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RESEARCH PAPER

Creating a positive learning environment in the online classroom with Flipgrid

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Abstract

The pandemic has made it clearer than ever that health issues impact education and that schools play a key role in supporting the wellbeing of learners. As emotion and cognition are interconnected, educators should use educational strategies that generate positive emotions so that learning is associated with pleasure. The aim of this study was to investigate if a warm-up activity with Flipgrid could contribute to creating a positive learning environment in the online classroom in times of Covid-19. Flipgrid is a free platform that allows video-based asynchronous discussion. It fosters educator-student contact, cooperation among learners, active-learning techniques and student engagement. A total of 37 MA students participated in the study. Informants were selected by non-probabilistic sampling. The data collection strategies were observation during the Flipgrid warm-up activity, a Moodle survey, and the institution student satisfaction survey. Students' engagement was high and their attitude was mostly positive or neutral. The warm-up was highly rated in terms of creating a positive learning environment by the participants, and informants wrote positive remarks about their experience using the platform. The results suggest that a warm-up activity with Flipgrid is an effective educational strategy to generate positive emotions during the pandemic. Finally, the limitations of the study are addressed, and some directions for future research are proposed.

Keywords: Flipgrid; warm-up activity; Covid-19; online classroom; emotions

1. Introduction

The Covid-19 pandemic has had physical effects on people and "a great emotional and psychological impact, affecting the mental health of the population and significantly increasing the levels of stress, anxiety, depression, loneliness, etc." (Baños, 2020, para. 3). The pandemic has had a tremendous impact on education. First, many countries closed schools and universities to help stop the spread of the Coronavirus. As of April 6th, 2020, the schools of more than 90 percent of the world's students were closed (Strauss, 2020). Second, at the same time, there was a sudden shift from face-to-face instruction to online learning, and it is still unclear when and how schools and universities will reopen for teaching in countries such as Spain. Finally, it is no secret that the Covid-19 tragedy, the sudden shift to online instruction, and the tight lockdown measures have negatively affected students' and teachers' emotional state. Feelings of shock, uncertainty and sadness (Kafka, 2020) and anxiety (Shoichet, 2020) have been reported among university students, and current research suggests that anxiety and depression will grow in higher education (Araujo et al., 2020). According to the UNESCO (2020), health and social issues impact education, and schools play a key role in supporting the health and wellbeing of learners.

There is a growing amount of evidence from social and cognitive psychology indicating that emotion and cognition are interconnected (King & Ng, 2018; Phirangee & Hewitt, 2016; Shao et al., 2019). According to Tyng et al. (2017), emotions influence cognitive processes such as perception, attention, learning and memory. For example, Storbeck and Maswood (2015) carried out two experiments to investigate the impact of emotion on working memory and found that positive mood generally enhances verbal and spatial working memory capacities. Neuroscientists Tambini et al. (2017) reported that "neural measures of an emotional experience can persist in time and bias how new, unrelated information is encoded and recollected" (p. 271). Another example is the affective filter hypothesis (Krashen, 2013), which states that affective variables such as motivation, self-confidence and anxiety stimulate or inhibit language acquisition.

These findings have two main implications. On the one hand, the negative emotions caused by the Coronavirus situation may lead to unfavourable effects on learning. On the other hand, educators should use educational strategies that generate positive emotions so that, in a preconscious way, learning is associated with pleasure (Bueno i Torrens, 2021).

Flipgrid (https://info.flipgrid.com/) is a relatively new platform that allows video-based asynchronous discussion. Basically, teachers create a grid for their class and within the grid they post discussion prompts called topics. The topics may include text, audio, video, images, documents, etcetera. Afterwards, students can respond to the topic. Additionally, they can reply to classmates' video responses as long as the teacher has allowed student-to-student answers. Within each grid, it is possible to create several topics for discussions. According to the official website of Flipgrid, learners across 180 countries and more than 10,000 educators use the platform.

