# The effect of self-talk on presentation anxiety in university students

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## Abstract

Many students experience presentation anxiety. Therefore, skills to decrease this feeling would be highly beneficial. One possible way of decreasing anxiety could be by using self-talk. The study investigated the effect of four types of self-talk. First, positive self-talk is seen as encouraging. Contrary, negative self-talk is self-critical. Neutral self-talk refers statements that are neither negative nor positive. Lastly, mixed self-talk is used when someone uses different types of self-talk. The general aim of this study was to examine whether the type of self-talk used by students influences their presentation anxiety levels. All participants (N=66) were university students. The participants rated their self-talk by themselves. The Personal Report of Public Speaking Anxiety (PRPSA) was used to measure the participants' levels of presentation-anxiety. An ANOVA and a Tukey Honestly Significant Difference (HSD) test were performed to examine potential associations between the types of self-talk and presentation anxiety levels. Lastly, self-talk topics were explored in terms of frequencies. Participants who used negative self-talk (M=137.5, SD=20.45) had significantly ($p$=.004) lower levels of presentation anxiety than participants using positive self-talk (M=107.65, SD= 21.39). There was no statistically significant difference between the other types of self-talk. Additionally, ten self-talk topics were identified. "Motivational statements" (32.08%) was the most prevalent topic, followed by "instructions" (20%). Positive self-talk may be effective in decreasing presentation anxiety. To make the experience of students more comfortable and less stressful, it may be beneficial to introduce the concept of self-talk to students.


*Keywords:* self-talk, inner dialogue, presentation anxiety, anxiety

## Introduction

Presentation anxiety is a widely spread issue for students (Elliott, & Chong, 2005). For researchers and students, it is common to present their findings and work. It is a crucial part in academia to share knowledge but also spark interest in others. However, not everyone feels comfortable with public speaking as many people experience psychological stress and anxiety leading up to and during a presentation (Ishak, 2020). According to Daviu, et al. (2019), there appears to be a relationship between anxiety and psychological stress. Both share intertwined neural and behavioural underpinnings which are only distinguished by biological nuances. Due to the closeness in perception of those two states, this research will treat negative psychological stress and anxiety interchangeably.

There is a multitude of consequences or signs showing that one might experience presentation anxiety. Those indicators can include a lack of energy, being less communicative, and disturbances in sleep and/ or appetite, having sweaty palms, an accelerated heartbeat, a trembling voice, or a shortness of breath (Ishak, 2020). In more severe cases anxiety can cause impairments in the individuals functioning (Pull, 2012). They can be present from the moment one knows about an upcoming presentation, in the days leading up to the public speaking event or just right before the presentation starts (Ishak, 2020). Some of those signs are outwardly visible. This in turn could potentially lead to more anxiety because one might get anxious about one's anxiety becoming visible to the audience. To break this vicious cycle or prevent people from experiencing presentation anxiety in the first place, it is crucial to take a closer look at what factors might be underlying it.

There are many factors influencing presentation anxiety. According to Cooper, et al. (2001) stress is mainly caused by the interaction of external condition and the internal psychological responses of an individual to these conditions. An example of this would be the requirement to present in a foreign language (external factor) and an internal belief that one does not possess good enough language skills to do so. This discrepancy between what one must do and what one thinks they are capable of can then lead to anxiety. Consequently, belief systems can influence one's perceived stress and anxiety levels (Ishak, 2020). This concept is further explained through cognitive models. According to them, an individual's negative perception of their own performance (negative self-imagery) causes a fear of public speaking (Pull, 2012). Likewise, a study by Hirsch, et al. (2006) shows that the anxiety levels in people focusing on a negative self-image were higher than in the positive self-image group. They also thought their performance was worse and they proclaimed more negative thoughts.

Furthermore, Hirsch, et al. (2006) suggest that there is a possibility of altering the content of one's self-image.

Through actively changing one's thoughts, assumptions, and beliefs (self-image), one can prevent stress and improve one's wellbeing (Beck, et al., 2005). The underlying assumption of that process is that positive emotions contribute to one's wellbeing (Alexander, et al., 2021) and emotions are guided by the way one thinks. Therefore, controlling the thoughts leading to specific emotions and feelings might an efficient way to control the emotion itself. Consequently, it might be possible to decrease one's anxiety levels by changing one's self-image and thoughts into more positive ones.

