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An Investigation into the Effectiveness of Strategies
for Reducing Student Language Anxiety

－言語不安を解消するための効果的なストラテジーに関する考察－

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Doctoral Dissertation

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1. Introduction

1.1   Background of the study

Emotions, such as motivation, anxiety, and learner beliefs, have long been considered to have close relationships to second or foreign language learning. As Horwitz, Tallon, and Luo (2010) state, "how learners feel about language learning can have an important impact on their success" (p. 95). Being one of the affective variables, foreign language anxiety has received attention as a factor that negatively impacts learners' language learning and performance (Aida, 1994; Horwitz, Horwitz & Cope, 1986; Pappamihiel, 2002; Saito & Samimy, 1996).

Language anxiety is a psychological construct that affects the learning of a second language. According to MacIntyre and Gardner (1994), foreign language anxiety can be defined as "the feeling of tension and apprehension specifically associated with second or foreign language contexts, including speaking, listening, and learning" (p. 284). Pappamihiel (2002) states, "when students are preoccupied with the threat a learning situation poses, they cannot fully concentrate on that task" (p. 329). Anxious learners tend to have negative reactions toward their errors (Gregersen, 2003), tend to underestimate their abilities compared to relaxed students (MacIntyre & Gardner, 1994), and fear being negatively evaluated by other students (Horwitz et al., 1986). It appears that feelings of anxiety trouble learners in language classes on many occasions.

In fact, there are learners who tend to have fear or feel anxiety toward language learning, and such anxious feelings sometimes result in low language performances. Horwitz (2013) points out in her summary of studies that approximately one-third of students usually feel moderately to strongly anxious about language learning, and that

students with higher levels of anxiety tend to receive poor grades in their language classes. It is said that language anxiety negatively influences the quality of language learning, and usually results in unsatisfactory learning outcomes (Alrabai, 2014). As Horwitz et al. (1986) state, based on the findings of previous studies, significant foreign language anxiety is experienced by many students in response to at least some aspects of foreign language learning.

It seems clear from preceding research findings that reducing student language anxiety is a significant issue. Therefore, it is important for teachers to recognize the anxiousness of students and to conduct classes in a less stressful manner given that there are many situations that could provoke anxiety in language classrooms. According to Koch and Terrell (1991), "activities in the foreign language class that create an atmosphere of panic, fear, anger, and other unpleasant feelings, which are psychologically and physiologically associated with anxiety, can impede language acquisition" (p. 110). Koch and Terrell (1991) conclude that language teachers cannot choose activities, techniques, and teaching methods without taking into consideration the students' individual learning styles and interests, in addition to their affective reactions. Alrabai (2015) states that foreign language teachers are regarded as the cornerstone of the implementation of strategies for decreasing language anxiety among second/foreign language learners. In order to promote foreign language learning among English as a Foreign Language (EFL) learners, the alleviation of language anxiety is indispensable. Since there are several things that can be done to help students feel more comfortable using a second language (Horwitz, 2013), and as reducing classroom tension and creating a friendly, collaborative atmosphere will help decrease students' fear of making errors (Gregersen, 2003), it is necessary for foreign language teachers to play a key role in reducing student language anxiety.

1.2   Purpose of the study

The purpose of this study is to examine what strategies are effective in reducing student language anxiety in an English classroom in Japanese contexts. This study consists of three sections: 1) a conceptualization of strategies for reducing language anxiety, 2) an exploration of the effectiveness of strategies for reducing language anxiety through classroom intervention, and 3) an evaluation of the changes in student language anxiety levels and sources of anxiety through quasi-experimental study.

Study 1 attempts to ascertain what strategies are perceived to be effective in reducing student language anxiety. In order to conceptualize possible anxiety-reducing strategies, quantitative analyses including item analysis, exploratory factor analysis, and correlation analysis were performed based on responses from Japanese EFL learners. In this study, the anxiety-reducing strategy items were chosen from several previous studies (Crookall & Oxford, 1991; Oxford, 1999; Phillips, 1999; Young, 1999), which stated suggestions for alleviating student language anxiety. Furthermore, by dividing students into high-anxiety and low-anxiety groups, the differences in the anxiety-reducing strategies the students choose in each groups were compared. In addition to finding out what strategies students believe to be effective in decreasing anxiety in an English classroom, the classification of the strategies and the correlations among the different factors were clarified.

Study 2 is a classroom-intervention study aimed at reducing student language anxiety by utilizing several instructional strategies during the teaching period, for instance: pair work, pair presentation, and preparation before the presentation. In order to evaluate the effectiveness of the anxiety-reducing strategies, questionnaire surveys were conducted before and after the intervention. As a means of measuring the results, an open-ended questionnaire was provided in addition to a Likert-type questionnaire,

therefore the results of the current study will be discussed based on statistical analyses and qualitative data coding methods. This study aimed to discover to what extent the strategies reduce student feelings of language anxiety, as well as find out what perceptions students have regarding the strategies. Specifically, this study sought to ascertain: whether student anxiety decreases or not due to the intervention, how students perceive the anxiety-reducing strategies, and which strategy students feel to be the most effective in reducing language anxiety.

Study 3 attempted to further elucidate the effectiveness of the intervention carried out in Study 2, using a non-equivalent control group to compare the changes in student anxiety over time. The Foreign Language Classroom Anxiety Scale (FLCAS; Horwitz et al., 1986) was used to assess the changes in student anxiety scores and anxiety sources from the pre-tests and to the post-tests in the experimental and control groups. To evaluate the differences between the class with intervention using anxiety-reducing strategies (experimental group) and the class without any specific intervention (control group), repeated-measures analysis of variance (ANOVA) and non-parametric Wilcoxon signed-ranks tests were employed. The analyses were used to determine the areas where language anxiety decreased due to the intervention; which individual sources of language anxiety decrease due to the intervention; and the differences in the results with the experimental and control groups in the two different conditions.

Through a series of studies focusing on the anxiety-reducing strategies, effective solutions for alleviating student language anxiety in the EFL classroom are expected to be identified. This study takes the form of mixed methods research, with both quantitative and qualitative methods. In this way, a careful reflection on student feelings related to classroom anxiety is expected to be possible.

1.3   Significance of the study

The negative impact of anxiety on second/foreign language learning has been demonstrated in a number of previous studies in the field of Second Language Acquisition (SLA). A reduction in anxiety can be beneficial in multiple aspects, as shown in a wealth of studies in the field of psychology. By referring to the specialized views of sport and exercise psychology, clinical psychology, as well as SLA studies, the importance of reducing anxiety will be stated below.

According to sport and exercise psychology, anxiety occurs in situations such as competitions or any performance evaluations, and an increase in anxiety gives rise to lower self-confidence and poorer performance. It is said that cognitive anxiety has a negative linear relationship with sports performance, and consequently, the more athletes are worried, the less well they perform (Woodman & Hardy, 2001). Past research shows that excessive anxiety has a negative effect on sports performance. As a countermeasure, emotional control and stress management leads to a decrease in anxiety and therefore enhance performances in sports or exercise programs (Gill & Williams, 2008). Dealing with anxiety is essential in language performance, just as it is in sport performance.

Social anxiety is considered to be the root of language anxiety (Oxford, 2017). In clinical psychology, social anxiety is viewed as an intense and persistent fear of social occasions and performance situations (Rachman, 2013). People with social anxiety tend to be horrified by social or performance occasions that might embarrass them (Oxford, 2017). Anxiety occurs when a person feels themselves to be under scrutiny or when he/she feels they are being evaluated. By redirecting this self-focused attention and discouraging ruminations about social failure, anxiety can be decreased and a sense of relief can be obtained (Barlow, 2002). Lessening feelings of anxiety

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makes it possible to overcome situations of stage fright such as public speaking and attendances at large meetings, as well as fear of interpersonal communication (Rachman, 2013).

In the field of SLA, anxiety is viewed as having a negative effect in language learning. Getting rid of language anxiety will lead to creating more effective language learning and to increasing student interest and motivation to learn another language (Young, 1991). Moreover, compared to anxious students, those with lower levels of anxiety tend to learn better, be more willing to offer answers in language classes, and be more socially active within the target language group (MacIntyre & Gardner, 1991b). Since promoting interaction can have positive effects on second language development (Muho & Krani, 2011), decreasing student anxiety and helping them communicate actively in English is an important issue. Thus, it is necessary to investigate how to deal with language anxiety in language learning contexts.

This study examines methods of helping students overcome their anxiety in English classrooms. In particular, by investigating the student perceptions of specific strategies for reducing anxiety, it is expected that possible solutions for language anxiety can be clarified. Elucidating effective strategies for reducing language anxiety will be helpful for teachers in choosing appropriate instructional techniques when dealing with highly anxious students.

2. Review of the Literature

2.1   Theories from psychology

The first section of this chapter describes how the term "anxiety" is used in different fields of psychology, and in what ways this psychological construct affects people in various situations. Literature on anxiety is reviewed from several perspectives based on traditional psychology, sport psychology and clinical psychology.

2.1.1   Definition of anxiety and fear

The volume of literature on anxiety increased considerably in the mid-1960s, and since then studies related to anxiety have continued to grow. The original term *anxiety* can be defined as: "a tense unsettling anticipation of a threatening but formless event; a feeling of uneasy suspense" (Rachman, 2013, p. 3). Liu (2009) explains that anxiety occurs when we are not certain of a forthcoming event, when we are aware our performance is being evaluated, when we worry about the consequence of an event, and when we feel unpleasant or threatened in a situation. It is said that anxiety is one of the most troubling and pervasive emotions, and a large number of people suffer from inappropriate or excessive anxiety (Rachman, 2013). In many cases, the feelings of anxiousness may be a persistent and unsettling experience for people.

Anxiety is considered to have a close relationship with fear as the two terms have very similar meanings that represent the negative feelings people may have in various situations. A distinction between the two terms can be made between the causes, duration and maintenance of fear and of anxiety (Rachman, 2013). The term, *fear* is "used to describe an emotional reaction to a perceived danger, to a threat that is

identifiable" (p. 3). In other words, fear concerns that which can be articulated, something we can see or hear, and thus we can discern it as an object or a situation that we fear (Salecl, 2004). Furthermore, fear is "often episodic and recedes or ceases when the danger is removed from the person, or the person from the danger" (Rachman, 2013, p. 3). Thus it seems that fear has a specific focus of threat, therefore it might be possible to diminish fear if we remove the immediate threat. On the other hand, we often perceive anxiety as "a state of fear that is objectless, which means that we cannot easily say what it is that makes us anxious" (Salecl, 2004, p. 18). When feeling anxious, people usually find it very difficult to specify what provokes the unpleasant emotion and feeling of unease. Therefore, feelings of anxiety might trouble an individual to a large extent as it is unclear what actually causes her/his anxiety. For this reason, anxiety is more difficult to tolerate than fear in many cases (Rachman, 2013).

The distinction between anxiety and fear is quite complex as the two terms cover similar aspects as well as different aspects. By definition, fear is explained as having a specific focus, and anxiety as having no such focus. However, the term anxiety is sometimes used to describe problems such as public speaking anxiety, or test anxiety, even though the focus of the concern is identifiable (Rachman, 2013). Therefore, the use of the terms fear and anxiety is not always consistent with the definitions, which shows the intimate interrelationships between the two psychological constructs.

Table 1
Similarities Between Fear and Anxiety

・Elevated arousal
・Negative affect
・Accompanied by bodily sensations
・Tense apprehesiveness
・Uneasiness

Note. From *Anxiety,* 3rd ed. (p. 5, Table 1.1), by S. Rachman, 2013, New York: Psychology Press. Adapted with permission.

Table 2

Differences Between Fear and Anxiety

Fear	Anxiety
・Specific focus of threat	・Source of threat is elusive
・Understandable connection between threat and fear	・Uncertain connection between anxiety and threat
・Usually episodic	・Pervasive uneasiness
・Persistent	・Can be objectless
・Circumscribed tension	・Cues for anxiety can be elusive
・Identifiable threat	・Persistent
・Provoked by threat cues	・Uncertain offset
・Declines with removal of threat	・Without clear borders
・Offset is clear	・Threat seldom imminent
・Circumscribed focus of threat	・Tension, but no sense of emergency
・Imminent threat	・Bodily sensations of vigilance
・Quality of an emergency	・Puzzling qualities
・Bodily sensations of an emergency	
・Rational quality	

Note. From *Anxiety,* 3rd ed. (p. 5, Table 1.2), by S. Rachman, 2013, New York: Psychology Press. Adapted with permission.

2.1.2 Anxiety in sports

Anxiety in sports can be compared with anxiety in language learning in the sense that such feelings could have a detrimental effect on performance. In sport and exercise psychology, anxiety is an oft-studied negative emotion (Gill & Williams, 2008). The relationship between anxiety and athletic performance has received considerable attention because some athletes have been observed to experience deficits in performance when they are in stressful and anxiety-provoking circumstances (Craft, Magyar, Becker, & Feltz, 2003). Sport and exercise psychology researchers view anxiety as "a negative feeling state characterized by high arousal and cognitive worry" (Gill & Williams, 2008, p. 164). Particularly, anxiety in sports arises when an individual is worried about the performance evaluation or failure in competitive

situations. Athletes who participate in competitive sports always have to deal with high pressure, and this pressure is most often associated with elevated levels of stress and anxiety, which form an essential part of high-level sports (Woodman & Hardy, 2001). Therefore, research on the relationship between anxiety and performance is of great value and is a very crucial matter for sports athletes.

For instance, Chamberlain and Hale (2007) considered the relationships among competitive anxiety, self-confidence, and the performance of experienced golfers when putting. Anxiety and performance scores from identical putting performances were tested under three different anxiety-manipulated competitive conditions, such as providing a cash prize or the presence of spectators. The result showed that cognitive anxiety demonstrated a negative linear relationship with performance, somatic anxiety showed a curvilinear relationship with performance, and self-confidence revealed a positive linear relation. This clearly indicated that increasing levels of somatic anxiety were associated with poorer performance. In addition, self-confidence was related to "both good performance enhancing self-confidence during actual putting and high self-confidence enhancing performance" (Chamberlain & Hale, 2007, p. 204). Their findings suggest that improving the perceptions of the cognitive anxiety symptoms will eventually lead to an improvement in golf putting performance.

Hanton, Cropley, Neil, Mellalieu, and Miles (2007) examined the influence of experience in sport on anxiety-related symptoms in elite performers. The data were obtained from focus group interviews and individual interviews. The result showed that positive experiences created positive psychological profiles. Conversely, negative experiences created more negative post-incident psychological profiles, such as lower levels of self-confidence and perceived control and more debilitative interpretations of thoughts. The findings also revealed the feelings and ideas of athletes, such as the

impact of the experience of competitive anxiety and the process of reflection that enables an athlete to alter preparations, perceptions, and attitudes in order to positively interpret anxiety-related symptoms for future performance. Participants also reported on the use of cognitive strategies, including positive self-talk and mental rehearsal, to protect their self-confidence and to help cope with increases in pressure and anxiety.

