

An Integrated Framework for Assessing Oral Presentations Using Peer, Self, and Instructor Assessment Strategies¹

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Abstract

Instructors offering oral presentation courses are always looking for ways to give constructive feedback to students to help improve their presentation skills. In most cases, assessments by instructors and peers as well as self-assessments are used to evaluate student presentations. We used a combination of peer, self, and instructor assessment strategies in a presentation course offered at the Iowa State University. The first author developed a 10-point Likert type scale with 10 items related to presentation skills. A paired samples t-test analyzing student ratings of their perceived skill levels on these 10 variables indicated a statistically significant improvement between the beginning of the semester and at the mid-semester using data collected at the mid-semester. In addition, qualitative data was used to judge student improvements in presentation skills. The integrated assessment strategy that was employed in this presentation course is presented in this paper. This integrated assessment strategy has implications for instructors and students in oral presentation courses striving to improve presentation skills.

Introduction

After graduation, students need oral presentation skills to succeed in the workplace. Employers are looking for graduates with excellent oral presentation skills (Alshare and Hindi 2004). Martin-Young (1996) stated that the business and industry leaders look for oral communication skills in all entry level workers. Ghimire (2010) concurred that communication skills are important for people entering the workforce. Therefore, it is imperative for the educational institutions to help students develop oral presentation skills. To achieve this end, the Department of Agricultural Education and Studies in the College of Agriculture and Life Sciences at the Iowa State University has designed a presentation course. This course titled 'Presentation and Sales Strategies for Agricultural Audiences' is a required course for all majors in the college.

Instructors offering such presentation courses design various strategies to maximize improvement

in students' presentation skills to the extent possible within a semester. In this case, instructor and student peers used presentation evaluation rubrics to assess each student's presentation performance. Peer feedback and an individual student presentation video record were given to the presenter at the end of his or her presentation for self-assessment. Instructor assessment alone was used for grading.

Patri (2002) stated that peer assessment and self-assessment techniques have significant merit in terms of pedagogical value, and have been found to improve various aspects of student learning (Dochy et al., 1999). These two assessment strategies add value to instructor feedback. Assessment by the instructor alone has been in use for a long time, and has its own strength of giving more reliable feedback and grades. Sterling (2008) opined that instructor assessment helps student to accurately understand the subtler things.

Literature suggests that each of these three assessment strategies has its own set of advantages and disadvantages (Papa, 2010; University of Technology Sydney, 2007). Peer assessment helps students become autonomous learners and critical analyzers (University of Technology Sydney). Furthermore, students consider peer assessments fair and relevant because input is from their peers (The University of Sydney, n.d.). In addition, peer assessments add cognitive and meta cognitive value to students (Topping, 1998). However, peer assessment may not always have the same quality as an assessment by an instructor (Topping) because students may not take the assessment process seriously and may allow friendships to influence their judgment (University of Technology Sydney, 2007). Similarly, self-assessment has been found to be biased by subjectivity, lack of accountability (Papa, 2010) and reliability, and it has the danger of inflating grades (University of Sydney, n.d.). Nonetheless, self-assessment does promote personal growth and gives insights into one's own strengths and weaknesses (Papa). Regarding the instructor assessment strategy, it gives a single perspective and may sometimes be prone to the subjectivity of one person. But, it eliminates any intentional biases. The inherent strengths and weaknesses in each of these assess-

¹This article is a product of the Iowa Agriculture and Home Economics Experiment Station, Ames, Iowa, Project No. 3613 and was sponsored by the Hatch Act and State of Iowa.

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ment strategies suggest the indispensability of an integrated approach for evaluating student oral presentations.

Different combinations of peer, self, and instructor assessments have been used in the field of education. It is very important for the instructors to have suitable and carefully designed assessment strategies to evaluate student presentation skills as White (2009) found that students hold strong views about assessment methods, and those views influence the way they approach various learning experiences (as cited by Majdoddin, 2010). Dochy et al. (1999) found that a combined use of assessment strategies enables students to become responsible for their learning. On a similar note, Sterling (2008) recommended that analyzing student presentations from the perspectives of peer, self, and expert assessments would give more useful feedback and learning opportunities.

A review of literature suggests that there are no known studies of these assessments in the agricultural education settings that have provided an integrated framework for assessing student oral presentation skills. In order to fill this lacuna, the authors developed an integrated framework based on their teaching experiences in a junior level presentation course in the Department of Agricultural Education and Studies at the Iowa State University. The purpose of this study is to describe and share this integrated assessment framework with instructors offering presentation courses. This framework has implications for instructors offering presentation courses both in agricultural education and in presentations/speech courses outside of agricultural education.

