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**Abstract**

Dialogic feedback demands an active role by lecturers and students to become effective. However, sometimes students do not engage with the feedback received. The use of technology and different channels to provide feedback (using audio and video feedback) in online learning environments could contribute to make students more active with the feedback and improve its effectiveness. The aim of this article is to investigate the use of different feedback channels (text, audio or video) and contrast their impact on academic achievement, as well as to analyse if the feedback channel influences students' perception of feedback in terms of their preferences. A quasi-experimental study was designed, whereby students received feedback both after they had drawn up the first draft of a written assignment and upon its completion. The results suggest that the channel through which feedback is provided does not have a bearing on performance. However, the study does identify significant differences between the quality of the first draft and that of their final submission. With regards to preferences, students preferred the video channel over the audio or written channels. In addition, they perceived video as the channel that is most conducive to greater interaction and dialogue between lecturers and students and that also produces the greatest sense of closeness. The results obtained are discussed in light of their importance in an online environment.

**Feedback as a dialogue: conceptualisation**

Feedback has an impact upon learning outcomes (Azevedo and Bernard, 1995; Hattie and Timperley, 2007). Nevertheless, for this impact to occur, feedback needs to have specific features associated with a formative function. One, it needs to focus on improving learning (Sadler, 1998; Shute, 2008), meaning that it should have both informative and elaborative components (Mason and Brunning, 2001; Narciss and Huth, 2004) with indications on how to improve the activity performed. Two, feedback should encourage reflection on learning progress and should therefore tell students what they have done right and what they need to improve on, providing guidance on how to go about it (Nicol and MacFarlane-Dick, 2006). Three, feedback must be useful, meaning that students can engage with it, becoming active agents by taking advantage of feedback and turning it into improved learning outcomes (Boud and Molloy, 2013; Price et al., 2011; Winstone et al., 2017). Despite efforts made to design feedback, if it does not have an effect on learning, then it is not effective (Dawson, et., 2018). Four, feedback should promote interaction and dialogue between lecturers and students (Carless, 2015; Boud and Molloy, 2013). Fifth and lastly, feedback should be based on trust between students and lecturers, so that students can ask questions, understand feedback and use it to improve their learning (Carless, 2015).

From a socio-constructivist perspective, feedback is a dialogue (Carless et al., 2011; Espasa et al., 2018; Nicol, 2010) with a formative function. From this perspective, dialogue can be promoted by lecturers or by peers but it can also take the form of a self-dialogue or an inner dialogue (Carless, 2015). Nicol (2010) defined this inner dialogue as: "Such inner dialogue would involve students in actively decoding feedback information, internalising it, comparing it against their own work, using it to make judgements about its quality and ultimately to make improvements in future work" (pp. 504). In general, feedback can be understood as a socially-embedded process in which students' prior experience of it affects the use they may make of it (Price et al., 2011).

Dialogic feedback is essential in asynchronous online learning environments, where lecturers and students do not share the same space or time. In these contexts, feedback is crucial in promoting regulation of learning and its monitoring. Feedback may be given as a written text or via video or audio formats. In recent years, studies on the technological means and/or channels through which feedback is offered (written, audio or video) have become more prominent. Most focus on students' perception of feedback channels (Kirschner et al., 1991; Gould and Day, 2013; Ice et al., 2010; Wood et al., 2011; Borup et al., 2012; Henderson and Phillips, 2015); however little research focuses on the impact the various channels may have on the learning process.

**Research about *perceptions* on feedback channels**

Most studies that have focused on students' perceptions of different feedback channels are based on comparing these channels using a range of criteria: the degree of personalization (which channel allows us to facilitate more personalised information to students?), clarification (which channel transmits clearer information?), accessibility (is audio feedback better because you can access it from everywhere or is written feedback better because you don't need to be online to check it?), sense of closeness (audio and video feedback facilitates more sense of closeness than written feedback) and workload (which channel reduces teachers' workload?). The reasons why students perceive that one channel is better than another vary depending on the conditions in which the research has taken place.

In general, studies found that students favour audio rather than written feedback (Kirschner et al., 1991; Ice et al, 2007). Students described audio feedback as more personal, pleasant, complete and clear (Kirschner et al., 1991), and a greater ability to detect nuances and a greater feeling of participation (Ice et al., 2007). Some studies have focused on analysing a combination of audio and text feedback channels. Ice et al. (2010) analysed the perceived value of different forms of providing feedback (audio, text or a combination of the two). Their results indicated that students preferred a combination of the two types. In a study analysing the use of asynchronous formative audio feedback, this was perceived as positive because it fostered emotional engagement between students and instructors (Rasi and Vuojärvi, 2018). Nevertheless, some students continued to regard written feedback very positively, proposing a combination of both audio and written forms as the best way of receiving feedback. The

study of Johnson and Cooke (2016) focused on analysing self-regulated learning and online student preferences regarding written or audio feedback. Although the results pointed to a greater preference for written feedback (because checking audio feedback means having to be online), they also claimed that a combination of both channels would be best.