Grossbard, Smith, Smoll, and Cumming (2009) investigated competitive anxiety among young female and male athletes aged 9 to 14 years old. From the analyses of an anxiety scale they developed, they discovered that gender and age were moderately related to anxiety scores. Worry about poor performances was found to be highest in girls and in older athletes, whereas concentration disruption in competitive sport situations was highest in boys. Grossbard et al. (2009) observed that these results demonstrate the importance of considering the multidimensional components of anxiety, regarding the intensity of competitive anxiety in females and males.

Empirical studies have explored anxiety functions as both situational and personal individual difference variables, including skill level, performance, perceived control, competitiveness, gender, and type of sport (Hanton et al., 2007). In particular, prior studies have shown that competitive anxiety seems to have a negative effect on sport performances. High-anxious performers often exhibit unnecessary muscular activity and waste energy before, during, and after a movement (Gill & Williams, 2008). Increases in physiological arousal or cognitive worry can create a negative thought-anxiety cycle, as shown in Figure 1. Due to this fact, emotional control and stress management is very important for high-anxious performers. Gill and Williams (2008) insist that utilizing emotional control in exercise programs and physical education classes not only enhances the activity experience but also builds emotional control skills for life enhancement.
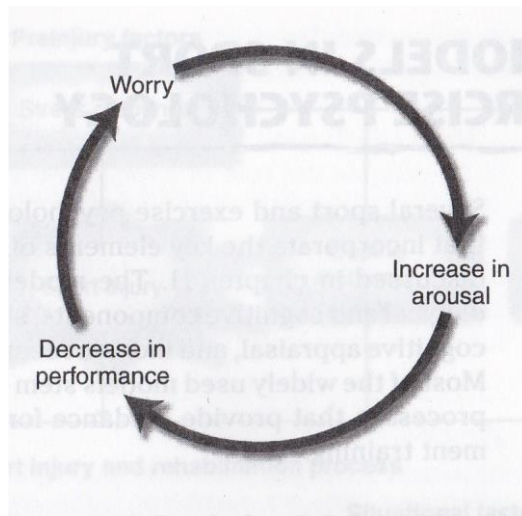
Figure 1. Worry and increases in arousal create a negative cycle that decreases performance. Reprinted, with permission, from D. L. Gill and L. Williams, 2008, *Psychological dynamics of sport and exercise,* 3rd ed. (Champaign, IL: Human Kinetics), 191.

2.1.3   Intervention studies for reducing sports anxiety

In order to reduce the occurrence of anxiety in sport performances, some studies have sought to apply interventions for stress management by athletes. Maynard, Hemmings, Greenlees, Warwick-Evans, and Stanton (1998) is one such study. They examined the efficacy of three different interventions on participants classified by the degree of debilitative cognitive anxiety. Participants were divided into four groups and given the following different treatments: Cognitive-affective Stress Management, Positive Thought Control, Applied Relaxation; while placebo tasks were given to a control group. Positive Thought Control (PTC) consists of the three main components of "using negative thoughts in a positive way, controlling negative thoughts and training positive thoughts" (Maynard et al., 1998, p. 231). Participants were made aware of the importance of controlling competition-related negative thoughts, and that dealing with such intrusive thoughts would lead to better subsequent performances. As

for Applied Relaxation (AR), there are two main purposes to this technique: being able to recognize early signals of anxiety, and learning how to cope with the anxiety so that it does not have a detrimental effect on performance. Participants learned what it feels like to relax, try to remove the tension from their thoughts, and focus specifically on breathing. Cognitive-affective Stress Management Training (SMT) includes both PTC and AR techniques and, in addition, participants practiced anxiety-reducing mental statements to control their emotions through imagination, as well as coping response for highly stressful sporting situations. The results showed that SMT was the most effective in improving all three components of cognitive anxiety, somatic anxiety, and self-confidence. PTC was effective in improving cognitive anxiety, and AR was effective in improving somatic anxiety. Hence, multimodal intervention significantly influenced all of the variables, by combining anxiety-coping treatments from both somatic and cognitive aspects.

For their part, Samulski and Lopes (2008) observed interventions for developing mental and emotional control skills among Brazilian athletes during the Athens Olympic Games in 2004. A total of 50 sessions of psychological support took place throughout the event, including relaxation, concentration techniques, anxiety and stress management, and psychological routines for competition. Examples of the psychological strategies applied in the preparation period are:

・Individual-oriented preparation of athletes (mental training and emotional control)

・Team-oriented preparation (group cohesion and group dynamics)

・Psychological support of coaches (leadership, motivation, and communication strategies)

・Psychological support of the Brazilian Olympic Delegation (concept of

Brazilian Olympic Family, psychological guidelines of behavior during

Olympics, code of ethics: no doping and fair play)

(Samulski & Lopes, 2008, p. 282)

The psychological problems confronting athletes during the Games included adaptation problems, concentration problems, pre-competitive anxiety, and psychological pressure. Therefore, the intervention techniques applied during the competition were mainly competitive routines, confidence building, relaxation techniques, anxiety control, stress management, imagery and mental training, coping strategies, and psychological pain control. As a result of the psychological intervention during the Games, excellent cooperation and interaction between the sport psychologist and other members were attained. Most of the athletes and coaches gave positive feedback on the psychological support they received. Samulski and Lopes (2008) conclude that psychological support can be one of the most important and crucial elements for Olympic success.

From these studies in the field of sport psychology, important insights can be gained for managing anxiety in language-learning situations. Since the strategies implemented in these studies were found to be effective in reducing anxiety in sports, some of these anxiety-reducing strategies might be applicable to language anxiety. Examples of the possible applications of these strategies in language learning are shown in Table 3. For example, PTC (Maynard et al., 1998) can be beneficial in improving negative beliefs about language learning as well as fear of a negative evaluation from peers. Confidence building in Samulski & Lopes (2008) can also be effective in countering test anxiety, public speaking anxiety, and instructor-learner

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interaction anxiety. Due to the fact that anxiety interferes with sport performances as it does with language performances, the remedies for such anxieties could be effective in both circumstances.

Table 3
Athletes' Anxiety-reducing Strategies Applicable to Language Learning

Strategies for Sports Anxiety	Examples of Possible Applications
Positive thought control (PTC)	・Negative beliefs about language learning, Fear of negative evaluation
Applied relaxation (AR)	・Public speaking anxiety, Stage fright
Stress-reducing mental statements	・Personal and interpersonal anxiety
Confidence building	・Test anxiety, Public speaking anxiety, Instructor-learner interaction anxiety
Goal setting	・Skill-specific anxiety, Learner-induced anxiety
Imagery and mental training	・Communication apprehension, Classroom-related anxiety
Group cohesion	・Fear of negative evaluation, Task-based anxiety
Psychological support of coaches	・Fear of teacher behavior, Anxiety related to instructional practices

Note. The first three strategies for sports anxiety were adapted from Maynard et al. (1998), and the latter five strategies were adapted from Samulski and Lopes (2008). The list of possible applications was created by the author.

2.1.4   Anxiety in social contexts

There are some people who tend to feel anxious when they are interacting with others or performing in front of others. Such anxiousness and unease in social contexts

is described as "social anxiety." Social anxiety is the experiencing of general discomfort when anticipating social interactions with unfamiliar partners or receiving an evaluation from others (Budnick, Kowal, & Santuzzi, 2015). Studies show evidence that socially anxious people "endorse more negative self-evaluative thoughts than do other people, are excessively self-focused in social settings, are inclined to interpret ambiguous social situations as being threatening, underestimate their social performance, and misinterpret information provided to them about their behavior" (Rachman, 2013, p. 179). Social anxiety is closely related to language anxiety in classroom situations since some learners are highly anxious about interacting or performing in front of others in a foreign-language setting. It is therefore important to consider social anxiety as one of the sources of language anxiety.

Social anxiety sometimes appears during adolescence. Adolescents who have a high level of social anxiety are likely to experience difficulties within a larger peer group, and are also at increased risk of peer victimization (Biggs, Sampilo, & McFadden, 2011). Victimization is associated with fear of negative evaluation, which could lead to subsequent withdrawal or avoidance behaviors. Biggs et al. (2011) maintain the importance of positive experiences with peers, which could break the negative cycle of socially anxious youth by facilitating the development of social skills through the help of good peer relationships.

Social anxiety experienced by adults in their everyday lives was examined by Kashdan and Collins (2010). Non-clinical community adults kept electronic diaries for 14 days to assess their experience of positive emotions, anger, and anxiety in their social contexts and activities. The results showed that social anxiety was related to less time during which the participants felt happy and relaxed, and more time during which they felt angry during time spent in their everyday lives. Kashdan and Collins (2010)

makes the point that the less frequent and intense positive emotional experiences of people with high social anxiety may interfere with life enhancements such as learning, the acquisition of problem-solving skills, and the creation of positive social interactions and relationships.

The above studies show the problematic effects of social anxiety on interpersonal relationships, for which Comer (2014) offers examples of possible solutions and treatments for social anxiety. First, there are behavioral interventions such as *exposure therapy*. Therapists encourage clients with social anxiety to expose themselves to social situations and to remain in them until their fears subside. Second, cognitive therapies, such as *rational-emotive therapy*, are used to identify one's negative social expectations and force a person to describe everything going on in their mind in social situations, no matter how stupid it might seem. Rational-emotive therapy and other cognitive approaches have been shown to reduce social fears. Finally, *social skills training* is a combination of several behavioral techniques to help people improve their social skills. Therapists first model appropriate social behaviors and encourage individuals to try them out. The clients then role-play and rehearse their new behaviors until they become effective. Throughout the process, therapists give feedback and praise the clients so that they eventually perform effectively. According to Comer (2014), social skills training has helped people perform better in social situations in both individual and group formats. It can be said that these treatments for social anxiety may be applicable to language anxiety as well. The examples of the applications in language learning are shown in Table 4.

Table 4

Treatments for Social Anxiety Applicable to Language Learning

Strategies for Social Anxiety	Examples of Possible Applications
Exposure therapy	・Public speaking anxiety, Stage fright, Instructor-learner interaction anxiety
Rational-emotive therapy	・Fear of negative evaluation, Negative beliefs about language learning
Social skills training	・Anxiety arising from pair or group work, Communication apprehension

Note. Strategies for social anxiety were adapted from Comer (2014). The list of possible applications was created by the author.

2.1.5   Anxiety in test situations

For foreign-language learners, taking examinations or being evaluated by the teacher are probably two of the most anxiety-provoking situations. Anxious feelings occurring in test situations or evaluative situations can be explained as test anxiety. Test anxiety research started more than 40 years ago and, within the literature, test anxiety has been conceptualized as a situation-specific personality trait, with "worry" and "emotionality" as its two major components (Spielberger & Vagg, 1995). It is said that test-anxious people hold "negative cognitions related to failure on an exam, overestimation of consequences related to failure, and continued rumination about exams after completion" (Szafranski, Barrera, & Norton, 2012). Researchers, counselors, and educators are concerned about test anxiety because it has a detrimental impact on performance, even when such individuals actually have enough ability and intellect to succeed (Keogh, Bond, French, Richards, & Davis, 2004). Therefore, test anxiety is an important variable to examine in personality and social psychology research (Stoeber & Pekrun, 2004).

According to Stoeber and Pekrun (2004), current trends in test anxiety research can be illustrated as: research on how test anxiety relates to other variables such as attention, memory, learning, and performance; and research on how to cope with test anxiety. In relation to the former topic, Eum and Rice (2011) examined the association between cognitive test anxiety and different dimensions of perfectionism, achievement goal orientations, and academic performance among university students. The results showed that more test-anxious students performed poorer on the provided task and also performed less well in terms of overall academic achievement. On the other hand, students with maladaptive perfectionism tended to endorse goal orientations consistent with fear of failure and concerns over their adequacy in mastering tasks, which can be described as avoidance goal orientation. As predicted, these students were also likely to experience high cognitive test anxiety. Even although they were expecting high grades, it was likely that they would be dissatisfied—regardless of their performance outcomes. Overall, highly test anxious students were likely to endorse avoidance goal orientations and were maladaptively perfectionistic.

In relation to strategies for coping with test anxiety, researchers have become increasingly aware of the different phases and stages in individuals' experience of test anxiety: the pre-exam phase, the exam phase or confronting stage; and the post-exam phase (Stoeber & Pekrun, 2004). These different phases and stages of test anxiety may call for different coping strategies.

As for methods to cope with test anxiety, Leaver, Ehrman, and Shekhtman (2005) describes the following coping strategies: managing self-image; managing pre-test learning; managing oneself before the test; managing oneself during the test; and managing relationships with an interviewer. First, the ability to stop dwelling on anxiety is necessary as such negative thoughts can lead an individual to set up images

of failing, which in turn may create a negative self-fulfilling prophecy. It is therefore essential to have a positive imaging of oneself. Second, being prepared for a test is a very effective counter for test anxiety; such as ensuring one keeps up in class, clarifying what will be in the test, and preparing for a test constantly every day. Third, self-management techniques including relaxation, distracting oneself, and taking a rest are necessary just before the test. Most of the strategies for coping with test anxiety suggest that students get enough sleep the night before since doing so is significant for physical and mental well-being. Fourth, while in the test, it is imperative to think about how to do one's best on the questions or tasks in front of one, and not to think about having given incorrect answers. Instead, students should think of ways to tackle the test. Finally, in an oral interview test, it is important to build a relationship with the interviewer, and show friendliness, but not obsequiousness. An interviewer who feels positive toward the individual is likely to be more helpful.

On the whole, coping with the anxiety that tests generate in most of us is something only the individual can do, and therefore depends on one's self-regulation skills (Leaver et al., 2005). It is also important not to worry too much about the consequences of exams, because doing so might lead to continued ruminations and frustrations.

Test anxiety may be serious in some cases, when a single performance means a lot for one's future or one's life. In such situations, using strategies for test anxiety may help an individual to manage the difficulties and worries they have. In foreign language classes, students usually have many opportunities of being evaluated during in-class activities such as presentations, group discussions, and speaking tasks. It is therefore possible that students in foreign language classes are apt to experience test anxiety, as part of language anxiety.

2.2   Anxiety research in SLA

In this section, anxiety research in the field of SLA is overviewed. MacIntyre (1999) maintains that "language learning produces a unique type of anxiety" (p. 27). Language anxiety—anxiety that occurs in language-learning situations—is discussed in detail below.

2.2.1   The construct of language anxiety

It has been more than three decades since the term, "foreign language anxiety" was coined by Horwitz et al. (1986) in the field of SLA studies. Horwitz et al. (1986) view foreign language anxiety as, "a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (p. 128). Since then, literature on language anxiety has flourished in various learning contexts, including EFL and ESL classrooms all over the world.

