

Quantifying the Impact of Peer Tutor Feedback on the Public Speaking Skills of Undergraduate Business Students

Sara Weinstock & Caron Martinez
American University

Abstract

High-quality public speaking skills convey strong and effective communication, a critical professional and workplace competency that positively impacts personal lives as well. Skill acquisition and mastery improve public speaking confidence, which in turn reinforces the speaker's abilities. Improving oral communication skills requires instruction, practice, feedback, and revision. We wanted to measure the effect of peer tutor feedback on the public speaking skills of undergraduate Business students at American University. We asked assessors unaffiliated with our office to independently rate both drafts and final submissions of one-minute video submissions completed by students in various sections of a Management and Organizational Behavior course. Our experiment shows that peer feedback significantly improves the quality of the final presentation, and that the positive impact is the same for native speakers of English than it is for non-native speakers.

Keywords: peer feedback, peer review, public speaking

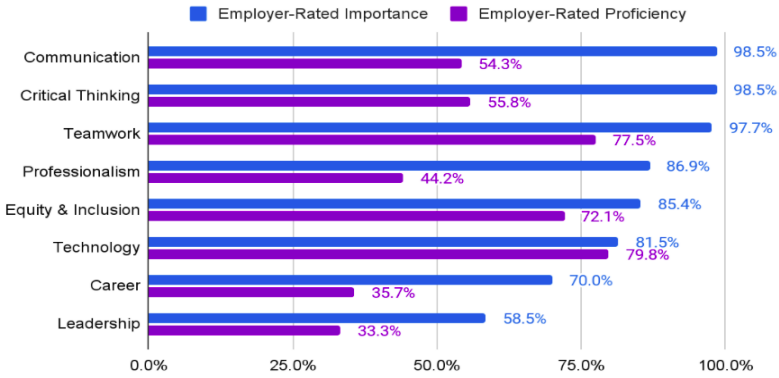
Quantifying the Impact of Peer Review on the Public Speaking Skills of Undergraduate Business Students

Introduction

Oral communication skills are frequently listed among the top workplace-readiness skills for students graduating from college and entering the workforce. The National Association of Colleges and Employers Job Outlook 2022 lists communication skills as tied with critical thinking as the skill that has the most value to employers; 98.5% of respondents rate both skills as important. However, though employers strongly desire their new hires to be skilled writers and speakers, the widest gap between importance and proficiency is in communication skills; though 98.5% of respondents rated the skill as important, only 54.3% of employers rated their incoming workforce as proficient (NACE, 2022).

Figure 1.

Importance vs Proficiency in Career Readiness Competencies



Note: Data from National Association of Colleges and Employers, Job Outlook 2022. Most of the literature surrounding peer review exercises examines written work.

Typically, students submit a draft of work for peer review. Next, peers offer feedback using assessment criteria. Students are then given the opportunity to revise and submit that revised draft of their work for review and scoring by the professor. Evidence suggests that peer review exercises for specific assessments positively impact final assessment grades (Althausser & Darnall, 2001; Simpson & Clifton, 2016). Furthermore, the data indicate that skill acquisition gained from engaging in a peer review exercise can be transferred to improve grades on subsequent assessments (Rust, Price, & O'Donovan, 2003). Since oral communication skills are more challenging to quantify, little research has been done to examine the impact of feedback on speaking and delivery skills.

We examined the impact of peer review in two specific ways. First, we examined peer review relating to oral communication

rather than written communication. Second, we examined the impact of peer tutors who have been trained on best practices in public speaking on the improvement of their peers' work. We hypothesized that peer review by trained student tutors will have a significant positive impact on the public speaking skills of their peers.

