

Effects of Sustained Impromptu Speaking on Public Speaking Anxiety Reduction

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Abstract

Anxiety is a real hindrance to public speaking. Yet, there is little empirical evidence to support the impact of impromptu speaking drills on anxiety reduction in public speaking. This paper aims to close this gap by examining the impact of a strategy that emphasizes weekly impromptu speaking sessions combined with teacher feedback on the reduction of public speaking anxiety for college students. Specifically, we use evidence from Personal Report of Speaking Anxiety (PRSA) and establish using quantitative methods that sustained impromptu speaking activities significantly reduce public speaking anxiety over the course of the semester for EFL students enrolled in a public speaking course; therefore enabling public speaking skill development. The results show that anxiety level decreased significantly for all students by as much as 24%, and that many students made the transition from high to very low anxiety level coupled with a staggering improvement in speech delivery skills, advocating for the effectiveness of this strategy for public speaking skill development.

Keywords: public speaking, speech anxiety reduction, sustained impromptu speaking, EFL speech anxiety,

INTRODUCTION

Public speaking competence is of paramount importance and vital to students' success in and out of the classroom (Johnson & Szczupakiewicz, 1987). Learning effective public speaking skills enables college students to succeed across the disciplines. In fact, good communication skills are crucial to all students' personal, academic, and professional success (Gunn, 2007; Morreale & Pearson, 2008). So much so that it has been empirically proven that "apprehensive students receive lower grade-point averages and score lower on college entrance examinations, and are considered less competent and attractive than more outgoing individuals [...] and they are less likely to seek career advancements, if they get hired" (Robinson, 1997, p. 188). Therefore, considering this fundamental role that the public speaking competency plays in students' lives, it has been deeply investigated by communication scholars with a view to fully understanding its underlying aspects, and developing pedagogical techniques and recommendations to be implemented by instructors in the classroom. One of such aspects that has been widely studied in the literature in relation to public speaking is public speaking anxiety (PSA).

One specific area that has been recognized as a very important part of public speaking, by researchers and textbook authors alike is impromptu speaking (IS). Impromptu speaking is defined as a speech delivered with little or no preparation. It is believed that impromptu speech is a valuable assignment (Hendrix, 1968; Kelly, 1989; Rumbough, 1999) and "if handled properly by the instructor, [it] can be an enormously valuable confidence builder (Lucas, 1998, p. 242). However, as reported by Rumbough (1999) there is little empirical evidence to support the

impact of impromptu speaking on anxiety reduction; only a handful of studies were conducted on impromptu speaking in association with public speaking anxiety reduction. In this work, it is our intention to bridge this gap by presenting the results of a quantitative approach on the exclusive use of sustained impromptu speaking activities, obtained by using evidence from Personal Report of Public Speaking Anxiety (PRPSA) (McCroskey, 1970).

LITERATURE REVIEW

PSA, also referred to in the literature as "stage fright", "social speech fright", "speech anxiety", "audience anxiety" and "communication apprehension" (Clevenger, 1959; Daly, 1978; McCroskey, 1978) is widely known as the fear experienced by a person when delivering a speech, or preparing to deliver a speech, to an audience. In a nationwide survey about what American people are afraid of, Bruskin Associates (1973) ranked public speaking as their number one fear. They found that as many as 40.6% of those surveyed said they were most afraid of speaking in public than death. Subsequent studies confirmed the finding that public speaking was indeed people's greatest fear (Wallace et al., 1983; Motley, 1988). "Public speaking anxiety even outranked such fears as going to the dentist, heights, mice, and flying" (Metcalfe, 2010). In fact, "76% of 'experienced' public speakers feel fearful before presenting a speech" (Verderber et al., 2012).

