Anxiety and Critical Thinking in Debate

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Abstract
Debate is often lauded as an excellent tool to encourage critical thinking skills and enhance speaking skills. However, some students claim that they feel apprehensive when taking part in this activity. Anxiety can be a motivating factor but for some it can be debilitating. This paper aims to measure the anxiety level of English as a Second Language (ESL) students at various points along the stages of undergoing a debate competition. It also aims to find out the anxiety level between male and female students and the anxiety level among students of three different critical thinking groups: low, moderate and high critical thinking ability. The findings show that students with low critical thinking ability experienced higher anxiety than those from the moderate or high critical thinking group. Findings also show that at the beginning of the competition, the female students were more anxious than the male students, but at the end of the competition the anxiety level tapered to almost the same level.

Keywords: Anxiety, Critical Thinking, Debate, ESL Learners, Gender

Introduction
Language anxiety is a situation-specific anxiety that a person feels when he is learning a language as a particular subject (MacIntyre, 1988). MacIntyre conceived language anxiety as “the worry and negative emotional reaction aroused when learning or using a second language” (p. 27). Horwitz, Horwitz and Copeland (1991) relate foreign language anxiety, “to classroom language learning arising from the uniqueness of the language learning process” (p. 31). Language anxiety is often associated with oral competency (Zheng, 2008). Compared to other language skills such as writing, listening and reading, speaking has the highest mean score of anxiety among second language learners as it is viewed as the most difficult and complex skill to master (Nazara, 2011). This is especially so when they have to deliver an oral presentation or deliver a speech in front of others (Horwitz, Horwitz and Cope, 1986; McCroskey, 1983). One activity that involves public presentation is debate. In a debate, participants have to deliver arguments in front of an audience. Some ESL learners involved in debates claim that debating makes them feel anxious. However, having moderate feelings of anxiety in second language learning could have positive effects (Scovel, 1978) as learners are eager to perform well to avoid any embarrassment (Abdullah, Chan & Yusof, 2012). This will aid in the learning of the language and encourage learners to work harder in order to acquire the language and achieve the acceptable levels of competence (Radzuan and Kaur, 2010).
Thus this study attempts to measure the level of anxiety of ESL students at various stages during a debate competition. The study also aims to find out if there is a relationship between anxiety and gender, and between anxiety and groups of students of different critical thinking ability. The participants involved in this study were ESL learners aged sixteen years old who had not been exposed to debate nor participated in any debate competition.

The research objectives of this study are:

1) To determine the critical thinking ability of ESL learners before a debate competition.
2) To identify ESL learners’ anxiety level at three different stages during a debate competition, that is, before, while and after the competition.
3) To determine the relationship between critical thinking and anxiety during a debate competition.
4) To determine the relationship between gender and anxiety during a debate competition.

Literature Review

Speaking Anxiety
Speaking anxiety occurs if a person’s self confidence is affected when one experiences a failure to speak out and show what one knows (Lanerfeldt 1992, as cited in Basic, 2011). Other conditions that prevent one from delivering a speech or speaking at a normal rate and speed are abnormal heartbeat, perspiration, hesitance and incapability to perform well. Those who have repeatedly experienced these conditions will normally avoid speaking in front of a large crowd to lower the risk of failing. This frustrating situation can reduce a person’s self esteem as this experience will make the person apprehensive about speaking in front of others.

English as a Foreign language (EFL) learners have identified speaking as the most fearful experience in a foreign language class (Keramida, 2009 as cited in Gonca, 2010). Young (1990) stated that conversing in a foreign language creates the highest level of anxious feelings when learning a language and Littlewood (1996) claimed that this anxious feeling can delay learning, mainly in the classroom. Anxiety will only cause learners to feel hesitant to express themselves in the foreign language they are learning.

A number of studies on learners’ anxiety in speaking a foreign or a second language carried out verifies this phenomenon. Research conducted among 216 EFL learners in a Spain University showed that communication anxiety accounted for 34.99% of the variance, and contributing factors were fear in participating in class, nervousness and lack of confidence (Arnaiz and Guillen, 2012). Another research involving 45 Italian learners from University of Ragusa, Italy and 55 Spanish learners from University of Cardiff, Wales found that all of them feared speaking-oriented activities in the ESL classroom (Ochipinti, 2009).
In Mak’s (2011) study involving 313 Chinese ESL first year university students in Hong Kong, five contributing factors that cause the students to have speaking anxiety in their classroom were identified. These factors were:

1) Negative evaluation
2) Uncomfortableness (when speaking with native speakers)
3) Negative attitudes towards English language lessons
4) Negative self-evaluation
5) Fear of failing the class/consequences of personal failure.