Flipgrid has potential advantages for online learning. Firstly, having audio and video in online interactions can increase social presence (Bartlett, 2018; Holbeck & Hartman, 2018; Saçak & Kavun, 2019). Social presence is defined as the ability for learners to "project themselves socially and emotionally" (Garrison et al., 2000, as cited in Holbeck & Hartman, 2018, p. 2). This is essential because online students can feel alone in the course (Bartlett, 2018; Holbeck & Hartman, 2018; Kaufmann & Vallade, 2020). Second, according to Craig (2020), Flipgrid fosters educator-student contact, cooperation among learners, the use of active-learning techniques, student engagement, and respect for different methods of learning. Finally, although there is little research on Flipgrid, what studies there are support their use. An exploratory design study (n=50) carried out by Johnson and Skarphol (2018) revealed that Flipgrid increased student engagement and communication. In a survey study (n=133), Mclain (2018) found that English as a second language students considered that Flipgrid improved their confidence in spoken English.

Another survey study (n=79) conducted by Lowenthal and Moore (2020) suggests that learners liked using Flipgrid and found value in participating in video-based asynchronous discussions.

In light of the negative consequences of the Covid-19 pandemic both on people and on education, the interconnection between emotion and cognition, the potential risks of disconnection of online learning, and the potential benefits of Flipgrid, it was decided to conduct a study to answer the following question:

To what extent does a warm-up activity with Flipgrid contribute to creating a positive learning environment in the online classroom in times of Covid-19?

2. Method

2.1. Participants

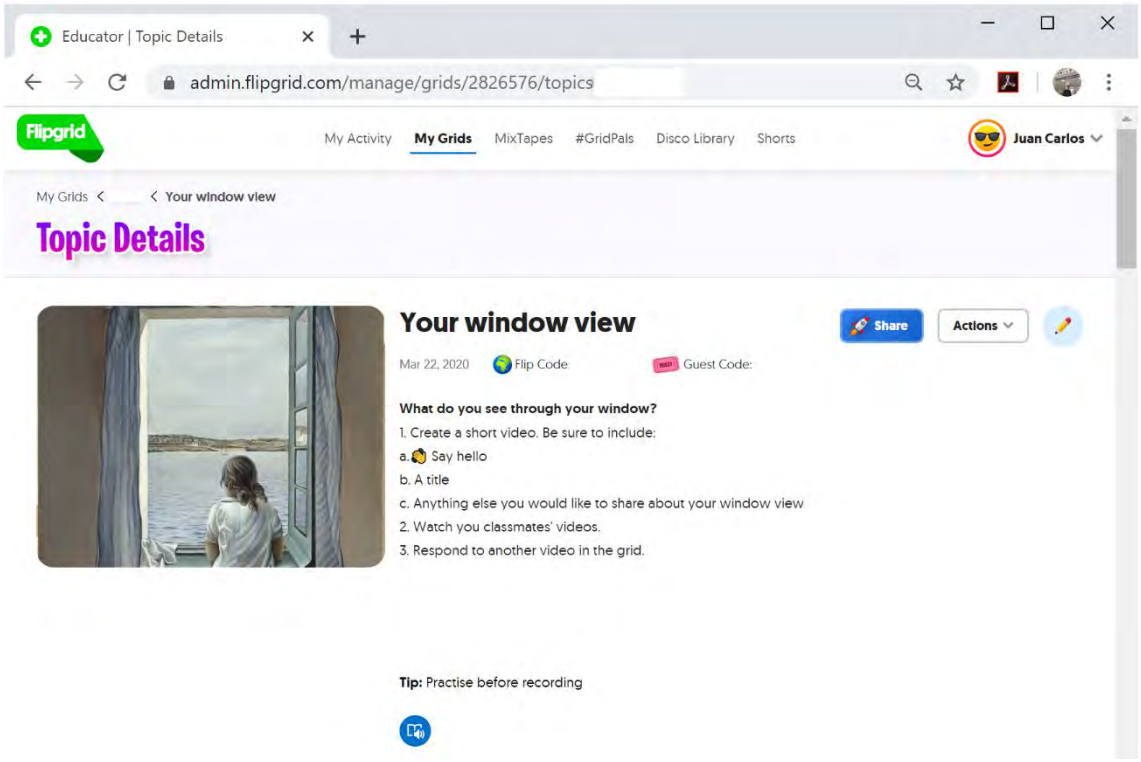
A convenience, non-probabilistic sampling method was employed to select the sample (Dörnyei, 2007, pp. 98-99). Thirty-seven informants participated. They were aged between 24 and 45 and enrolled in a face-to-face master's degree in Teacher Training in Compulsory Secondary and Upper Secondary School Education, Vocational Training and Languages (Specialization: English) from a large public university in Spain. Thirty-six participants were Spanish nationals, and one was from Ukraine. There were 27 women and 10 men. Due to the pandemic, on March 14, 2020 the Government of Spain declared a State of Alarm and face-to-face instruction was moved online. In the researcher's institution, asynchronous instruction took place mainly through Moodle (version 3.7) and synchronous learning mostly through Blackboard Collaborate Ultra.