**Research about the *impact* of feedback channels on learning**

The effects of written and audio feedback on a written assignment were examined and it was found that although there were some improvements associated with audio feedback, the differences on learning were not significant, noting that more research was required to explore the effects of the feedback channel on elements of knowledge elaboration through written work (Gleaves and Walker, 2013). An analysis of the impact of audio and written feedback on learning showed that there were no differences in terms of the feedback channel, although when the impact on performance was analysed, students who did not perfom well in some items, showed an improvement between the first draft and the final version submitted was noted (Morris and Chikwa, 2016).

A review on the use of video feedback in higher education highlighted the lack of studies that focus on the impact of this feedback channel on student learning and performance (Mahoney et al., 2019). The most interesting idea raised was that the use of video feedback does not necessarily entail the establishment of a dialogic process requiring students to engage with the feedback. For this to happen, the design of feedback must be fit for purpose. In addition, the potential of video feedback to promote social presence in a community of inquiry is also highlighted. Thomas et al. (2017) also made clear the social and affective value in promoting closeness between students and lecturers.

Based on the above review, we can summarise that most of the studies about feedback channels are focused on lecturers' and students' perceptions. Recent years have seen the emergence of studies on perceptions of channels: text, audio or video, providing feedback in online environments (Carruthers et al., 2015; Chew, 2014). Nevertheless, interest remains in clarifying which channel is the most useful in providing feedback in this specific context. The study described here goes a step further and looks at the impact on learning that the choice of feedback channel has.

In light of the above, the following research questions arise: does the feedback channel (text, audio, video) used during the development of an argumentative text have an impact on students' academic achievement? Furthermore, does this have any impact on student satisfaction? As prior experience of feedback affects perception, how does the feedback channel influence the students' perception of feedback and what channel is preferred by students?

**Method**

A quasi-experimental design was adopted. The study was conducted at the Virtual Campus of the Universitat Oberta de Catalunya in Spain. This is a fully online university, where interaction between students and faculty is asynchronous and is carried out predominantly in written form. Forums and other group spaces are provided for this to take place.

*Participants*
The study comprised 4 lecturers and 168 students from the bachelor degree in Psychology (72.6%) and from the master degree in Learning Difficulties and Language Disorders (27.4%). Specifically the courses were from the area of Educational Psychology and were chosen because they included an assignment requiring submission of a written text. Data were collected in 2015-2016.

*Procedure*
Students in all courses completed an assignment that required them to write an argumentative text. The students presented a first draft, received feedback on it from the lecturer (via text, audio or video) and then submitted the revised, final version and received feedback on it (via the same channel that they received feedback on the draft: text, audio or video). Lecturers had received specific training in the use of FeedbackTool and the type of feedback they should give students. In line with Guasch et al. (2018), the feedback provided gave suggestions for improvement and was epistemic.

In terms of feedback channels, written feedback was provided with a document attached into *FeedbackTool*. Audio feedback consisted of reading the assignment and the lecturer recording a voice message and sending the audio file to each student. Video feedback was similar, but rather than just the voice, a video recording was made. In two courses, students collaborated in group activities to complete the assignment, whilst in two others, they completed individual activities.

Upon completion, students were surveyed on their experiences of the feedback received. Of the total of 168 students, a sample of 46 was obtained, representing coverage of 27.4%, although it should be noted that the margin of error in the responses stands at +/-12,31, for the overall results, with a level of confidence of 95% in the cases of simple random sampling and maximum uncertainty (p=q=50). In addition to feedback channel, other conditions were controlled: the same lecturer was used for the different conditions in each of the classrooms. Students were assigned to each of the conditions at random.

Concerning group activities, students were randomly assigned to 33 groups of similar size. Each group was assigned at random to one of the three experiment conditions (receiving written, video or audio feedback). These conditions should be regarded as the controlled and compared conditions. In this regard, initial grading of the texts did not point to significant differences depending upon the channel (F=.529; p=0.590).

These procedures met all the ethical requirements. The participants were duly informed of what the study involved and were given the opportunity to decline participation.

*Platform to deliver the feedback*
The university's technology team developed a dedicated tool: *FeedbackTool*. This allowed students to submit their work and made it possible for the lecturer to provide feedback using different channels (text, audio or video).

*Instruments*
Two instruments were developed. Firstly, a rubric was drawn up and agreed by the lecturers from the different courses with regard to the characteristics of the texts. This meant that the assessment was comparable between all cases. Specifically, the agreed rubric assessed three basic dimensions (adapted from Cho and Jonassen, 2011; Jonassen, 2004): a) macro structure of the argumentative text; b) organization of arguments; c) quality, relevance and correct elaboration of arguments. This rubric was used to assess both the draft and the final submission, so that the ex-ante and ex-post data were comparable on the basis of the same parameters. In turn, they were used to guide the feedback provided to students.

The second tool was the questionnaire submitted by the students at the end of the course. This focused on four key aspects to describe the feedback experience: assessment of the feedback received and the specific feedback channel in which they participated; channel preferences; perception of the feedback in general; description of standard feedback practices at the university.