When considering the nature of language anxiety, there are several facets that can be identified. The first distinctions of anxiety are the trait, state, and situation-specific forms of anxiety (Ellis, 2008). Trait anxiety can be defined as "a more permanent predisposition to be anxious" (Scovel, 1978, p. 137). Therefore, a student with low trait anxiety might be "emotionally stable, usually a calm and relaxed person" (MacIntyre, 1999, p. 28). On the other hand, state anxiety is the moment-to-moment experience of anxiety, and it is a transient emotional state of nervousness that fluctuates over time (MacIntyre, 1999). In short, state anxiety refers to "apprehension experienced at a particular moment in time" (MacIntyre & Gardner, 1991a). The third type of anxiety is situation-specific anxiety. Situation-specific anxiety is like trait anxiety, except it is an apprehensive feeling limited to a given

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context or situation. Language anxiety is an example of situation-specific anxiety because it refers to a specific type of context: using a second language (MacIntyre, 1999). Language anxiety is viewed largely independent of other types of anxiety (Ellis, 2008), therefore it can be classified as a particular type of situation-specific anxiety.

It is also important to consider the distinction between debilitative and facilitative anxiety (Kleinmann, 1977). Dörnyei (2010) states, "'Worry,' which is considered the cognitive component of anxiety has been shown to have a negative impact on performance, whereas the affective component, emotionality, does not necessarily have detrimental effects" (p. 198). When considering language anxiety in a positive sense, it is better to term this tension "attention" rather than "anxiety" (Oxford, 1999). According to MacIntyre (2002), facilitating anxiety can lead to better performance as a result of increased effort, but the more common use of the term "anxiety" is the debilitating sense in which the negative effects of anxiety are harmful to performance. Traditionally, a negative relationship between language anxiety and performance has been established in most studies (Aida, 1994; Gardner & MacIntyre, 1993; Horwitz et al., 1986; Saito & Samimy, 1996; Woodrow, 2006). Although facilitative anxiety might exist to some extent, the results of previous studies are highly consistent in demonstrating a negative correlation between anxiety and indices of language achievement (MacIntyre, 1999), therefore it can be said that the debilitating aspect of language anxiety is more widely accepted in the literature.

2.2.2   Sources of language anxiety

In addition to understanding the construct of language anxiety, it is important to find out what the sources of language anxiety are, or what causes anxious feelings among language learners in the language classrooms. Regarding this, Alsowat (2016)

says, "it is useful to determine the sources of foreign language anxiety to better understanding of the nature of anxiety, and to help English instructors find suitable and effective strategies to reduce anxiety in language classrooms" (p. 198).

According to Young (1991), there are at least six potential sources of language anxiety that can be identified: 1) personal and interpersonal anxieties, 2) learner beliefs about language learning, 3) instructor beliefs about language teaching, 4) instructor-learner interactions, 5) classroom procedures, and 6) language testing.

Young (1991) mentions that personal and interpersonal issues are considered to be the most commonly cited and discussed sources of language anxiety in most studies. The study of Price (1991) is related to these types of language anxiety sources. In her study, Price (1991) interviewed 10 anxious language learners and clarified the sources of anxiety from their classroom experiences. The greatest source of anxiety was having to speak the target language in front of their peers. All the students spoke of their fears of being laughed at by other students, and making a fool of themselves in public. The students were worried about making errors in pronunciation in addition to having the frustration of not being able to communicate effectively. It seems that students with low perceived ability in a foreign language are the likeliest candidates for language anxiety (Young, 1991).

As for learner beliefs about language learning, Horwitz (1988) developed a scale called The Beliefs About Language Learning Inventory (BALLI) to assess student opinions related to language learning. As a factor that may contribute to language anxiety, Horwitz (1988) indicates the student beliefs of stressing the importance of accuracy in the target language. In spite of the fact that target language errors are typical and unavoidable in language learning, a substantial number of students were very concerned with the correctness of their utterances (Horwitz, 1988). Therefore, due

to the beliefs of perfectionism in speaking a target language, the unrealistic expectations of mastering a language may gradually lead to language anxiety.

Concerning language anxiety arising from the instructor beliefs about language teaching and instructor-learner interactions, Fujii (2014) provided analyses on teachers' classroom behavior and student language anxiety arising from the teachers' questioning and feedback in a high school English classroom. Teachers in the study utilized question-asking strategies that teachers perceive to help avoid embarrassing students in class, in addition to giving feedback that could promote student confidence and motivation. Despite the teachers' consideration, students in the study still felt very anxious in the classroom, especially when they were asked questions suddenly, or when they had to answer something not well understood. In addition, the teachers' manner of correcting also caused student language anxiety. From these results, it can be said that there was a gap between teacher and student perceptions of anxiety. Fujii (2014) summarizes that "it is very difficult to ease the feelings of stress of every student, even if teachers strive to reduce students' anxiety in class" (p. 47).

Classroom procedures also cause language anxiety among learners. Yan and Horwitz (2008) found that certain class activities were seen to favor some students over others; for example, there were many students who reported that they felt stress when other students outperformed them in activities such as listening and speaking. In their study, comparison with peers was found to be one of the immediate sources of language anxiety. In order to reduce anxiety arising from comparison with peers, "students of similar levels could be grouped together and offered appropriate materials for their level of language competence" (Yan & Horwitz, 2008; p. 175). This might be one suggestion for effective classroom procedures.

Finally, language anxiety is also associated with language testing (Horwitz et al.,

2010). Young (1991) states that learner anxiety increases in evaluative situations, either in written or oral tests. Oral examinations or oral presentations in front of peers are thought to be one of the most anxiety-provoking tasks in the classroom. Woodrow (2006) investigated the major reported causes of second language anxiety among English for Academic Purposes (EAP) students in Australia. From the qualitative analyses of the interview, she found that "giving oral presentations and performing in front of classmates were the most reported stressors for in class situations" (p. 322). It seems natural that student anxiety increases when they are being tested because they feel they have to perform well in their tests, out of concern that it will directly affect their grades.

As can be seen from these studies, there are multiple sources of language anxiety, stemming from learners, teachers, and instructional techniques. Although it might be difficult to eliminate student anxiety entirely (Horwitz, 2013), it is important for language instructors to address student anxiety, in addition to striving to minimize the anxiety sources in the classroom.

2.2.3   Effects of language anxiety

A number of studies have investigated the effects of language anxiety on language learning. Debilitating levels of language anxiety can arouse academic, cognitive, social, or personal effects on second/foreign language learners (MacIntyre, 1999).

Horwitz (1986) revealed from the measurement of the Foreign Language Classroom Anxiety Scale (Horwitz et al., 1986) that higher levels of anxiety are associated with lower final grades, and found a significant negative correlation between language anxiety and students' expected grades in the foreign language course.

In addition, Aida (1994) examined language anxiety among American students of Japanese, and found a moderate negative correlation between anxiety and course grade. The results indicated that highly anxious students were more likely to receive lower grades than students having a low level of anxiety. Similarly, the study of MacIntyre and Gardner (1994) shows a negative relationship between anxiety and academic achievement in language courses. Moreover, in a longitudinal study of 54 students, Sparks and Ganschow (2007) concluded that students with the lowest levels of language anxiety exhibited the highest scores in foreign language aptitude and proficiency, as well as in native language skills. From the findings of these studies, the academic effects of language anxiety seem clear. In order to examine the origins of these effects, the relationship between language anxiety and cognitive processing have been explored in the following studies.

MacIntyre and Gardner (1991b) examined the effect of language anxiety on input and output in learners' native and second languages. From the analysis, they found that language anxiety has a negative effect on both the input and output stages. MacIntyre and Gardner (1994) examined the effects of language anxiety on three stages of performance: input, processing, and output stages. As a result, input, processing, and output anxiety all showed negative correlations with each of the specific performance measures. Of note, the strongest correlation was seen in the processing and output stages. In addition, the results showed that language anxiety tends to correlate with measures of performance in the second language but not in the native language. MacIntyre and Gardner (1994) conclude that "the potential effects of language anxiety on cognitive processing in the second language appear pervasive and may be quite subtle" (p. 301). However, their study shows a definite relationship between language anxiety and second language performances.

Language anxiety is also influenced by social contexts, such as "competitive classroom atmosphere, difficult interactions with teachers, risks of embarrassment, opportunity for contact with members of the target language group, and tension among ethnic groups" (MacIntyre, 1999, p. 38). Due to the levels of anxiety, language learners choose to communicate or not to communicate in the foreign language. It is said that anxious learners do not communicate as often as more relaxed learners (MacIntyre & Gardner, 1991a).

It is likely that language anxiety influences student feelings related to language learning. A number of studies report that high levels of anxiety and low self-rated proficiency lead to low levels of linguistic self-confidence in students, which reduces motivation for learning and communicating in the second language (MacIntyre, 1999). The effects of language anxiety on language study is profound, therefore reducing its negative impact is necessary.

2.2.4   Coping with language anxiety

Concerning the extensive literature on language anxiety and its negative effects on language learning, studies focusing on how to minimize language anxiety deserve attention. Horwitz et al. (1986) states, "educators have two options when dealing with anxious students: 1) they can help them to learn to cope with the existing anxiety-provoking situation; or 2) they can make the learning context less stressful (p. 131)." It is important for teachers to recognize the anxiousness of students and to help them cope with the feelings of language anxiety, in addition to creating a supportive classroom atmosphere.

One of the studies that considered strategies to help students cope with anxiety is Williams and Andrade (2008). They investigated the situations that provoke anxiety in

EFL classes in Japanese universities, and sought to identify the ways in which students perceive and cope with different situations. According to the findings, most students said that they should have taken some form of action during the anxiety-provoking situation, but nearly the same number of students did not think they could positively influence the situation. Many of the students felt that they should do something, but at the same time they felt that whatever they might do would be ineffective (Williams & Andrade, 2008, pp. 187–188). They also found that these desperate feelings were especially true in students with a low perceived ability. It is notable that these students perceive themselves as low-ability learners, although they might, in fact, not have low ability. This leads to the conclusion that coping with language anxiety is difficult for students without the help of teachers. In particular, for those who lack confidence in their English ability and have no idea as to handle their anxiety, teachers should play a role in helping them overcome their anxiety.

The study by Tsui (1996) is based on a classroom action research project, which aimed to examine teacher perceptions of the factors that contribute to student reticence and language anxiety. The teachers videotaped their lessons to review their problems while teaching, and then designed a list of strategies to overcome the problems. They tried out the strategies for four weeks, and at the end of the try-out period, they videotaped another lesson and evaluated the effectiveness of the strategies. As a result, successful and unsuccessful strategies became clear. "Lengthening wait time" after a question proved not to be effective, in fact, it exacerbated anxiety rather than alleviated it. As for "improving questioning techniques," some teachers reported success, but others report that it only made a minimal difference. The effective strategies were found to be: "accepting a variety of answers" (i.e. let students know there is not always a right answer), "peer support and group work" (i.e. allowing students to check their

answers with their peers before presenting to the whole class), "focus on content" (i.e. activities that focus students on content rather than form), and "establishing good relationships" with students. Tsui (1996) concluded that the successful strategies minimized language anxiety and the unsuccessful ones exacerbated language anxiety. Thus it can be seen that helping students overcome their anxieties takes time.

Kondo and Yang (2004) gathered open-ended questionnaire responses from EFL students in Japan in order to collect a broad sample of tactics for coping with language anxiety. Seventy tactics were identified, which were divided into five clusters according to hierarchical cluster analysis. The five strategies were: "Preparation" (attempts at controlling the threat by improving studying strategies); "Relaxation" (tactics aiming at reducing somatic anxiety symptoms); "Positive Thinking" (suppressing problematic cognitive processes that underlie students' anxiety); "Peer Seeking" (students' willingness to look for other students who seem to have trouble controlling their anxiety); and "Resignation" (minimizing the impact of anxiety by refusing to face the problem). In addition, they measured the respondents' levels of anxiety using the English Language Classroom Anxiety Scale (ELCAS; Kondo & Yang, 2003) to identify the relationship between language anxiety and frequencies of strategy use. However, they could not find a significant relationship between anxiety scores and frequencies of the five strategies.

The study of Williams and Andrade (2008) demonstrates the importance of teacher assistance in coping with student language anxiety, since most of the students in their study could not handle their anxiety by themselves. Tsui (1996) proposed strategies that could decrease student anxiety from the perspective of teachers. These strategies might have been successful for these teachers, but it is not clear whether the students felt that those strategies were actually effective for them. Kondo and Yang

(2004) found five categories of strategies that could be implemented by students themselves, but they did not find strategies containing teacher roles. It would be beneficial if effective anxiety-reducing strategies containing both student and teacher roles could be clarified. Therefore, this current study aims to conceptualize strategies for reducing language anxiety, which includes both student-oriented and teacher-oriented strategies.

2.2.5　Intervention studies for reducing language anxiety

In addition to studies identifying possible strategies for reducing language anxiety, there are studies that have aimed to ascertain the effectiveness of such strategies. These studies sought to try out anxiety-reducing strategies by conducting classroom interventions, and examined whether student anxiety decreased or not.

Nagahashi (2007) is a short-term intervention study that tested whether implementing cooperative learning reduces language anxiety. The participants were 38 university first-year students, and twelve classes with intervention were conducted. As a measurement, the Foreign Language Classroom Anxiety Scale (FLCAS; Horwitz et al., 1986) was conducted before and after the interventions. The results showed that the participants' anxieties were mostly associated with communication apprehension, and the top five key statements associated with communication apprehension decreased significantly following intervention. However, the amount of other items in the language anxiety scores, items that were not related to communication apprehension, remained high even after intervention.

Tsiplakides and Keramida (2009) is a qualitative classroom-based case study that examined the effectiveness of project work and a collaborative learning community in reducing anxiety. The participants were 15 students attending a secondary school in

Greece. Semistructured interviews and group discussions were carried out to clarify the sources of anxiety. To ascertain the effectiveness of intervention, direct observations were conducted, and the findings revealed that the sources of language anxiety were: 1) fear of negative evaluation from peers, and 2) the perception of low ability in relation to peers. It was found that intervention made students more willing to participate in speaking activities, and their English-language performances improved as a result.

Alrabai (2015) examined whether implementing anxiety-reducing strategies would induce positive changes in the anxiety levels of learners by dividing classes into experimental and control groups. The participants were 468 male EFL learners in Saudi Arabia. Twelve male EFL teachers took part in this study. Due to religious, social, and cultural restrictions, female participants could not be included in the study. The FLCAS (Horwitz et al., 1986) was used as the main instrument to gauge learner anxiety levels. A classroom observation instrument was rated by Alrabai to assess teacher practices based on anxiety-reducing strategies. The results of the assessment showed that learner anxiety decreased significantly in the experimental group only. Compared to the control group, using anxiety-reducing strategies was found to cause positive changes in the teaching behaviors of teachers in the experimental group. Consequently, it was found that the experimental treatment had a positive effect on lessening learner fears of a negative evaluation.

