

Original Papers

Polish Psychological Bulletin
2019, vol. 50(3) 226–236
DOI - 10.24425/ppb.2019.130695

Safoura Jahedizadeh*
Behzad Ghonsooly*
Azar Hosseini Fatemi*

Student Evaluation Apprehension: An Interdisciplinary Review of Determinants and Ramifications

Abstract: Evaluation apprehension is the anxiety arising from a concern that one's knowledge or expertise may be evaluated unfavorably by an audience. In this regard, the educational field comprising students' discussions, lectures, presentations, and interactions is not an exception. Plethora of studies on student apprehension demonstrated that the construct is under the influence of different factors and can create various consequences. The aim of the present review is to complement and encapsulate previous research on student apprehension by providing an updated review on the concept in different disciplines. Data from 30 studies published in Elsevier, Springer, Taylor & Francis, and System were coded based on a coding scheme. The studies were broadly classified into four categories in the realm of education in terms of students' disciplines; namely, Second/Foreign Language Learning (9 studies), Accounting and Finance (4 studies), Medicine, Nursing, and Pharmacy (6 studies), and miscellaneous disciplines (11 studies). The focus of this review pivoted around antecedents and consequences of student apprehension in each field. The analysis demonstrated the multidimensional nature of the construct caused by a host of variables and resulting in a multitude of ramifications. Based on these findings, some implications and strategies for mitigating student evaluation apprehension are presented.

Keywords: student evaluation apprehension, review, determinants, ramifications

Introduction

According to Rosenberg (1965), evaluation apprehension refers to "person's active anxiety-toned concern that he or she may be evaluated negatively" (Rosenberg, 1969, p. 281). In other words, when threatening events deflate individuals' positive evaluations, they feel apprehended (e.g., Adler, 1927; Allport, 1955; Homey, 1950). Moreover, according to Weber and Cook (1972), evaluation apprehension affects individuals' behavior in psychological experiments and leads to invalid casual interference. Hence, participants display quicker conditioning in conditioning research and conform less in conformity studies in order to reserve helpful self-presentation. Studies on evaluation apprehension have also revealed that when individuals are supposed to make a choice, they are highly anxious about "presenting themselves in a favorable light". This concept is known as the good subject role or apprehensive hypothesis

(Rosnow, Goodstadt, Suls, & Gitter, 1973). In addition, the concern for having a confident presentation comprises the willingness of presenting the preferred and well-adjusted response on the social basis which refers to the social desirability concept.

According to Bordia, Irmer, and Abusah, (2006), giving a speech is an example in which evaluation apprehension is engendered (Edwards, Edwards, Myers, & Wahl, 2003). The reason can be attributed to the fear of negative consequences or the unwillingness to create an unpleasant impression on others to defend self-esteem (Leary, Barnes, Griebel, Mason, & McCormack, 1987). Other instances involve taking tests, interviewing for jobs, or being indirectly inspected in ordinary conversations (Leary, 1983). In all these situations, individuals may experience evaluation apprehension due to the presence of those who are not familiar with (Zimbardo, 1977) or when they do not grasp the meaning and value of particular tasks (Rosenberg, 1965).

* Ferdowsi University of Mashhad

Social Facilitation Model

Since the concept of evaluation apprehension implies the presence of others, discussing the relevant theoretical framework seems crucial. According to a theoretical explanation of social facilitation, “the presence of an observer during performance of a task generates concern on the part of the performer over being evaluated” (Cottrell, 1972; Geen, 1981, cited in Geen, 1983, p. 204). On this basis, if the assigned task is easy this concern facilitates performance, but if the task is difficult it inhibits performance (Zajonc, 1980). Thus, social facilitation refers to the tendency to accomplish tasks better or faster in the presence of others. In other words, presence of others may result increased performance (Geen, 1983; Robinson-Staveley & Cooper, 1990; Strube, Miles, & Finch, 1981). On the contrary, the presence of others may worsen the performance. A student for instance may give a better presentation when he/she is alone than in presence of others. This phenomenon is known as social inhibition (Markus, 1978). These two opposite outcomes can be explained by the type of assigned tasks. When individuals are capable enough to perform the task and know how to do it, the dominant response would be correct and presence of others would be facilitative. On other hand, if the task is difficult and individuals do not have enough knowledge to accomplish it, others’ presence would hinder their performance and the dominant response would not be correct.