They were asked to rank/rate on a scale of 1 to 10 the extent to which they were satisfied with the feedback given and their experience with the written/audio/video feedback channel. They were asked to indicate their level of agreement on a four-point scale from 'strongly agree' to 'disagree' on the following five statements: 'in general, feedback was useful; it enabled me to complete the task more quickly; it enabled me to improve my work; it enabled me to learn better; it enabled me to be more effective'. Taking into account the channel via which they received feedback, they were asked to indicate their level of agreement on a four-point scale from 'strongly agree' to 'disagree' on the following five statements: 'leads to better comprehension so that I can improve my work; makes the feedback more useful and makes it easier to implement it (to make changes and improvements in the task); fosters interaction and dialogue with the lecturers; fosters reflection on the learning acquired; makes me feel closer to the lecturers, makes me think that they care for their students'.

Then students were asked about their opinion on feedback in general (without taking into account the channel through which they had just received feedback). They were asked which channels they preferred and could choose more than one, and were given the choice to write free text to justify their choice. With the same statements as in the previous question, students were also asked which of the three feedback channels would: 'lead to better comprehension so that you can improve your work; make

the feedback more useful and makes it easier to implement it (to make changes and improvements in the task); foster interaction and dialogue with the lecturers; foster reflection on the learning acquired; make you feel closer to the lecturers, make you think that they care for their student'.

They were asked for their definition of feedback, and to indicate their level of agreement on a four-point scale from 'strongly agree' to 'disagree' on the following eight questions: 'feedback is important during the learning process; it is better to receive feedback before submission (for example, if you send a draft or are asked to provide one); it is better to receive feedback once you have submitted the assignment (immediately after, for example, by giving you the correct answers); it is better to receive feedback once the assignment has been marked (you don't need feedback until you get the marks back); most of the feedback has to consist of corrections (highlighting whether your work has included or not crucial elements, whether the concepts used are correct, whether the answers are correct); feedback needs to include comments that will make you think about the rationale behind certain answers (asking you if you believe that the idea is sufficiently clear, if your examples are suitable); it is important for feedback to provide suggestions (such as how to correct errors, where to find suitable information, giving you examples, suggesting further activities you could complete, such as re-reading literature, or further reading); you could learn more from feedback if you were allowed a second submission of the assignment based on feedback received'.

They were asked how many semesters they had studied to date, and to indicate whether they had 'never', 'occasionally', 'most of the time' or 'always' received feedback on the following three statements: 'before submission (for example, if you send in a draft or you are asked to provide one); once the assignment has been submitted (immediately after, e.g. by giving you the correct answers); once the assignment has been marked (you don't need feedback until you get the marks back)', if they had received feedback via either written/text, audio and/or video and if they had been allowed to submit an improved version after having received feedback on the first submission. They were asked to indicate on a four-point scale from 'strongly agree' to 'disagree' on the following three statements: 'most of the content of the feedback I receive consists of corrections (highlighting whether your work has included or not crucial elements, whether the concepts used are correct, whether the answers are correct); feedback includes comments that make me think about the rationale for certain answers (asking me if I believe that the idea is sufficiently clear, if your examples are suitable); in general, feedback provides suggestions (such as how to correct errors, where to find suitable information, giving you examples, suggesting further activities you could complete, such as re-reading literature, or further reading)'.

*Data analysis*
The following data were collected. One, assignments (students' written texts). Two, results of the ex-ante and ex-post assessment rubrics. Three, students' answers to the questionnaire about feedback perception that was administered at the end of the process.

We performed a descriptive analysis of the results, both univariate and bivariate, and bivariate inferential statistical analysis using the appropriate hypothesis tests for the qualitative variables (chi-squared and adjusted corrected residuals tests), as well as for the relationship between qualitative and quantitative variables (ANOVA and T-Student tests), after testing the normality of the distribution, and based on the Kolmogorov–Smirnov test). SPSS 21 software was used.

We used Fisher's exact test in cases of a response frequency lower than five. To resolve this, we grouped the results of the audio, video and written channels into two categories (audio/video and text). There were two reasons for this decision. Firstly, the grouping was carried out based on the newness of the channel: audio and video are newer channels for providing feedback for students in this type of assignment, as written feedback is generally given. Secondly, it was based on the characteristics of the different channels for sending signals closer to face-to-face interaction (audio and video are closer to face-to-face interaction than the written channel). The Fisher exact test was performed to analyse the impact of prior experience of feedback via different channels (audio/video versus text) on the perception of the channel's impact on feedback's effects. Values $p < 0.05$ were regarded as statistically significant.

Lastly, even though students were asked about their previous feedback experiences in general in terms of the feedback channels used (97.9 had previously received written feedback; 23.9 had received video feedback and 25.2% had received it via audio), this study focuses only on students' prior experience of the channel through which they have received feedback in the quasi-experiment.