In these studies, the effectiveness of intervention was measured by anxiety scores or teacher's observations. However, in each of these studies, several strategies were implemented as forms of intervention. That is to say, it is quite difficult to determine which strategies actually helped decrease student language anxiety. Therefore, it is important to find out which strategies are effective in reducing student

language anxiety. In order to examine the effectiveness of strategies used for reducing language anxiety, it is necessary to ask students about their perceptions of the strategies in addition to examining anxiety scores. This study aims to determine to what extent anxiety-reducing strategies reduce student feelings of language anxiety, as well as what perceptions students have regarding the strategies. In other words, this study aims to clarify the effective strategies for dealing with students' language anxiety.

2.2.6   Outline of studies related to language anxiety

Previous studies related to language anxiety are outlined below. From this list of previous anxiety research, the current of the times in this research area can be followed, from several decades ago up to until the present. The studies in this list are classified into the following groups: the construct of language anxiety (C), sources of language anxiety (S), effects of language anxiety (E), coping strategies for language anxiety (CS), and intervention for reducing language anxiety (I). This timeline illustrates recent trends in language anxiety research.

Author (Year)	Annotation	C	S	E	CS	I
Scovel (1978)	In a review of studies on affective variables, the findings on anxiety were found to be mixed and confused. Scovel concluded, "anxiety is neither a simple nor well-understood psychological construct."	O	O	O		
Horwitz, Horwitz, & Cope (1986)	The term "Foreign Language Classroom Anxiety" was first coined. The anxiety scale they developed (FLCAS) has since been widely used among researchers throughout the world for several decades.	O	O	O		O
Horwitz (1986)	Validation of the FLCAS (Horwitz et al., 1986) is reported. Test anxiety was moderately associated with the FLCAS. Correlation between FLCAS and course grade and expected grade exhibited a similar tendency.	O		O		
Young (1990)	Learners' anxiety related to speaking activities was examined. From the original speaking anxiety scale, learners' anxieties were found to arise from activity-task, speaking errors, and preparedness.		O			O
Crookall & Oxford (1991)	To deal with anxiety, suggestions such as improving the classroom climate and addressing students' anxiety are given. Practical activities to reduce anxiety are also proposed.		O			O
Koch & Terrell (1991)	Students' reactions to Natural Approach activities were examined. Teaching techniques such as oral quizzes and being called on individually produced anxiety, while pairing students produced comfort.		O		O	O
MacIntyre &Gardner (1991a)	This is a review of the literature. The distinction of trait, state, and situation-specific anxiety are explained. The causal models of anxiety are discussed, such as Gardner's model (1985) and Clement's model (1987).	O	O			
MacIntyre & Gardner (1991b)	This is an investigation of the correlations of 23 scales assessing language anxiety and other forms of anxiety. The results suggest that language anxiety can be discriminated from other types of anxiety.	O		O		
Price (1991)	This is a qualitative study based on interviews of 15 anxious language learners. Causes of anxiety were related to the speakers' beliefs and stressful classroom experiences. Creating a comfortable classroom was found to be important.		O		O	O
Young (1991)	In a review of the literature, the potential sources of language anxiety are offered: 1) personal and interpersonal anxieties, 2) learner beliefs, 3) instructor beliefs, 4) instructor-learner interactions, 5) classroom procedures, and 6) language testing.	O	O			

Author (Year)	Annotation	C	S	E	CS	I
Aida (1994)	The validity and reliability of the FLCAS (Horwitz et al., 1986) was tested on students of Japanese. Factors of speech anxiety, fear of failing, comfortableness in Japanese, and negative attitudes were found from the results.	○		○		
MacIntyre & Gardner (1994)	An anxiety scale to measure the three-stage model of input, processing, and output were developed and examined. A strong relationship between language learning and the processing and output stages was found.	○		○		
Saito & Samimy (1996)	They examined language anxiety among three levels of students studying Japanese. They found that advanced students had high anxiety, and that anxiety negatively impacts performance.			○		○
Tsui (1996)	This is a classroom action research project that examined students' reticence and anxiety from the teachers' perspectives. Both successful and unsuccessful strategies are reported, together with teachers' comments.		○			○
MacIntyre (1999)	In this review of anxiety research, MacIntyre explains the concept of language anxiety and its effects. In addition, the development of anxiety is discussed through a review of related research.	○	○	○		
Oxford (1999)	By introducing actual cases of anxious learners, the importance of language anxiety research is stated. Related literature on several themes is reviewed. Classroom implications are also offered.	○	○			○
Phillips (1999)	Practical means of decreasing anxiety in oral classes were proposed in terms of speaking activities, error correction, and oral evaluation. Examples of pair/group works such as role-plays and interviews are offered.		○			○
Young (1999)	Suggestions for coping with language anxiety, and making the learning context less stressful are offered. Instructional sources of language anxiety are also noted.		○	○	○	○
Horwitz (2001)	In this review, the relationship between language anxiety and achievement is examined. In addition, anxiety in specific language skills such as reading and writing is mentioned.	○		○		
Pappamihiel (2002)	This study compared language anxiety in ESL classes and mainstream classes and found that anxiety is multidimensional and varies in classroom contexts. Findings suggest that ESL teachers should employ less-stressful activities, and in mainstream classes, teachers should take on the role of a mediator.	○	○		○	○

Author (Year)	Annotation	C	S	E	CS	I
Gregersen (2003)	This article describes the reactions of anxious and non-anxious learners to their own errors. They differed in their abilities to recognize errors, and anxious learners exaggerated the numbers of errors they made. When errors need to be corrected, this should be done with care.		○	○		
Kondo & Yang (2004)	A typology of strategies students use to cope with language anxiety was explored from the responses of EFL students in Japan. The findings from hierarchical cluster analysis suggested five strategy categories: preparation, relaxation, positive thinking, peer seeking, and resignation.			○	○	
Matsuda & Gobel (2004)	They examined the relationships among language anxiety, foreign language reading anxiety, individual factors, and classroom performance in Japanese university students. The results showed students with overseas experience had lower anxiety and higher self-confidence.			○		
Sparks, Ganschow, Artzer, Siebenher, and Plageman (2004)	The relationship between foreign language teachers' perceptions of their students' academic skills and affective characteristics was explored. Low-proficiency students were perceived by teachers as having weaker academic skills and less positive attitudes.			○		
Liu (2006)	Anxiety in Chinese EFL students at three proficiency levels was observed. The findings suggested that more-proficient students tended to be less anxious.		○	○		
Woodrow (2006)	This is a study on speaking anxiety in EAP courses in Australia. A negative relationship between anxiety and oral performance was identified, and it was observed that giving oral presentations was the most reported stressor among students.	○	○	○		
Ewald (2007)	Foreign language anxiety among upper-level classes was investigated qualitatively through questionnaires. The students mentioned the key role of the teacher in producing and relieving their anxiety.			○		
Marwan (2007)	This is an investigation of Indonesian students' language anxiety. In addition to clarifying the factors contributing to language anxiety, items from the coping strategies of Kondo & Yang (2004) were used, and it is was found that resignation strategies were not supported by the learners.		○		○	
Na (2007)	In a study of Chinese high school EFL learners, Na found that males have higher anxiety than females, and high anxiety played a debilitative role in students' language learning.		○	○		

Author (Year)	Annotation	C	S	E	CS	I
Nagahashi (2007)	In this intervention study, the effectiveness of cooperative learning techniques for reducing anxiety was tested. The findings suggest that cooperative learning was effective in reducing communication apprehension.		○			○
Sparks & Ganschow (2007)	Fifty-four students were followed over 10 years, and their anxiety levels were measured. Students with different levels of anxiety were found to exhibit significant differences on measures of native language learning.			○		
Aydin (2008)	This study investigated the sources and levels of fear of negative evaluations and language anxiety among Turkish students. Not being prepared for the lesson and teacher's correction were the main sources of students' anxiety.		○			
Williams & Andrade (2008)	This is a study of language anxiety among Japanese EFL students. The type of situations that provoked anxiety, the perceived cause of the anxiety, and the ability to cope with the anxiety were examined.		○		○	
Yan & Horwitz (2008)	Through qualitative analyses from interviews, this study proposed a model of the relationship between foreign language anxiety and other factors such as learning strategies, language learning interest, and comparison with peers.		○	○		
Zheng (2008)	This literature review offers the possible causes and effects of language anxiety from broad domains: cognitive, curriculum, cultural and policy perspectives.		○	○		
Marcos-Llinas & Garau (2009)	The effects of language anxiety on students' course achievements in three proficiency levels of Spanish were investigated. The advanced learners scored significantly higher in anxiety levels compared to beginners.			○		
Tallon (2009)	This study investigated foreign language anxiety among heritage students of Spanish. The results suggested that heritage students had lower anxiety scores than those of non-heritage students.		○	○		
Tsiplakides & Keramida (2009)	In a classroom-based case study, this study examined the effectiveness of anxiety-reducing interventions. After interventions, students were more willing to participate in speaking tasks, and their performance improved.		○			○
Duxbury & Tsai (2010)	This is a comparative study of Taiwanese and American students. Language anxiety and cooperative learning showed no relationship in the U.S. schools, but there was a positive relationship in the Taiwanese schools.		○			○
Horwitz, Tallon & Luo (2010)	In this review of language anxiety, the sources, the effects, and the association with specific language skills are explained, together with suggestions for reducing language anxiety.	○	○	○		○

Author (Year)	Annotation	C	S	E	CS	I
Wu (2010)	The perceptions of language anxiety among Taiwanese students are explored. Findings suggest that students worry about their English proficiency and errors, but they feel less anxious when they are in a pair or group.		○	○		
Zhang & Zhong (2012)	The causes of language anxiety are examined through a review of previous research. The study categorized the causes of language anxiety as: learner-induced anxiety, classroom-related anxiety, skill-specific anxiety and society-imposed anxiety.	○	○			
Horwitz (2013)	In this chapter, the necessity of considering characteristics of language learners and the teaching setting surrounding the learners is stated. Anxiety is explained as one language learning emotion.	○				○
Kao & Craigie (2013)	This study examined which coping strategies could predict language anxiety. The data suggest that positive thinking benefits students, whereas resignation is associated with higher levels of anxiety.				○	
Park & French (2013)	In this study, gender differences in language anxiety and the possible influence of gender and anxiety on L2 performance was examined. Females reported higher anxiety, and females and high-anxiety students received higher grades than males and low anxiety students.			○		
Trang, Baldauf & Moni (2013)	This is a study of language anxiety among Vietnamese EFL students and their teachers' attitudes toward language anxiety. The findings indicate that two-thirds of students suffered from language anxiety, yet the teachers did not attribute adequate importance to it.			○		
Alrabai (2014)	Practical techniques are offered to control learners' sources of foreign language anxiety and to promote learners' motivation to learn English as a foreign language. This guide is for EFL teachers to control students' anxiety and motivation.		○		○	○
Thompson & Lee (2014)	The effect of experiences abroad and second language proficiency on foreign language anxiety was examined. The results indicate that experience abroad reduces language anxiety.		○			
Alrabai (2015)	This quasi-experimental study investigated the effects on learner anxiety of anxiety-reducing strategies utilized by EFL teachers. Intervention was found to significantly decrease levels of anxiety in the experimental group, but not in the control group.		○			○

Author (Year)	Annotation	C	S	E	CS	I
Alsowat (2016)	This study investigated foreign language anxiety levels and the factors affecting the anxiety among EFL students in Saudi Arabia. The results show that students had moderate levels of anxiety. The highest causes of anxiety were fear of failing the class, forgetting things they knew and feeling unease during language tests.		○			
Marcial (2016)	The conceptual framework of language anxiety and underlying learner factors were tested in this study and analyses revealed the significant relationship of language anxiety and self-perceived competence, and the use of English both outside the class and at home.		○	○		

3. Research Design

The negative impact of language anxiety on language learning has been demonstrated in the literature, showing that language anxiety may pose crucial problems for language learners. The current study aims to provide details to enable effective solutions to overcome language anxiety. Especially, this study attempts to verify the effectiveness of strategies for reducing language anxiety, through a series of studies comprised of three main parts.

In Study 1, the structure of possible anxiety-reducing strategies will be examined, together with interrelations among factors. In addition, strategies that students perceive to be effective will be investigated, distinguishing high-anxious and low-anxious participants. In Study 2, the effectiveness of the anxiety-reducing strategies will be assessed through a classroom intervention. A questionnaire survey will be conducted before and after the intervention to compare the results of the degree of anxiety and beliefs in anxiety-reducing strategies. In Study 3, changes in student anxiety sources in the pre- and post-tests in Study 2 will be examined in detail, and the data will be compared with data for students from a different class functioning as a control group. The overall research design of this study is shown in Figure 1. Details of the research problems of the three studies will be stated in the following.
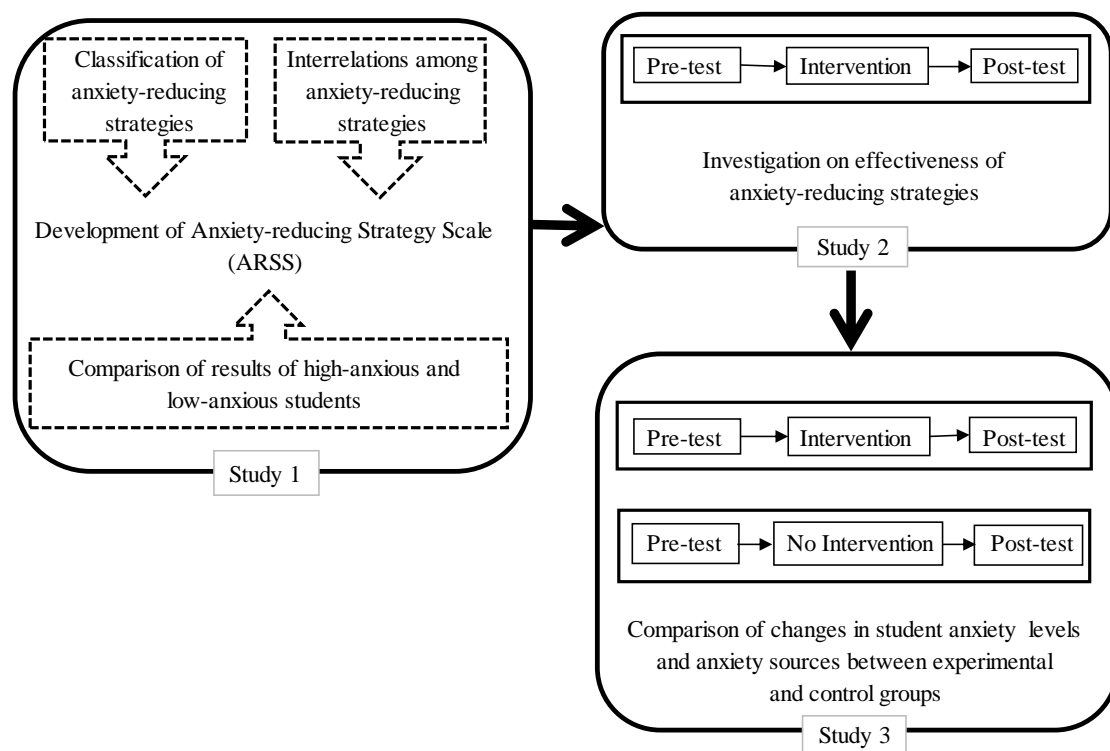
Figure 2. Overall research design of the study.