Evaluation Apprehension vs. Anxiety

A difference between anxiety and apprehension is that the former refers to an unpleasant state of mental nervousness about an uncertain event, but the latter concerns with the anticipation of the outcomes of an event with fear that one’s performance may be critiqued. According to Cottrell (1972), this anticipation of evaluation is “arousing, whether the expected outcome is affectively positive or negative” (Moore & Baron, 1983, cited in Green, 198, p. 204). Others believe that only anticipating negative consequences creates arousal (e.g., Weiss & Miller, 1971) and social facilitation is the result of expecting positive outcomes (Good, 1973). However, other studies have stated that expecting negative outcomes leads to social facilitation (e.g., Geen, 1979; Seta & Hassan, 1980).

Anxiety is the feeling of apprehension, nervousness, and discomfort, usually about a forthcoming occurrence or an event with indeterminate outcomes. On the other hand, apprehension is defined as the anxiety or fear that something bad or unpleasant will happen. In other words, individuals anticipate something with anxiety. At large, anxiety can be regarded as a personal feeling of tension and worry along with a provocation of the independent nervous structure (Spielberger, Anton & Bedell, 1976, as cited in Tzounopoulos, 2016, p. 823). It can be classified into three categories of trait (manifests in a variety of situations), state (experienced at certain moments), and situation-specific (happens under specific circumstances) anxiety (Spielberger et al., 1976). On this basis, the anxiety

in language learning is classified as situation-specific (MacIntyre, 1999; Horwitz, 2001). Second/foreign language anxiety, has been among the most researched areas in the last two decades, since it is a debilitating factor in the process of language learning (Tzounopoulos, 2016). However, recent research distinguish language learning anxiety from other forms of anxiety and it is not suggested to consider it only in terms of general anxiety measures (Ellis, 2008; Horwitz, 2001; MacIntyre, 1999; MacIntyre & Gardner, 1989).

Evaluation Apprehension

vs. Communication Apprehension

Although the two concepts of evaluation apprehension and communication apprehension are similar to each other in terms of the presence of others (none of them happen when one is alone), there are differences between the two not allowing to use the terms interchangeably. According to McCrosky (1977), “communication apprehension is a type of anxiety experienced in interpersonal communicative settings where learners have little control of the communicative situation” (Rafek et al., 2014, p. 91). Indeed, it is a kind of situational apprehension provoked by a number of factors such as novelty, ambiguity, evaluation and prior history (Daly, 1991). Communication apprehension is characterized by shyness and fear of communicating with people and individuals with high degree of communication apprehension have less academic success and satisfaction with their work (Horwitz, Horwitz, & Cope, 1986).

On the other hand, evaluation apprehension is specific to how one is judged by others and at the same time more general in that it is not just about communication (e.g., how one looks). As an example of evaluation apprehension in an EFL context, consider students who hesitate to ask questions during the class due to possible negative judgments they perceive from others. They instead wait until the end of the class time and then ask their questions where no other students are present. In this example, learners feel apprehended, not relevant to communication, but to the concern they have regarding negative judgments (they may believe others consider them as stupid or may judge their grammar, pronunciation, and accent used in their question negatively).

Consequently, exploring the sources of such detrimental factor can be helpful to both teachers and students. Besides, scrutinizing the role of Student Evaluation Apprehension (SEA) in academic achievement and success is of great importance. The present study thus is an interdisciplinary review of the construct which tries to analyze the concept in depth via bringing the most significant investments within a single framework.

Method

Search Procedures and Criteria for Inclusion

The present study reviews a thorough collection of recent studies on student evaluation apprehension in the educational field. The research encompasses amalgamation

of quantitative, qualitative and mixed methods studies investigating SEA. To do so, a search was conducted in “Google Scholar” database for “apprehension” and its variations (communication and evaluation). A total of 30 reports were then identified. The following inclusion criteria were applied on the pool of reports:

- 1) apprehension was a main focus of the report
- 2) STUDENT apprehension was investigated
- 2) the language of the report was English
- 3) the studies were published between 2000 and 2018.

Some studies were master or doctoral dissertations which were included in the synthesis due to their great contributions to the field, but the book chapters and studies not written in English were excluded. Finally, a total of 30 articles from twenty journals were selected for this review (see appendix for the name of journals).

Coding and Analysis

Once selected, the studies were coded based on a coding scheme (Table 1). According to Creswell (1994), The aim of a review is to summarize the existing research on a specific topic and to identify the gaps which need further investigation (As cited in Ghanizadeh & Jahedizadeh, 2015). Consequently, this review provides in-depth knowledge about student evaluation apprehension.