Methodology

Participants

The study was conducted at American University, a private federally chartered research institution located in Washington, D.C. American University caters to a diverse national and international student population. The participants were 30 students, respectively 20 native speakers and ten non-native speakers, which mirrors the native/non-native English-speaking enrollment in the Kogod School of Business. The course from which the assignment submissions were pulled is a 300-level course, catering primarily to sophomores and juniors ranging in general from 19-21 years of age. The Spring 2022 enrollment for this course was 184 students. Twenty-five students were dropped from the study because the professor required a student peer review, and we wanted to assess the impact of our Center's peer consultant feedback independent of other feedback. Another 25 students were dropped from the study because they failed to submit a draft of their video submission on time for comment by our peer tutors. While some of the students

who missed the draft submission deadline booked individual appointments with a tutor in our Center, we exclusively evaluated students who had all received their feedback in the same manner and at the same time. Once those students had been eliminated from the data set, we were left with a potential pool of 134 students. Next, the researcher determined which students had self-identified as either a native or non-native speaker when they enrolled in the Center's tutoring appointment tracking system. From those groups, a random sample was selected. Since the sample of 30 students represents almost one-quarter of the eligible pool, we can have a high degree of confidence that we have achieved "saturation" in the data, defined by Glaser and Strauss (1967) to be a judgment that no additional data would further develop the "properties" of an analytic category. In short, we do not believe that additional samples would yield substantively different results.

The student cohort can vary in the quality of their public speaking training prior to entering the course. Some students have extensive training in rigorous high school programs or as part of extracurriculars like Student Council or Model UN. Other students may have had little to no training as a public speaker. The Kogod School of Business does not require a business communications course as part of its degree program. Instead, the school has a Center for Professionalism and Communications, whose role is to provide instruction and feedback to students. Staff members are

invited by faculty primarily in the business core courses to guest lecture on best practices in public speaking skills. Trained peer tutors, who are student workers selected for their exemplary writing and speaking capabilities, are available for face-to-face or virtual tutoring appointments.

According to the National Survey of Student Engagement 2021, forms of connection that have historically relied on face-to-face interactions, such as accessing tutoring services, have declined at many institutions. Rather than relying on students to book appointments with our Center, we have expanded our partnerships with various core classes such as MGMT 353 Management and Organizational Behavior to provide a service called eCommenting. When we provide eCommenting, all students in a class submit first drafts through AU's Learning Management System (LMS) which currently is the Canvas platform. We return written comments within one week. It is through this eCommenting process that the students in this class received their peer tutor feedback. Thus, we are examining a cohort of average students, not a group that has already demonstrated a high level of engagement by seeking out our feedback.

The Center for Professionalism and Communications also provides various "flipped classroom" resources for students to use to improve the quality of their public speaking skills, but as Du et al noted (2014), the success of a flipped classroom requires a "heavy

reliance on student motivation” (p. 17). Du et. al warn that “extra-curricular and curricular elements must be carefully integrated for learners to understand” (p. 19). Since the flipped classroom resources available to students to improve their public speaking skills are seen as ancillary, the danger is that students will engage with them either superficially or not at all.

Three raters were recruited to carry out the analysis and independently assess the quality of the submissions. The assessors are all staff members in the business school, but with no connection to the office that hires or trains the consultants who offered feedback to the students. One assessor comes from the Student Development staff, one from the Office of Career Engagement, and one from Academic Advising. Norming expectations were conferred in writing to each of the assessors.

Materials

Students submitted their short video presentations as Zoom recordings. Students were instructed to use a single slide to highlight their recommendation according to the following prompt:

For this individual assignment, you will roleplay an employee of a Fortune 500 company. Your company is considering a policy change. Senior management of the company wants your input, so it will view your ONE MINUTE Zoom video on the subject during its deliberations. Please create ONE collage-style PowerPoint Slide to use in

your Zoom Video. Do not take both sides of the issue. Pick one and take a clear stand! (Burnett, 2022)

Students submitted their draft presentations to the professor. Approximately one week later, the students received written feedback from our peer consultants, using the following rubric:

Figure 2.