3.1 Research problems

As discussed in Chapter 2, the significance of reducing language anxiety in foreign language classrooms has been established in the literature. This study attempts to establish the kinds of strategies that may be used in reducing language anxiety among Japanese EFL students, as well as to verify the effectiveness of these strategies. Accordingly, the study posited the following research problems:

1) How can the strategies for reducing language anxiety be conceptualized? (Study 1)

2) How effective are the strategies for reducing language anxiety? (Study 2)

3) How do student language anxiety levels and sources change due to anxiety-reducing strategies? (Study 3)

To answer these three research problems, studies to investigate reducing the language anxiety of Japanese EFL students were conducted. The research objectives will be detailed next.

3.2   Research objectives

3.2.1   Study 1

Study 1 aims to conceptualize strategies for reducing student language anxiety, by developing an original scale with items based on the proposals in Crookall and Oxford (1991), Oxford (1999), Phillips (1999), and Young (1999). Using this scale, the factor structure of the anxiety-reducing strategies and the correlations among the factors will be investigated. The research questions and detailed research settings will be elaborated in Chapter 4.

3.2.2   Study 2

Study 2 will evaluate the effectiveness of the strategies for reducing language anxiety through classroom intervention. A questionnaire survey will be administered before and after the intervention to compare student anxiety levels and beliefs related to the anxiety-reducing strategies. The research questions and detailed research settings will be discussed further in Chapter 5.

3.2.3   Study 3

Study 3 seeks to identify how sources of student language anxiety vary, together with the changes in the anxiety levels in the class subjected to the intervention (experimental group) and the class without any specific intervention (control group). By examining the changes in student answers, sources of anxiety which could be

removed from the intervention are expected to be shown. The research questions and research settings will be detailed further in Chapter 6.

3.3 Research methodology

This section provides an overview of methodological approaches in general and the research methodology utilized in the present study will be described in detail.

3.3.1 Quantitative, qualitative, and mixed methods research

Academic research can generally be classified into quantitative, qualitative, and mixed methods approaches. Quantitative research aims to determine a relationship between two or more variables, and is primarily related to numerical data, measurement, and statistical analysis (Phakiti, 2014). Qualitative research seeks to understand the language learning and language use of an individual or a group of individuals in natural contexts, such as classroom settings (Phakiti, 2014). It is concerned with interpreting various kinds of non-numerical or qualitative data, such as interviews or oral communication exchanges, written texts or documents, observations of behavior, case studies, and others (Remler & Ryzin, 2015). Both quantitative and qualitative methods offer advantages, and choosing which way to conduct a research project depends on what the data attempts to clarify, or what the research goals are.

A combination of quantitative and qualitative methods in a single study can be labeled as mixed methods research. To illustrate a more complete understanding of the phenomenon being studied, quantitative and qualitative data can be mixed, as a methodological triangulation (Mertens & Hesse-Biber, 2012). According to Bekhet and Zauszniewski (2012), methodological triangulation has an advantage of "providing confirmation of findings, more comprehensive data, increased validity and enhanced

understanding of the studied phenomenon (p. 40)."

Previous studies of language anxiety mostly have been conducted with the quantitative approach (e.g., MacIntyre & Gardner, 1994; Matsuda & Gobel, 2004; Park & French, 2013; Saito & Samimy, 1996; Thompson & Lee, 2014; Woodrow, 2006). Quantitative studies of language anxiety have made important contributions to an understanding of this topic and led to many pedagogical reforms aimed at decreasing language anxiety (Wang, 2009). However, there has been a discussion on initiating an idea that only quantitative approach does not suffice research on language anxiety (Gopang, Bughio, Memon, & Faiz, 2016). Moreover, quantitative studies of language anxiety commonly make interpretations detached from contexts, raising the possibility that the researcher will interpret happenings in a narrow and limited way (Wang, 2009). Although studies employing qualitative methods are fewer than studies employing quantitative methods in language anxiety research, Price (1991) contends that qualitative research is beneficial for researchers to obtain descriptive information on variables not easily assessed through empirical research, and it also provides a way to view phenomena from the point of view of the subjects.

Recently, a third way of approach, mixed methods research, is used in language anxiety research to examine issues from more than one aspect (Gopang et al., 2016). By utilizing the qualitative research tradition with the inclusion of a quantitative approach, it will be possible to capture student voices and to examine their words and beliefs in an attempt to understand the phenomena of language anxiety (von Wörde, 2003). Therefore, in this study, methodological triangulation was employed by using both quantitative and qualitative methods, to clarify the psychological reactions of students related to language anxiety.

3.3.2 Descriptive, predictive, and explanatory methods research

Researchers should keep in mind that there are three basic goals for academic research: 1) to describe behavior, 2) to predict behavior, and 3) to explain behavior (Jackson, 2008). With these three goals, Jackson (2008) offers three research methodologies: descriptive methods, predictive methods, and explanatory methods.

Description starts from careful observations, to be able to describe patterns of behavior, thought, or emotions of people. Examples of descriptive methods are: observational methods, qualitative methods, and survey methods. Descriptive methods are often used as a first step when undertaking a research project.

Prediction allows researchers to identify factors which indicate when an event will occur. Knowing the relationship between two specific variables allows researchers to predict the relation of one variable to the other. Examples of predictive methods are: correlational research, quasi-experimental designs, and single-case research studies.

Finally, explanation allows researchers to identify the causes which determine the reasons or timing when a behavior occurs. To explain a behavior, researchers may manipulate specific environmental factors to reach the findings. Examples of explanatory methods are: between-subjects experimental designs, correlational groups and developmental designs, and advanced experimental designs.

Based on these research methodologies introduced in Jackson (2008), this study started from descriptive methods research (Study 1), followed by predictive methods research (Study 2, Study 3). This process is advantageous to obtain an overall picture of the obtained data, and to make detailed inquiries based on the data. Conducting a study in this style is not unusual in language anxiety research, as in Alsowat (2016), Darmi and Albion (2014), or Gopang, Ansari, Kulsoom, and Laghari (2017). The detailed methodology utilized in the study here will be explained further in the

following.

3.3.3 Survey method – Quantitative research (Study 1)

One method of collecting data for descriptive purposes is to use survey method (Jackson, 2008). Surveys and questionnaires are useful for collecting data from large groups of subjects, usually without any specific manipulation (Seliger & Shohamy, 1989). Study 1 employed a rating scale, which defines participants' responses to the questions on scales such as from 1 to 5, due to the different levels of agreement to the statements (Seliger & Shohamy, 1989). When dealing with scales of measurement, it is essential to distinguish the four-level scale system: nominal, ordinal, interval, and ratio scales (see Table 5).

Table 5
Features of Measurement Scales

	Nominal	Ordinal	Interval	Ratio
Examples	Gender Ethnicity Affiliation	Grade point average (GPA) Ranking score	Likert scale Temperature	Weight Height Time
Mathematical properties	None	Rank-order	Computation possible (absence of zero)	Computation possible (absolute zero)

Note. Table created based on statements in Jackson (2008), Phakiti (2014), and Rasinger (2015).

Nominal scales use numbers to label or classify categorical variables, such as ethnicity and gender. Therefore, values from nominal scales do not have a mathematical property (Phakiti, 2014). Ordinal scales form a rank order, and are used for ranking some quality or ability. Ordinal data are often ordered from highest to

lowest or from biggest to smallest (Jackson, 2008), but it is difficult to make statements about the differences between individual labels: "very dull" does not mean "twice as dull as dull" (Rasinger, 2013). Interval scales go one step up from ordinal scale. They have the features of ordinal scales, together with equal distances or intervals (Phakiti, 2014). Examples of interval scales are grading systems that evaluate work from A to D, with A as the best mark and D as the worst mark (Rasinger, 2013). Finally, ratio scales have all properties of nominal, ordinal, and interval scales and also possess an absolute zero (Phakiti, 2014). Examples of ratio scales include weight, height, age, or time, which all has an absolute zero.

It is important to keep in mind that educational and psychological variables have the properties of ordinal scales rather than interval scales. According to Jamieson (2004), "the response categories in Likert scales have a rank order, but the intervals between values cannot be presumed equal" (p. 1217). Jamieson argues that calculating the mean and standard deviation are not appropriate for ordinal data, where numbers represent literal meanings. Nevertheless, the measurement scales of these variables are commonly treated as if they were true interval scales, especially when a large sample size can be obtained (Phakiti, 2014). In psychological and social research, Likert scales are usually considered as interval data (Rasinger, 2013).

Related to this, Norman (2010) states that "while Likert questions or items may well be ordinal, Likert scales, consisting of sums across many items, will be interval" (p. 629). Here it is explained that it would be analogous to the practice of treating the sum of correct answers on a multiple choice test as an interval scale. In order to further evaluate this, Norman tested the robustness of Likert scales by examining what will happen to correlations when distributions are not normal and linear. Here Norman used a data set from 93 patients who had completed a quality of life measure consisting of

10 point scales, and then created more extremely ordinal data sets by turning the raw data into 5 point scales, by combining 0 and 1, 2 and 3, 4 and 5, 6 and 7, and 8, 9 and 10. In addition, he created a new 4 point scale, where 0 = 1; 1 and 2 = 2; 3, 4, and 5 = 3; and 6, 7, 8, 9, and 10 = 4; to model a very ordinal skewed distribution. Finally, he computed the Pearson and Spearman correlations and looked at the relations between the Time 1 and Time 2 responses of the sample of the 93 respondents. The results of the Pearson and Spearman correlations based on ranks yielded virtually identical values in each point scale, even in conditions of obviously unnatural, skewed data. From this result, Norman states that the Pearson correlation, a typical example of parametric tests, is extremely robust with respect to violations of assumptions. He concludes, "parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions, with no fear of 'coming to the wrong conclusion' "(p. 631).

Treating ordinal scales as interval scales still remains controversial, however it has become common practice to assume Likert-type categories constitute interval-level measurement (Jamieson, 2004). According to Knapp (1990), sample size and distribution are more important than level of measurement when choosing whether it is appropriate to use parametric statistics. It should be noted that issues such as levels of measurement and appropriateness of mean and parametric statistics should be considered at the design stage, and must be addressed by authors when they discuss their chosen methodology (Jamieson, 2004). With all of the above in mind, in the current study, the obtained data from anxiety-related scales were statistically computed as interval scales, in conducting factor analysis and correlational analysis.

3.3.4   Quasi-experimental design (Study 2, Study 3)

The term, quasi-experimental refers to a design that resembles an experiment but is not exactly an experiment (Jackson, 2008). Quasi-experimental research is likely to have external validity, since it is conducted under conditions closer to those normally found in educational contexts (Seliger & Shohamy, 1989). The quasi-experimental design has several different types, depending on whether a study includes one or two groups of participants, and how often measurements are taken.

Study 2 adopts a single-group pretest/posttest design. Single-group pretest/posttest design is an improvement over the posttest-only design since the measurement is taken twice, before and after the treatment (Jackson, 2008). The two measures could be compared, and differences in the measures are assumed to be the result of the treatment (Jackson, 2008). Researchers could use the paired-samples t-test, or the Wilcoxon signed ranks test to compare the group means (Phakiti, 2014). This study adopted paired t-test, a parametric test, since the data obtained in the pretest and posttest were found to follow a normal distribution.

Study 3 was carried out as a non-equivalent control group pretest/posttest design. This is an improvement over the single-group pretest/posttest design, in that a non-equivalent control group is added as a comparison group. Accordingly, not only it is possible to compare the results of the two groups on both pretest and posttest measures, but it is also possible to compare the results within each group from the pretest to the posttest (Jackson, 2008). This will provide a measure of the effectiveness of the treatment which will be evident from a comparison of the changes in the pretest and posttest of the experimental and control groups. Study 3 compared the results of student anxiety levels and sources of anxiety in the experimental group and comparison group.

As explained above, Study 2 and Study 3 took the form of quasi-experimental design, and were conducted in normal educational context, instead of controlling or manipulating conditions as an experimental research design (Seliger & Shohamy, 1989). Since the current research deals students' psychological state, changing the content of the intervention depending on groups might not be favorable, thus this research design was chosen from ethical and educational reasons.

3.3.5   Qualitative research (Study 2)

In addition to statistical measures, Study 2 employed qualitative method to clarify participant responses to an open-ended questionnaire. Qualitative research is generally "well suited to discovering important variables and relationships, to generating theory and models, particularly uncovering possible causes and causal mechanisms" (Remler & Ryzin, 2015; p. 60). However, qualitative research is sometimes criticized with terms such as "subjective" or "biased" (Kalinowski, Lai, Fidler, & Cumming, 2010). In an attempt to generalize qualitative data, Horsburgh (2003) introduces several criteria for evaluation of qualitative research (e.g., description of context, attention to lay knowledge, flexibility). It is essential to provide background information about the structures of the study, value equally on the participants' opinions, and provide rationale for all decisions made and a discussion of the effect in the whole research. Accordingly, this study will include these criteria for generalization of the qualitative data.

Among qualitative research methods, this study used the Cycle Coding Method (Saldaña, 2009) for analysis. This method is useful for analyzing qualitative data circumstantially by comparing data, code, and categories back and forth in a cyclic process instead of in a linear process. Unlike some of other qualitative methods, this

method is feasible for solitary analysis, with validation of the coding process. According to Saldaña (2009), coding is a method which enables researchers to "organize and group similarly coded data into categories or 'families' because they share some characteristic – the beginning of a pattern" (p. 8). There are two main sections in this coding method: the first cycle coding method and the second cycle coding method. Through these two stages of cycle coding, the initial data will eventually be configured into a smaller and more select list of broader categories, themes, and concepts.

