

Effects Of Audio Feedback In An Online Assessment In Students' Academic Motivation

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RESEARCH ARTICLE

Abstract

Many research has revealed that feedback has a big impact on students' learning and is the most effective single moderator of achievement enhancement. Hence, this study aimed to determine the effects of giving audio feedback in an online assessment on students' academic motivation. The participants in this study are 49 senior high school students who have the same online assessments. A mixed-methods research design was utilized in this study. The results showed that there was no significant difference in academic motivation between the students before and after applying the audio feedback in their online assessments and were indicative of high academic motivation throughout the experiment. However, the students' experiences revealed the following factors: (1) Student Emotional Engagement; (2) Comprehensive Understanding through Audio Feedback; (3) Students' Receptiveness in Audio Feedback; (4) Utilization of Feedback in Improving Students' Work; and (5) Improve Students' Motivation. Overall, even though the audio feedback doesn't greatly affect the students' academic motivation, it still creates a better experience in providing feedback to the students as it is used for their improvement on their online assessment. This study has broad implications in the online learning environment and creates new paths that teachers may take in giving feedback in their online assessment to make it personalized and comprehensible for the improvement of students' work.

Keywords: Audio Feedback, Online Assessment, Teaching and E-learning

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1 Introduction

Feedback plays an important role in providing meaningful evaluation towards the assessment of students' work. It allows students to reflect on their performance and improve the quality of their output through given feedback. It has a big impact on student learning and has been described as "the most effective single moderator of achievement enhancement" (Hattie, 1999). The feedback gives the students a better outlook on how they performed on their assessments and activities.

In a normal classroom setup, the teachers give written and oral feedback directly to the students' activities. However, due to the current modalities of learning, students and teachers communicate primarily online. All submitted activities are sent and shared mostly through the use of a learning management system (LMS). Students want specific and detailed feedback from their teachers (Balaji & Chakrabarti, 2010). Most of the time, with the use of LMS, students receive numerical scores without any vague feedback from their teachers. This makes it difficult to interpret what they are lacking from the assessment that they have worked on.

The recording and dissemination of spoken feedback on a student's work is known as audio feedback. This approach has been tested in recent years to improve feedback and promote successful assessment methodologies. The use of audio to provide students with quick access to more comprehensive advice regarding their work is a clear example of feedback. In a study, researchers analyzed online graduate classes in which professors used Adobe Acrobat Pro to insert audio commentary into students' texts. Students were able to discern ambiguity more accurately, appreciate material more fully, and communicate with the teacher on a more intimate basis when given audio feedback rather than written feedback (Ice, Curtis, Phillips, & Wells, 2007). Although audio feedback is not new in the education field, students have little to no experience with that mode of feedback. They were not able to receive a comprehensive evaluation of their work using the audio feedback.

The use of audio in e-assessment tools has been shown in the literature to be an important method of delivering positive input to students. There is a lot of research on how audio feedback is evaluated and how reliable it is compared to handwritten feedback. In most research studies, when feedback is delivered as an audio file, more words of feedback are given, and students prefer this mode of feedback because they can hear the emphasis in the voice of the evaluator (Chalmers, MacCallum, Mowat, & Fulton, 2014). The voice of the teacher will help the student further understand their work and feel the presence of their teacher.

For many years, instructors have utilized cassette recordings, particularly in support of distance learning (Kelly & Ryan, 1983). Audio can boost meaning and express the instructor's passion (Durbridge, 1984). Cassette recording feedback saved the teacher time and helped capture and share thoughts while communicating subtle meanings more spontaneously and immediately (Cryer & Nakumba, 1987). Today, students are receptive to getting feedback in the form of audio. When compared to receiving textual comments in person, students are up to ten (10) times more likely to access audio files online (Lunt & Curran, 2010). Audio feedback can be an effective way to address students' feedback needs. These expectations may be addressed through feedback, which can be more personal, in-depth, and engaging as well (King, McGugan, & Bunyan, 2008). Now, there are different tools that can be used to provide audio feedback, such as Kaizena, Audacity, Mote, Talk and Comment, and others, that are beneficial for both students and teachers in the online classroom. These audio feedback tools can give timely and personalized feedback to the students.