PSA has been extensively studied for decades. Most researchers focused on the psychological, physiological and behavioral reactions of student speakers while delivering speeches in class. They reported non-verbal behaviors or reactions like sweaty hands, butterflies in the stomach, a lump in

the throat and shortness of breath, associated with discomfort and stress, trembling, heart rate elevations, and numbness (Behnke & Beatty, 1981; Clements & Turpin, 1996; McCullough et al., 2006; Horvath et al., 2004). Others investigated the causes of public speaking anxiety and listed many reasons behind the speakers' physiological and psychological reactions, such as 'fear of negative evaluation', 'lack of prior experiences', 'lack of preparation', 'negative experiences in the past', 'negative attitude towards their speaking ability', the 'stress of protecting one's grade' and 'trying to not appear to the teacher or other students as stupid', to cite a few (Luchetti et al., 2003; Bourhis et al., 2006; Winters et al., 2007). Research assessing other transitory causes of PSA revealed factors like graded speeches vs. ungraded ones, speeches counting for a high percentage of the overall course grade vs. others counting for a very low percentage, manner of delivery like impromptu vs. reading from a manuscript or extemporaneous speeches where the former were found to have a significant effect on PSA, respectively (Craighead & Craighead, 1981; Gramer & Saria, 2007; Booth-Butterfield, 1988; Witt & Behnke, 2006). While other studies dealt with treatment and remediation to alleviate public speaking anxiety. Several techniques have been suggested and developed, and for the treatment to be effective there was a need to identify where exactly PSA stems from. Thus, many teaching and classroom activities were suggested for that purpose like 'intervention strategies' (Dwyer & Fus, 2002; Jensen & Jensen, 2006), 'instructor immediacy', 'classroom climate and student-teacher interactions', 'in-class practice', 'more preparation time', and 'student-to-student connectedness', 'a supportive audience' (Beatty, 1988c; Ayres, 1998; Sidelinger, 2011; Chesebro & McCroskey, 2001; Zhang, 2005), together with 'teaching relaxation methods', 'replacing speakers' problematic cognitions with more positive views of public speaking', and 'visualization' (Bodie, 2010, p. 87-88). According to remediation literature, many of these treatments were questioned in studies and researchers claimed little evidence in support of some of them. It was recommended that "a combination of treatment techniques is generally more effective than single treatments"(Bodie, p. 91).

With regards to impromptu speaking, the few studies that have been conducted focused mainly on the physiological aspects of students while delivering an impromptu speech, like "heart rate and heart rate arousal pattern" among male and female speakers, and sweating (Baldwin & Clevenger, 1980; Booth-Butterfield, 1987; Beidel et al., 1989; Puigcerver et al., 1989). Other studies specifically described the actual impromptu speaking activities and exercises used (Clark, 1968; Hampton, 1967; Paul, 1965; Walser, 1959) and how to implement them over the course of the semester (Peterson, 2007), while others

examined forensic-focused impromptu research (Reynolds & Fay, 1987; Sellnow, 1989; Heinz et al., 2013). Rumbough (1999) investigated whether impromptu speaking can reduce communication apprehension, including public speaking; however, the author acknowledged the need to use a series of impromptu speeches and examine if they "could reduce [communication] apprehension" (p. 212).

PROBLEM STATEMENT

As demonstrated in the literature review, existing studies that involved impromptu speaking mostly used one impromptu speech or activity as a means to improve public speaking performance through reducing anxiety. The impact of a series of impromptu speaking /activities on public speaking anxiety reduction and competency development remain therefore an open question that needs to be studied both quantitatively and qualitatively. Therefore, we are set in this work to study the effect of a strategy that emphasizes sustained/weekly impromptu speaking with teacher feedback on PSA reduction.

RESEARCH QUESTION

Specifically, the research question we shall be concerned with in this study is as follows:

RQ 1: Is there a significant difference in the students' ratings of public speaking anxiety experienced pre-impromptu and post-impromptu speaking weekly sessions?

METHODOLOGY

Participants

The participants in this study are Moroccan students enrolled in a public speaking course (COM1301) at Al Akhawayn University in Ifrane (AUI), Morocco. This is a common core course that all AUI students from all disciplines are required to take in order to develop effective communication skills to succeed in other courses, and foster career development and civic engagement. In Spring 2017, sixteen students (=16), 13 females and 3 males, aged 18 to 20 enrolled in the course in their second semester at the University with a view acquiring public speaking skills.

Procedure

At the beginning of the spring semester 2017, the researcher who is also the instructor of a Public Speaking course at Al Akhawayn University asked the students in section 04 to complete a consent form and participate in the study. The instructor met with the students three times a week for a-fifty-minute class period on Mondays, Wednesdays and Fridays. The participants produced two main types of speeches: impromptu and extemporaneous speeches. As clearly stated in the course syllabus, the students were required to deliver 4 extemporaneous speeches (self-introduction, informative, persuasive, special

occasion) that they prepared over a period of two, three, and four weeks, respectively, then came to class ready to deliver their speech. As for the impromptu speeches, each participant was required to deliver at least 4 impromptus throughout the semester, including group and individual ones. Starting week three, the instructor scheduled impromptu speeches and oral activities every Friday on a weekly basis. In total, the instructor offered twelve impromptu sessions during the semester (=600 hours). The schedule of impromptu speeches and oral activities is presented in the table below.