2.2. Materials

A Flipgrid task and three data collection types were employed. The Flipgrid activity was an asynchronous warmer (see Figure 1) created by the researcher. The main objective of the activity was to create a positive learning environment in the first online class during the lockdown. Basically, the task consisted of recording a short video (up to 15 seconds) showing one's window view. A short PPTX presentation with instructions was created (see appendix).

Figure 1.

A warm-up activity created by the teacher/researcher



The data collection procedures were observation during the warm-up activity, a Moodle survey, and the institution student satisfaction survey. As for observation, the variables to be observed were: the total number of responses, the participants' attitude in the responses (positive, neutral or negative), the total number of replies to the responses, the participants' attitude in the replies (positive, neutral or negative), the total number of views, the average number of views per video, the total time spent on task, the average time on task per person, the average length of each video produced (responses plus replies) and the total amount of video produced (responses plus replies).

In the Moodle survey, participants were asked two five-point rating questions related to the Flipgrid warmer created by the researcher and to another Flipgrid warmer that the participants decided to create during the study (see procedure). The questions were: (1) On a scale of 1 to 5 (1 being lowest and 5 highest), how would you rate the Flipgrid warm-up activities in general terms, (2) On a scale of 1 to 5 (1 being lowest and 5 highest), how would you rate the Flipgrid activities in terms of creating a positive learning environment? In addition, participants had the chance to write comments at the end of the survey.

Among other things, the institution student satisfaction survey addressed to what extent the teacher had adapted face-to-face teaching to online teaching as a result of Covid-19. To do so, it used a five-point rating scale item with 1 being lowest and 5 highest.