Peer Tutor Feedback Rubric for MGMT 353 Presentations

Criteria for Evaluation	Comments for improvement
Slide Design: Slides are visually appealing. Writing on slides is concise and style is uniform throughout the presentation. Includes a mix of graphics, charts, figures, pictures.	
Vocal Delivery: Voice recording is crisp, clear, and error-free. Pacing allows the speaker to complete the presentation within the 1 minute time requirement. Volume of the speaker is audible and words are enunciated clearly.	
Organization: Content of slides is organized logically, easy to follow, and ends with a compelling conclusion or call to action. Meets the time requirement (one minute)	
Clarity of Purpose: The purpose of this presentation is clear from the beginning with the “bottom line on top.” Purpose is explicitly stated and is specific. Uses qualitative data and relevant facts to articulate the benefits to the company.	

Students then had four days during which they could re-record their video submission and submit for a final grade.

Procedure

As we prepared the research process and design, we downloaded, randomized, and anonymized the submissions. Each of the three evaluators received 60 submissions to assess but were

not told which were drafts or final submissions, nor which were submitted by native or non-native speakers. Evaluators were given a short rubric by which to evaluate the submissions. They had three weeks to complete their assessment and return their findings. Each submission was given a score from 1-5 based on ratings in four categories: clarity of purpose, vocal delivery, data visualization and slide design, and organization. These categories mirror the categories in which the peer tutors offered their feedback. Those subscores were added together for an overall score ranging from 1-20. Some students did not submit drafts that adhered to the prompt. Specifically, some students submitted a slide with no audio and others submitted a video of themselves speaking on the selected topic but with no accompanying slide. If students failed to submit an important aspect of the deliverable, they would receive a (0) rather than a (1) on that aspect of the scoring rubric. The details of the scoring rubric appear below in Figure 3. The assessor's raw scores appear in Appendix A.

Figure 3.
MGMT 353 Assessment Rubric

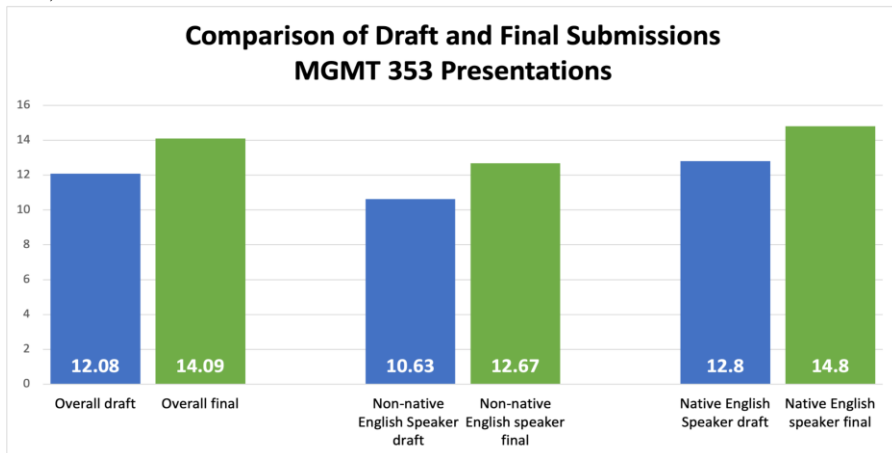
Category	(1)	(2)	(3)	(4)	(5)
Clarity of Purpose	Does not state the purpose of the presentation. No clear opinion on the issue expressed at the start	Purpose of the presentation is vague and/or comes late in the presentation	Purpose of the presentation has some clarity, but is obscured at the beginning of the presentation	Purpose of the presentation is evident from the start	Purpose of the presentation is both evident and compelling from the start.
Vocal Delivery *If no voiced-over audio is present, select 0	Speaker does not project confidence, poise, or preparation. Speaks too quickly to be understood. Delivery lacks sufficient vocal variety and be monotone, muffled, or flat. Speaker may be reading. Language use may be unprofessional or too colloquial.	Speaker may not project confidence, poise, or preparation. May speak too quickly to be understood clearly. Delivery may lack sufficient vocal variety and be monotone, muffled, or flat. Speaker may be reading. Language use may be unprofessional or too colloquial.	Speaker projects basic confidence, poise, or preparation. Pacing is consistent and not too fast. Delivery includes adequate vocal variety to keep the audience engaged. Language meets basic professionalism standards.	Speaker projects confidence, poise, or preparation and exhibits consistent pacing. Delivery includes adequate vocal variety to keep the audience engaged. Language meets basic professionalism standards.	Speaker exudes confidence, poise, and preparation and delivers with exceptional vocal tone, projection, and emphasis. Language choices are professional at nearly all times.
Data Visualization and Slide Design *If no slide is present, select 0	Slides lack visual appeal. Slides are too wordy and/or do not use appropriate and engaging visuals. Data may be poorly visualized and confusing as a result. May include spelling/usage errors.	Slides may lack visual appeal. Slides may be too wordy and/or do not use appropriate and engaging visuals. Data may be poorly visualized. May include spelling/usage errors.	Slides have adequate visual appeal. Slides may have too many words, inappropriate or uninteresting visuals, but satisfactorily supplement presenters' main points. Data are adequately visualized.	Slides have visual appeal. Slides clearly communicate a central idea and contain engaging visuals with a lack of extraneous text. Data are shared visually in a readable and understandable way	Slides are creative and visually appealing. Data visualization is persuasive, credible, and engaging. Nearly or completely error-free.
Organization	No clear call to action for what the company should do. No qualitative data to support the action being advocated. Far exceeds the one-minute time limit.	Unclear or vague call to action. Unclear or vague data. Exceeds the one-minute time limit.	Weak call to action. Some data are included but may not adequately prove the claim being made. Meets the one-minute-time limit.	Clear call to action. Data help prove the claim(s) being made. Meets the one-minute-time limit.	Inspiring call to action. Data clearly show the need for the action being advocated. Meets the one-minute time limit.