Table 1: Schedule of Impromptu Activities and Speeches

Weeks	Sessions	Impromptu Activities & Assignments
Week 3	Session 1	Group stage walking Group Breathing activities Spoken Performance (songs, storytelling)
Week 4	Session 2	Group stage walking Group Breathing activities for 10-15 min. Group impromptu speeches 1
Weeks 5	Session 3	Group stage walking Breathing activities for 10 minutes Group impromptu speeches 2
Weeks 6-7	Sessions 4-5	Breathing activities for 10 minutes Individual impromptu speeches 1
Weeks 9-10	Sessions 6-7	Breathing activities for 10 minutes Individual impromptu speeches 2
Weeks 11-12	Sessions 8-9	Individual / group impromptu speeches
Weeks 13-15	Sessions 10-12	Individual / group impromptu speeches

The purpose of these impromptu speeches and activities was twofold; develop confidence, and eventually strengthen public speaking skills (the latter will be discussed in an upcoming paper). The Friday impromptu sessions offered the students' opportunities to go on stage on a weekly basis, practice delivering a speech in front of an audience, practice a variety of important aspects of public speaking, and eventually get ready for the next graded extemporaneous public speaking speeches. Since the students had no experience in public speaking and most of them had not been on stage before, the impromptu speeches were preceded by warm-up activities like breathing exercises, standing in front of an audience, and doing fun group activities like singing and storytelling for relaxation and classroom connectedness, in order to build trust and confidence within themselves and between each other, and alleviate stress and anxiety feeling. In the following sessions, each student was required to deliver at least 4 impromptu speeches, two individual

and two group ones. In the individual impromptu speeches the participants delivered a complete speech alone, by themselves, while in the collaborative speeches the students worked together as a team in a group of 4 to 5 students and delivered altogether on stage, each speaker being in charge of one part of the speech. Then, in subsequent weeks the students had the choice to deliver any type of impromptu speech they wanted to, group or individual. In total, the participants delivered 80 impromptu speeches over the course of the semester, including 43 individual and 37 group impromptus.

All the topics were assigned on the spot. Students were allowed to pick any topic they liked from the list provided by the professor, and there was a new list of topics in each session. The students had no prior knowledge of the topics, but the criterion of topic familiarity was met to ensure the participants had common knowledge about their chosen topic. Therefore, the instructor carefully selected topics that touched the social, cultural, educational, and historical aspects of the participants' life, including current issues. Unlike extemporaneous delivery, the students were not assigned presentation numbers; they were rather called on immediately to go on stage and deliver.

As for impromptu speech assessment, the instructor focused first on the posture, eye contact with the entire audience, voice, conversational style, tone, and mannerism, then organization and allotted time were gradually taken into account. Upon completion of the speech, the instructor provided the students with feedback to make the speakers aware of their strengths and the areas they needed to improve. The students were required to set their improvement goals for the next impromptu delivery, and eventually the extemporaneous speech they were in the process of preparing. The impromptu speeches were not individually graded, but as marked in the syllabus, 10% of the overall course grade was assigned to impromptu speaking. This way, the students were encouraged to take their practice through impromptus seriously, without necessarily being stressed or anxious about failing one of these speeches, since the overall grade was based on participation, the number of impromptu speeches and activities every student did. It is worth mentioning here that since all students (=16) did the weekly assigned impromptu speeches and assignments, all data collected from 16 pre and post personal reports were used in the analysis and discussion of the results.

Materials

The researcher used Personal Report of Speaking Anxiety (PRSA) scores of students before and after delivering impromptu speeches which were scheduled at the beginning and at the end of the semester.