Analysis of the interview data identified other contributing factors of anxiety. They were:

1) Speaking in front of the class without preparation
2) Being corrected when speaking
3) Inadequate waiting-time
4) Not being allowed to use the first language in a second language classroom

A related research on anxiety level carried out by Nor Aini and Normazla (2008) showed that the highest level of anxiety was recorded by the learners when participating in meetings, interpersonal communication and public speaking. This study also revealed that the personality trait of the learners and their inability to pronounce English words correctly were the significant factors leading to their apprehensiveness.

In a similar vein, Wan Mustapha, Ismail, Deepak & Elias (2010) investigated the level of anxiety in oral communication among the final year Bachelor of Business Administration learners in a Malaysian University. They discovered that 45% of the learners had a high level of anxiety towards oral communication. Their study also revealed that many of the learners disliked participating in public speaking. The learners admitted that they felt apprehensive when dealing with unfamiliar learners in group discussions. This study supported the contention that learners viewed public speaking as an activity which incited fear and anxiety.

Does gender have any effect on speaking ability when it comes to speaking a second or foreign language? Machida’s (2001) study on Japanese as a foreign language class found that female students were more anxious than the male students. Kitano (2001) investigated the anxiety levels of college learners of Japanese, and reported a negative correlation between anxiety and self perception in male students. Male students felt higher anxiety when they perceived their speaking ability as being inferior than others. This was not observed among their female counterparts. A study conducted by Mohamad and Ab Wahid (2009) on anxiety among 150 male and female students who were doing Business Studies at a Malaysian university revealed that female students were more anxious than male students when performing public speaking in front of others. Thus it can be concluded that studies on the anxiety levels between male and female students during debate activities have found differing results.
Debate
Traditionally, debate competitions at school and university usually involve only two to six students. However, in classroom debates, there are many techniques that can be used to get every student involved. For example, an instructor can use the fish bowl technique where the class is divided into three groups and in each group the participants would have their own arguments while the rest can be active audience who may interrupt the debate. Another type is the “in think-pair-share debates” where students first think and make notes individually. Then they work in pairs to create a list of reasons to support both sides of an issue. At the end, each group will present the conclusion of their debate.

Participants in a debate competition or classroom debate often claim that a debate offers many benefits. Those involved in debate competitions, at school and university level, stated that debates help improve their critical thinking skills (Jerome, L. and B. Algarra, 2006), communicative and speaking skills (Williams, McGee and Worth, 2001) and confidence (Littlefield, 2001). A survey on the effects of debate competitions involving 120 Malaysian ESL learners aged 13 and 14 showed that the activity improved their confidence, critical thinking, speaking and listening skills and promoted teamwork (Othman, Mohamad and Amiri, 2013). In another study of debate competition involving 40 second language learners aged 16, showed that these learners made significant improvements in critical thinking ability after participating in the activity (Othman, Zulkifli, Hashim & Mohamad, 2015). Similar findings were also shown in classroom debate research at tertiary level. Engaging in debates has been found to help understanding and mastery of the content subject (Vo and Morris, 2006), improve personal skills (Moon, 2005,) and critical thinking (Omelicheva and Avdeyeva, 2008), foster teamwork (Gervey, Drout and Wang, 2009) and help to clarify ideas and arguments (Bellon, 2000).

Kennedy (2007) put forth the benefits of using in-class debate as an instructional strategy. Similar to research carried out by others, he affirms that debates help in the mastery of content and the development of critical thinking skills, empathy and oral skills. Bronwell and Eison (1991) reported that students learn more effectively by actively analysing, discussing and applying contents in meaningful ways rather than passively absorbing information.