However, individualized audio feedback is not appropriate for all sorts of graded work. It is best for lengthier, more thoughtful evaluations like essays, but not so much for short, limited tasks where group feedback demonstrating shared strengths and shortcomings could be more relevant. Students have also complained about trouble following the feedback, the length of time it takes to listen to the comments, and the difficulty of skimming the comments and returning to certain topics afterward (Parkes & Fletcher, 2014). Audio feedback has the disadvantage of not including visual representations of the work, making it less evident to students which sections of the assignment the instructor's remarks pertain to (Mayhew, 2017). There will always be a limit in every mode of feedback. That is why it is necessary for the teachers to use more than one feedback from their students' assessments.

As the number of students enrolled in online classes has increased due to the new setup in education, so has their scholarly curiosity in their academic motivation (Dabbagh & Kitsantas, 2004; Greene & Azevedo, 2007). Academic motivation has been operationalized in many ways from a variety of scientific viewpoints (Graham & Weiner, 1996), but it usually applies to students' movement toward and participation in learning practices. Without academic motivation, students will not be able to acquire the necessary learning competencies that they need, which leads to poor academic performance.

Academic motivation is also the driving force behind activities that are linked to academic functioning and achievement, such as how much commitment students put forward, how well they manage their time, which endeavors they want to undertake, and how persistent they are when confronted with challenges (Schunk, Meece, & Pintrich, 2012). If students are motivated, they will perform better in their assessments and their learning will have a long-lasting effect on

their lives.

Motivation plays a crucial role in the performance of students towards learning. It is referred to as the "driving force" of school learning, and it is often regarded as a determining element in how students learn their academic achievement and the kind of goals, they set for themselves (Ormrod, 2003). Motivation has a multi-dimensional structure in education, and it is linked to learning and academic motivation (Mahram, Saketi, Masoudi, & Mehrmohammadi, 2006). People are motivated to finish an assignment, achieve a goal, or obtain a degree or certification in their professions when they are motivated. As a result, motivation explains the reasons for people's actions and dictates why they act in a certain way. Motivating activities are energizing, goal-oriented, and long-lasting (Santrock, 2006). Teachers who are using different methods can motivate their students. If the learning process is the same all year, the students will not be excited to attend classes. That is why motivation can make the learning process effective.

Academic achievement is predicted by cognitive involvement but not by emotional or behavioral involvement. Furthermore, academic self-efficacy and academic motivation have a favorable and substantial link to academic success (Dogan, 2015). Also, higher levels of intrinsic motivation were linked to higher levels of subjective well-being, life meaning, and academic success (Bailey & Phillips, 2016). Motivating the students is one way to provide a meaningful learning experience for the students where they are encouraged to perform at their best, which helps them achieve academic success. Based on the Academic Motivation Scale results, Filipino senior high school students have above average academic motivation. There is also no correlation between stress, motivation, and academic performance (Tus, 2020). It seemed that the students' stress and motivation had no impact on their academic performance.

The Department of Education provides different delivery modalities for learning as it opens the classes for the school year 2020–2021 amidst the COVID-19 pandemic. This allowed the teachers and students to do online distance learning where they interact with each other virtually. Most of the tasks given to the students are online. Despite the new setup of learning, teachers still used written feedback in evaluating the output of the students. The researcher aims to apply audio feedback to the student's online assessment to determine its effects on their academic motivation. The students' contentment, performance, and feeling of community in an online setup are all influenced by their contacts with their instructors, including the sort and frequency of feedback they get on assignments and course content (Gallien & Oomen-Early, 2008). The lack of feedback can increase the learning gap of the students as most of the subjects limit the learning goals for their specific grade level to what the DepEd recommends using the Most Essential Learning Competencies (MELCs).

This study aimed to determine the effects of audio feedback in an online assessment of Senior High School Students in Manila in their Academic Motivation. Specifically, (1) the students' academic motivation before and after applying audio feedback in an online assessment; (2) the significant difference between the students' academic motivation before and after applying audio feedback in an online assessment; and (3) experiences of students regarding audio feedback in their online assessment.