Table 1. Coding scheme used in the study

1	Basic Information a) authors b) publication year
2	Purposes of the study
3	Findings of the study

Results and Discussion

Classification of Disciplines

Thirty studies published between 2000 and 2018 were selected for this review. These studies were classified into four categories of *Second/Foreign Language Learning*, *Accounting and Finance*, *Medicine, Nursing and Pharmacy*, and *Miscellaneous* (the last category includes studies which did not mention the participants’ discipline or comprised a number of different subjects. each of which is allocated to a specific discipline. Table 2 displays the studies conducted in the field of Second/ Foreign Language Learning (studies 1 to 9). In all the tables, CA stands for communication apprehension.

In a similar vein, Table 3 is the summary of the studies in the field of Accounting and Finance (studies 10 to 13).

Table 2. Studies on Student Apprehension in the Field of Second/Foreign Language Learning

Author(s)	Purpose	Main Findings
1) Tzounopoulos (2016)	To investigate the major reported sources causing language anxiety and fear of negative evaluation in a group of Greek university students	The main stressors were CA felt toward teachers, peers and native speakers, fear of teachers’ questions and corrections, as well as fear of tests and speaking in class. A negative correlation was also observed among language anxiety, fear of negative evaluation and language performance.
2) Rafek et al. (2014)	To compare the level of CA among males and females	Females experience higher CA than males in which second language lecturers play an important role.
3) Tom et al. (2013)	To investigate antecedents of CA	Students disliked group discussions and were not confident with pronouncing English words and speaking in English, unprepared and unaware of the presentation organization, and displayed nervousness when asked to present in front of their classmates from the opposite gender.
4) Lahtinen (2013)	To examine CA in EFL classes from both teachers’ as well as students’ perspectives	Presentations and group discussions were the most apprehensive scenarios in EFL classes for the students. it was found that the lower the grades and the more negative the attitude, the higher the level of CA.
5) Zaid (2011)	To assess whether multimedia-based concept-mapping and online reading before writing can promote the quality of students’ compositions and reduce their writing apprehension	There was no statistically significant difference in students’ writing under the three conditions. However, students wrote longer and richer drafts in online concept-mapping and reading before writing. Poorer and shorter drafts were observed after teacher-led talk in the traditional, no treatment group. Both treatments had significant effects on improving students’ writing quality; however, they increased students’ writing apprehension.

Table 2. Cont.

Author(s)	Purpose	Main Findings
6) Arnold (2007)	To investigate the relationship between computer-mediated communication and CA	No significant difference was observed in reduction of CA between the control and experimental groups.
7) Kim (2006)	To investigate the relationship between writing apprehension and English writing achievement	Significant correlations were found between students' writing apprehension and final course grades and negative perception regarding the writing ability was the most important factor of their writing apprehension.
8) Cornwell & McKay (2000)	To validate a translated scale measuring L2 writing apprehension of Japanese students of English	The translated, modified version of the scale is a valid measure of writing apprehension for Japanese students of English.
9) Jahedizadeh (forthc)	To validate the newly-designed evaluation apprehension questionnaire and find the relationship between student evaluation apprehension and academic achievement, gender, and educational level	The new questionnaire was a valid and reliable instrument measuring EFL students' evaluation apprehension. A significant negative correlation was observed between student evaluation apprehension and academic achievement. Females experienced evaluation apprehension more than males and BA students were also found to have more evaluation apprehension than their MA counterparts.

Table 3. Studies on Student Apprehension in the Field of Accounting and Finance

Author(s)	Purpose	Main Findings
10) Arquero et al. (2017)	To compare and contrast the CA level students in two different universities	All students in the two contexts had high levels of CA.
11) Byrne, Flood, & Shanahan (2012)	To qualitatively explore first-year students' experiences of oral CA	There was considerable variation in the apprehension experienced by different students and apprehension levels may increase for all students in public communication settings. Oral CA could be influenced by perceptions of peer evaluation, preparation activities, and prior experiences of communicating with new people.
12) Shanahan (2012)	To measure the levels of students' oral communication apprehension and to qualitatively explore appropriate interventions with a small group of highly apprehensive students	Each class contains a number of high oral apprehensive students needing a supportive atmosphere to help them to learn and to communicate with others.
13) Bagley (2007)	To examine whether multiple accountabilities inherent in the audit environment cause auditors to experience negative affect and CA and to examine the influence of CA on low- and high-complexity task performance and related cognitive encoding of information	Auditors confronted with multiple accountabilities, experience higher negative affect and CA than auditors confronted with single or no accountability. The evaluation apprehension experienced by auditors did not affect performance or cognitive encoding regarding the low- and high-complexity tasks tested in my study.