Measurement instruments

Public Speaking Anxiety (PSA) was operationalized for pre-ISS and post-ISS quantitative analysis by using Jim McCroskey’s (1970) Personal Report of Public Speaking Anxiety (PRPSA):The questionnaire consisted in 34 reports on personal sentiments aiming at measuring levels of anxiety that are solely speech related. Each statement pertains to a personal experience such as “I get anxious when I think about a speech coming up.” The questions aiming at measuring PSA are written on a 5-point Likert type scale, 1 being “strongly agree” and 5 being “strongly disagree” indicating how well the sentiments embodied in the question applies to the participant. The PRPSA for each student is calculated using the original formula given by:

$$PRPSA(S_i) = 72 - \sum_{j=[4,6,7,8,11,12,15,16,17,18,24,26]} Score(Q_{ij}) + \sum_{j=[1,2,3,5,9,10,13,14,19,20,21,22,23,25,27,28,29]} Score(Q_{ij})$$

where S_i is the student with id i , and Q_{ij} is the score given by student i to Question j . As such, aPRPSA score above 131 indicates that the participant has a high level of anxiety, while a score between 98 and 131 indicates moderate level of anxiety. Low anxiety is marked by a score below 98. According to McCroskey’s survey, the average citizen of the United States has a score of 114.6, which indicates a level of anxiety that lies within the moderate range. In order to keep the 34 questions questionnaire short and easily doable, no other information was requested

from the participating students except for their ID and name.

It is worth noting that McKrosky found PRPSA highly reliable. In this study, the PRPSA survey was administered twice:pre- impromptu speaking sessions (pre-ISS) and post-impromptu speaking sessions (post-ISS).

DATA ANALYSIS

The proposed research question (RQ 1) sought to measure students’ Public Speaking Anxiety (PSA) levels before and after doing the weekly impromptu speaking. The participants were asked to complete a questionnaire once during the first two weeks of the spring semester (pre-ISS), and a second time (post-ISS) during the final week of the semester. Therefore, all students (n=16) completed the questionnaire twice. All 16 students answered all questions and there was no need to delete any incomplete questionnaires

The answers to the questionnaires were compiled by student ID and by question, and tabulated into a Microsoft Excel sheets. Two sheets were used: one sheet for pre-ISS and another for post-ISS (see Table 2).