Theoretical Framework

From an epistemological perspective, assessment strategies used in this presentation course align with social constructivist theory with elements from social cognitive theory. Shepard (2000) stated that a middle ground between cognitive, constructivist, and socio-cultural theories would give a proper framework for designing assessment strategies. Social constructivism assumes that knowledge is constructed through interactions in a social system, and stresses the co-construction of meaning through activities carried out in that system (Doolittle and Camp, 1999; Roberts, 2006). The importance of interactions in constructing knowledge was stressed by Vygotsky's sociocultural theory, which states: "Social interactions are critical; knowledge is co-constructed between two or more people" (Schunk, 2008, p.244).

The three different assessment strategies used in this course provided ample opportunities for student interactions. The feedback from peers and the instructor provided individual presenters with different perspectives on how to improve their presentations. Also, the group presentations gave an excellent opportunity for student-presenters to interact closely with group members and construct their presentation skills.

The importance of the social environment in learning is also a basic tenet of Albert Bandura's social cognitive theory. According to this theory, most of human learning occurs in a social environment (Schunk, 2008). Further, people learn vicariously by observing others (Schunk, 2008). An integrated use of peer, self, and instructor assessment strategies would provide a social environment for students to interact with each other and with the instructor and, by doing so, to develop their presentation skills.

Methods

The first author taught the course 'Presentation and Sales Strategies for Agricultural Audiences' during the spring and fall semesters of 2010 at the Iowa State University. The quantitative data collected from students, qualitative data from student self-assessment (reflections), and the experiences of the instructor from these two semesters were used to interpret the results. Students were required to give five presentations (three individual and two group) and one poster presentation. The five presentations included a visual aid presentation, a demonstration presentation, a large group presentation, a one-on-one sales presentation, and a sales training presentation. These five presentations were designed to give undergraduate agriculture students a variety of presentation opportunities and experiences. Each presentation was critiqued by peers, the presenter him/herself, and the instructor with immediate feedback.

Students in the class observed and evaluated each other's presentations using pre-designed rubrics. An individualized rubric was used for each presentation based on the best fit. The same rubrics were used by the instructor to grade those presentations. It was made clear that peer assessment ratings were anonymous and would have no bearing on the presenter's grade. Students were given clear instructions about the criteria to be considered while rating peer presentations and were encouraged to identify presenters' strengths and weaknesses in a constructive manner. Completed rubrics were collected immediately after the presentation by the instructor and handed to the presenter with an exception that peers gave objective ratings to the presenter(s). The presentation itself was graded by the instructor alone to eliminate intentional grading bias and to complement objective assessment by the audience.

In addition to the peer and instructor ratings, each presentation was videotaped for self-reflection. As a part of this self-reflection process, each presenter was required to review and analyze peer feedback, watch his/her taped presentation, reflect on the entire presentation experience, and write a one to two page reflection paper on the entire experience. In this paper, each student had to answer four questions that served as a self-assessment: (1) What things went well in your presentation? (2) What concerns or problem areas did you experience? (3)

What did you learn from this presentation experience? and (4) How does your self-evaluation compare to the peer evaluations? Having students reflect on aspects like what could be improved in their next presentations would help develop their oral presentation skills (Moon, n.d.).

Further, the instructor developed a 10-item questionnaire (Figure 1) for the purpose of getting feedback data on students' perceptions regarding their learning and progress in this class (Dollisso, 2009). A 10-point Likert-type scale ranging from 1= Very Low to 10= Very High was used to record students' perceptions of their overall progress in improving presentation skills mid-way into the semester. These 10 variables (depicted in Tables 1 and 2) that reflected the desired outcomes from this class were identified by the instructor, and administered to students once mid-way through the semester. Each student compared and rated his/her perception on each of the 10 variables mid-way through the semester to beginning of the semester. Such a "post-then-pre" approach is recommended by Rockwell and Kohn (1989) as the respondents may not always have sufficient knowledge on what each variable means at the beginning of a course, and that affects the validity of the data. Further, this approach helps prevent pre-test sensitization. The data were collected at the middle of the semester to get feedback to help make any needed changes to improve learning.

The data were collected in spring and fall 2010 semesters from the 21 and 17 students, respectively, that were registered for the class. The questionnaire was not pilot-tested due to small sample size.

reliability according to George and Mallery (2003). The reliability of the findings that are presented in the next section was based on the assumption that students provided honest and objective ratings. Furthermore, qualitative data from students' reflection statements and the instructor's experiences from offering the course helped triangulate the findings from these tests and demonstrate the usefulness of the integrated assessment framework used for this presentation class.