The first cycle coding methods are "those processes that happen during the initial coding of data" (Saldaña, 2009; p. 45), and are simple and direct ways of coding the data in the first step. The second cycle coding methods include analytic processes such as classifying, integrating, abstracting, conceptualizing and theory building. Second cycle coding methods are "advanced ways of reorganizing and reanalyzing data coded through first cycle methods" (Saldaña, 2009; p. 149). In this study, descriptive coding was chosen as the first cycle coding method, which summarizes texts into a word or short phrase. Descriptive coding is an approach which can be the foundation for qualitative inquiry. As the second cycle coding method, pattern coding was used, which pulls together a lot of material into a meaningful unit. Pattern coding is one of the appropriate coding method for descriptive coded data. There are several coding methods in each stage of coding, and these methods used in this study were recommended in Saldaña (2009). Through these processes, the data of the student perceptions of strategies for reducing language anxiety were analyzed.

4. A Conceptualization of the Strategies for Reducing Language Anxiety (Study 1)

This is a study published in HELES Journal, Issue 15 (2015) as a research article. Some of the parts were rewritten for this dissertation. The introduction and literature review sections in this article overlaps the content in the previous chapters of this dissertation, and are therefore excluded in this chapter.

4.1   Research questions

Study 1 seeks to conceptualize strategies for reducing language anxiety including both teacher-oriented and student-oriented strategies. Based on proposals in the preceding studies, anxiety-reducing strategies were chosen and itemized. In addition, the differences in the choice of strategies between high-anxious and low-anxious students are expected to be identified. For this purpose, the following research questions were proposed:

1) What kinds of strategies do students believe to be effective in reducing anxiety in an English classroom?

2) How could the anxiety-reducing strategies be classified?

3) How are the anxiety-reducing strategies correlated among factors?

4) What are the differences between high-anxious and low-anxious students?

4.2   Method

4.2.1   Participants

The participants in this study were 44 female and 70 male (N=114) first-year undergraduate students at a national university in Sapporo, Japan. The students were all taking general education courses, which include prospective humanities courses and

science courses majors. The age of the participants ranged from 18 to 20 years old. All the participants took the English I class, which is a compulsory subject for first-year students, and all responses for the survey were gathered during this class period.

Table 6
General Information of Participants

Participants	Male	Female	Age range	Average age	The length of studying English (Year)
114	70	44	18-20	18.7	6-14

4.2.2 Instruments

The first survey instrument of the study was the Anxiety-reducing Strategy Scale (ARSS; Fujii, 2015). This is a questionnaire specifically developed concerning strategies for reducing language anxiety. The questionnaire is based on how effective each statement is in decreasing student language anxiety (e.g., "My anxiety decreases if I prepare thoroughly for the English test.") The questionnaire is a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly disagree).

To measure the anxiety levels of the participants, the Foreign Language Classroom Anxiety Scale (FLCAS) was administered. The FLCAS consists of 33 items related to three areas: communication apprehension, test anxiety, and fear of negative evaluation (Horwitz et al., 1986). The participants were asked to answer each item on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). All the questionnaire items were translated into Japanese based on Nagahashi (2007), and the expressions of some items were modified by the author to clarify the intentions of the original FLCAS. Among the 33 items of FLCAS, nine items (2, 5, 8, 11, 14, 18, 22, 28,

and 32) are negatively worded items. Therefore, these items were reverse scored when calculating the scores.

Finally, a third questionnaire was compiled to gather background information on the survey respondents such as age, gender, and number of years they had been studying English.

4.2.3 Procedure

The study was conducted in July 2015 during the first term of the academic year. The purpose of the survey was explained to the students beforehand, and they were then asked to sign a consent form stated a willingness to participate in the study. Survey instruments were distributed during the English I class, and were collected in class the following week. The return rate of the questionnaire survey was 80.5%. Among the responses to the questionnaires, six were incomplete and thus have been excluded. The final number of questionnaires constituting the collected data was 114.

4.2.4 Data analysis

The results of the study were computed using IBM SPSS Statistics 20. Item analysis was conducted in order to ascertain the questionnaire items associated with the highest mean scores, which were the possible strategies students believe to be effective in reducing language anxiety. To clarify the factor structures of strategies for reducing language anxiety, exploratory factor analysis (unweighted least square solution with promax rotation) was performed. The reliability of the instrument was determined using Cronbach's α. According to the factor structures revealed from factor analysis, subscale scores were also calculated. Using these subscale scores, correlation analysis was performed. The FLCAS scores were used to identify the anxiety levels of students,

and the students were divided into two groups by median value.

4.3   Results and discussion

4.3.1   Anxiety levels

According to the FLCAS scores of the students, the mean, standard deviation and median were calculated. Most of the items were calculated due to the responses ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). The scores for negatively worded items (2, 5, 8, 11, 14, 18, 22, 28, and 32), however, were calculated as 1 being "Strongly Agree" and 5 being "Strongly Disagree." Therefore, the total score of the FLCAS indicated the language anxiety levels of students in the English classrooms. The higher the score, the more anxious the students felt. As FLCAS consists of 33 items, the possible highest score is 165, and the possible lowest score is 33. The overall results are shown in Table 7.

Table 7
Statistical Anaysis of the FLCAS (N =114)

M	SD	Mimimum	Median	Mode	Maximum
98.72	20.43	53.00	101.00	102.00	161.00

As shown in Table 7, the mean score was 98.72, with a minimum score of 53.00 and a maximum score of 161.00. As the median was 101.00, this value was used in dividing the students into two groups: high-anxious students (N=60) and low-anxious students (N=54), as shown in Table 8.

Table 8

Groups According to the Anxiety Levels

High-anxious	Low-anxious	Total
60	54	114

4.3.2   Strategies for reducing language anxiety

An item analysis was conducted to clarify the questionnaire items that attracted the highest mean scores among high-anxious and low-anxious students. The purpose of this analysis was to work out strategies that students believe are effective in reducing anxiety.

The summarized results of the high-anxious students are shown in Table 9. The item that obtained the highest mean score among high-anxious students was Item 12, "I feel relieved if the English test follows the same format I was taught in class." Anxious students were greatly concerned about their English exam, which might result from worries about their grades. Assuming so, it is quite natural for students to hope that the English test would be implemented in the same fashion they had been taught in class. There were three items that obtained the second-highest mean scores (M=3.97), items 13, 20 and 8. Item 8, which states "I feel more relaxed when making presentations in small groups than by myself," is distinctive of high-anxious students. It seems that an oral presentation is one of the most anxiety-provoking tasks for those who generally feel anxious in the English classroom. In fact, according to Woodrow (2006), giving oral presentations was considered as the highest stressors for students, whereas taking part in group discussions was considered as the lowest. Therefore, if there is someone else taking part in a presentation, anxiety may well decrease. In addition, the fifth item

that was chosen by these students was, "My anxiety decreases when I am told it is OK to speak English with a less than perfect performance (Item 3)." This item is related to speech anxiety, and might stem from a misconception by high-anxious students that speaking English accurately is always necessary in the English classroom. Therefore, if they are told that speaking English with perfect performance is not required, their stress will decrease.

Table 9
Top Five Strategies for High-anxious Students (*N*=60)

Rank	Questionnaire items	*M*	*SD*
1	12. I feel relieved if the English test follows the same format I was taught in class.	4.10	.81
2	13. My anxiety decreases if I prepare thoroughly for the English test.	3.97	.92
2	20. I feel relieved if my teacher cares for my own anxiety.	3.97	.88
2	8. I feel more relaxed when making presentations in small groups than by myself.	3.97	.90
5	3. My anxiety decreases when I am told it is OK to speak English with less than perfect performance.	3.82	1.07

As for the low-anxious students, the item that obtained the highest mean score was, "My anxiety decreases if I prepare thoroughly for the English test (Item 13)." Even for low-anxious students, preparation is very important to keep maintain their confidence level for English tests. Tsui (1996) states that test anxiety stems from fear of failure, which is closely related to fear of a negative evaluation. Performing well in English tests may be a major problem for students. However, it is interesting that this item had higher mean scores than Item 12, "I feel relieved if the English test follows the same format I was taught in class," which was the highest among high-anxious

students. It thus can be said that students with less anxiety want to gain confidence by making an effort themselves. One characteristic of the low-anxious students is that items 7 and 18 ranked in the top five strategies. Low-anxious students believe that speaking English in front of a small group is less stressful than speaking to a large group, and working together with classmates would decrease their anxiety. This might be because they feel a sense of safety while doing group work with their classmates. When they are taking part in discussion or performing tasks in groups, low-anxious students may be able to express their opinions easier than in front of all their classmates. Compared to high-anxious students, low-anxious students tended to answer that "doing more small group and pair works reduces my anxiety (Item 11, *M*=3.69)," the seventh highest ranking item.

Table 10
Top Five Strategies for Low-anxious Students (*N*=54)

Rank	Questionnaire items	*M*	*SD*
1	13. My anxiety decreases if I prepare thoroughly for the English test.	4.07	.84
2	20. I feel relieved if my teacher cares for my own anxiety.	3.98	.79
2	12. I feel relieved if the English test follows the same format I was taught in class.	3.98	.93
4	7. Speaking English in front of a small group is less stressful than speaking to a large group.	3.93	.80
5	18. My anxiety decreases if I work together with classmates.	3.91	.93

In generalizing the data of both groups of students, although there were differences between the groups, there were also similarities. Item 10, "I feel relieved if I can discuss successful language learning periodically with my teacher" had very low mean scores in both high-anxious (*M*=2.90) and low-anxious students (*M*=3.06). This

result is very interesting because Item 20, which refers to the relief students feel when their teacher cares for their anxiety, ranked in the top five strategies in both groups. Students might have the state of mind that they want their teacher to understand their concerns, but they do not need a formal discussion related to their English learning. This result may indicate that student anxiety sources do not always relate to the learning method, instead, the anxiousness might have come from their mentally associated problems. According to Crookall and Oxford (1991), it is important for both the teacher and students to consider themselves as a partnership and view themselves as trying together to overcome the problem of anxiety, so that neither would see the other as a source of difficulty, and both could work together to deal with the common problem. Instead of just giving advice on how to improve English skills, teachers might need to have a careful discussion with students about their existing problems related to their anxious feelings.

4.3.3   The factor structures of strategies

To investigate the structure of effective strategies for reducing anxiety, exploratory factor analyses using unweighted least square solution with promax rotation were conducted. From these analyses, items with factor loadings smaller than .35 were excluded. The initial version of the whole items in ARSS (Fujii, 2015) are inserted in Appendices at the end of this dissertation. The results are displayed in Table 11. According to the scree plot and eigenvalue, four factor structures were assumed. The four factors referring to anxiety-reducing strategies were positively and moderately correlated. In addition, the Cronbach's alpha coefficient of all the items was $\alpha=.85$, therefore high reliability was obtained.

In the first factor, items with high loadings included "My anxiety decreases if I work together with classmates.", "I feel relieved if my classmates and I teach each other." and "I feel more relaxed when making presentations in small groups than by myself." Items in this factor are related to anxiety-reducing strategies that can be implemented by cooperating with other people, such as classmates and teachers. Therefore, the first factor was named, *cooperation with others.*

In the second factor, there were items such as, "I feel relieved if I am told being able to understand is more important than being able to speak.", "My anxiety decreases if I prepare thoroughly for the English test." and "My anxiety decreases when I am told it is OK to speak English with less than perfect performance." These items are associated with strategies for gaining confidence in their English abilities, skills and performances. The second factor was therefore named, *building confidence.*

In the third factor, the items included, "I feel relieved if I can discuss successful language learning periodically with my teacher." and "If I have individual tutoring from the teacher, my anxiety is reduced." It can be seen that these items consist of coping strategies involving the help of the teacher, thus the factor was named, *assistance from the teacher.*

The fourth factor included items such as, "My anxiety decreases if the competition in the classroom is reduced.", "I feel relieved if the English test follows the same format I was taught in class." and "If there are activities meeting various learning styles, I do not feel anxious." The items in this factor are related to how the student anxiety can be removed in terms of teaching methods and learning activities in the English classroom. Thus, the fourth factor was named, *less-stressful teaching methods.*

Table 11
Results of Factor Analysis

Questionnaire items	Factor 1	Factor 2	Factor 3	Factor 4
18. My anxiety decreases if I work together with classmates.	**.848**	.098	.026	-.125
17. I feel relieved if my classmates and I teach each other.	**.832**	-.023	-.020	.019
11. Doing more small group and pair works reduces my anxiety.	**.773**	-.130	.103	-.020
7. Speaking English in front of a small group is less stressful than speaking to a large group.	**.660**	-.025	-.035	-.029
8. I feel more relaxed when making presentations in small groups than by myself.	**.631**	-.034	-.064	.142
20. I feel relieved if my teacher cares for my own anxiety.	**.486**	.008	.038	.194
15. I feel relaxed if my pronunciation will not be expected to be perfect.	.164	**.938**	-.122	-.211
14. I feel relieved if I am told being able to understand is more important than being able to speak.	-.296	**.633**	.073	.098
13. My anxiety decreases if I prepare thoroughly for the English test.	.054	**.398**	-.002	.318
3. My anxiety decreases when I am told it is OK to speak English with less than perfect performance.	-.009	**.360**	.136	.273
10. I feel relieved if I can discuss successful language learning periodically with my teacher.	-.074	.030	**.990**	-.099
9. If I have individual tutoring from the teacher, my anxiety is reduced.	.168	-.054	**.669**	-.006
2. My anxiety decreases if the competition in the classroom is reduced.	-.064	-.080	-.166	**.659**
12. I feel relieved if the English test follows the same format I was taught in class.	.153	.018	.012	**.569**
5. If there are activities meeting various learning styles, I do not feel anxious.	.088	.167	.094	**.393**

Correlations among factors

Factor 1	—			
Factor 2	.359	—		
Factor 3	.481	.294	—	
Factor 4	.333	.436	.203	—

Note. Factor 1 = cooperation with others, Factor 2 = building confidence,
Factor 3 = assistance from the teacher, Factor 4 = less-stressful teaching method.

In summary, a four-dimensional conceptualization of strategies for reducing language anxiety was formulated. The four dimensions were broadly classified in two types: student-oriented strategies and teacher-oriented strategies. Factor 1 (cooperation with others) and Factor 2 (building confidence) are mainly concerned with coping strategies that can be performed by students themselves, or sometimes with a little help from someone else. These two factors can be compared to the results of Kondo and Yang's (2004) strategies for coping with language anxiety. Among the five strategies found in Kondo and Yang (2004), "Peer Seeking" and "Positive Thinking" are closely related to Factor 1, "cooperation with others" and Factor 2, "building confidence" of the present study. Factor 1 explains the method of decreasing anxiety by working with others. Factor 2 demonstrates the importance of changing the point of view, from negative to positive mindedness. On the other hand, Factor 3 (assistance from the teacher) and Factor 4 (less-stressful teaching methods) mainly refer to strategies that are feasible with the consideration of teachers vis-à-vis their students. Items in Factor 3 definitely indicate the importance of teachers helping to lessen student anxiety. Factor 4 also reveals the role of teachers in designing an anxiety-free English learning atmosphere. In order to decrease language anxiety, there are many things that can be done by both students and teachers.