One possibility of achieving this is through changing one's self-talk. Self-talk can change the way one thinks about themself by focusing on desired thoughts and therefore, change their self-image (Johnson, et al., 2004; White, 2008). Generally, self-talk is defined as a dialogue with oneself (Theodorakis, et al., 2000). What people tell themselves supposedly affects the way they behave (Ellis, 1976, as cited in Hatzigeorgiadis, et al., 2009). It has been suggested that positive self-talk works by focusing on desired thoughts which then leads to desired behaviours (Johnson, et al., 2004). Moreover, Ishak (2020) proposes that positive self-talk has a stress reducing effect, and improves confidence and good feelings. This works by changing negative thoughts into positive ones. For example, a nervous person can tell themselves that their pounding heart is caused by energy and excitement instead of feeling anxious. Through changing one's interpretations and beliefs by using self-talk, a person can turn negative into positive stress and becomes more confident and less anxious (Ishak, 2020).

Self-talk statements can be divided in to three categories: positive, negative, and neutral self-talk. According to Gammage, et al. (2001), positive self-talk is seen as encouraging and conveying the meaning that the person might be successful. An exemplary statement of positive self-talk is "You can do it" (Gammage, et al., 2001, p. 239). Contrary, negative self-talk represents an inability at succeeding and is self-critical in nature. An example of such a statement is: "Why did I do that" (Gammage, et al., 2001, p. 239). Neutral self-talk refers to a dialogue with oneself that is neither negative nor positive, e.g., "Relax" (Gammage, et al., 2001, p. 239). Next to that, a fourth category, mixed, is possible when someone uses not just one but different types of self-talk (Araki, et al., 2006).

A growing body of research suggests that the type of self-talked used is important (Tod, et al., 2011). For instance, participants using positive self-talk performed better on a balance-task than participants using negative or mixed self-talk (Araki, et al., 2006). Generally, a literature review showed that positive self-talk appears to be more beneficial for

performance than negative self-talk (Tod, et al., 2011). More precisely, a study by Shadinger, et al. (2020) revealed that students reciting affirmational statements before presenting experienced a significantly lower communication anxiety than students in a control group. In addition, they felt less concerned and nervous before presenting. Similarly, Ronan, and Kendall (1997) found a relationship between negative self-talk and high levels of anxiety. Moreover, Galassi, et al. (1981) observe that negative internal dialogue was linked to high test anxiety, while positive internal dialogue was linked to low test anxiety.

Next to that, Barwood, et al. (2015) concluded that positive self-talk increased cycling performances while neutral self-talk did not influence performance, which makes positive self-talk more beneficial than neutral self-talk. Furthermore, Jones (2003) suggests that using neutral self-talk instead of negative self-talk can prevent possible negative emotions. This shows that people using neutral self-talk may experience less presentation anxiety than people using negative self-talk.

Based on the reviewed literature, the proposed idea is that negative self-talk increases presentation anxiety, while positive self-talk decreases anxiety. Mixed and neutral self-talk are expected to be linked to similar levels of presentation anxiety which are higher than anxiety levels of people using positive self-talk and lower than for people using negative self-talk. Based on this assumption the research question can be formulated as follows: “What is the relationship between the type of self-talk and presentation anxiety in university students in Europe?”. In accordance with the literature research, following hypotheses can be made.

**H1:** Participants who use positive self-talk experience lower levels of presentation anxiety than participants who use negative, neutral, or mixed self-talk.

**H2:** Participants who use negative self-talk experience higher levels of presentation anxiety than participants who use neutral, or mixed self-talk.

**H3:** Participants who use neutral or mixed self-talk experience the same levels of presentation anxiety.

## Methods

### Design

This study uses mixed methods, quantitative and qualitative. It has a non-experimental, correlational design. The relationship between the participants’ presentation anxiety levels (dependent variable) and their way of talking to themselves (independent variable) was examined.

## Participants

In total 91 participants were recruited for this study via convenience sampling. After excluding incomplete responses, the sample consisted of 66 respondents. Table 1 displays the participant characteristics. Most of the remaining participants were female (83.3%) and the ages of the participants ranged between the ages of 18 and 31 (M = 20.97; SD = 2.02). Because the context of the research is about university students, respondents had to be university students and be 18 years old or older.