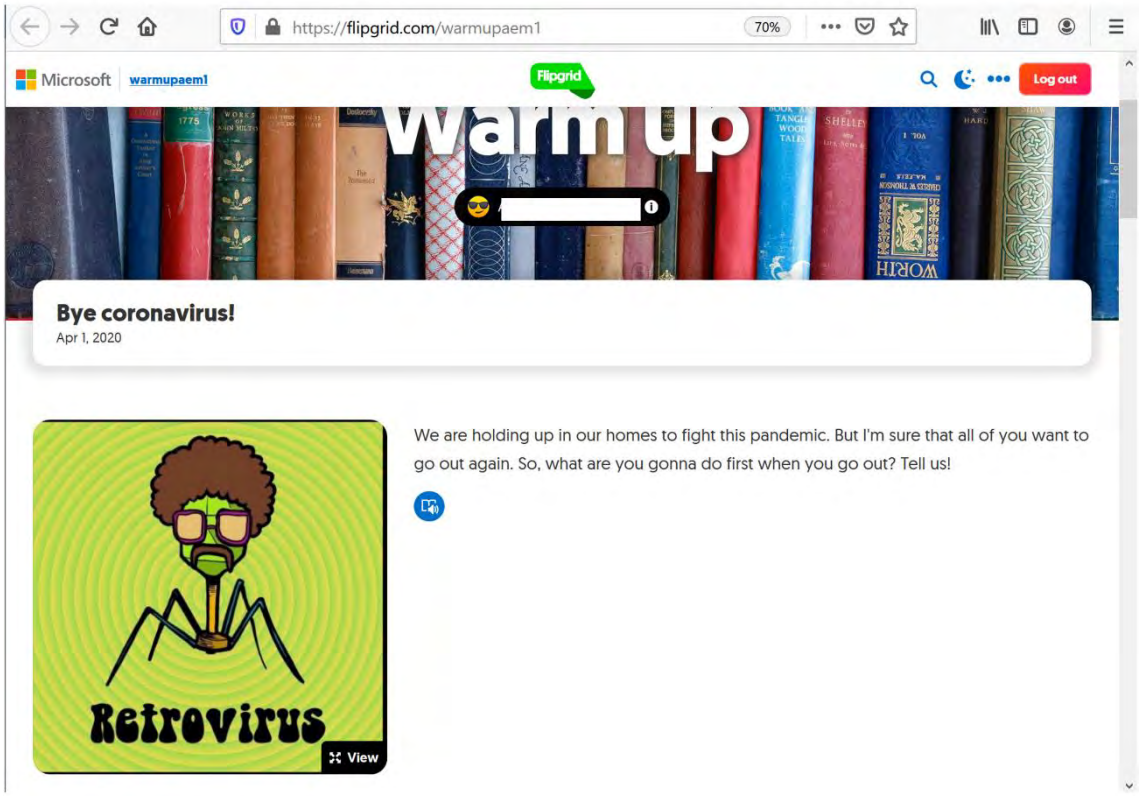
2.3. Procedure

The study took place in the first two teaching weeks during the lockdown. Those were also the last two weeks of the course. On March 22nd, five days ahead of the class to be held on March 26th, the author emailed the students the lesson outline. The first activity was the asynchronous warm-up activity with Flipgrid. The researcher uploaded his video on March 22nd. The video was titled "Cat in kindergarten" and portrayed a cat playing in a kindergarten playground. A positive tone of voice was employed. The recording was intended to be funny to help create a positive atmosphere in the first teaching day of the lockdown. Although class time was going to be devoted to completing the activity, nearly all participants uploaded their video before the class, and some of them also wrote replies to other classmates' videos. On March 26th, the beginning of the class time was devoted

to the warmer activity. Next, course-related contents were covered. Finally, the teacher asked for volunteers to prepare and carry out another online warmer next class (April 2nd). Although students had full freedom to develop this activity in terms of format and timing (synchronously or asynchronously), they decided to use Flipgrid (see Figure 2). Again, the beginning of the class time was going to be devoted to participating in the warmer. However, once again, some participants uploaded their videos before the class start time. At the end of the class, students were asked to complete the Moodle survey, and were given until the end of April to complete the student satisfaction survey.

Figure 2.

A warm-up activity created by a group of participants.



2.4. Data analysis

As for observation, the data analysis involved descriptive statistics such as frequency counts, percentages, and the mean. Flipgrid provides frequency counts of the total number of responses, the total number of replies to the responses, the total number of views, and the total time spent on task. Flipgrid also provides a comma-separated values (CSV) file with additional data. This CSV file was imported to SPSS 26 for Windows to compute the total amount of video produced, the average length of each video produced, and the average time on task per person. The researcher decided if the participants' attitude was positive, neutral or negative in each video (responses and replies), and then quantified the instances.

As for the Moodle survey, responses to the rating scale items were exported from Moodle to a CSV file. Afterwards this file was imported to SPSS 26 to carry out a frequency analysis. A two-phase process suggested by Dörnyei (2003) was used to analyse participants' comments:

(i) Taking each person's response in turn and marking in them any distinct content elements, substantive statements, or key points.

(ii) Based on the ideas and concepts highlighted in the texts (cf. Phase1), forming broader categories to describe the content of the response in a way that allows for comparisons with other responses. (p. 117)

The results of the student satisfaction survey were emailed to the researcher at the end of the semester. Mean values for the rating scale items were provided.