**Results**

*Does the feedback channel (text, audio, video) used during the development of an argumentative text have an impact on students' academic achievement? Furthermore, does this have any impact on student satisfaction?*

There was a significant improvement between the first draft and the final version (on a scale of 0-10 points they improved from a mean of 7.114 to 8.1261) (t = -18.045, df: 167, p = 0.000) in terms of the average grade which reflects students' performance. This difference was present regardless of the channel through which the feedback had been provided. Thus, whether feedback was provided via audio (initial 7.059 to final 8.187) (t = -9.923; df = 60; p =.000), in writing (improvement from an average of 7.247 to 8.442) (t = -10.429; df = 52, p =.000), or via video (7.046 to 8.167) (t = -11.012; df = 53; p =.000), the differences were still significant. Therefore, it is possible to affirm that the type of feedback channel used did not have a bearing on the significant difference between the students' initial and final submission given that, in all cases and irrespective of the channel, this significant difference occurred. Figure 1 shows the difference in grades between the students' drafts and final submissions.

Insert Figure 1 here

Satisfaction with the feedback received was high. On a scale from 0 to 10, 86.9% of students rated satisfaction with a score between 8 and 10. Of this 86.9%, 69.5% scored it between 9 and 10. Student satisfaction with feedback was not influenced by the channel through which the feedback was received. The results of applying the ANOVA test indicate that there were no significant differences in satisfaction with feedback received depending upon the channel, no differences between the means of the groups (on a scale of 0-10, a satisfaction mean of 8.47 was audio feedback, 8.9 written feedback and 9 video feedback; F = 0.453, p = 0.638).

*How does the feedback channel influence student perception of feedback? What channel is preferred?*

Firstly, students were asked about the perception of the feedback channel, without taking into account the channel via which they had received feedback. Table 1 shows that, irrespective of the channel via which they had received feedback, a high percentage of students (52.2%) regarded video as the channel that promotes a greater understanding of the assignment; facilitates reflection regarding the learning process (47.8%); makes feedback more useful and easier to understand (52.25%); promotes interaction and dialogue with teaching staff (80.5%) and promotes a feeling of closeness with teaching staff (84.4% of students). Only a very small percentage of students regarded the feedback provided via written text as promoting interaction, dialogue and a sense of closeness with lecturers (4.3%).

Insert Table 1 here

In terms of whether prior experience of the feedback channel had influenced their perception of it, the results indicate that, in some statements, the perception of the channel's impact was mediated by prior experience of the channel through which they received feedback. This mediation occurred with the statements: promotes a better understanding of the assignment; facilitates reflection on the learning process and makes feedback more useful, facilitating its implementation. A more detailed explanation is provided below.

As can be seen from Figure 2, 88.6% of students receiving feedback in audio or video form during the quasi-experiment stated that these were the channels that allowed feedback to promote a better understanding to improve the assignment, and 72.7% of students receiving written feedback selected the written channel as that with an impact upon feedback effects. The relationship between the two groups (those receiving feedback in audio/video or in text form) was significant. Additionally, Cramér's V (.595) indicated a strong relationship.

Insert Figure 2 here

With regard to the feedback channel that can facilitate reflection about learning, 80% of students receiving feedback in audio or video form during the quasi-experiment pointed to these channels as those facilitating said reflection (see Figure 3). Again, 72.7% of those receiving written feedback selected the written channel as the one that made feedback facilitate reflection about learning. This relationship between prior experience during the quasi-experiment and the selection of channel is significant, with a moderate intensity, as indicated by Cramer's V (.480).

Insert Figure 3 here

With regard to which channel makes feedback more useful and facilitates its implementation, 88.6% of students receiving feedback in audio or video form regarded these channels as the ones that would have such an impact on the feedback's effects (see Figure 4). For their part, 72.7% of those receiving feedback in written form regarded this channel as that which had the most impact upon the effects of feedback, such that it refers to this statement. The relationship between prior experience and the perception of the channel's impact, in terms of greater usefulness and implementation, was significant. Furthermore, Cramér's V (.595) indicated a high intensity in this relationship.

Insert Figure 4 here

Up to this point, we have explained the statements in which prior experience of the channel via which they have received feedback influences perception thereof. Nevertheless, there were two statements in which this relationship did not occur: promoting interaction and dialogue and promoting greater closeness with lecturers.

With regard to the feedback channels' ability to promote greater interaction and dialogue between students and lecturers, the results show a general tendency for students to choose the audio/video channel. As noted previously, this tendency was not influenced by experience of the channel through which they received feedback during the quasi-experiment; in other words, it occurred both with those receiving it in audio/video form and those receiving it via the written channel. The relationship between prior experience of the feedback channel during the quasi-experiment and the choice of channel promoting interaction and dialogue was not significant (Figure 5). In this case, it can be said that the channel through which students receive feedback did not have an influence on their responses.

Insert Figure 5 here

In a similar vein, there was a general tendency to select the audio/video channel as that promoting a greater feeling of closeness with lecturers. Students receiving written feedback classified the audio/video channel as that providing a better feeling of closeness. In this case, the relationship between the channel through which feedback was received during the quasi-experiment and student responses was not significant (see Figure 6).

Insert Figure 6 here

To sum up, when asked to evaluate feedback channels, students' opinions were significantly influenced by the type of channel they had experienced. That is, perceptions of the effect of a given channel were influenced by the channel through which they had received feedback. This is the case with statements associated with 'promoting a better understanding to improve the assignment, facilitating reflection on the learning process and making feedback more useful'. However, it was not the case for the results

related to the video channel regarding two statements: 'it facilitates greater interaction and dialogue between the lecturers and the students' and 'produces a greater sense of closeness'. These results were not influenced by the channel through which the students received feedback.