**Table 1**

*Participant characteristics.*

| Variable | M | SD | N | % |
|---|---|---|---|---|
| Gender | | | | |
| Female | | | 55 | 83.3 |
| Male | | | 9 | 13.6 |
| Non-binary | | | 2 | 3 |
| Age (years) | 20.97 | 2.02 | | |
| Nationality | | | | |
| German | | | 39 | 59.1 |
| Dutch | | | 18 | 27.3 |
| Other | | | 9 | 13.6 |
| Country of University | | | | |
| Netherlands | | | 57 | 86.4 |
| Germany | | | 9 | 13.9 |
| Study program | | | | |
| Bachelor | | | 60 | 90.9 |
| Master | | | 6 | 9.1 |
| Study in foreign language | | | 59 | 89.4 |

## Materials

For this study, a consent form, a demographic questionnaire, a self-talk questionnaire, a presentation-anxiety questionnaire, an additional remarks field, and a debriefing form were used.

### *Demographics*

The first set of questions (Appendix A) concerned demographic information about the participants. Here, information about age, gender, nationality, country of their university, year

of study, whether the participants are studying in their native language, and whether they are presenting something soon were asked.

***Self-talk***

For the self-talk questions (Appendix B), the participants were first presented with a short definition of the term "self-talk" to ensure that everyone is sufficiently informed to answer the questions. This is crucial because it helps the participants to answer the questions properly (Babbie, 2016). Furthermore, given that not all participants are native speakers it could be assumed that not every-participant was familiar with the term. Next, one sentence primed the students to imagine being told that one must present something within the next semester. This was done to get the participants into the headspace to answer the questions authentically and truthfully. To attain the topics of the participants' self-talk and check the reliability of the next question, the participants were asked to state examples of their self-talk ("Please list the statements you tell yourself in the context of an upcoming presentation"). For the last question about self-talk ("How would you rate your self-talk overall?"), the students got to rate their own self-talk into one of four categories themselves to measure the type of self-talk used by the participants. The categories included "negative", "neutral", "positive", and "mixed".

***Presentation-anxiety***

The Personal Report of Public Speaking Anxiety (PRPSA; Appendix C) was used to measure the participants' levels of presentation-anxiety (McCroskey, 1970). It consists of 34 statements. Examples of those statements are: "While preparing for giving a speech, I feel tense and nervous", "I look forward to giving a speech", and "My thoughts become confused and jumbled when I am giving a speech". They can be answered with a 5-point Likert scale, including "Strongly Disagree", "Disagree", "Neutral", "Agree", and "Strongly Agree" as answer options. The lowest possible score is 34 and the highest score is 170. McCroskey (1970) reported alpha estimates of over .90. In the present study the questionnaire showed an excellent internal reliability ($\alpha = .96$).

**Procedure**

Participants signed up for the survey via SONA, the BMS faculty´s test subject pool) or were directly contacted by the researcher. To participate in this study, participants were provided with a link to the Qualtrics questionnaire. The landing page of the link showed the informed consent form (Appendix D), were participants needed to click a button on the bottom of the page to start the study. Once the study started, participants filled out the seven demographic questions, followed by the three questions about their self-talk. Next, they answered the 34 statements of the PRPSA. After that, participants had the opportunity to leave any additional remarks. Finally, they were presented with the debriefing form (Appendix E). The participants needed approximately 20 minutes to fill out the survey. After finishing the study, participants recruited via the BMS subject pool received .25 SONA credits. This research was reviewed and approved by the BMS Ethics Committee of the University of Twente on the 5th of April 2022 and the study took place in April and May 2022.

**Data Analysis**

SPSS was used to analyse the Data. After all incomplete answers were removed from the dataset, the open question was coded. First, the responses were coded in terms of the type of self-talk. For that, four codes were created. Three of them are grounded in theory by Gammage, et al. (2001), who defined "positive", "negative", and "neutral" self-talk. The examples of self-talk that were categorized by Gammage, et al. (2001) were used as leading

examples for the coding of other statements. “Why did I do that” (Gammage, et al., 2001, p. 239), “I cannot do this”, and “I am so nervous” are examples of “negative” self-talk; “You can do it” (Gammage, et al., 2001, p. 239), “I know the topic very well”, and “I feel good about this” were examples of “positive” self-talk; “Relax” (Gammage, et al., 2001, p. 239), “Just breath”, and “Stay focused” were examples of “neutral” self-talk. While every individual statement was coded, the participant’s response was categorized according to the entirety of their statements. Therefore, a fourth code, “mixed”, was used when multiple examples were given by the participants, and they did not all fit into the same of the three original categories (Araki, et al., 2006). Statements were coded as “positive”, “negative”, or “neutral” when the statements fitted only in this category. Additionally, the question was coded in terms of mentioned topics. The coding was done through open coding.

