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Playing with improv(isational) theatre to battle public speaking stress

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Playing with improv(isational) theatre to battle public speaking stress

Students in secondary education often suffer from public speaking stress, but formal education does not provide any means to support the battle with this anxiety. This study aims at decreasing public speaking stress and increasing public speaking competence via an innovative intervention program that is rooted in the principles of improv(isational) theatre training. Whilst a direct impact of the improv(isational) theatre training could not be detected, closer analysis of the data shows that the positive effect of the training may be felt over the longer term and that a specific type of student might particularly benefit more from this type of drama education.

Keywords: improvisational theatre; public speaking; public speaking stress.

This article explores a drama project in formal education that addresses public speaking anxiety amongst young adults. Research has identified three successful treatments to decrease public speaking stress: systematic desensitization (which intervenes in the unconscious association between public speaking and anxiety), cognitive modification (which replaces problematic public speaking cognitions with more positive views on public speaking), and skills training. Although each of these three techniques is successful, a combination of approaches is generally more effective than single treatments (Bodie 2010). A specific type of coaching that combines all three aforementioned treatments is improv(isational) theatre training, in which “the techniques of theatre are the techniques of communicating” (Spolin 1993, 14). Improv is a form of theatre in which all of the dialogue and action is unscripted, and is generated spontaneously as the players interact with each other (Lenters and Smith 2018). Strictly speaking, there is nor right or wrong in improv(isational) theatre, and few rules, but some commonly agreed principles can be found among improv players.

For example, Tina Fey's four guidelines for improv(isational) theatre would be accepted by most improv professionals. First, one has to agree with the situation set on stage ('agree'), and secondly, one has to add something to this situation ('yes, and'). The third rule is that one has to make decisions on stage ('make statements'), and finally, there are no mistakes in improv ('only opportunities') (Fey 2011, 82-84). During an improvisation training players improve their speaking skills (voice, body language, etc.), but also learn how to make decisions and take risks, which might help to lower the level of anxiety associated with speaking in front of an audience and provide tools to encourage students to embrace public speaking. Improvisation training can also be enjoyable, which can potentially alter problematic public speaking cognitions by countering them with more positive perspectives. Improvisation training might therefore provide an appealing route to lower public speaking stress and improve public speaking.

This type of training can be found in companies and business schools (Shaw and Stacey 2006) and innovative educational settings (Watson 2011), but its impact on public speaking stress is unclear. Although drama techniques have been found to lower the speaking anxiety of groups of learners of English as a foreign language (Adebiyi and Adelabu 2013; Atas 2015; Giebert 2014), the impact of improvisation training on public speaking has not yet been experimentally investigated. In this article I report on a study undertaken in secondary education in Belgium in 2017 that investigated the impact of improv(isational) theatre training on public speaking stress and public speaking competence of students aged 17 to 18 years.

Research questions

The study was based on a literature review that generated the following research

questions:

- (1) Does improv(isational) theatre training have an impact on public speaking stress of students in secondary education?
- (2) Does improv(isational) theatre training have an impact on the public speaking competence of students in secondary education?
- (3) What is the relationship between public speaking stress and public speaking competence of students in secondary education?

In line with the Council of Europe (2017), this study refers to *public speaking competence*, and not to public speaking skills, because in order to be able to speak in front of an audience one draws upon a wide array of different competences (for instance, knowledge of the world and grammatical competence).

Method

The case study adopted a mixed-method intervention design which aimed to assess the impact of an improv(isational) theatre training program. Participants were subjected to a pre- and post-test self report of public speaking stress, and public speaking competence at both test moments was compared via videos of students taking part in a speaking exercise. The improv(isational) theatre training program was introduced into a mother tongue classroom in technical secondary education in Flanders (Belgium). Two classes from Grade 12 (final year of secondary education, with an average age of 17 years) were recruited from the same group, all of whom were engaged in technical secondary education, which focuses on vocational preparation, compared to for instance general secondary education. One group experienced the intervention (n=18), while the other class group (n=17) followed a business as usual routine, i.e. attending the regular

lessons. These classes were randomly assigned to a condition.

The intervention consisted of four 50-minute sessions that were given on a weekly basis. Although this number of sessions seems relatively low, the aim was to develop an intervention that could be easily integrated into the rigid curriculum of a class in secondary education. Longer programs may result in a more substantial impact, but it may also be less feasible to introduce them into practice. A typical session was rooted in the principles of improv(isational) theatre and integrated the activities described in Table 1. The teacher gave the intervention after receiving training in improv(isational) theatre from a professional coach. This professional improv coach also designed the four 50-minute sessions.

Table 1.