2 Methodology

2.1 Research Design

This research employed a mixed-method design, which is a combination of quantitative and qualitative approaches to collect and analyze data (Creswell & Tashakkori, 2007). Because mixed-method design gives complete and thorough data to meet the study objectives and answer the research questions, combining quantitative and qualitative approaches is becoming more prevalent in research (Bryman, 2006). An explanatory model was used in this study, which included quantitative data gathering first, followed by qualitative data gathering. This method was used to get a clearer image of the quantitative data and then use the qualitative data to better comprehend and explain the research goals. For mixed-methods, a questionnaire and a semi-structured interview were employed as research instruments to gather quantitative and

qualitative data, respectively. The questionnaire data were examined with descriptive statistics, and the interview findings were coded and analyzed to answer the research question. Therefore, combining the two methods may give detailed and complete data for the interpretation of results.

2.2 Participants

The participants in this study were 49 senior high school students who are enrolled in a private school. They took the same course program, which is Digital Media and Information Literacy, to have the same online assessments. The individuals are diverse in terms of their chosen strand in senior high school and academic performance. A non-probability sampling technique was utilized in this research, specifically convenience sampling.

2.3 Research Instruments

The first instrument used in this study was the Academic Motivation Scale (AMS). It was a scale developed by Vallerand et al. (1992) to measure high school motivation. It has seven subscales and 28 items that are graded on a five-point scale. Cronbach's alpha coefficients for the AMS subscales were found to be in the range of 0.71 – 0.84. Furthermore, the composite reliability of the AMS subscales ranged from 0.73 to 0.86, indicating that the scale is reliable (Utvær & Haugan, 2016). The second instrument used was a researcher-made questionnaire to gather the additional information from the participants. The draft questionnaire was drawn up based on the researcher's readings, published articles, and journals relevant to the research questions of the study. The instrument underwent a series of peer evaluations from four different researchers in the field of education. Peer group verification is as good as statistical confirmation (Denzin & Lincoln, 2005). Employing these four skilled moderators helped the researcher overcome any biases and ensure that the data was genuine. These open-ended questions are those that do not present participants with a fixed set of response options, instead enabling them to respond in their own words (Allen, 2017).

2.4 Phase of Data Gathering

The researcher secured a written permit to conduct research in the school directly from the administration or the principal. For the school's approval, letters were given to the officials, signed by the researcher and the adviser. After giving permission, the researcher explained the purposes of the study to the selected students as participants in the study. They received a letter of consent in the Google forms, whereas their participation is entirely voluntary. The researcher explained the benefits of participating in the study, wherein they experienced different modes of feedback, such as audio feedback on their online assessment.

The researcher used a pre-test about the academic motivation of the students through the use of the survey questionnaire, the Academic Motivation Scale for High School (Vallerand et al., 1992). The participants typically received written feedback by the 3rd quarter of the semester. The researcher applied audio feedback as a mode of evaluating the online performances of the participants in the 4th quarter. After all the evaluations, the researcher conducted a post-test about their academic motivation using the same instrument. The data from the pre-test and post-test was used to determine the significant differences in audio feedback in the academic motivation of the participants. They also answered open-ended questions to further explain the effects of the audio feedback from their online assessments on their academic motivation.

2.5 Methods of Data Analysis

This study utilized the mixed method of data analysis, specifically an explanatory sequential approach. It used descriptive analysis to determine the level of academic motivation of the students before and after the use of audio feedback. The inferential statistic was also used in this study, specifically the Paired Sample T-Test, to determine if there was a significant difference in the students' academic motivation before and after the use of audio feedback in an online assessment based on the two samples of the Academic Motivation Scale. The results of these quantitative data were done using JASP, a free and open-source program for statistical analysis.

Moreover, thematic analysis was used in this study for the qualitative data. It focuses on identifying, analyzing, and documenting patterns (or "themes") in the responses of the students regarding the use of audio feedback. Themes are patterns seen in several responses that are essential for describing phenomena and are linked to a specific issue.

3 Results and Discussion

This study used descriptive analysis to compare the level of academic motivation of the students before and after the use of audio feedback.