Next, the scores of the PRPSA were calculated according to the scoring formula provided by McCroskey (1970; Appendix F). Following, the uncategorized raw scores of the PRPSA were investigated for possible outliers that would have to be removed but none were present. This was done to ensure a normal distribution. Furthermore, Cronbach’s alpha was calculated to investigate the internal consistency and reliability of the PRPSA. The questionnaire is considered to show an acceptable reliability when the alpha value is >.7. Given that the independent variable of the type of self-talk rated by the participants was based on only one question, the coding of the statements from the participants was used to evaluate whether both questions measure the same construct. To ensure interrater reliability between participants and researcher, Cronbach’s alpha was calculated. After that, the data was checked to meet the assumptions necessary for an ANOVA. A Shapiro-Wilk-Test was performed to check whether the PRPSA scores from the dependent variable were normally distributed. Furthermore, a Levene’s test was performed to examine the homogeneity of variance.

After that, the descriptive statistics were analysed. Therefore, means and standard deviations were calculated for the two variables (the type of self-talk as perceived by the participants, and the level of presentation anxiety). Next, the inferential statistics were analysed to test the hypotheses. Given that all assumptions were met, a between-subject ANOVA was performed to test the null hypotheses. For that, the between-subject factor was the type of self-talk, and the dependent variable was the PRPSA score. If the significance value is less than .05 the null hypothesis can be rejected. To examine the hypotheses post hoc tests [Tukey Honestly Significant Difference (HSD) tests] were conducted. If the significance value is less than .05 the groups differ significantly. Lastly, an additional analysis was conducted to explore the topics of self-talk used by the participants in terms of frequencies.

## Results

First, the dataset was reviewed, and assumptions were checked. In the present study the PRPSA showed an excellent internal reliability ($\alpha = .96$). The two measures, type of self-talk as rated by the participants and type of self-talk as rated by the researcher, showed a good reliability ($\alpha = .84$). The assumptions of normality and homogeneity of variance between-subject ANOVA.

### Descriptive Statistics

Next, the means and standard deviations (table 2) were calculated.

**Table 2**

*Descriptive statistics (dependent variable: PRPSA scores)*

| | M | SD | N | % |
|---|---|---|---|---|
| Positive | 107.65 | 21.39 | 26 | 39.39 |
| Neutral | 121.75 | 15.95 | 12 | 18.18 |
| Negative | 137.50 | 20.45 | 8 | 12.12 |
| Mixed | 122.80 | 22.60 | 20 | 30.3 |
| Total | 118.42 | 22.64 | 66 | 100 |

**Inferential Statistics**

There was a statistically significant difference between the four groups in terms of their PRPSA scores, $F(3,62) = 4.96$, $p = .004$. Post hoc Tukey HSD tests indicated that participants who used negative self-talk (M=137.5, SD=20.45) had significantly ($p$=.004) lower PRPSA scores than participants using positive self-talk (M=107.65, SD= 21.39). There was no significant difference found between the other categories.

**Additional Statistics**

A total number of 265 statements were coded. Ten self-talk topics were identified (table 3). "Motivational statements" (32.08%) was the most prevalent topic, followed by "instructions" (20%).

**Table 3**

*Self-talk topics*

| Code | Description | Example | Frequency |
|---|---|---|---|
| Forgetting (n=13) | Participant mentions being secure in their talking points or mentions forgetting their cues/text or having a blackout | "I will forget my text" | 4.91% |
| Grade (n=12) | Participant mentions the outcome/ grade of the presentation or passing/ failing it | "I have to pass this" "I will manage a fair grade" | 4.53% |