4.3.4   Correlations among strategies

For the purpose of comparing the differences in the correlations of anxiety-reducing strategies among high-anxious and low-anxious students, the Pearson product-moment correlations coefficient was computed. Before conducting the correlation analysis, the subscale scores of the four dimensions were calculated. Subscale scores were computed using the SPSS by adding the item scores with high

factor loading and, the mean value of different factors were calculated. Using these subscale scores, the correlations were examined. The overall results of the analyses of the high-anxious students (N=60) and low-anxious students (N=54) are displayed in Table 12 and Table 13, respectively.

Table 12
Results of Correlation Analysis Among High-anxious Students (N=60)

	1.Cooperation with others	2.Building confidence	3.Assisance from the teacher	4.Less-stressful teaching method
1.Cooperation with others	—	.214	.483 **	.130
2.Building confidence		—	.029	.316 *
3.Assistance from the teacher			—	-.101
4.Less-stressful teaching method				—

Note. * $p < .05$, ** $p < .01$

Table 13
Results of Correlation Analysis Among Low-anxious Students (N=54)

	1.Cooperation with others	2.Building confidence	3.Assistance from the teacher	4.Less-stressful teaching method
1.Cooperation with others	—	.429 **	.370 **	.558 **
2.Building confidence		—	.486 **	.508 **
3.Assistance from the teacher			—	.379 **
4.Less-stressful teaching method				—

Note. ** $p < .01$

As can be seen in Table 12, Factor 1 (cooperation with others) and Factor 3 (assistance from the teacher) had significant correlations. In addition, the correlation between Factor 2 (building confidence) and Factor 4 (less-stressful teaching method) was significant. These two pairs were the only pairs which had consistent correlations. Among the high-anxious students, those who regard cooperation with others as important also consider that assistance from the teacher is indispensable. In relation to this result, Williams and Andrade (2008) mention that majority of students in their study attributed the cause of anxiety to the teacher or other people. Therefore, it is interesting that the relationship with teachers or classmates could be either a source of anxiety or a solution of anxiety. In addition, among the high-anxious students, building confidence was interrelated with less-stressful teaching methods. High-anxious students who try out strategies to gain their confidence also call for teachers to support them in creating a less-stressful classroom atmosphere. On the other hand, Factor 2, building confidence had hardly any correlations with Factor 3, assistance from the teacher. Although the data for high-anxious students revealed very low correlations in each factor, the data for low-anxious students tended to have moderate correlations among all of the factors (Table 13). In particular, for low-anxious students, less-stressful teaching methods are essential in decreasing their anxiety, which is connected to all of the other anxiety-reducing strategies. Compared to the low-anxious students, high-anxious students tend to consider the strategies separately, as in each factor structure.

4.4   Conclusion

This study sought to conceptualize strategies for reducing student language anxiety in the context of EFL classrooms in Japan. From an analysis of the findings, a

four-dimensional conceptualization of anxiety-reducing strategies was formulated. The four dimensions were: cooperation with others; building confidence; assistance from the teacher; and less-stressful teaching methods. The results indicated that high-anxious students who called for assistance from the teacher also needed other people to cooperate with them. Help from classmates and teachers seemed to reduce student anxiousness. On the other hand, among low-anxious students, all of the strategies were consistently correlated with each other. Although these students were low-anxious students, they still seemed to be in need of these strategies. As Kondo and Yang (2004) state, "considering the adverse effects that anxiety has on language learning, in addition to the fact that anxiety itself is an unpleasant experience, it is reasonable to assume that most students, irrespective of their anxiety level, will want to minimize its impact" (p. 263). It is important for students to alleviate their anxiousness as much as possible, by utilizing anxiety-reducing strategies.

To reduce student language anxiety, it is necessary for both teachers and students themselves to take action in a variety of ways. The strategies presented in this study are mainly based on what could be done by students to alleviate their own anxiety, but include suggestions for teachers. As "knowing what to do to reduce stress in the classroom is the issue of primary concern to most practitioners" (Phillips, 1999, p. 127), being aware of these strategies as teachers would be a reasonable requirement.

In summary, this study has demonstrated the structure of possible anxiety-reducing strategies, together with interrelations among factors. In addition, strategies that students perceive to be effective were investigated, in terms of high-anxious and low-anxious participants. However, these results were based on student beliefs and assumptions and they would not always be present in actual anxiety-provoking situations. Further study on this topic might seek to verify the

validity of the strategies of the current study, by having students try out the strategies and then asking them whether their anxiety decreased. Therefore, in the next chapter, as Study 2, a classroom-intervention study will be conducted for confirming the findings of this study.

5. An Exploration of Effective Strategies for Reducing Language Anxiety Through Classroom Intervention (Study 2)

5.1   Research questions

Study 2 aims to determine to what extent the anxiety-reducing strategies reduce student feelings of language anxiety, as well as what perceptions students have regarding the strategies employed. By conducting classroom interventions which utilize such anxiety-reducing strategies, the effectiveness of the strategies is investigated with a questionnaire survey completed before and after the intervention. The research questions for this study are as follows:

1) Does student anxiety decrease as a result of interventions to reduce language anxiety?

2) Which strategies do students feel to be the most effective in reducing language anxiety?

3) What are the student perceptions of the anxiety-reducing strategies?

5.2   Method

5.2.1   Participants

The participants in this study were 35 female and 15 male (N=50) first-year undergraduate students at a national university in Hokkaido, Japan. The students were non-English majors, majoring in other subjects such as art, music, and sport. The level of the students was placed at approximately pre-intermediate as a textbook for this level was used in the classes. The age of the participants ranged from 18 to 19. The students in this study were taking English I and English II classes throughout the year, which are required elective subjects in this university. The basic goal of this class was

to become able to communicate in English, through activities such as pair work, group discussion, and final in-class presentation. The theme of the final presentation was introducing someone else to the whole class. During the English I class, interventions for reducing language anxiety were conducted.

5.2.2   Instruments

The two instruments used as pre-test and post-test were the Foreign Language Classroom Anxiety Scale (FLCAS; Horwitz et al., 1986), and the Anxiety-reducing Strategy Scale (ARSS; Fujii, 2015). Both questionnaires were assigned in Japanese. The FLCAS consists of 33 items, and the ARSS consists of 15 items. Both questionnaire items are to be answered on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Responses to the FLCAS were calculated as anxiety scores, and the total scores of each student were compared before and after the intervention. Negatively worded items (2, 5, 8, 11, 14, 18, 22, 28, and 32) were reverse scored in calculating the scores. As for the ARSS, each of the 15 items was compared in mean scores, and changes in the opinions of the students were examined. Finally, as a part of post-test, an open-ended questionnaire was administered, which asked about student perceptions of the interventions.

5.2.3   Intervention

Classroom interventions were carried out during 15 class periods. The interventions include: 1) introducing pair work, 2) student preparation before presentations, 3) presentations in pairs, 4) giving advice to students individually, and 5) maintaining a positive relationship between teacher and students. Pair work was frequently used in this class. Students worked with a same partner in each lesson, but

changed partners several times during the semester. Although they were told to use English only, they had plenty of opportunities to discuss with their partners when working on difficult tasks. The final presentation was also done in pairs. Students had two weeks to prepare for the presentation, with 30 minutes of in-class practice just before the presentation. During the lesson, the teacher walked around the class to help students individually as a tutor, instead of as an authority figure. The teacher always acted in a friendly manner, showing respect for the students in the way of providing comments on their work and behavior, and meeting the needs of the students by assisting their language progress.

5.2.4   Data collection

The study was conducted during the first semester of the academic year, from April to July, 2016. The two survey instruments, FLCAS (Horwitz et al., 1986) and ARSS (Fujii, 2015) were assigned twice, before and after the intervention. In addition, an open-ended questionnaire was assigned after the intervention. The pre-tests were handed out in the first class. The post-tests were given out in the last class of the semester. The purpose of the study was explained to the students beforehand, and they were asked to sign a consent form. All the students agreed to participate in the study.

5.2.5   Data analysis

The data analysis of the study included both statistical analysis and qualitative analysis based on the obtained data. The results of the FLCAS and the ARSS were computed by using IBM SPSS Statistics 22. First, according to the FLCAS scores of the students, a statistical analysis was conducted to calculate the mean and standard deviation. To compare the FLCAS scores in pre- and post-tests, a paired t-test was

performed. To clarify the strategies students acknowledged as being effective in reducing language anxiety after the intervention, the changes in their opinions were likewise examined by a paired *t*-test. Finally, the data obtained from the open-ended questionnaire were qualitatively analyzed by using the Cycle Coding Method (Saldaña, 2009).

5.3 Results

5.3.1 Student anxiety scores

Student anxiety scores were calculated from their responses as measured on the FLCAS in the pre- and the post-tests. The total score of the FLCAS shows the anxiety levels of students in English classrooms. The FLCAS score ranges from a minimum of 33 to a maximum of 165, as there are 33 items that are to be answered on the five-point Likert scale. In the pre-test, the mean score of all the students (N=50) was 110.22, with a minimum score of 66 and a maximum score of 156. After 15 weeks of classes with the interventions, the results of the post-test showed a mean score of 101.38, with a minimum score of 60 and a maximum score of 152. These mean scores of the FLCAS in the pre- and post-tests were compared using a paired-samples *t*-test. An analysis yielded the results ($t = 5.20$, $df = 49$, $p < .001$), shown in Table 14. The anxiety scores of all the students decreased significantly, which indicates that the intervention utilizing anxiety-reducing strategies positively affected the student levels of anxiety.

Table 14
A Pre-Post Comparison of Students' FLCAS Scores (N=50)

	Pre-Intervention		Post-Intervention		
	M	*SD*	*M*	*SD*	*t*- value
FLCAS (N=50)	110.22	18.51	101.38	21.24	5.20 ***

Note. *** $p <.001$

5.3.2   Effective strategies for reducing language anxiety

To ascertain which strategies were effective in reducing language anxiety, student responses to the ARSS (Fujii, 2015) were compared pre-test and post-test. This survey instrument consists of statements concerning strategies for reducing language anxiety. There are 15 items in all, and the questionnaire asks students whether the statements are effective in decreasing their language anxieties (e.g., "My anxiety decreases if competition in the classroom is reduced."). The scale items include strategies that were actually implemented in the intervention, therefore the changes in mean scores indicate the effectiveness of the strategies.

First, a paired t-test was performed with the four main factors which constitute the ARSS: cooperation with others, building confidence, assistance from the teacher, and less-stressful teaching method. The results, however, did not reach significance in any of the factors (i.e., cooperation with others: $t = 1.00$, $df = 49$, $p = $ n.s.; building confidence: $t = -1.03$, $df = 49$, $p = $ n.s.; assistance from the teacher: $t = 1.13$, $df = 49$, $p = $ n.s.; less-stressful teaching method: $t = -.455$, $df = 49$, $p = $ n.s.).

A paired t-test was performed based on the responses to each statement in the pre-test and post-test of the ARSS. The detailed results are shown in Table 15. Among the 15 items, there were two items that had a significant increase in mean scores. Item 5, "I feel more relaxed when making presentations in small groups than by myself." showed a significant difference from the t-test ($t = -2.29$, $df = 49$, $p = .026$). Thus it can be seen that students preferred making presentation in small groups as opposed to by themselves. In addition, the mean score for Item 8, "Doing more small group and pair work reduces my anxiety." showed a significant difference ($t = -3.21$, $df = 49$, $p = .002$). Students seem to have felt that group work and pair work reduced their anxiety. These results indicate that cooperating with other classmates was effective in

reducing feelings of anxiety among students. There were no significant differences in the remaining items.

Table 15

A Pre-Post Comparison of the Anxiety-reducing Strategy Scale (*N*=50)

| Item	Pre-Intervention		Post-Intervention		
	M	*SD*	*M*	*SD*	*t*- value
1. My anxiety decreases if competition in the classroom is reduced.	3.64	1.08	3.84	.98	-1.32
2. My anxiety decreases when I am told it is OK to speak English with less than perfect performance.	3.98	.96	4.18	.77	-1.40
3. If there are activities meeting various learning styles, I do not feel anxious.	4.06	.77	3.98	.87	0.68
4. Speaking English in front of a small group is less stressful than speaking to a large group.	3.92	1.03	4.06	.96	-1.00
5. I feel more relaxed when making presentations in small groups than by myself.	3.72	.97	4.14	.88	-2.29 *
6. If I have individual tutoring from the teacher, my anxiety is reduced.	3.88	1.02	3.84	.87	0.24
7. I feel relieved if I can discuss successful language learning periodically with my teacher.	3.92	.92	3.66	.90	1.87
8. Doing more small group and pair work reduces my anxiety.	3.50	1.11	4.02	.87	-3.21 **
9. I feel relieved if the English test follows the same format I was taught in class.	4.52	.58	4.50	.61	0.26
10. My anxiety decreases if I prepare thoroughly for the English test.	4.20	.88	4.36	.75	-1.21
11. I feel relieved if I am told being able to understand is more important than being able to speak.	3.28	.88	3.26	.90	0.13
12. I feel relaxed if my pronunciation will not be expected to be perfect.	3.74	.90	3.82	.98	-0.46
13. I feel relieved if my classmates and I teach each other.	4.04	.86	4.00	.83	0.30
14. My anxiety decreases if I work together with classmates.	3.88	1.04	3.94	.89	-0.39
15. I feel relieved if my teacher cares for my own anxiety.	4.14	.88	4.22	.74	-0.60

Note. ** *p* < .01, * *p* < .05

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5.3.3   Student perceptions of the anxiety-reducing strategies

As a part of the post-test, an open-ended questionnaire was handed out to students to ascertain their opinions on the effectiveness of the intervention. The obtained responses to the questionnaire were coded through the Cycle Coding Method (Saldaña, 2009). This coding method includes two main sections: the first cycle coding method and the second cycle coding method. Among a number of coding methods introduced in both stages, the current study employed "descriptive coding" as the first cycle coding method, and "pattern coding" as the second cycle coding method. Descriptive coding belongs to the category of elemental methods, and is labeled as one of the "foundation approaches to coding qualitative texts" (Saldaña, 2009; p.51-52). In some of the literature, descriptive coding is also called "topic coding." Pattern coding is introduced in Saldaña (2009) as a "generic" approach for second cycle coding analysis, and is suitable for categorization of the coded data in the initial analysis. Further, as the combination of descriptive coding and pattern coding is recommended in Saldaña (2009), this study utilized these two methods.