Results and Discussion

A paired samples t-test was used to test for any statistically significant differences in the mean scores on the 10 identified variables on student perceptions of presentation skills between the beginning and mid-way point of the semester. It was found that there was a statistically significant increase in the mean scores between the beginning and mid-point of both semesters on all 10 identified variables at 0.01 level of significance (Table 1 and 2), indicating that the course design was useful in achieving the desired presentation skills. It is important to note here that the influence of extraneous factors on higher scores in the data collected mid-way through the semesters cannot be ruled out. But, this does give an indication on the utility of the integrated assessment strategy used in this course. This paper is designed more towards sharing a teaching practice the authors feel would benefit teachers offering presentations/ speech courses, rather than extrapolating the findings to other populations.

In addition, the qualitative data from students' reflection papers indicated that students agreed with their peers' assessments of their presentations even when they were not highly rated. Students' self-assessment reflections showed that students accepted the feedback as a constructive educational process and suggested that they liked the design of the course. Students' reflection papers showed that they critically reflected on the four questions posed to initiate their reflection process. A few examples of student reflection statements are given below:

Directions: Below are ten statements for you to rate your progress AGEDS 311 class. Please compare and rate your perceptions of these statements at the beginning of the class verses today

Presume 1 = very low and 10 = very high

First Day of class	Today
1 2 3 4 5 6 7 8 9 10	Apprehensive about presenting in front of an audience 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Presentation skill/knowledge 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Use of variety of strategies 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Presentation planning and organization 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Confidence 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Use of PowerPoint for presentations 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Engaging audiences during presentations 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Planning, preparing and presenting in groups 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	Evaluating others' presentations 1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10	See value/application of presentation skills 1 2 3 4 5 6 7 8 9 10

Figure 1. Questionnaire used for the study.

Cronbach's alpha values for reliability were computed upon the completion of data collection. This is an acceptable approach according to Schmitt and Bartholomay (2009). Alpha values of .825 and .854 were recorded for the spring and fall semesters, respectively, which are categorized as having "good"

Example 1

Overall my experience in AGEDS 311 has been very positive and I'd recommend it for anyone who has the opportunity to take it. Not only does it give you valuable practice with presentations but the feedback is the greatest benefit. The feedback from

Table 1. Paired Samples *t*-Test on Selected Statements Depicting Student Progress in AgEdS 311 Class between the Beginning and Mid-point of the Spring 2010 Semester (n= 21)

Oral Presentation Related Skills	Paired Differences		<i>t</i>	df	P
	<i>M</i>	<i>SD</i>			
Apprehension about presenting in front of an audience	3.23	1.75	8.44	20	.000
Presentation skills/knowledge	-3.00	1.76	-7.80	20	.000
Use of variety of strategies	-3.52	2.11	-7.64	20	.000
Presentation planning and organization	-2.61	1.59	-7.51	20	.000
Confidence	-3.04	2.10	-6.62	20	.000
Use of PowerPoint for presentations	-1.66	1.74	-4.38	20	.000
Engaging audiences during presentations	-2.90	1.72	-7.69	20	.000
Planning, preparing and presenting in groups	-2.33	1.62	-6.58	20	.000
Evaluating others' presentations	-2.61	2.61	-4.58	20	.000
See value/application of presentation skills	-2.66	1.87	-6.50	20	.000

****P < 0.01**
(P values of 0.000 indicate that the mean difference was highly significant. SPSS outputs were not able to show numbers beyond three decimals)

Table 2. Paired Samples *t*-Test on Selected Statements Depicting Student Progress in AgEdS 311 Class between the Beginning and Mid-point of the Fall 2010 Semester (n= 17)

Oral Presentation Related Skills	Paired Differences		<i>t</i>	df	P
	<i>M</i>	<i>SD</i>			
Apprehension about presenting in front of an audience	3.29	1.99	6.81	16	.000
Presentation skills/knowledge	-2.35	1.76	-5.49	16	.000
Use of variety of strategies	-2.82	2.09	-5.54	16	.000
Presentation planning and organization	-2.35	1.93	-5.01	16	.000
Confidence	-2.29	1.64	-5.73	16	.000
Use of PowerPoint for presentations	-1.05	1.08	-4.01	16	.001
Engaging audiences during presentations	-2.82	2.03	-5.71	16	.000
Planning, preparing and presenting in groups	-2.29	1.40	-6.73	16	.000
Evaluating others' presentations	-2.17	1.85	-4.86	16	.000
See value/application of presentation skills	-1.82	1.70	-4.41	16	.000

****P < 0.01**
(P values of 0.000 indicate that the mean difference was highly significant. SPSS outputs were not able to show numbers beyond three decimals)

the audience had the biggest [impact] on how I felt my presentation did. When you see that multiple people make a comment on a single issue you know that that area went well or needs some improvement.