| | | | |
|---|---|---|---|
| Feelings (n=23) | Participant mentions feelings/ emotions | "I will get so anxious" | 8.68% |
| Instructions (n=53) | Participant gives themself instructions/ tells themself what to do | "Stay calm"<br>"Breath slowly"<br>"Talk loud and clear" | 20% |
| Past performances (n=9) | Participant mentions previous presentations | "I have done good in presentations before" | 3.4% |
| Preparation (n=20) | Participant mentions practice or preparation | "If you prepare well, you'll do well"<br>"I should have practiced more" | 7.55% |
| Perceived quality (n=19) | Participant mentions how good/ bad they think the presentation is/ will be | "I won't be able to answer the questions"<br>"It's not good enough" | 7.17% |
| End of presentation (n=7) | Participant mentions the end of the presentation, or the time left in the presentation, or how long the presentation will be | "It's only 10 minutes and then you will be rid of it" | 2.64% |
| Perception by others (n=24) | Participant mentions what they think other people will think about them/ their presentation | "People will look at me and could think something bad"<br>"No one cares if I mess up" | 9.06% |
| Motivational statements (n=85) | Participant motivates/ demotivates themself, or tries to build up confidence | "You can do this"<br>"You're worthless" | 32.08% |

## Discussion

The present study examined the influence of self-talk on presentation anxiety. The aim was to find out whether participants using different types of self-talk show different levels of

presentation anxiety. The findings showed that participants using negative self-talk experience higher levels of presentation anxiety than participants who used positive self-talk. Therefore, hypotheses one can be partly accepted. This is in line with research done by Ishak (2020) who stated that positive self-talk can help in controlling anxiety and have a stress reducing effect. Replication of results and research in different disciplines, i.e., presentation anxiety, is crucial, given that past studies have found inconsistent effects for a benefit of positive over negative self-talk (Tod, et al., 2011). However, many studies, including the present one, indicate the effectiveness of positive self-talk (e.g., Tod, et al., 2011; Shadinger, et al., 2020; Ronan, et al., 1997; Galassi, et al.,1981).

Furthermore, participants who used neutral or mixed self-talk showed no significant difference in levels of presentation anxiety. Therefore, hypothesis six can be accepted. Next to that, findings showed that there was no difference between negative and neutral, negative and mixed, positive and neutral, and positive and mixed self-talk in terms of presentation anxiety. Therefore, hypotheses one and two must be partly rejected.

The similarity in the negative and mixed self-talk, as well as the positive and mixed self-talk are comparable to findings from a study conducted by Sheridan (2020). Here, no difference in terms of performance was found between positive or negative self-talk, and mixed self-talk. However, this is contrary to findings by Araki, et al. (2006) who found a difference between positive and mixed self-talk. A possible explanation for those conflicting findings could be found in Schwartz's (1986) research review, which examined different ratios of self-talk. A positive to negative thoughts ratio of 1.7 to 1 appeared to be linked to functional groups, whereas a ratio of 1 to 1 is linked to dysfunctional groups. This ratio was also found in terms of social anxiety. This ratio model might explain exactly how different one's self-talk is from other types of self-talk and furthermore explain different findings based on mean ratios of participants. However, as stated by Sheridan (2020), there is a lack of research on mixed self-talk.

Moreover, the similarity of negative to neutral self-talk is contrary to the assumption that neutral self-talk prevents possible negative emotions caused by negative self-talk (Jones, 2003). A potential explanation for this could be linked to the findings of Hardy, et al. (2001) who found that some athletes rate their negative self-talk as motivational. This suggests that negative self-talk does not necessarily cause negative emotions it might even be beneficial to some people.

Lastly, positive self-talk was not found to lead to lower anxiety levels than neutral self-talk. This is contrary to findings reporting benefits on positive self-talk over neutral self-

talk on cycling performance (Barwood, et al., 2015). This inconsistency could be caused by the difference in dependent variables (presentation anxiety and cycling performance). Another possible explanation roots in the nature of the neutral self-talk. Many neutral statements were instructional (e.g., “Breath slowly”, “Stay calm”). A study conducted by Hatzigeorgiadis (2006) revealed no significant difference between motivational and instructional self-talk in terms of anxiety control. Based on the examples of the researcher, the categorization of instructional self-talk in this study is similar to the neutral type of self-talk coded in the present study, while the motivational self-talk appears to be comparable to the positive self-talk statements. According to Latinjak, et al. (2017), there are existing treatments meant to regulate emotions by using instructional self-talk.