Activity	Description
Warming up.	Getting everybody in a cheery mood, establishing trust between the players, and sharpening concentration.
Boosting creativity via free associations.	Training fast-thinking. Showing the players how natural associating really is.
Learning how to take risks, pushing the boundaries.	Helping players to blank their mind, training players to acknowledge the things they subconsciously think, and encouraging spontaneity.
Learning to speak without preparation in front of an audience.	The overall objective of each exercise.

Note: Description borrowed from *Improv Encyclopedia*. Retrieved 20 March 2018 from <http://improvenyclopedia.org/>

Public speaking stress was assessed via a 7-point Likert scale that was the Dutch version of the short-form of the personal report of confidence as a speaker (Hook, Smith and Valentiner 2008). Analysis demonstrated a strong reliability of the scale both at test moment 1 (Cronbach's $\alpha = .88$) and test moment 2 (Cronbach's $\alpha = .91$). Due to ethical concerns, we were unable to directly assess the participants' stress responses via saliva such as during the Leiden Public Speaking Task (Bos, van den, et al. 2014). Public speaking competence was assessed via a specific speaking task. During a class before the first session of the intervention and after the final session, participants were invited to do a 1-minute public speaking exercise. They were randomly given a statement to respond to, such as "music festivals are too expensive" or "one has to stop eating meat". All speaking exercises were video taped.

The speaking competence of the speakers displayed in the videos was assessed via comparative judgement of the speaking task. The study yielded 64 representations (i.e. speaking assignments), which were uploaded to the Digital Platform for the Assessment of Competences (<https://www.d-pac.be/english/>). 13 assessors (5 trainee teachers and 8 well-experienced university college lecturers) were invited to score the 64 videos and, if possible, gave positive and negative points per video. An analysis of the final ranking yielded a strong reliability (.80).

Results

Descriptive statistics

Table 2 gives the descriptive statistics of the research data. Due to illness, certain participants were unable to complete all tests, which resulted in an unequal number of

participants at different moments.

Table 2. Descriptive statistics of public speaking competence and public speaking stress

	Test moment	Condition	n	M	SD
Public speaking competence	1	control	15	.05	1.79
		experimental	14	.30	1.64
	2	control	15	-.33	1.48
		experimental	14	-.19	1.29
Public speaking stress	1	control	15	2.61	.86
		experimental	14	3.43	.88
	2	control	15	2.64	.79
		experimental	14	3.66	1.02

Note: the scores of the public speaking competence refer to their relative position in the ranking.

Statistical analyses

To answer the research questions on the impact of the intervention on public speaking stress (RQ1) and public speaking competence (RQ2), this study conducted multiple ANCOVA analyses. This is a type of statistical analysis that compares groups on a selected variable, and that also integrates other variables into the model as it is believed that these variables might also have an impact on the selected variable. This research could not detect a significant effect of the intervention on public speaking stress at test moment 2, controlling for public speaking stress at test moment 1 ($F(1,27)=1.45$, $p=.24$, $d=.05$), nor on the public speaking competence at test moment 2, controlling for the

public speaking competence at test moment 1 ($F(1,26)=.001$, $p=.97$, $d=.00$).

To answer the research question on the relationship between public speaking stress and the public speaking competence (RQ3), multiple regression analyses were conducted. At test moment 1, public speaking stress predicted the variation in the public speaking competence ($F(1,31)=8.94$, $p<.01$, $R\text{ Square}=.22$). Moreover, for students in the control group, public speaking competence at test moment 1 predicted the variation in public speaking competence at test moment 2 to a substantial degree ($F(1,13)=37.51$, $p<.01$, $R\text{ Square}=.72$). However, this finding could not be retrieved for the students in the experimental group. In order to further investigate this, the participants in the experimental condition were divided into quartiles according to the public speaking stress scores at test moment 1. We conducted an ANCOVA analysis with these quartiles, and could not retrieve any significant results, except for the subgroup of the second quartile (thus between Q1 and the median of the data set). This model is statistically insignificant ($F(2,14)=3.37$, $p=.07$, $R\text{ Square}=.38$), but the findings do suggest that specific type of participants in the experimental condition may have benefited from the intervention.

If the speaking exercises were divided according student-oriented subject, the following results were detected (see Table 3). At test moment 1, students with student-oriented topics scored significantly higher on the public speaking competence than those with non-student-oriented topics, but this observation was only valid for students in the experimental condition ($t(15)=2.22$, $p<.05$), and thus not for all participants at test moment 1 ($t(31)=.45$, $p=.66$). However, at test moment 2, this result disappeared for the experimental condition ($t(12)=.11$, $p=.91$), and for both groups ($t(27)=-1.17$, $p=.25$). Moreover, in the experimental condition, the interaction effect between student-oriented

topic and public speaking stress was not significant enough to explain the variation in the public speaking competence at test moment 1 ($t(30)=.37$, $p=.72$).