Table 4. Studies on Student Apprehension in the Field of Medicine, Nursing and Pharmacy

Author(s)	Purpose	Main Findings
14) Moquin, Seneviratne, & Venturato, (2018)	To explore how nursing students understand learning within residential aged care	In learning on placement within residential aged care, learners moved from feelings of CA to taking on advocacy roles for residents. In other words, by placement end, students had gained unique insights on resident care and started to step into advocacy roles.
15) Emory et al. (2017)	To examine whether there is a significant effect between students' academic year, CA, and willingness to listen survey scores, and to see whether students' CA survey score changes as they enroll in a baccalaureate program of study	There was no statistically significant difference in the four cohort levels of students regarding their CA. Besides, high levels of CA can influence a nurse's effectiveness, willingness and ability to interact with others in critical situations.
16) LaRochelle & Karpinski (2016)	To evaluate racial differences in students' CA and interprofessional socialization and to investigate the relationship between the two constructs	There were significant differences between races on both measures. Moreover, personal report of CA and interprofessional socialization and valuing scale are significantly correlated in each racial group.
17) Rogers & King (2012)	To evaluate students' CA, outcome expectations, and self-efficacy for communication in a 15-week patient-counseling course	Students' CA can be decreased and self-efficacy can be increased via using small-group practice sessions, case studies, and role-play exercises as well as classroom lectures.
18) Matsuoka & Rahimi (2011)	To examine the socio-psychological and interpersonal process by which Japanese college students reduced their CA and enhanced the level of willingness to communicate by their experiences of volunteering as interns at an international conference	Participation as an intern at an international conference can reduce the level of CA. Japanese sense of self, manifested socially as 'other directedness', may be re-directed in a positive way leading to more effective L2 communication strategies.
19) Amy et al. (2009)	To examine the relationship between medical students' CA and their performance in problem-based learning (PBL)	Students with high levels of CA have significantly greater difficulty participating in PBL sessions.

Another categorization of this review is studies which have been conducted in the field of medicine, Nursing, and Pharmacy (studies 14 to 19). Table 4 shows the summary of results.

The last category of this review is allocated to the studies in which the major of the participants was not mentioned or the studies which included participants from different disciplines due to their convenience sampling. Table 5 summarizes the results (studies 20 to 30).

Number of participants and their age range

The number of students participated in all studies as well as their gender and age range are illustrated in Table 6.

Some studies have not specified participants' gender or age. As it can be seen the age for all the studies except the third study participants' age is between 18 to 27.

Conclusions

The present study aimed at providing a thorough review concerning student evaluation apprehension by summarizing recently-published articles. Taken together, the present review substantiated the detrimental impact of the construct in the educational field. In effect, second language lecturers, group discussions, pronouncing English words, speaking in English, unpreparedness and unawareness of the presentation organization, presenting in front of the classmates from the opposite gender, negative attitudes towards language learning, low grades, teachers, peers, native speakers, fear of teachers' questions and corrections, fear of tests, and negative perceptions regarding the writing ability were found to be the most determining factors of SEA among ESL/EFL students. On the other hand, poor

Table 5. Studies on Student Apprehension in Miscellaneous Disciplines

Author(s)	Purpose	Main Findings
20) Amiri & Puteh (2018)	To qualitatively explore oral CA among doctoral students	Even doctoral students' oral CA is unavoidable and can be influenced by linguistic issues, negative perceptions towards presentation panel, deficiency in knowledge of research during presentations, and other related factors.
21) Carter, Cruz, & Wrench (2017)	To evaluate the relationships among students' satisfaction, addiction, needs, CA, motives, and uses & gratifications with Snapchat	There was a significant relationship between participant needs with Snapchat addiction, intensity, and exhibitionism. Besides, there is a relationship between participant needs and CA.
22) Huwari & Al-shboul (2015)	To discover writing apprehension experiences of PhD students	Personal, social, and academic effects are among the most significant effects of writing apprehension. Hence, writing apprehension is a prevalent phenomenon since all the participants expressed writing apprehension ranging from low, moderate or high level.
23) Shi, Brinthaup, & McCree, (2015)	To examine how self-talk is related to student CA and public speaking anxiety	Self-critical and social-assessing self-talk are positively related to students' anxiety scores, while self-reinforcing self-talk is negatively associated with their anxiety.
24) Reio et al (2014)	To examine a model of how beliefs regarding students' writing, writing self-efficacy, CA, and writing performance relate to one another	Students' beliefs about writing was related to their writing self-efficacy, CA, and performance as well as their grades for their written work. Moreover, participants with high writing self-efficacy had low CA and enjoyed writing more than others.
25) Hammick & Lee (2014)	To examine the effect of 3D virtual worlds on an students' communication experience in comparison with Face-to-Face communications regarding their apprehension	Shy students felt lower levels of CA during the discussion conducted online than those students who had face to face communication (FtFC) due to the lack of visual/auditory cues in virtual reality. However, FtFC was more effective in affecting learners' intention to change behavior compared to virtual worlds.
26) Edwards & Edwards (2014)	To investigate the relationship among student pre-performance, concerns, evaluation apprehension, and receiving a grade for a speech	There was a positive relationship between student pre-performance concerns and student evaluation apprehension. Moreover, it was found that students who believe their speech is being evaluated by the teacher for a grade report a greater amount of pre-performance concerns than students who believe their speech is not being evaluated for a grade.
27) Geçer & Gümü (2010)	To examine whether CA with lecturers can be predicted with respect to general CA and certain variables among public and private university students	Total and subscales of CA with lecture scale predicted mostly by personal report of CA total scores. Other predictors of apprehension were found to be having high GPA, type of university, preferred seat in the classroom, and being student from faculty of education or medicine.
28) Philippot, Vrielynck, & Muller (2010)	To examine the impact of different modes of processing anxious apprehension on students' subsequent anxiety and performance in a stressful speech task	At the end of the speech, participants in the specific processing condition in which they explored specific aspects of their presentation reported less anxiety than those in the two other conditions, i.e., general processing and control.
29) Damman (2007)	To identify relationships among factors affecting students' participation in class discussions, both in-class and through an online threaded discussion forum	There was a negative relationship between CA and classroom discussion participation and a positive relationship between students' online threaded discussion participation score and their grade-point average (GPA).