Table 1 shows the level of academic motivation of the senior high school students before and after applying the audio feedback on their online assessment. The results indicate that the students' academic motivation before applying the audio feedback (M = 5.421, SD = 0.654) and the students' academic motivation after applying the audio feedback (M = 5.443, SD = 0.665) are above average.

Table 1. Descriptive Statistics of the Academic Motivation of the Senior High School Students (N= 49)

	<i>f</i>	Mean	Description	SD
Before Applying the Audio Feedback	49	5.421	Above Average	0.654
After Applying the Audio Feedback	49	5.443	Above Average	0.655

Furthermore, these results were indicative of the student's high academic motivation even before applying the audio feedback, and it only changed a little after applying the audio feedback in their online assessment. Inferential statistics were also used in this study, specifically the Paired Sample T-Test, to determine if there was a significant difference in the student's academic motivation before and after the use of audio feedback in an online assessment based on the two samples of the Academic Motivation Scale.

Table 2 presents the result of the paired sample t-test to examine the difference in the mean scores of the level of academic motivation of the senior high school students before and after applying the audio feedback in their online assessment. The test yielded a p-value of 0.748, which is greater than 0.05, and therefore, the researcher failed to reject the null hypothesis. Evidence suggests that there is no significant difference between the student's academic motivation before (M = 5.421, SD = 0.654) and after (M = 5.443, SD = 0.665) having audio feedback in their online assessment. The findings above reveal that audio feedback does not greatly affect the academic motivation of the students. Even though there are no significant differences, the mean score of the academic motivation of the students still has a small improvement before and after applying the audio feedback. There are five emergent factors that pertain to exploring how audio feedback affects the student's academic motivation in an online assessment that was extracted in this study: (1) Student Emotional Engagement; (2) Comprehensive Understanding through Audio Feedback; (3) Students' Receptiveness to Audio Feedback; (4) Utilization of Feedback in Improving Students' Work; and (5) Improving Students' Motivation.

Table 2. Paired Sample T-test of the Academic Motivation of the Senior High School Students before and after applying the audio feedback. (N= 49).

Setup	N	Mean	SD	p-value	Decision	Verbal Interpretation
Before Applying the Audio Feedback	49	5.421	0.654	0.748	Failed to Reject Ho	There is no significant difference
After Applying the Audio Feedback	49	5.443	0.655			

*Significant at 0.05 level of significance

3.1 Student Emotional Engagement

Most of the students felt the audio feedback was more personalized, despite having an online setup during this pandemic. The audio feedback limits the barrier of distance learning and also increases the emotional engagement of the students as they are able to listen to the tone of the teacher. One of the students mentioned, ***"I actually liked it because it made us feel that our works were really seen and appreciated. It made us feel like nothing changed in our education even though we are still in the middle of a pandemic. It was also a good experience because we get to hear and feel if our teacher really meant what he said and it also kinda gave me an exciting feeling because the audio feedback is not something that we can just give a read through, it makes the feedbacks more appealing and more chance to be heard and learn from"*** and another student said, ***"The use of audio feedback felt more personalized for me especially that we cannot meet our teachers face-to-face. It made me appreciate their efforts in reaching out to us while giving advice about our works..."*** This also supports other studies that show audio feedback is recognized as more personalized (Dixon, 2009; Ice et al., 2007; Lunt & Curran, 2010; Merry & Orsmond, 2008; Nortcliffe & Middleton, 2008; Rotheram, 2007).

3.2 Comprehensive Understanding through Audio Feedback

Students better understand the evaluation of their teacher through audio feedback. As it gives more details of explanation with regards to how they received their marks from the online assessment and also how they will learn better from the activity given through this mode of feedback. The student mentioned, related to this theme, ***"My thoughts about the applied audio feedback in my online assessment actually helped me understand thoroughly the thoughts and suggestions of my teacher that'll help me become more aware of the pros and cons of doing such activity. My experiences in having audio feedback in an online assessment made me understand more and lessen the questions asked regarding the online assessment that I did..."*** and another student said, ***"It was very different, but in a good way. It gave a detailed review of our work rather than just seeing numbers based on the criteria, it explained why those numbers came to be..."*** This is supported by a similar study on audio feedback that allows teachers to provide more detailed feedback in the assessment that leads to a better understanding of the lesson (King et al., 2008)