**Discussion and conclusion**

The aim of this study was to analyse, firstly, the effect of different feedback channels on learning and, secondly, whether students' prior experience of a feedback channel influences their perception of feedback. Looking at the first aim, the results indicate that there is no such effect. In other words, all three feedback channels had an equal impact upon student academic achievement. Nevertheless, the results do point to an improvement between draft and final submission. These results support the findings by Morris and Chikwa (2016) who, in a study on student preferences with regard to feedback via the audio or written channels and the impact of each type of feedback on subsequent performance, found that the channel did not have such an impact, although receiving feedback during the process did. Whilst our study does not allow us to state that any improvements are exclusively due the feedback received, it would appear that improvement is associated with two key elements: giving students the opportunity to resubmit work after feedback and providing them with formative feedback (Shute, 2008), that is, feedback aimed at making improvements which facilitates dialogue and reflection. One of the future lines of research arising from this work would be the need to obtain evidence to help us better understand which factors influence engagement and specifically, teaching and learning processes taking place in online environments.

Regarding the second aim, the results vary. Prior experience of feedback influences how students perceive it (Price et al., 2011). The results of our study make it clear that students receiving feedback via video/audio prefer this channel when asked which one they preferred for promoting greater understanding of the assignment, facilitating reflection and making feedback more useful. The same is the case with the written channel. As previous experience of a feedback channel influences the students' perceptions, the preference of one channel over another is linked to the fact that students are more familiar with their preferred channel. However, there are two statements where prior experience does not affect the assessment of feedback made by students: even when they had received written feedback, participants regarded the video channel as better suited to promoting dialogue and interaction and greater closeness with lecturers. This preference for video for establishing greater dialogue and interaction between students and lecturers could be linked, to a certain extent, to how familiar students were with interacting with others face-to-face. Our results could be complemented with the findings by Mahoney et al. (2019), who note that the use of video feedback does not necessarily entail the establishment of a dialogic process requiring students to engage with feedback. For this engagement to happen, improvements to feedback design are required.

In terms of creating closeness between students and lecturers, the review by Mahoney et al. (2019) acknowledges that video can provide a response to this and it may foster social presence within what is known as a community of inquiry (Garrison et al., 2000). The human voice has a strong influence upon perceived social presence (Garrison et al., 2000). Although the majority of studies on the community of inquiry have shown that a social presence can be established via text, they have also indicated that it is more easily established when there are vocal, non-verbal cues. So, it could be said that audio has more social communication cues than written texts, but fewer than video, where visual cues (such as facial expression, body language, etc.) give support to the context for verbal interaction. Creating a social presence in online environments may help students to overcome the feeling of loneliness that they may occasionally experience when following online courses.

Along the same lines, the use of video feedback can also help build the trust which, it is argued, is necessary for feedback to be effective and for students to be able to take advantage of it (Carless, 2015). In this regard, one future line of research could focus on how video feedback should be given to build this trust between students and lecturers participating in asynchronous and written communication-based learning processes. There is also a need to obtain evidence allowing us to better define video's potential for creating a social presence in online communities of learners. All this whilst recognising the challenge of ensuring that the use of video feedback does not create a greater workload for teaching staff.

Although not focusing specifically on feedback, there have been differing views about some debate about whether or not the medium influences the learning outcomes (Clark, 1994; Kozma, 1994). In our study, acknowledging that students' use of the different channels was highly specific and that, perhaps, the full potential of the different channels used for providing feedback had not been leveraged, students did regard video as a useful channel for certain purposes (creating a feeling of closeness with lecturers and establishing interaction and dialogue with them). Beyond these specific purposes, the results help to clarify the fact that the particular channel is not important; what is really important is to provide dialogic feedback during the learning process and plan time for students to implement it.

This article focuses on students' perceptions of the impact of channels used to provide feedback on a specific type of assignment: a written argumentative assignment or task. Although the results indicate that the particular channel through which feedback was provided did not influence learning, in this specific context, future research into the role of these channels in other types of tasks and content is necessary. In this study, the assignment was an argumentative text, but in other types of tasks with greater visual content or where certain procedures could be illustrated, might the channels have some effect? Besides this limitation, there are other in this study including the fact that data were gathered only from one particular type of university (a fully online one). Future work is needed which looks at different types of university and in different contexts given that feedback and engagement may vary according to culture. The number of participants/students was small and so studies with larger student numbers is needed.

To conclude, firstly, the results with regard to the different channels used to provide feedback may be useful for decision-makers in either fully online or blended environments. Any decisions taken should bear in mind the proposed purpose of each channel since, as our results make clear, in certain situations, students have a clear preference for one channel over another. Secondly, prior experience of feedback affects students' perceptions thereof. This has two important implications. In terms of research, we can say prior experience of feedback needs to be taken into account in research analysing its impact. This means that pre-test assessments need to gather information on students' prior experience of feedback, as this may affect the results obtained. With regard to instructional design, it is important to note that if students' prior experience of feedback is positive or negative, it may influence whether they engage or disengage with feedback.