Table 5. Cont.

Author(s)	Purpose	Main Findings
30) Withers, & Vernon (2006)	To examine the types of situations or triggers causing students' embarrassment and their relationship with attachment and communication apprehension	The trigger subscales and the embarrassability scale were significantly and positively associated with one another. Embarrassment is related to the anxiety regarding different aspects of social interaction; namely, CA and anxious attachment.

Table 6. Number of Participants and Their Age Range

	Number	Male	Female	Age
1	40	8	32	–
2	55	25	30	–
3	49	9	40	18
4	6	1	5	45
5	108	–	–	18
6	56	34	22	19
7	136	61	75	23
8	701	–	–	19
9	258	61	197	24
10	300	90	210	22
11	285	–	–	–
12	291	–	–	–
13	136	–	–	–
14	30	–	–	–
15	238	15	172	21
16	114	35	79	27
17	87	36	51	26
18	9	4	5	19
19	85	–	–	–
20	25	–	–	–
21	475	121	347	20
22	21	21	0	–
23	209	89	120	20
24	738	–	–	–
25	58	21	37	20
26	80	38	42	22
27	1091	506	585	–
28	64	32	32	21
29	62	40	22	21
30	350	158	192	22

and short writings, poor language performance, low final course grades (academic achievement) were among the most significant ramifications of SEA among language learning students.

Concerning Accounting and Finance students, negative atmosphere of the class, public communication settings, peer evaluation, preparation activities, communicating with new people, and confronting with multiple accountabilities were the most important sources of SEA. As far as medicine, Nursing, and Pharmacy students are concerned, not willing to interact with others in critical situations, difficulty in participating in PBL sessions, and low self-efficacy was found to be consequence of SEA and regarding students from miscellaneous disciplines, high

GPA, type of university, preferred seat in the classroom, being a student from faculty of education or medicine, linguistic issues, negative perceptions towards presentation panel, deficiency in knowledge of research during presentations, low self-efficacy, student pre-performance concerns, self-critical and social-assessing self-talk, and participant needs are the antecedents of SEA and low classroom discussion participation, negative personal, social, and academic effects, and embarrassment were the most detrimental ramifications of student evaluation apprehension.

These findings are illustrated in Table 7 to provide a visual understanding on antecedents and ramifications of student apprehension.

Table 7. The Determinants and Ramifications of Student Apprehension

Determinants		Ramifications
teachers	Student Apprehension	<ul style="list-style-type: none"> • poor performance • low final course grades • poor academic achievement • lack of effectiveness • lack of willingness and ability to interact with others in critical situations • loss of L2 communication strategies • difficulty in participating in problem-based learning • Personal, social, and academic effects • lack of classroom discussion participation
peers		
native speakers		
difficult classroom questions		
teacher feedback		
tests		
speaking		
opposite gender		
low self-confidence		
unprepared presentation		
group discussion		
low grades		
traditional teacher-led talk		
gender		
educational level		
public communication settings		
peers' perceptions		
preparation activities		
prior experiences of communicating with new people		
lack of supportive atmosphere		
accountabilities		
lack of a patient-counseling course		
linguistic issues		
negative perceptions towards presentation panel		
deficiency in knowledge of research during presentations		
students' needs		
Self-critical and social-assessing self-talk		
lack of self-efficacy		
students' negative beliefs		
face to face communication		
pre-performance concerns		
grade concerns		
type of university		
preferred seat in the classroom		
being student from faculty of education or medicine		
lack of exploration opportunities for students to evaluate their aspects of presentations		
embarrassment		