3. Results and discussion

The research question was: To what extent does a warm-up activity with Flipgrid contribute to creating a positive learning environment in the online classroom in times of Covid-19? Regarding observation, it is worth mentioning several points. First, all participants (37) uploaded their video response to the task. Second, although class time was going to be devoted to doing the warmer, 36 out 37 (97%) uploaded their recording before starting the class. Third, only 6 videos of the participants (16%) showed a negative attitude (the titles were "rainy day", "waste grounds and industrial parks", "loneliness", "loneliness and empty pool", "I wish I had a balcony", and "empty street"). The other recordings (31/84%) could be considered as showing neutral or even positive emotions. For example, there are titles such as "Party hard", "Nicest way to wake up", "I love my neighbourhood", "I´m so lucky", "There's a party going on and it's all right here", "Here comes the sun", "Sunny day, finally", "At least it's sunny today!", "A united neighbourhood". Fourth, there were 26 replies to the responses and all of them showed a positive attitude. For example, they included phrases such as "You can see a castle from your window! Wow!", "Very funny!", "You have a nice terrace!", "You are really lucky!", "Don't stop the music!", "Still, it is nice to hear the birds singing their songs". Fifth, according to the data provided by Flipgrid, the total number of views was 4545 and the total time on task was 10.7 hours. Four thousand five hundred forty-five views mean an average of 120 views per video, and also that some participants viewed some videos more than once. As there were 37 informants plus the researcher, the average time on task per person was 16.9 minutes. Considering that the average length of each video was 7 seconds, and that the total amount of video produced was 7 minutes and 46 seconds, 16.9 minutes per participant is a significant amount of time. The number of views and the time on task indicate that student engagement with the task was large. Sixth, a group of participants decided to use the Flipgrid platform to create another warmer for the next class (See Figure 2). This suggests that those informants were satisfied with the platform. Besides, the topic chosen (future plans after the pandemic) showed a hopeful vision of the future. This activity also generated a significant amount of engagement. The time on task was 5.2 hours (an average of 8.4 minutes per person) and 1861 views (an average of 49 views per person).

The responses to the rating scale items of the Moodle survey revealed that the great majority of participants rated the Flipgrid warm-up activities highly (4 or 5) both in general terms and in terms of creating a positive learning environment (see tables 1 and 2). Twelve informants wrote comments. Ten participants wrote remarks that supported the use of Flipgrid. For example: "warmer ideas were good"; "I think that we have enjoyed the warm-up activities"; "Flipgrid is such an interesting activity, I'll use it in my future classes"; "I really enjoyed the warm-ups, I think it is a good way to start a class!"; "Although I had never heard of it, I think Flipgrid is a good tool to use for online classes, especially in a situation like the one we are living now". They also wrote positive comments about online teaching, such as: "I have to congratulate my teacher for the online classroom management, amazing!"; "I enjoyed last two online lessons despite the circumstances you found a proper way of dealing with the situation, thank you"; "It's been great and I want to thank the teacher for being able to adapt himself and his lessons to the current reality. Thank you"; "I liked how you managed to adapt to the circumstances and your positive attitude. It helped a lot"; "Overall I enjoyed the module and was thankful for the lecturer's help when the situation changed to online teaching, he did not stop the classes and tried to make it easier for us". Two participants showed dissatisfaction with online teaching and Flipgrid: "Honestly, I do not like remote teaching, since I am not very good at using applications or programmes"; "I think Flipgrid is a wonderful app to engage teen students. However, older students may find difficulties to use it as the instructions of use are not very clear".

The positive global view about online teaching above mentioned was supported by the answers to the student satisfaction survey. Participants rated the adaptation from face-to-face teaching to online teaching due to the pandemic with an average of 5. As a point of reference, the degree's average on the same item was less than 3.6.

Table 1

On a scale of 1 to 5 (1 being lowest and 5 highest), how would you rate the Flipgrid warm-up activities in general terms?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	2	5,4	5,4	5,4
	4	16	43,2	43,2	48,6
	5	19	51,4	51,4	100,0
	Total	37	100,0	100,0	

Table 2

On a scale of 1 to 5 (1 being lowest and 5 highest), how would you rate the Flipgrid activities in terms of creating a positive learning environment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	5,4	5,4	5,4
	3	7	18,9	18,9	24,3
	4	17	45,9	45,9	70,3
	5	11	29,7	29,7	100,0
	Total	37	100,0	100,0	