In a later study, involving 87 respondents who registered for three sections of a course at a rural Mid-Atlantic state university, Kennedy (2009) carried out a survey to identify respondents’ views on debates. Four different parts of the survey were administered at different points which were a 13-item survey after their first debate, a 5-item survey after the second debate, a 2-item survey after the forth debate, and finally an 11-item survey after the fifth debate. The results of the survey concluded that, even though students were anxious at the beginning of the debate, about 74.7 % agreed that they would consider participating in a debate in the future. 58.6% of the respondents also indicated that they were nervous when debating. Among the factors causing nervousness were:

1) Presenting in front of peers
2) Worrying about questions that will be asked
3) Worrying about producing an argument
4) Nervousness because it involves grades
5) Worrying about not being good at impromptu speeches

After the fifth debate, when asked about their debate experience, many of the respondents conveyed their discomfort when speaking in front of the class, especially in front of their classmates. They also said they had a hard time delivering their speeches. However, they also gave some positive comments. They said that they learned a lot from the experience. They liked it because they felt that through engaging in a debate, they learned more rather than just taking notes or reading a textbook. Debating made them think about the topic that they were presenting as well as other topics that might be asked by the opponents. Some commented that they liked the learning process involved in debate and would consider debate as an instructional strategy.

Khan, Omar, Babar and Toh (2012) carried out a study which utilised debate as an educational tool to learn health economics for dental students. Eighty two third year students who were randomly selected to take part in the study went through four weeks of treatment which included stages involving preparation, implementation and getting feedback. In week 1, the students were given a brief introduction of debates and in week 2, students were divided into groups and there were Q&A sessions as well as a mock debate. In the third week, the debate activity was carried out and in the fourth week, respondents gave feedback of the activity. The whole process took about 5 contact hours and 8 non-contact hours. The 120 minute debate was judged by 3 adjudicators and students were evaluated on how clearly they presented their ideas, appropriate and sufficient use of examples, quality of rebuttals and delivery styles. The study revealed that students were not keen on participating in debates. Among the reasons were lack of understanding of the debate process, rules and regulation, being unprepared and lack of willingness to participate in debate. However, the respondents believed that debates can help in enhancing their knowledge and also improving on organisational thinking.

**Methodology**
A descriptive study was carried out. The participants were 70 Malaysian ESL learners aged sixteen who recently enrolled in the school. The students were homogeneous as they were all the same ethnic group and had done well academically in major government examinations. Most of them were from the nearby states. None of the students had ever participated in debate.

The Debate program carried out made up of three stages: Pre Debate, Workshop and Debate Competition.

**Pre Debate Stage:** Before the Debate Activity, students sat for the New Jersey Test of Reasoning Skills (NJTRS). The researchers clarified the meaning of each item on the
questionnaire to ensure that each participant understood the content of the questionnaire. The purpose of the NJTRS was to identify the critical thinking level of the debate participants.

**Debate Workshop:** A week after distributing the NJTRS questionnaire, the students attended a three-hour debate workshop. Prior to the workshop, students were given the Personal Report on Public Speaking Anxiety (PRPSA). The purpose of this exercise was to identify their anxiety level before the debate activity. This is considered the “Before Debate Anxiety” test. After undertaking the PRPSA test, a workshop on debate was initiated with explanations of debate structure, its format and rules as well as the delivery of effective arguments and rebuttals. Students were also shown videos of students debating followed by a brief assessment of their performance. The workshop also included a mock debate where the students tried out debating for the first time. At the end of their performance, they were given an assessment of their performance.

**Debate Competition:** For this competition, students debated three times. After their maiden debate i.e. round one, the students sat for the PRPSA test to gauge their anxiety level. This is considered the “While Debate Anxiety” stage. By this time, students have had two debate practices. The next day, students had two more rounds of debate followed by another PRPSA test. This is considered the “Post Debate Anxiety” stage. In all three stages, the researchers and the teacher in-charge of the debate administered the questionnaires in the school’s library and the English lab.

**Instruments**
Two instruments were used in this study. They were:

1) The Personal Report of Public Speaking Anxiety (PRPSA) questionnaire developed by McCroskey (1970). This questionnaire was adapted for public speaking in the context of debating. The questionnaire records the respondents’ answers to 34 Question items. The questionnaire used a 5-likert scale to measure the respondents’ answer.