The present review attempted to shed light on student evaluation apprehension from different angles. The authors intended to show all students are at risk of experiencing evaluation apprehension regardless of the major they study and their educational level, since as it was mentioned even PhD students may have high levels of evaluation apprehension. It in turn implies that the issue should be scrutinized in depth to find solutions and methods to explore and reduce student apprehension. Consequently, teachers play an important role in reducing students' apprehension by establishing rapport and encouraging more friendly discussions in their classes. Moreover, teachers should be aware that if some students do not cooperate in classroom activities, especially those which include oral presentations, the reason may be the apprehension disorder and no other factor like lack of understanding or interest. Nevertheless, due to multifaceted and versatile nature of apprehension, further reviews are required to capture other facets not discussed here. It also seems essential to conduct identical studies on the construct in relation to individual differences and in cross-cultural situations. Future studies can also pay focal attention to the methods of measuring student apprehension and the characteristics of the employed instruments.

Implications of the study

The present study provides implications for educationalists, teachers, and students. First, more investigations on student apprehension are needed to explore more antecedents and ramifications. Emotional factors, for instance, may affect students' apprehension and many other detrimental consequences may emerge. Second, teachers should be aware that they can be regarded as a source of student apprehension. Thus, the way teachers behave in the classroom, provide feedback for the learners, and methodologies play a significant role. Traditional teaching methods can be replaced by more technology-based instruction in which students can have more opportunities to present themselves. Third, students are supposed to know the factors causing their apprehension and try to enhance communication strategies in and out of their classrooms. Furthermore, They can prevent unprepared presentations by practicing their performance before doing it in the presence of other. By this, they would be able to reduce, or even diminish, the feeling of evaluation apprehension.

References

- Adler, A. (1927). *Understanding Human Nature*. New York: Greenberg 1928 // Menschenkenntnis. Ed. by J. Rüedi. Alfred Adler Studienausgabe, vol. 5. Göttingen: Vandenhoeck & Ruprecht 2007.
- Allport, G. W. (1955). *Becoming*. New Haven, CT: Yale University Press.
- *Amiri, F., & Puteh, M. (2018). Oral communication apprehension among international doctoral students. *English Language Teaching, 11* (2), 164–171.
- *Amy, V., Terry, B. D., Michael, Phyllis, S. B., & Schwartz, N. (2009). Students' communication apprehension and its effects on PBL performance. *Medical Teacher, 20*(3), 217–221.
- *Arnold, N. (2007). Reducing foreign language communication apprehension with computer-mediated communication: A preliminary study. *System, 35*, 469–486.