Example 2

I learned the most and got the most out of the presentations we did by watching myself present on the video that was taken of each of us. After watching myself in the video I saw that I had really good eye-contact with the audience, but I needed to move around more and have more activities to keep the audience interested in what I was speaking about.... You will learn more from your presentation with the more mistakes you make and you will see those

mistakes when you watch the video of yourself. I have already benefitted a lot from this class because I have gotten to see so many different presentation styles throughout our six different presentations.

Example 3

Watching videos of the presentation helped me see the difficulty of this task. In the middle of a presentation, I might feel like I was speaking in excited tones and smiling, but when I reviewed a video, I could see that the enthusiasm was not quite breaking through.

Example 4

I learned that I am able to improve basically week to week with my speaking skills and I will be able to ...with confidence anything that is asked of me in this class. I also learned from others presentations what was effective and what methods weren't for a certain type of demonstration. My self- evaluation was pretty much the same as those from my peers.

Example 5

I can now give presenters positive feedback on things they were doing right, and also be able to give them suggestions on what they can improve on.

Example 6

I am not a big fan on going back and watching myself, but this course required me to do so. I believe watching yourself and your mannerisms helped me improve on what not to do during a speech or presentation.... I believe the instructor did a great job in critiquing us after the presentation.

Example 7

When comparing myself to those that my peers gave me, they are closely related....for example I gave myself a lower score than my peers on such things as objectives, enthusiasm and organization.

Example 8

There is a lot I learned from this presentation that I know I will be able to implement into my presentations for the rest of the semester....There are a few things that I need I could improve on after reading the comments from my classmates.... I could also do a better job involving my classmates so they don't get bored during the presentation and there would be a better chance for them to remember the information.

Example 9

Professor [X] said that my presentation may have generalized too much when comparing whole countries. I agree, and I probably should have stressed...on real research. Professor [X] also said I sounded or looked nervous. I really did not feel nervous...

Example 10

...My presentation.... did not go perfect.... I stuck to my professional, monotone voice during my presentation. I need to get away from this tone. It is not enthusiastic enough. I really noticed this while watching the video.... Not a single student asked a question at the end; this could suggest that the class understood everything; however, I would have preferred it if some of the students had asked questions at the end of the presentation.

Example 11

With learning from my professor and classmates on what to improve on as the course progressed on, really influence me into putting in more effort into creating a great presentation that others understand and want to buy.

The examples of student work presented above indicate that students learned or benefitted from video, peer, and instructor feedback. They did not just blindly agree with everything in the feedback. They had their own views about each assessment strategy used and how it was useful to them.

The authors believe that integrated assessment strategies that were used in this class provided students opportunities to assess their own performance using feedback from multiple sources. Each of these assessment strategies makes its own contribution to student learning; therefore, an integrated use of a variety of strategies may help reinforce learning and further improve students' presentation skills. Sterling (2008) stated that feedback from multiple perspectives increases student self-awareness and offers them opportunities to grow. Also, peer and self-assessments have been found to impart meta cognitive and critical analytical skills (Sterling, 2008; Topping, 1998). Further, self-assessment reflection assignments can provide students with experiential learning, as reflection is an integral part of any experiential learning cycle (Roberts, 2006). Hence, we recommend that instructors adopt integrated

assessment strategies in their oral-presentation courses. The variables used in the feedback questionnaire can be modified based on the desired course outcomes, types of presentations, and the context of those presentations. We believe regardless of the outcomes, types of presentations, and the context, an integrated assessment approach like the one presented in this paper would provide a credible feedback to students and may motivate students to work towards continuous improvement in their presentation skills.

Summary

Improving students' oral communication skills is a primary outcome of presentation/speech classes. Instructors offering such courses may integrate a variety of assessment strategies that provide more feedback to students on their presentation skills. This paper shares an integrated assessment framework the authors used in offering a presentation course at the Iowa State University. The findings indicated the utility of an integrated assessment framework in teaching presentation skills. The authors recommend that instructors offering presentation courses use this integrated assessment framework in presentation courses.

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