2) The New Jersey Test of Reasoning Skills (NJTRS) by Virginia Shipman (1983). It was used to measure CT based on reasoning and logic. The instrument consists of 50 multiple choice questions (MCQs).

**Data Analysis**
The data from the two sets of questionnaire were analysed using SPSS Programme Version 22 to obtain descriptive statistics.

**Results**
**Students’ Anxiety Levels**
Descriptive analysis was used to determine students’ anxiety levels before, while and after the debate activity. The results can be seen in figure 1 below. As shown there was an increase in
the level of students’ anxiety at the initial debate stage. The anxiety level after that remained almost the same right till the end.

![Figure 1: ESL learners’ Anxiety levels before, while and after debating](image)

**Male and Female Students’ Anxiety Level**

Descriptive statistics was also used to identify the anxiety level between male and female students during debate. The result is shown in figure 2 below.

![Figure 2: Male and Female Anxiety Levels](image)
FIGURE 2: Anxiety levels of male and females before, while and after debating

Overall, the results showed female students experienced higher anxiety than their male counterparts. At the initial stage, which is before attending the workshop, the female students experienced high anxiety level compared to the male students. However, the graph also shows that the rate of anxiety that they had experienced was gradual during the debate competition. This contradicted with the male students who had experienced a sharp increase in anxiety after the initial debate stage. However, at the end of the debate activity, the increase in anxiety was slight for both groups.

Anxiety Level among Students with Low, Average and High Critical Thinking Level

Figure 3 shows that all three groups of students experienced increased anxiety during debate.

Students with low critical thinking (CT) level experienced the highest anxiety level compared with those who were moderate or had high CT level. Students with high critical thinking level experienced the lowest anxiety level. For both the moderate and low CT levels, the level of anxiety remained the same at debate round one (while debate stage) and at debate round three (after debate stage). However, the high CT group experienced a slight increase in anxiety, from debate round one (while debate stage) to debate round three (after debate stage).

Discussion and Conclusion

This study shows that students were already anxious before the debate workshop. Perhaps the uncertainty was the cause of this as none of them had any debate experience. At round one, they experienced an increase in anxiety. Later at round three, the students were still anxious.
In other words, debating affected the students’ anxiety even after debating three times. A survey carried out by Kennedy (2009) showed similar results– students were anxious at the beginning of a debate and during the debate session.

What could be the cause of anxiety? Debate involves giving one’s opinion in public. This could be the cause of anxiety as attested by other researchers (Horwitz, Horwitz and Cope, 1986; McCroskey, 1983; Kennedy, 2009). Another cause of anxiety is the fact that it was a competition where the participants’ performance was being judged. Furthermore, in this debate, opponent teams were allowed to raise questions during the oral presentation by any speaker. The formality involves the opponent member raising his hand and saying out, “Point of Information” or “POI”. It was observed, not all students were comfortable and confident to give or accept POIs.

This study also showed that students with high critical thinking level felt less anxious than those who were of moderate critical thinking level. Students with low critical thinking level experienced the highest level of anxiety during debate competitions. Debate involves arguments where students have to think critically to form an argument and to counter their opponents’ statements. It is also challenging as students have to deliver their arguments in front of an audience, be mentally prepared to accept POIs and respond immediately to the opponents’ query. They have to think quickly and this is very challenging for these students as this was their first attempt.

The findings also showed that female students experienced higher levels of anxiety compared to the male students at the beginning (pre debate stage) even though overall the female students had higher critical thinking ability compared to their male counterparts. However, the anxiety level petered off to almost the same level at the end of the debate activity (after debate stage). This shows that for both groups, their levels of anxiety were reduced compared to the first time they attempted the debate. This would probably indicate that familiarity had an effect on them. However, as explained earlier, they were still apprehensive even after debating three times and this was probably because it was a competition. Also, the challenge of giving and receiving POIs put a strain on the students. Some students even refused to accept any POIs and did not interject to pose POIs.

In conclusion, even though the debate competition gave everyone the opportunity to speak out, it evoked anxiety. Thus, there is a need to incorporate coping strategies or carry out an intervention program to minimise the effects of anxiety. This is particularly true for students with low critical thinking ability. Otherwise, it is feared that the students would shun from speaking as a consequence of the anxiety experienced, or they would simply refuse to participate again when such a program is carried out in the future.

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