- *Arquero, J. L., Polvillo, C. F., Hassall, T., & Joyce, J. (2017). Relationships between communication apprehension, ambiguity tolerance and learning styles in accounting students. *Revista de Contabilidad – Spanish Accounting Review, 20*(1), 13–24
- *Bagley, P. L. (2007). *Evaluation apprehension: An examination of affect in the audit environment*. A Dissertation Submitted to the Graduate Faculty of the University of Georgia in Partial, Athens, Georgia.
- Bordia, P., Imer, B. E., & Abusah, D. (2006) Differences in sharing knowledge interpersonally and via databases: The role of evaluation apprehension and perceived benefits. *European Journal of Work and Organizational Psychology, 15*(3), pp. 262–280.
- *Byrne, M., Flood, B., & Shanahan, D. (2012). A qualitative exploration of oral communication apprehension. *Accounting Education: An International Journal, 21*(6), 565–581.
- *Carter, N., Cruz, J. J., & Wrench, J. S. (2017). The relationships among college students' satisfaction, addiction, needs, communication apprehension, motives, and uses & gratifications with Snapchat. *Computers in Human Behavior, 75*, 870–875.
- *Cornwell, S., & McKay, T. (2000). Establishing a Valid, Reliable Measure of Writing Apprehension for Japanese Students. *JALT Journal, 22*(1), 114–139.
- Cottrell, N. B. (1972). Social facilitation. In C. G. McClintock (Ed.), *Experimental social psychology* (pp. 185–236). New York: Holt.
- Creswell, J. (1994). *Research design qualitative and quantitative approaches*. London: Sage.
- *Damman, E. J. (2007). *Communication apprehension, information technology fluency, and Internet access as factors affecting college students' participation in in-class and online discussion*. A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of doctor of philosophy, Iowa State University Ames, Iowa.
- *Edwards, C. C., & Edwards, A. H. (2014). The Relationship between student pre-performance concerns and evaluation apprehension. *Communication Research Reports, 20*(1), 54–61.
- Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.
- *Emory, J., Kippenbrock, T., Lee, P., Miller, M. T., & Reimers, J. (2017). Communication apprehension and willingness to listen in nursing education. *Journal of Professional Nursing*. doi: <https://doi.org/10.1016/j.profnurs.2017.09.004>.
- *Geçer, A. K., & Gümü, A. E. (2010). Prediction of public and private university students' communication apprehension with lecturers. *Procedia Social and Behavioral Sciences, 2*, 3008–3014.
- Geen, R. G. (1979). Effects of being observed on learning following success and failure experiences. *Motivation and Emotion, 3*, 355–371.
- Geen, R. G. (1981). Evaluation apprehension and social facilitation: A reply to Sanders. *Journal of Experimental Social Psychology, 17*, 252–256.
- Geen, R. G. (1983). Evaluation apprehension and the social facilitation/inhibition of learning. *Motivation and Emotion, 7*(2), 203–212.
- Ghanizadeh, A., & Jahedizadeh, S. (2015). Teacher burnout: A review of sources and ramifications. *British Journal of Education, Society & Behavioural Science, 6*(1), 24–39.
- Good, K. J. (1973). Social facilitation: Effects of performance anticipation, evaluation, and response competition on free association. *Journal of Personality and Social Psychology, 28*, 270–275.
- *Hammick, J. K., & Lee, M. J. (2014). Do shy people feel less communication apprehension online? The effects of virtual reality on the relationship between personality characteristics and communication outcomes. *Computers in Human Behavior, 33*, 302–310.
- Homey, K. (1950). *Neurosis and human growth*. New York: Norton.
- Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics, 21*, 112–126.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal, 70*(2), 125–132.
- *Huwari, I., & Al-shboul, Y. (2015). Student's Strategies to Reduce Writing Apprehension (A Case Study on Zarqa University). *Mediterranean Journal of Social Sciences, 7*(3), 283–290.
- *Jahedizadeh, S., & Ghonsooly, B. (forthcoming). EFL students' evaluation apprehension and their academic achievement, gender, and educational level: Towards designing a comprehensive scale.
- *Kim, K. J. (2006). Writing apprehension and writing achievement of Korean EFL college students. *English Teaching, 61*(1), 135–154.