Additional analysis explored which topics of self-talk were most prevalent in the reports of participants. It showed that motivational statements were most prevalent followed by instructional self-talk. This is reflected in the extent of studies that focus on motivational and instructional self-talk (e.g., Theodorakis, et al., 2000; Hatzigeorgiadis, 2006; Lotfi, et al., 2016). Moreover, those types of self-talk are linked to increased performance (Tod, et al., 2011; Lotfi, et al., 2016) and decreased anxiety (Lotfi, et al., 2016; Cheng, & Hardy, 2016). However, it is crucial to note that the topic of motivational statements in the present study includes all types of self-talk. It combines motivating as well as demotivating statements. While most studies researching motivational self-talk focus on positive motivational statements (e.g., Hatzigeorgiadis, 2006; Cheng, et al., 2016).

**Limitations**

The present study had some important limitations. First, the answers of the participants relied on retrospective recall of feelings and the use of self-talk. A literature review (Bernard, et al., 1984). concluded that on average half of the reported retrospective recalls are inaccurate when compared to observable data. Therefore, the answers might not be completely accurate, which would influence the validity of this study. However, thoughts, internal self-talk, and feelings are not observable, therefore research has to rely on self-reports. An alternative to using retrospective recall to attain data a study could focus on asking participants to report their self-talk at different points in time before they give a presentation or during a presentation. Then, the participants do not have to think back and remember what they told themself. However, asking questions during a presentation would disrupt the natural setting of a presentation and potentially alter the responses in a different way. Therefore, researchers must contemplate which method fits the aim of their study best and take the possible limitations into account.

A second limitation was that participants were asked to first state some examples of their self-talk and then indicate which type of self-talk they use. The answer could be influenced by the statements they wrote down. Meaning that they might have looked over their limited examples and based their decision on how they perceived them instead of the entirety of their self-talk. This could mean that participants coded their statements in similar manners as the researcher instead of reporting how their self-talk feels to them. This can result in biased data and potentially unreliable results. In the future this effect could be decreased by asking the second question on a different slide of an online survey. This way the participants cannot read through their reported statements again to check whether their answers are consistent.

Lastly, the coding of the topic variables for the additional analysis was based on the provided examples of self-talk. Participants stated varying numbers of examples. While some participants provided one example, others gave multiple statements. Moreover, it is unlikely that any participant stated everything they tell themself. Basing the coding on those examples could lead to incomplete data. However, it is not feasible to collect every statement a participant tells themselves and collect complete data due to the recall inaccuracy of participants. One way of addressing this issue in future research could be to instruct participants to state all self-talk statements they can recall instead of asking for examples.

**Implications**

In line with earlier research stating that positive self-talk has an anxiety reducing effect (e.g., Ronan, et al., 1997), this study shows that it also has a positive influence in decreasing presentation anxiety. Based on this finding, it would be beneficial to introduce students and other people who are likely to hold presentations to the concept and possibilities of positive self-talk. One possible way of making this knowledge accessible to everyone is by including it in classes about presentation skills that are often offered by universities. Another possibility would be to teach student counsellors about the benefits of positive self-talk. Then they can introduce this anxiety-reducing tool to their students when they seek out help.

Lastly, more research about the influences of self-talk and the possibility of manipulating one's self-talk and consequently decreasing anxiety or influencing other areas of life would be interesting. For example, studies that focuses on mixed self-talk in specific could fill the research gap concerning this type of self-talk and enhance understanding on how the effects might differ or resemble the effects of other types of self-talk. This would be especially interesting given that 30.3% of the participants used mixed self-talk and only scarce research was conducted up to this point (Sheridan, 2020). By thoroughly understanding

the concept of self-talk interventions could be invented to help people decrease their presentation anxiety.

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# Appendices

## Appendix A

## Demographic questions

How old are you? __

What is your gender?
__female
__male
__non-binary
__prefer not to say

What is your nationality?
__Dutch
__German
__Other
Please specify: __

What country do you currently study in?
__The Netherlands
__Germany
__Other
Please specify: __

In what year of your studies are you currently?
__Bachelor 1st year
__Bachelor 2nd year
__Bachelor 3rd year
__Bachelor 4th year or higher
__Master 1st year
__Master 2nd year
__Master 3rd year or higher

Do you study in your native language?
__Yes
__No

Are you presenting something soon?
__No
__Yes
Please specify how soon: __

## Appendix B

## Self-talk questions

Self-talk is a dialogue you have with yourself. Within self-talk you can for example reinforce or criticize yourself, give yourself instructions, or interpret perceptions and feelings.

Imagine you get told that you have to present something within the next semester.