Flipgrid is a relatively new platform. There are few studies with which to compare the results, and as far as we know, there are none addressing the use of Flipgrid to creating a positive learning environment during the lockdown. Nonetheless, two aspects of the current study can be compared to previous studies: student engagement and student perception of Flipgrid. Johnson & Skarphol (2018) investigated the effects of digital portfolios and Flipgrid on student engagement and communication in a secondary visual arts classroom. The sample included 25 middle school students and 25 high school learners. The prompt question for the middle school participants involved creating a self-introduction video at the beginning of the semester. In contrast, the high school students had to introduce and talk about their artwork. According to the data provided by Flipgrid, all the middle school informants uploaded a response, and there were 1402 views and 18 hours of engagement. As for the high school group, 21 students uploaded a response, and there were 568 replies and 9,6 hours of engagement. The authors concluded that students put in time and effort and were engaged in the Flipgrid activities. Setting aside the differences between Johnson & Skarphol's (2018) study and the current one, the results are similar and indicate high student engagement. Lowenthal and Moore (2020) conducted a survey study to research students' perceptions of using Flipgrid for asynchronous discussions in online courses. Participants (n=79) were graduate students. Most of them were also teachers. Overall, the majority of students reported that they liked using Flipgrid, which agrees with the results of the current study.

4. Conclusion

The purpose of this study was to find out if a warm-up activity with Flipgrid could contribute to creating a positive learning environment in the online classroom in times of Covid-19. The results suggest that this is the case: (1) student engagement with the Flipgrid warmers is high, (2) there is a prevalence of positive or neutral content in the videos recorded by the participants, (3) most informants rated the Flipgrid warmers highly both in general terms and in terms of creating a positive learning environment, (4) informants wrote positive comments about their experience using Flipgrid, and (5) students gave the maximum rating to the adaptation from face-to-face instruction to online teaching. This is a relevant finding because emotion and cognition are interconnected, and it is essential to use educational strategies that generate positive emotions so that learning is associated with pleasure.

This study has two main shortcomings. First, the number of informants was not large (n=37) and they were selected by non-probabilistic sampling, which limits the generalisability of the results. Second, all participants were computer literate and highly educated. This no doubt helped them to make the most out of Flipgrid without any prior training. In other words, we do not know if less computer-literate and educated informants would have benefited as much from Flipgrid without prior training.

The following directions for future research are suggested. First, it would be beneficial to carry out a partial replication at a different education level, for example, secondary education. Second, inspired by the reading of Tambini et al. (2017) and Bueno i Torrens (2021), it would be worthwhile investigating whether a warm-up activity intended to create a positive learning environment in the classroom can enhance second language learners' performance in a task carried out right after the warm-up.

Ethical statement

The study was part of class work. The author has no conflict of interest to declare.

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Appendix

Objectives of the warm-up activity:

a) To contribute to creating a positive environment.

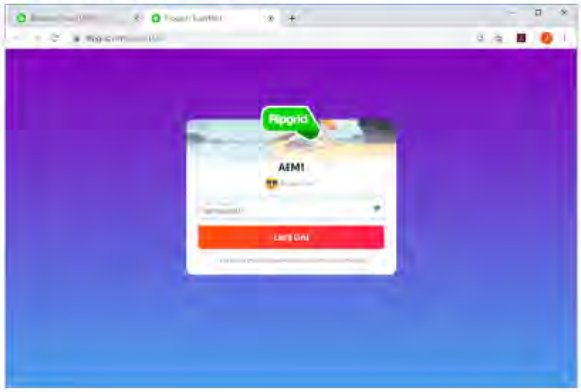
b) To experience how your current or future students would feel in a video-based asynchronous communication environment.

c) To become familiar with Flipgrid (a video discussion tool). Further information is available from https://www.theflippedclassroom.es/flipgrid-discusiones-videos.

Instructions

You can access Flipgrid from a computer or a smartphone.

1. Open the following link: https://flipgrid.com/62261683
2. Enter the grid password:



Suggestion: first, record your video with your phone. Afterwards, upload your video to the app.

Click the three dots menu to upload a video