- *Lahtinen, L. (2013). *Communication apprehension in the EFL classroom*. Master's thesis. University of Jyväskylä, Finland.
- *LaRochelle, J. M., & Karpinski, A. C. (2016). Racial Differences in Communication Apprehension and Interprofessional Socialization in Fourth-Year Doctor of Pharmacy Students. *American Journal of Pharmaceutical Education*, 80(1), 1–9.
- Leary, M. R. (1983). Social anxiousness: The construct and its measurement. *Journal of Personality Assessment*, 47, 66–75.
- Leary, M. R., Barnes, B. D., Griebel, C., Mason, E., & McCormack, D. (1987). The impact of conjoint threats to social- and self-esteem on evaluation apprehension. *Social Psychology Quarterly*, 50, 304–311.
- MacIntyre, P. D. (1999). Language anxiety: A review of the research for language teachers. In D. J. Young (Ed.), *Affect in foreign language and second language learning: A practical guide to creating a low-anxiety classroom atmosphere*. New York: McGraw Hill, 24–45.
- MacIntyre, P. D. & Gardner, R. C. (1989). Anxiety and second language learning: Toward a theoretical clarification. *Language Learning*, 39, 251–275.
- Markus, H. (1978). The effect of mere presence on social facilitation: An unobtrusive test. *Journal of Experimental Social Psychology*, 14, 389–397.
- *Matsuoka, R., & Rahimi, A. (2011). The positive effect of conference participation on reducing L2 communication apprehension. *Procedia Computer Science*, 3, 898–907.
- McCroskey, J. C. (1977). Oral communication apprehension: A summary of recent theory and research. *Human Communication Research*, 4, 78–96.
- Moore, D. L., & Baron, R. S. (1983). Social facilitation: A psychophysiological analysis. In J. Cacioppo & R. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 434–466). New York: Guilford Press.
- *Moquin, H., Seneviratne, C., & Venturato, L. (2018). From apprehension to advocacy: a qualitative study of undergraduate nursing student experience in clinical placement in residential aged care. *BMC Nursing*, 17(8), 1–11.
- *Philippot, P., Vrielynck, N., & Muller, V. (2010). Cognitive processing specificity of anxious apprehension: impact on distress and performance during speech exposure. *Behavior Therapy*, 41, 575–586.
- *Rafek, M. B., Ramli, M., Iksan, H., Harith, N., & Abas, A. (2014). Gender and language: communication apprehension in second language learning. *Procedia- Social and Behavioral Sciences*, 123, 90–96.
- *Reio, J. S., Alexander, P. A., Reio, T. G., & Newman, I. (2014). Do students' beliefs about writing relate to their writing self-efficacy, apprehension, and performance? *Learning and Instruction*, 33, 1–11.
- Robinson-Staveley, K., & Cooper, J. (1990). Mere presence, gender, and reactions to computers: Studying human-computer interaction in the social context. *Journal of Experimental Social Psychology*, 26, 168–183.
- *Rogers, E. R., & King, S. R. (2012). The Influence of a patient-counseling course on the communication apprehension, outcome expectations, and self-efficacy of first-year pharmacy students. *American Journal of Pharmaceutical Education*, 76(8), 1–7.
- Rosnow, R. L., Goodstadt, B. E., Suls, J. M., & Gitter, A. G. (1973). More on the social psychology of the experiment: When compliance turns to self-defense. *Journal of Personality and Social Psychology*, 27, 337–343.
- Rosenberg, M. J. (1965). When dissonance fails: On eliminating evaluation apprehension from attitude measurement. *Journal of Personality and Social Psychology*, 1(1), 28–42.
- Rosenberg, M. J. (1969). The conditions and consequences of evaluation apprehension. In R. Rosenthal & R. L. Rosnow (Eds.), *Artifact in Behavioral Research* (pp. 279–349) New York: Academic Press.
- Seta, J. J., & Hassan, R. K. (1980). Awareness of prior success and failure: A critical factor in task performance. *Journal of Personality and Social Psychology*, 39, 70–76.
- *Shanahan, D. (2012). *Communication Apprehension among Business and Accounting Students*. Dublin City University.
- *Shi, X., Brinthaup, T. M., & McCree, M. (2015). The relationship of self-talk frequency to communication apprehension and public speaking anxiety. *Personality and Individual Differences*, 75, 125–129.
- Spielberger, C. D., Anton, W. D., & Bedell, J. (1976). The nature and treatment of test anxiety. In M. Zuckermann & C. Spielberger (Eds.), *Emotions and anxiety: New concepts, methods and applications*. Hillsdale, NJ: Lawrence Erlbaum, 317–44.
- Strube, M. J., Miles, M. E., & Finch, W. H. (1981). The social facilitation of a simple task: Field tests of alternative explanations. *Personality and Social Psychology Bulletin*, 7, 701–707.
- *Tom, A. A., Johari, A., Rozaimi, A., Huzaimah, S. (2013). Factors contributing to communication apprehension among pre-university students. *Academic Journal of Interdisciplinary Studies*, 2(8), 665–669.
- *Tzounopoulos, M. (2016). *Foreign language anxiety and fear of negative evaluation in the Greek university classroom*. 21st International Symposium on Theoretical and Applied Linguistics (ISTAL 21), 823–838.
- Weiss, R. F., & Miller, F. G. (1971). The drive theory of social facilitation. *Psychological Review*, 78, 44–57.
- *Withers, L. A., & Vernon, L. L. (2006). To err is human: Embarrassment, attachment, and communication apprehension. *Personality and Individual Differences*, 40, 99–110.
- *Zaid, M. A. (2011). Effects of web-based pre-writing activities on college EFL students' writing performance and their writing apprehension. *Journal of King Saud University – Languages and Translation*, 23, 77–85.
- Zajonc, R. B. Compresence. (1980). In P. B. Paulus (Ed.), *Psychology of group influence*. Hillsdale, New Jersey: Erlbaum.
- Zimbardo, P. G. (1977). *Shyness: What it is, and what to do about it*. Reading, MA: Addison-Wesley.

Appendix. The List of Journals of Included Studies

- *Academic Journal of Interdisciplinary Studies*
- *Accounting Education: An International Journal*
- *American Journal of Pharmaceutical Education*
- *Behavior Therapy*
- *BMC Nursing*
- *Communication Research Reports*
- *Computers in Human Behavior*
- *English Language Teaching*
- *English Teaching*
- *JALT Journal*
- *Journal of King Saud University – Languages and Translation*
- *Journal of Personality and Social Psychology*
- *Journal of Professional Nursing*
- *Learning and Instruction*
- *Medical Teacher*
- *Personality and Individual Differences*
- *Procedia Computer Science*
- *Procedia Social and Behavioral Sciences*
- *Revista de Contabilidad – Spanish Accounting Review*
- *System*