Table 2. Tabulation of pre-ISS and post-ISS

Questions	Pre-ISS																Post-ISS																	
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16		
Q1	1	5	2	5	3	2	3	3	5	2	3	4	5	3	3	2	2	1	2	1	1	3	3	4	3	2	2	2	2	3	1			
Q2	4	1	5	1	4	5	1	3	2	4	2	1	3	4	1	2	2	1	3	1	1	4	1	3	2	2	2	1	1	2	2			
Q3	4	4	5	4	5	4	3	3	2	5	4	1	4	4	5	3	1	3	4	3	2	3	2	2	2	1	2	1	1	2	4	3		
Q4	3	5	2	5	2	2	5	5	3	5	2	5	4	4	1	2	5	5	2	4	5	3	5	5	3	2	2	5	5	3	4	4		
Q5	4	2	4	4	4	2	3	2	3	4	1	3	5	5	1	1	4	3	3	4	1	2	2	1	2	1	1	3	4	1	1			
Q6	2	2	1	2	1	1	2	3	3	2	2	3	4	1	1	3	4	3	3	3	5	2	5	4	3	5	4	4	5	4	3	4		
Q7	3	1	1	4	2	2	4	3	2	1	2	4	4	5	2	2	5	4	1	4	5	3	3	2	5	4	4	4	5	2	4	4		
Q8	2	2	3	2	2	1	5	4	2	5	4	5	3	3	3	4	4	4	3	2	5	2	5	2	4	4	5	5	5	4	4	4		
Q9	1	2	3	3	4	1	3	2	3	4	1	3	3	4	3	2	3	5	3	3	3	1	3	2	5	2	1	1	3	3	1	1		
Q10	2	4	5	4	5	4	1	5	3	5	2	1	4	5	5	2	2	1	3	3	2	2	1	4	3	2	2	1	2	4	5	1		
Q11	1	1	1	2	1	2	2	1	3	4	2	3	3	3	1	3	4	5	3	1	4	5	3	3	3	3	3	3	3	3	1	1		
Q12	3	5	5	3	1	3	4	2	3	5	2	4	5	5	1	5	2	4	5	5	1	4	1	4	2	3	4	3	2	5	5	4		
Q13	5	5	5	5	5	4	1	5	2	4	4	3	4	5	5	4	2	4	5	5	1	4	1	4	2	3	4	3	2	5	5	4		
Q14	2	2	4	1	5	4	1	3	3	2	2	3	2	3	5	4	2	2	4	1	1	3	1	3	3	1	2	3	1	3	5	3		
Q15	3	2	1	3	1	5	3	2	4	5	2	5	3	4	1	4	3	3	4	3	5	1	4	4	4	4	5	3	2	1	4	4		
Q16	2	1	3	3	2	3	3	2	3	3	2	5	3	3	3	1	4	4	4	3	3	5	3	5	3	3	2	4	5	3	3	2	4	
Q17	2	1	2	3	2	1	4	3	3	4	2	5	4	3	1	3	4	2	3	2	5	2	5	4	3	1	4	5	5	5	4	4		
Q18	1	1	2	2	5	2	5	5	4	4	2	5	5	1	2	4	4	3	2	2	1	4	5	5	4	3	4	5	5	3	4	4		
Q19	3	5	2	3	5	4	4	4	3	2	2	2	3	4	1	5	3	3	5	2	3	1	3	3	2	1	2	3	1	1	5	2		
Q20	4	4	5	1	5	3	5	5	2	4	1	4	2	5	1	5	4	2	2	4	2	1	3	4	5	4	2	4	2	1	3	5	4	
Q21	1	2	4	4	5	2	3	4	2	5	4	3	3	1	5	4	4	2	3	2	5	2	1	2	1	3	2	2	4	3	1	3	5	3
Q22	5	1	5	2	5	4	3	5	2	5	2	1	2	4	5	2	1	1	4	2	1	3	1	4	2	2	2	1	1	3	5	2	2	
Q23	4	5	2	1	4	3	4	5	2	3	4	1	2	5	5	3	4	4	2	1	1	3	1	4	2	2	4	4	1	1	5	5	2	
Q24	3	1	1	4	1	4	4	2	4	4	2	5	4	3	1	4	4	3	3	5	5	4	5	4	4	2	4	5	5	4	3	3	3	
Q25	3	5	4	1	4	2	4	5	2	5	2	1	4	5	5	4	3	3	3	1	1	2	1	4	4	2	2	1	2	4	5	4	4	
Q26	2	1	5	3	1	1	3	1	3	5	2	3	4	1	5	3	2	3	4	3	5	1	5	2	3	1	2	3	5	2	3	3	3	
Q27	4	5	5	4	5	2	1	3	2	3	4	1	4	1	5	2	4	4	4	4	1	2	1	3	2	4	4	1	2	1	4	2	2	
Q28	3	4	3	4	5	1	1	1	2	5	4	1	2	1	5	2	3	3	3	4	1	1	1	1	2	1	2	1	1	1	5	2	1	
Q29	4	5	5	3	5	5	4	1	2	1	4	1	4	1	5	3	4	4	4	2	2	3	1	2	2	3	4	1	2	1	5	3	2	
Q30	2	3	4	1	5	5	3	1	2	4	2	1	3	3	5	2	2	3	4	1	1	5	3	1	2	1	2	1	3	3	3	2	2	
Q31	2	1	1	1	3	2	1	1	2	5	2	1	1	5	1	2	2	1	1	1	3	2	1	1	2	2	2	1	1	5	1	3	3	
Q32	4	4	4	1	4	2	5	4	3	4	4	3	4	5	5	4	2	3	4	1	1	3	4	2	3	3	4	3	2	5	5	4	4	
Q33	4	4	3	4	5	3	4	4	3	2	4	1	4	5	5	3	4	3	3	1	1	3	3	4	2	3	1	4	1	1	5	5	3	
Q34	4	5	5	1	5	4	3	2	3	5	4	1	4	5	5	3	2	4	5	1	1	4	1	2	2	2	4	1	2	5	5	2	2	
PRPS	72	123	125	133	91	152	119	85	113	87	105	116	55	99	114	150	72	81	89	112	82	49	102	51	97	86	85	92	52	50	92	134		

In order to analyze results and to determine the effect of impromptu speaking sessions (ISS) on anxiety levels, means and standard deviations were computed for the pre-ISS PRPSA scores for the 16 students in the sample, and then for the post-ISS PRPSA scores for the same students. These were automatically

calculated based on the Anxiety level formula given in section Measurement Instruments above, and the results automatically regrouped and tabulated in a separate Excel sheet for statistical analysis, as shown in Table 3.