Table 3. Descriptive statistics according to topic

	Condition	Topics	n	M	SD
Test moment 1	control	‘student’	9	-.40	1.90
		‘non-student’	7	.64	1.40
	experimental	‘student’	9	.95	1.33
		‘non-student’	8	-.52	1.41
Test moment 2	control	‘student’	5	.02	1.98
		‘non-student’	10	-.50	1.26
	experimental	‘student’	8	.53	1.41
		‘non-student’	8	.30	.96

Qualitative analysis

The comparative judgement of the videos yielded 566 comparisons, or 1132 videos, and of these, 886 videos also received feedback from the assessors. Most comments were relatively short, with an average length of 7.90 words per comment, and were coded in NVivo along the principles of Grounded Theory (Glaser and Strauss 1967). This resulted in 2306 nodes which were brought together in two major categories, namely ‘speaker features’ (aspects that are specific for the speaker, and thus can be expected to return in another public speaking task, for instance, speaking too quietly or body language) and ‘text features’ (aspects that are related to the specific task, for instance, argumentation or voicing of opinion).

Table 4 shows that the videos in both conditions at both test moments received the same number of comments regarding text features. However, there was a sharp increase in the number of comments on speaker features between test moment 1 and 2 for the experimental condition, whereas this number only slightly increased for the control condition.

Table 4. Qualitative analysis of the comments on the public speaking competence

Test moment	Condition	Speaker features	Text features
1	control	373	217
	experimental	332	177
2	control	396	208
	experimental	403	200

Discussion and conclusion

This study could not detect the impact of an improv(isational) theatre training on public speaking stress and the public speaking competence of students in secondary education. However, two findings can be noted.

First, although public speaking competence at test moment 1 strongly explained the variation in the public speaking competence at test moment 2 for the students in the control condition, this could not be found with the students in the experimental condition. Although there is no quantitative data to support the claim that the intervention had an impact, it is remarkable that such a robust relationship in the control

group ($R^2 = .72$) is entirely absent in the experimental group. Moreover, at test moment 2 in the group exposed to the improvisational theatre training, there was no longer a difference in quality in the public speaking competence related to whether the topic of the speaking task was student-oriented. As a result, whilst it is still unclear how the nature of the topic contributes to the final quality of the speaking task, could this change again be associated with the impact of the intervention?

Secondly, in both groups the significant relationship between public speaking stress and public speaking competence at test moment 1 disappeared at test moment 2. It is unclear what the implications of this finding are. Possibly, the students in the control condition were now more familiar with this specific speaking task employed, and as a result public speaking stress played a less important role in defining the quality of the speaking task, although the self-reported scores of public speaking stress show that there was no significant decrease in this variable between both test moments ($t(14) = -.28, p = .79$). For the students in the experimental condition, the absence of this significant relationship between public speaking stress and public speaking competence could hint at the impact of the intervention, indirectly detecting the disruptive nature of learning here. Influencing public speaking competence, a slow process that may not manifest itself in the dependent variables, but may be more noticeable in the disturbance of stable relationships between variables. The qualitative analysis hints at this, with a sharp increase in the number of comments related to speaker features discerned with the experimental group. The intervention may have made the participants more self-reflexive about aspects such as speaking or body language, which may have resulted in a more conscious demonstration of professional speaker features. It would of course be

unwise to claim that this would immediately lead to significant change, but a first step in this learning process may have been taken.

Analysis suggested that a specific type of participant might have benefited more from the intervention than others. Despite its statistical insignificance, the result ($p=.07$) does indicate that participants from the second quartile of public speaking stress at test moment 1 could use the insights from improv(isational) theatre to their advantage. In other words, the intervention might especially appeal to students with a distinctive but limited amount of public speaking stress, but not to persons who experience no stress when speaking in front of an audience. Spolin believed that improv could be taught to the “average” as well as to the “talented” (1993, 4), but our data here may suggest otherwise. However, the very limited number of participants in this subgroup ($n=4$) does warn against strong conclusions from this analysis.

This study investigates the intricate relationship between public speaking stress and public speaking competence. Qualitative research methodologies might further explore the sense of community that is being built in the class group by introducing improv(isational) theatre techniques into the classroom, which results in a performance of “we-ness” (Edmiston, 2014). These brief moments of play and fun may create a classroom culture in which students’ questions and participation are promoted (Reddington 2015). Moreover, it would be interesting to implement a longer intervention than this study’s 4-hour program. Furthermore, the type of assignment to detect public speaking competence may also have an impact on results: for instance this study used a specific speaking task, and it is unclear what role this assignment played in the final quality of public speaking. It could also be interesting to focus further studies on students with a below average level of public speaking stress, because the

preliminary results from this case study suggest that these people reap the benefits from improv(isational) theatre more than others.

To summarize, although this study cannot submit quantifiable data, it did uncover some tendencies in the experimental group that may show the impact of improv on public speaking stress and the public speaking competence over a longer term and for participants with a specific profile.

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