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Table and Figures

**Table 1. Percentage of students responding to the question: "In your opinion, which feedback channel…"**

|  | Audio* | Text* | Video* |
|---|---|---|---|
| **Promotes a better understanding to improve the assignment** | 21.7% | 26.1% | 52.2% |
| **Facilitates reflection on the learning process** | 19.6% | 32.6% | 47.8% |
| **Makes feedback more useful and facilitates its implementation** | 21.7% | 26.1% | 52.2% |
| **Promotes interaction and dialogue with lecturers** | 15.2% | 4.3% | 80.5% |
| **Promotes a feeling of closeness with lecturers** | 10.9% | 4.3% | 84.8% |

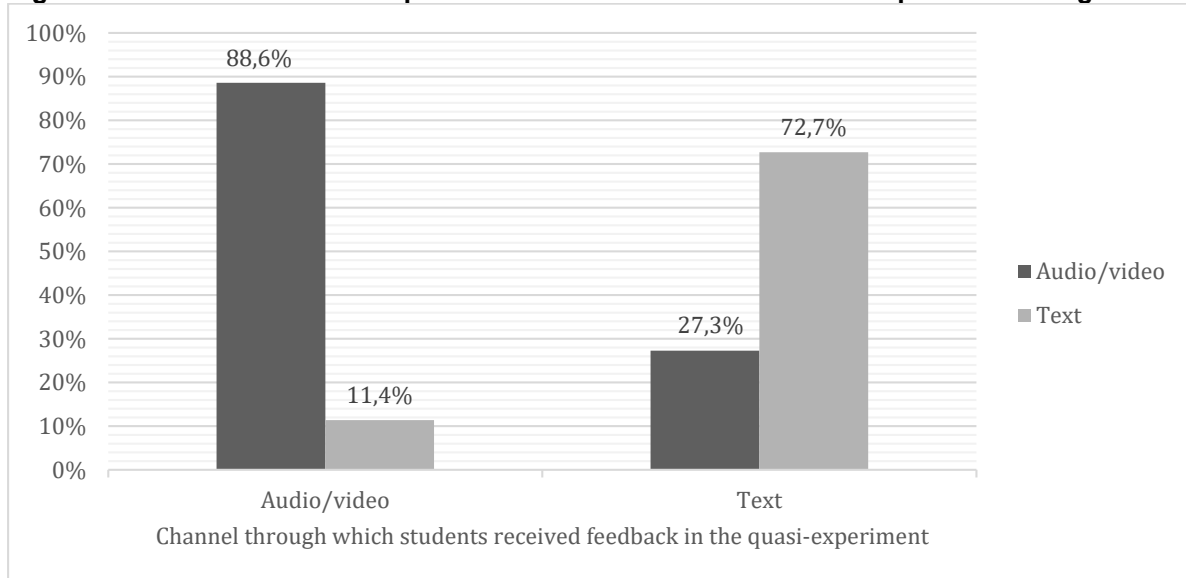**\* Percentage of students that declared to agree or strongly agree with each statement.**