Table 3: PRPSA pre and post ISS

	Students															
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16
Pre-ISS PRPSA	72	123	125	133	91	152	119	85	113	87	105	116	55	99	114	150
Post-ISS PRPSA	72	81	89	112	82	49	102	51	97	86	85	92	52	50	92	134

Table 4 and Figure 1 show the distribution of anxiety levels pre and post ISS. As can be seen therein, the number of students with low anxiety (<98) jumped from 3 to 13 after impromptu speaking sessions, indicating that a fair number of students with moderate and high anxiety have benefited from ISS; while the number of students with high level of anxiety (>131) dropped to 1 after ISS.

Table 4: Histogram of pre and post ISS anxiety levels

Anxiety Level	Pre-ISS	Post-ISS
Low anxiety (PRPSA <98)	5	13
Moderate anxiety PRPSA (98-131)	8	2
High anxiety (PRPSA > 131)	3	1

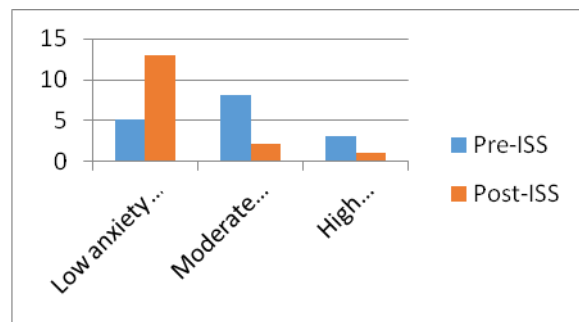


Figure 1. Distribution of PRPSA levels pre and post ISS

Hypothesis Testing and Research Question Findings

The means we found are as follows: pre-ISS=108.69 and post-ISS=82.88. The mean difference (i.e., mean of the pre-ISS minus the mean of the post-ISS) is 25.81 representing as much as 24% decrease in anxiety levels. This supports our hypothesis, which is “there is a significant difference in the students’ ratings of public speaking anxiety experienced pre-impromptu and post-impromptu speaking sessions”.

To eliminate any effects of chance, we further performed a paired *t-test* which compares the means of two groups with paired observations (i.e., before and after ISS measurements) by computing the differences in means for individual students. In doing so, Alpha was set to 0.05 so that we have a confidence level of 95% that the results obtained are statistically significant and that there is only 5% chance of making a Type I error, which would make the results insignificant. The t-value found using a 1-tailed distribution is = 0,000442 which is less than the 1-tailed p-value for the sample 2,131 indicating that the average 24% average decrease in PRPSA anxiety level is not subtitle, and is not the result of chance, therefore validating the hypothesis that there is a significant difference in the students’ ratings of public speaking anxiety experienced pre-impromptu and post-impromptu sustained speaking sessions.

DISCUSSION

The purpose of this study was to determine whether sustained impromptu speeches and oral activities significantly reduced the students’ public speaking anxiety. The PRPSA measured the students’ public speaking anxiety both at the beginning and the end of the impromptu speaking sessions. It revealed that all participants’ anxiety significantly decreased as they moved from one extemporaneous speech to another. On average, PSA decreased by 24% for each participant and by as much as 67% for participant S₆. Although PSA for participant S₁₆ remained high it got decreased by 11%. This clearly indicates that sustained weekly impromptu speaking had a high impact on PSA reduction.

LIMITATION OF THE STUDY

The current study involved one section of public speaking course, and though the results obtained are statistically significant, one might want to consider involving two or more student sections to ensure a larger sample size, and strengthen the significance of the results.

CONCLUSION AND FUTURE RESEARCH

Sustained impromptu speaking practice has been demonstrated to be significantly effective in decreasing public speaking anxiety. Therefore, weekly impromptu speaking activities should be implemented in the basic public speaking course for they effectively reinforce the classroom instruction, to ensure anxiety reduction and full public speaking competence. Sustained impromptu speaking guarantees students’ success in a public speaking course.

Future research should continue exploring the impact of weekly impromptu speaking on students’ PSA and competency development because it has been neglected in the literature. Also, studying the correlation between sustained impromptu speaking, PSA reduction, and public speaking skills development should shed more light by quantitatively measuring this correlation.

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