schools is needed, especially with regards to ethics policy on making and publishing videos. When the responsibility for informing parents about video production and requesting their permission is assumed by the school administration, this is one less issue to which the teacher will need to devote time and attention. Finally, though this challenge is most likely very difficult to overcome, school administrations could consider allocating more time in the school curriculum for video tasks, a recommendation also made by Liang and Lim (2020).

By way of closing, we suggest that future research could be conducted in other geographical contexts so that these results could be compared to experiences with the implementation of classroom video tasks in other locations and broader conclusions drawn.

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