**Figure 1. Grade variation according to feedback channel**
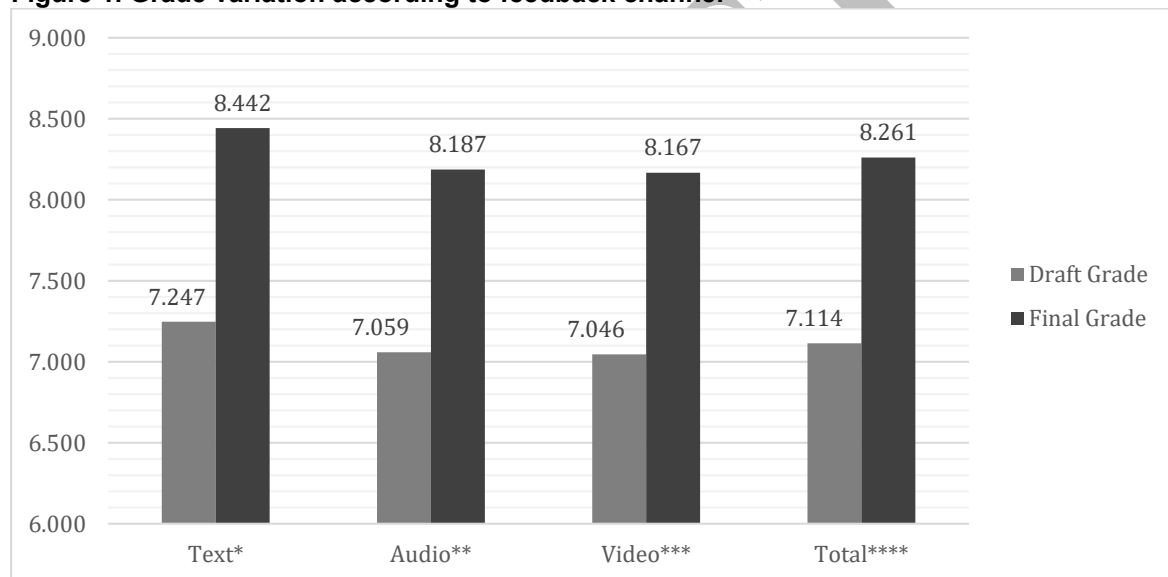


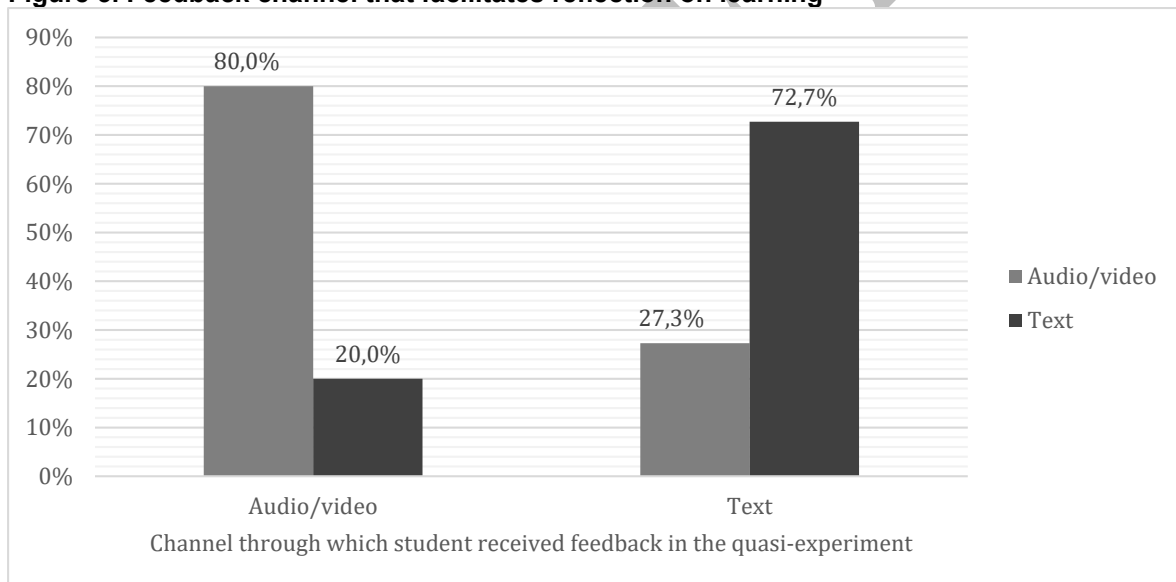*\* t(53)= -10.429, p < 0.001; \*\* t(61)= -9.923, p < 0.001; \*\*\* t(54)= -11.012, p < 0.001; \*\*\*\* t(168)= -18.04, p < 0.001*

**Figure 2. Feedback channel helped students better understand and improve the assignment**
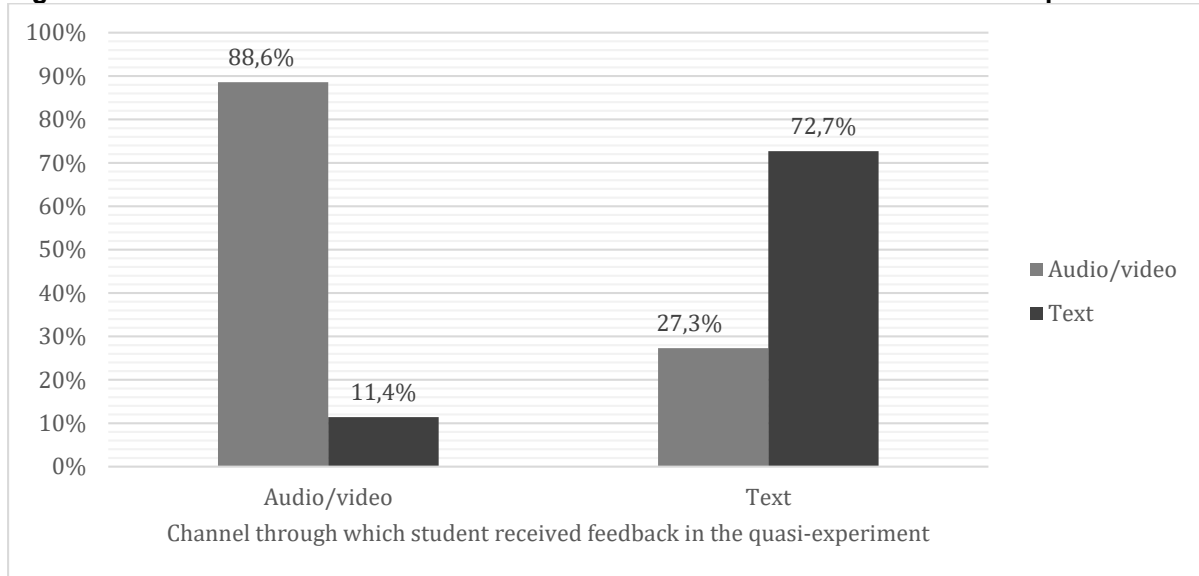