How long before the presentation do you start your self-talk about the presentation? ___

Please list the statements you tell yourself in the context of an upcoming presentation: ___

How would you rate your self-talk overall?
__ positive
__negative
__neutral
__mixed (positive/ negative/ neutral to similar amounts)

## Appendix C

## PRPSA

This appendix contains the PRPSA questionnaire (McCroskey, 1970).

Please read the following statements and indicate how much you agree/ disagree with them.

Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree

1. While preparing for giving a speech, I feel tense and nervous.

2. I feel tense when I see the words “speech” and “public speech” on a course outline when studying.

3. My thoughts become confused and jumbled when I am giving a speech.

4. Right after giving a speech I feel that I have had a pleasant experience.

5. I get anxious when I think about a speech coming up.

6. I have no fear of giving a speech.

7. Although I am nervous just before starting a speech, I soon settle down after starting and feel calm and comfortable.

8. I look forward to giving a speech.

9. When the instructor announces a speaking assignment in class, I can feel myself getting tense.

10. My hands tremble when I am giving a speech.

11. I feel relaxed while giving a speech.

12. I enjoy preparing for a speech.

13. I am in constant fear of forgetting what I prepared to say.

14. I get anxious if someone asks me something about my topic that I don’t know.

15. I face the prospect of giving a speech with confidence.

16. I feel that I am in complete possession of myself while giving a speech.

17. My mind is clear when giving a speech.

18. I do not dread giving a speech.

19. I perspire just before starting a speech.

20. My heart beats very fast just as I start a speech.

21. I experience considerable anxiety while sitting in the room just before my speech starts.

22. Certain parts of my body feel very tense and rigid while giving a speech.

23. Realizing that only a little time remains in a speech makes me very tense and anxious.

24. While giving a speech, I know I can control my feelings of tension and stress.

25. I breathe faster just before starting a speech.

26. I feel comfortable and relaxed in the hour or so just before giving a speech.

27. I do poorer on speeches because I am anxious.

28. I feel anxious when the teacher announces the date of a speaking assignment.

29. When I make a mistake while giving a speech, I find it hard to concentrate on the parts that follow.

30. During an important speech I experience a feeling of helplessness building up inside me.

31. I have trouble falling asleep the night before a speech.

32.My heart beats very fast while I present a speech.

33. I feel anxious while waiting to give my speech.

34. While giving a speech, I get so nervous I forget facts I really know.

## Appendix D

## Consent Form

Welcome

Thank you for participating in this survey! The goal of this study is to compare the effects of different kinds of self-talk on presentation anxiety. This study will take approximately 20-30 minutes to complete. You may only participate if you are 18 or older and are a registered university student at the time of participating.

Your participation is completely voluntary. You are able to withdraw at any time.

Your responses are completely anonymous, and cannot be traced back to you. No personally identifying questions (e.g., names) will be asked in during this survey.

Your responses will be used for scientific psychological research.

If you have any questions about the study, you can always contact the researcher via email (n.lasai@student.utwente.nl).

This research project has been reviewed and approved by the BMS Ethics Committee. If you have any questions about your rights as a research participant or ethical concerns, please contact the Ethical Review Committee of the Behavioral and Management Sciences Faculty, University of Twente, Netherlands (ethicscommittee-bms@utwente.nl).

## Appendix E

## Debriefing Form

Thank you for your participation in this study!

Your response has been recorded.

The aim of this study is to examine the influence of different kinds of self-talk on presentation anxiety.

For further information about this study, you can contact the researcher via mail: n.lasai@student.utwente.nl

If you have any ethical concerns, or want to discuss your rights as a research participant, please contact the Ethical Review Committee of the Behavioral and Management Sciences Faculty, University of Twente, Netherlands, ethicscommittee-bms@utwente.nl

## Appendix F

## PRPSA Scoring Formula

This appendix contains the scoring formula of the PRPSA (McCroskey, 1970).

Scoring: To determine your score on the PRPSA, complete the following steps:

Step 1. Add scores for items 1, 2, 3, 5, 9, 10, 13, 14, 19, 20, 21, 22, 23, 25, 27, 28, 29, 30, 31, 32, 33, and 34

Step 2. Add the scores for items 4, 6, 7, 8, 11, 12, 15, 16, 17, 18, 24, and 26

Step 3. Complete the following formula: PRPSA = 72 - Total from Step 2 + Total from Step 1

Your score should be between 34 and 170. If your score is below 34 or above 170, you have made a mistake in computing the score.
High = > 131
Low = < 98
Moderate = 98-131