Results

The data clearly show that the quality of the final submissions improved on average two points on a 20-point scale. As Figure 4 shows, the average for the draft submission was a 12.08 and the average for the final submission was a 14.09. Non-native speakers improved from an average 10.63 to an average 12.67, which does not statistically differ from native English speakers who improved on average from 12.80 to 14.80. Though non-native speakers of English submitted drafts and final submissions that were assessed at a slightly lower overall quality than the work of the native English speakers, the rate of improvement was the same for both groups.

Figure 4.

Comparison of draft and final submissions, overall and broken out by native language (English or other)



Discussion

The measure of improvement between native speakers and non-native speakers of English was negligible, too small to be statistically significant. This result aligns with Suwinvattichaiorn and Broeckelman-Post's (2016) findings that native English speakers and non-native English speakers enrolled in a college public speaking course report at the end of the course statistically similar numbers for improvement in Communication Apprehension, Self-Perceived Communication Competence, and Willingness to Communicate. Their research notes that both groups of students improve on self-reported confidence, and both improve in roughly equal measure. Our research indicates that the observable quality of the students' public speaking skills improves in roughly equal measure as well.

One drawback of the study is that it cannot account for how much of the improvement is related to the peer feedback and how much is due to the forcing function of requiring an additional rehearsal. The act of submitting a draft and then submitting a final version means that by default the students have engaged in at least one rehearsal under the same circumstances as the final submission. The rehearsal necessitated by requiring a draft and a final submission may lead to improvement by itself. Menzel and Carrell (2009) note that two of the four largest predictors of the quality of a speech performance are total preparation time and number of

rehearsals. However, since it's unlikely that students would engage in this additional rehearsal absent a peer tutor review, the requirement to record and submit the draft serves a valuable function.

A future study could separate a group that receives feedback from their peers from one that receives feedback from trained peer tutors to determine if the quality of the comments impacts the outcome. When untrained peers offer feedback, almost 80% of their comments are related to delivery and vocal control and about 20% related to organization (Saidalvi & Samad, 2019). Since our peer tutors are trained to give more feedback on the organization and clarity than on delivery, it would be interesting to note whether this distinction has a measurable impact on the quality of the final submission.