3.3 Student's Receptiveness on Audio Feedback

Although audio feedback is new to students, they find it meaningful and interesting to listen to. Students have a good perspective towards audio feedback as they find it helpful and relate it to face-to-face classes as long as it is clear and understandable. One of the students said, ***"Okay lang po. Para pong nasa klase lang na may pinakikinggan. Minsan po kasi may mga taong tinatamad magbasa kaya very helpful po yung audio feedback."*** and another student mentioned, ***"I haven't received audio feedback before so the feedback that you gave us was my first time receiving one. It was great because I understood the audio well..."*** The clarity of the audio feedback plays an important role in accepting suggestions and feedback from the teacher.

3.4 Utilization of Feedback in Improving Students' Work

Students appreciate the use of audio feedback as it gives them an opportunity to improve on their work based on the suggestions of their teacher. The feedback plays an important role in providing a better understanding of where they need to improve and what they have accomplished well, which is based on the set criteria of the teacher. In relation to this theme, a student mentioned, ***"With the use of audio feedback, comments on my work were given, highlighting where I excelled and explaining what aspects and areas have room for improvement."*** The use of audio feedback helps the students perform better (Rodway-Dyer, Knight, & Dunne, 2011). The content of the feedback will guide the students to improve their work in the future as they will use it as a reference in their assessment.

3.5 Improve Students' Motivation

Motivating students in an online setup is one of the problems that teachers might face. Using audio feedback, students can stay motivated because they can hear the voice of their teacher

while explaining the evaluation on their online assessment. In this theme, students mentioned, *"...mas na-motivate po akong gawin ng mabuti ang dapat ko pa pong i-improve kasi parang pag-audio feedback po kasi, parang may kausap ka po."* and another student said, *"I got this feeling that it makes me proud of myself if I hear feedback from other people by hearing their feedback..."* Audio feedback offers a powerful way to direct students to be motivated. Motivating and encouraging feedback has a beneficial impact on a student's emotional response to feedback, which determines his or her willingness to interact with it (Handley, Price, & Millar, 2011; Winstone, Nash, Parker, & Rowntree, 2017).

4 CONCLUSIONS

The main objective of this study is to determine the effects of audio feedback in an online assessment on students' academic motivation. The levels of academic motivation of the students before and after applying the audio feedback in their online assessment are both above average. Regardless of the current learning environment and in the midst of a pandemic, students remained academically motivated by their studies, whether audio feedback was used or not. It also shows from this study that the researcher failed to reject the null hypothesis as it proves that there is no significant difference between the academic motivation of the students before and after applying the audio feedback. Although it does show a small improvement in the academic motivation of the students, However, the audio feedback is a great experience for students as the researcher found out that: (1) students felt the connection was personalized with the audio feedback due to the tone and voice of the teacher; (2) students have a better understanding of the feedback as it gives more details of explanations on the online assessment; (3) students are willing to accept changes and suggestions in the form of audio feedback despite the new approach to feedback; (4) students prefer audio feedback to improve their academic performance as they hear what they need to improve on their activities; (5) students are encouraged to do better as they are praised and motivated by their teacher through audio feedback. Overall, even though the audio feedback doesn't greatly affect the students' academic motivation, it still creates a better experience in providing feedback to the students as it is used for their improvement on their online assessment.

5 RECOMMENDATIONS

Based on the findings and conclusion, the researchers therefore recommends that teachers use audio feedback in some of their online assessments as it provides personalized and comprehensible feedback for the improvement of students' work. Also, for curriculum developers, since the nationwide implementation of learning delivery modalities in this pandemic is mostly online, it is better to be open to different modes of feedback that the teacher can apply in their respective classes. This will help fill some gaps between the teacher and students in distance learning. Lastly, to test the other factors that can affect the academic motivation of the students and further studies regarding the other modes of feedback that can be used in an online assessment to improve the students' academic motivation.

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