*X²(1, n=46)=16.311, p=.000*

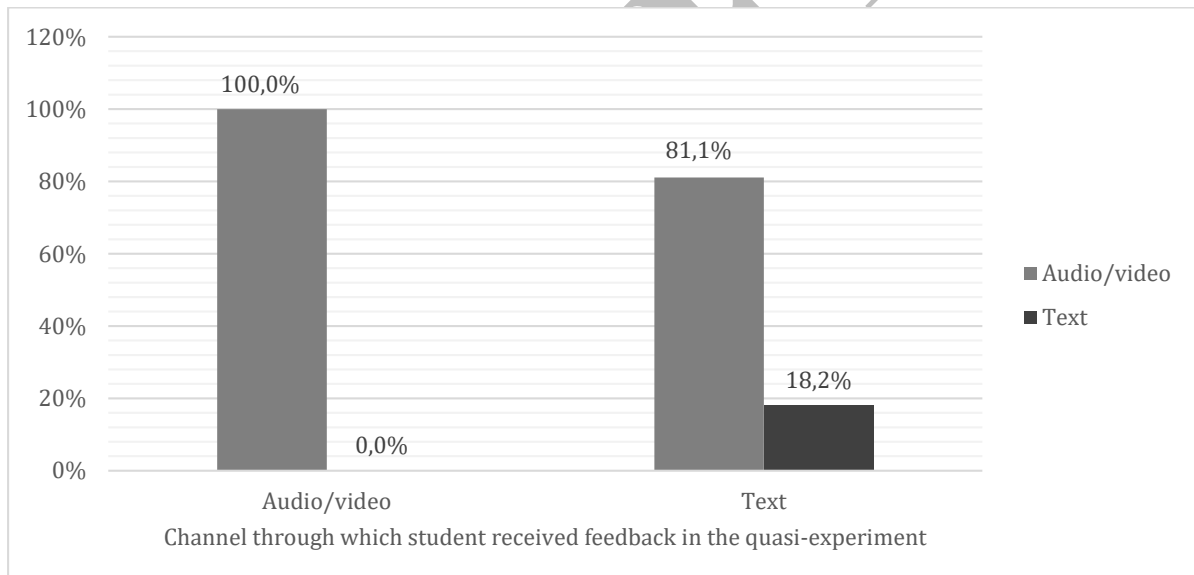**Figure 3. Feedback channel that facilitates reflection on learning**



*X²(1, n=46)=10.589, p=.001*

**Figure 4. Feedback channel that makes feedback more useful and facilitates its implementation**
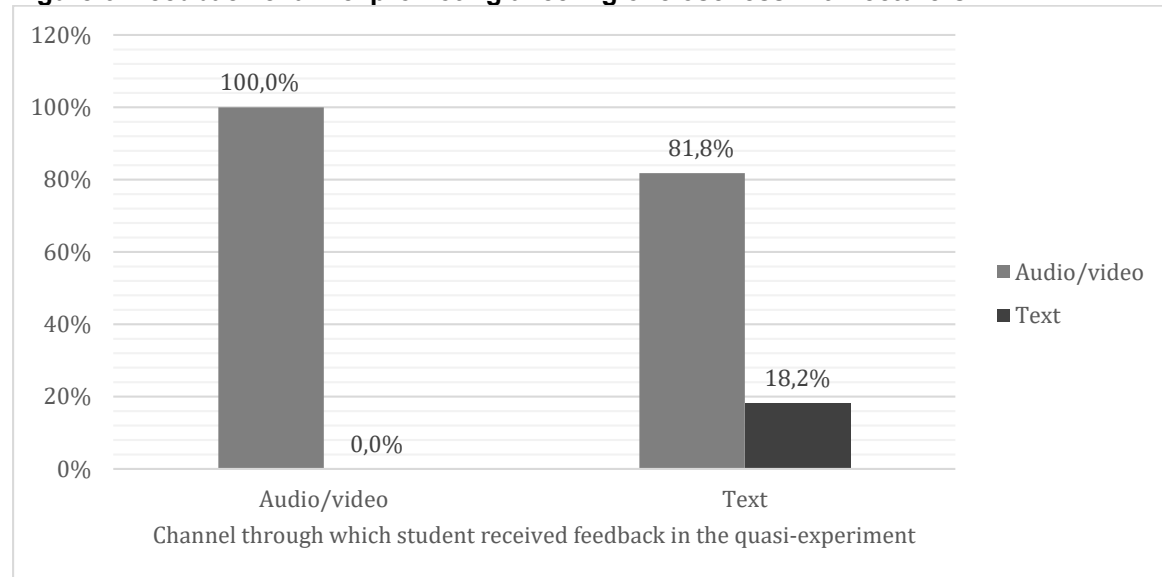


$X^2(1, n=46) =16.310\ p=.000$

**Figure 5. Feedback channel that promotes interaction and dialogue with lecturers**



$X^2(1, n=46)=6.653,\ p=.010$

**Figure 6. Feedback channel promoting a feeling of closeness with lecturers**



$X^2(1, n=46)=6.653, p=.010$