On a similar note, a future study could analyze the quality of the feedback that the various recipients received. Saidalvi and Samad (2019) observe that peer motivational feedback can reduce anxiety or phobia of public speaking. Phrases such as, "I like the energy" and "I think I understand" powerfully impact the speaker's confidence level. We could examine if the impact was greater when performance-boosting language was used.

Finally, future studies could examine a control group of students who do not receive feedback, but since the feedback results in a higher overall quality of final submission for the students, enforcing

a control group by denying them access to the support their other peers have received seems to place them at an unfair disadvantage.

Conclusion

Oral communications are among the most valuable workplace skills to develop. Effective oral communication encourages socialization and builds bonds that facilitate the learning process. Productive communication is a boost to career development; an ability to convey thoughts in a clear and precise manner makes a worker more valuable to their supervisor and can afford a worker with opportunities they might not otherwise enjoy. Just as writing skills require practice, feedback, and revision to produce growth, oral communication skills require the same process.

The results of our study indicate that feedback from trained peer consultants correlated with a measurable and quantifiable improvement from draft to final submission. The impact was roughly equal for native speakers of English as it was for non-native speakers, indicating that all undergraduate business students benefit from this process.

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Appendix A

Results of the Assessment

English First Lang?	Draft or Final	Assessor 1	Assessor 2	Assessor 3	AVG
yes	Draft	17	20	19	18.67
yes	Draft	17	20	12	16.33
yes	Final	13	20	18	17.00
yes	Final	9	16	9	11.33
yes	Final	9	16	15	13.33
yes	Draft	9	16	13	12.67
yes	Final	14	20	19	17.67
yes	Draft	5	7	7	6.33
yes	Draft	11	16	16	14.33
yes	Draft	10	12	14	12.00
no	Final	9	8	8	8.33
No	Final	10	8	10	9.33
yes	Draft	12	8	14	11.33
yes	Draft	13	12	11	12.00
no	Draft	3	1	4	2.67
yes	Final	11	12	15	12.67
yes	Final	9	16	17	14.00
yes	Final	9	16	10	11.67
yes	Final	12	12	14	12.67
no	Draft	11	16	10	12.33
yes	Draft	8	12	16	12.00
yes	Draft	8	12	13	11.00
no	Final	9	20	15	14.67

English First Lang?	Draft or Final	Assessor 1	Assessor 2	Assessor 3	AVG
yes	Draft	8	12	13	11.00
no	Final	12	12	18	14.00
no	Draft	9	10	9	9.33
no	Final	10	20	15	15.00
no	Final	8	16	14	12.67
yes	Draft	11	16	11	12.67
yes	Final	12	12	14	12.67
yes	Final	12	16	17	15.00
yes	Draft	13	16	16	15.00
yes	Draft	7	7	4	6.00
no	Draft	4	12	14	10.00
yes	Final	16	20	19	18.33
yes	Final	13	20	16	16.33
no	Draft	12	16	12	13.33
yes	Final	13	20	17	16.67
yes	Draft	13	16	18	15.67
no	Draft	9	10	15	11.33
yes	Draft	5	16	10	10.33
yes	Final	13	12	15	13.33
no	Final	8	12	11	10.33
yes	Final	10	20	15	15.00
no	Draft	11	16	11	12.67
no	Draft	12	20	15	15.67
no	Final	9	16	18	14.33
yes	Final	9	20	16	15.00

English First Lang?	Draft or Final	Assessor 1	Assessor 2	Assessor 3	AVG
yes	Final	12	20	12	14.67
no	Draft	6	10	12	9.33
yes	Draft	15	20	19	18.00
yes	Final	12	20	16	16.00
no	Final	9	20	13	14.00
yes	Final	11	20	16	15.67
no	Draft	8	8	13	9.67
yes	Draft	9	20	14	14.33
yes	Draft	11	12	12	11.67
yes	Draft	13	16	15	14.67
no	Final	10	16	16	14.00
yes	Final	13	20	18	17.00