The coding procedures for all of the data was performed by the author. Every comment of the 50 students, both the high-anxious and low-anxious students, were included in this analysis. As a first step, all responses of the participants to the open-ended questionnaire were translated from Japanese into English. In order to gain credibility, the translation of the scripts was checked by a third person, who is currently engaging in English education in the Japanese context. The checking was conducted based on the following: 1) whether too peculiar expressions are not being used in the translation, 2) whether the translation is not too inclined, and 3) whether the translation is not too far from the original data. As a result, these three checkpoints were approved. Second, the transcribed data were thereafter summarized into short

phrases and labeled as the core messages in each statement according to the descriptive coding method. Subsequently, the descriptive coded data were then integrated and classified into meaningful units, and the interrelationships of the derived pattern codes were considered and structured.

The overall results of the data coded through pattern coding are shown in Figure 3. As a result of intervention, "positive effects of pair work," "increase in confidence from preparation," "benefits of pair presentation," "importance of individual support," and "positive teacher-student relations" emerged from the students' responses. "Lingering fear of public speaking" also emerged, despite preparations having been made, which showed the uncertainty of some students.
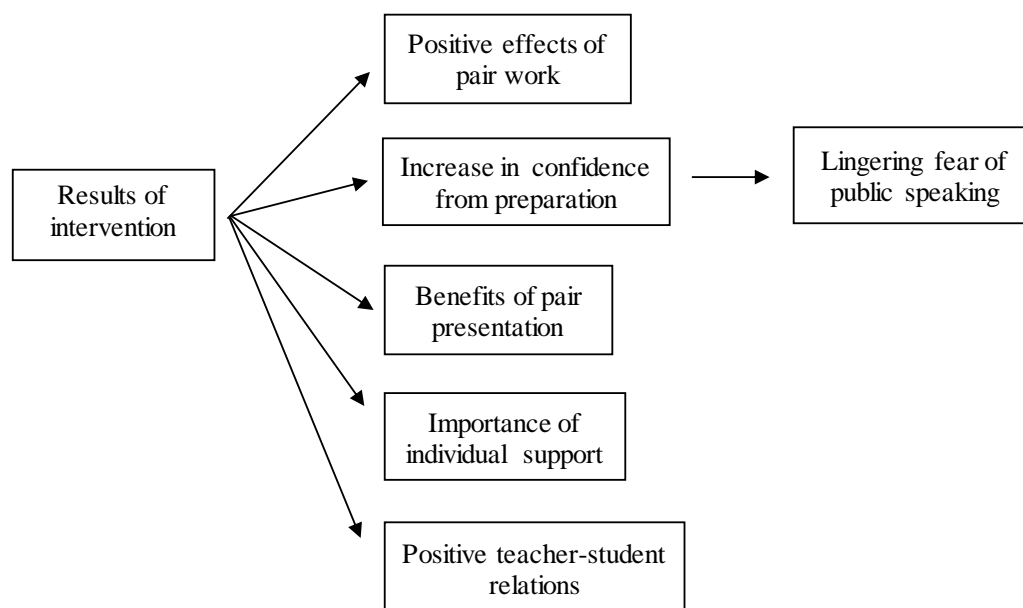
Figure 3. Overall results of open-ended questionnaire data coded through pattern coding. Signs in the chart indicate: ⟶ Interrelation of Pattern Codes.

Regarding pair work and group work, students said they felt less stressed and felt fulfilled when working together with classmates, which represents a "positive

affect." Improvement in English skills, promoting better understanding and facilitating learning can be explained as "development in English." Supporting each other, being able to share answers and complementing each other's ideas leads to "mutual cooperation." These three subcategories represents the positive factors students obtained as a result of working together and teaching each other, thus they can be summarized as the "positive effects of pair work" (Figure 4).
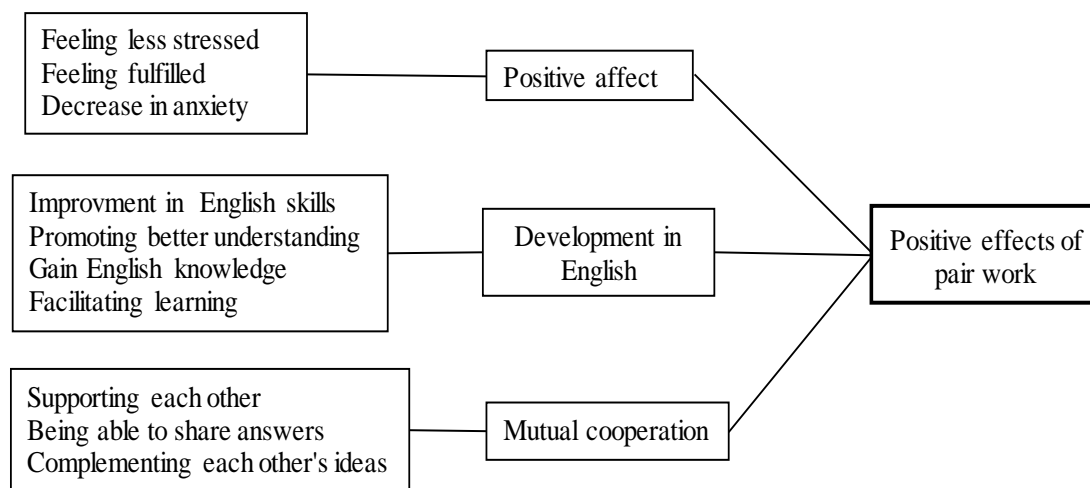
Figure 4. Results of pattern coding for student perceptions of working together and teaching each other.

As for the perceptions of preparing before a presentation (Figure 5), students felt they were able to be more confident about what they were going to say, be better prepared for the presentation, and gain confidence through preparation. These notions suggest that most of the students felt they could have "enough practice," in addition to attaining "emotional stability," such as a decrease in nervousness and having a calm feeling before making a presentation. From these subcategories, "increase in confidence from preparation" emerged as a pattern code. On the other hand, some

students felt concern over the ability to speak clearly, and a lack of confidence in speaking correctly in front of a class, despite preparation. These students seemed to have "speaking anxiety," an anxious feeling that comes from a perceived low ability and diffidence of their own speaking skills in English. There were also those who said that they were starting to tremble or that their hands were shaking from nervousness at the thought of standing in front of a large audience. These are examples of stage fright, a feeling that cannot be handled easily when making presentation or speaking in front of a class; and although there are many students who gained confidence through adequate preparation, there are also some students who still had "lingering fear of public speaking," despite the preparation.
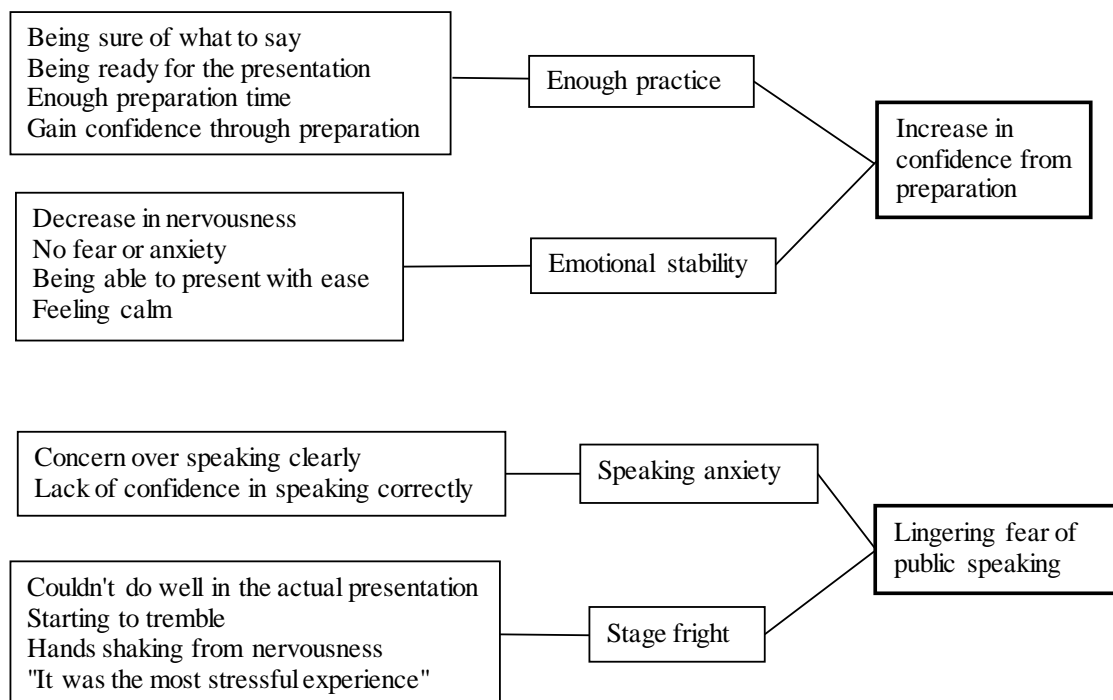
Figure 5. Results of pattern coding for student perceptions of preparing before a presentation.

As shown in Figure 6, opinions about presenting in pairs were fairly positive. By having a co-presenter, students were able to present with ease, they could gain confidence and their anxiety decreased. They could "present with a relaxed posture," and they felt the "helpfulness of being part of a pair," such as the relief obtained from having a partner, the reassurance brought by co-presenting and the sense of not being alone. These are the "benefits of pair presentation," which students experienced in this classroom intervention.
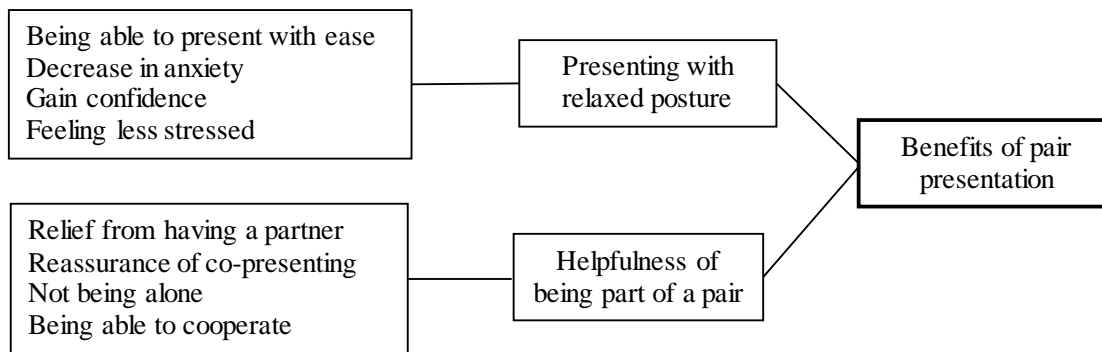
Figure 6. Results of pattern coding for student perceptions of presenting in pairs.

Figure 7 shows student opinions about receiving individual support from the teacher. Students cited the importance of consulting the teacher and, by asking the teacher for help, they could avoid feeling ashamed in front of classmates, which represents students having received "alleviation of stress by the teacher." In addition, students consider individual tutoring as the best way to solve a problem, and a good way for promoting understanding, therefore they could "learn with the teacher's help." Such opinions from students show the "importance of individual support."
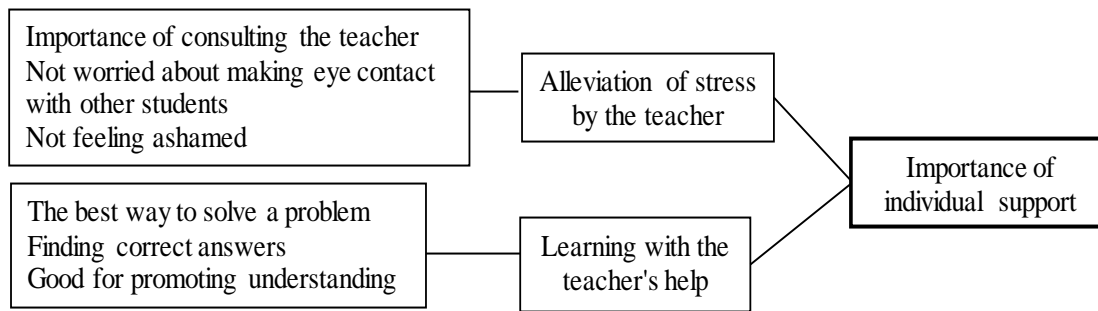
Figure 7. Results of pattern coding for student perceptions about receiving individual support from the teacher.

Finally, as for student perceptions of their relationships with the teacher (Figure 8), students said that they could have good communication with the teacher if there was a pleasant mutual relationship, and they felt it is easier to ask questions and that they could ask them freely without hesitation. In addition, students view the teacher as a helper, who helps them in many situations, and they said that the teacher is always supportive. Therefore, having "good relationships" and receiving the "support of the teacher" results in "positive teacher-student relations."
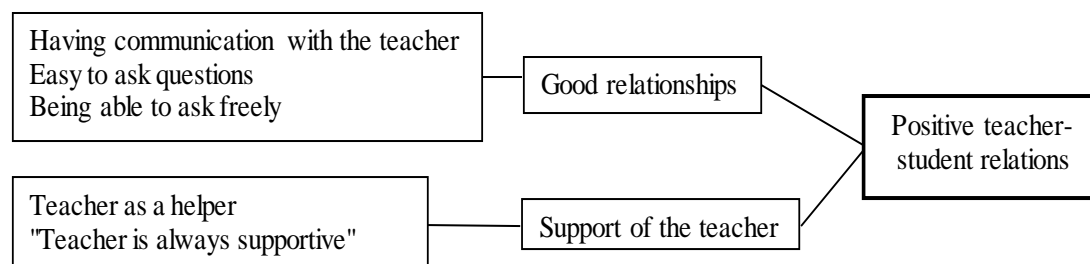
Figure 8. Results of pattern coding for student perceptions of relationships with the teacher.

5.4   Discussion

This study sought to discover effective strategies for reducing language anxiety among Japanese EFL learners. The first research question asked whether student anxiety decreased or not as a result of intervention to reduce language anxiety. The results show that student anxiety scores decreased significantly between the pre-test and post-test, after having 15 weeks of classes with intervention. The results imply the effectiveness of the interventions conducted for this study, which reduced student feelings of language anxiety over time in the EFL classroom. In an earlier study, Nagahashi (2007) carried out intervention using cooperative learning activities, and compared student anxiety scores before and after the intervention, but the reduction in the total FLCAS mean score did not reach statistical significance. Compared to Nagahashi (2007), the current study was carried out on a larger scale in terms of the period of intervention, and the number of participants. These aspects may have played a positive role in attaining a successful result in the current study, in addition to the contents of the strategies implemented in this intervention.

The second research question asked which strategies students felt to be the most effective in reducing language anxiety. As for this question, the results of students' responses to the ARSS (Fujii, 2015) were compared pre-test and post-test. From an analysis of a paired *t*-test among the four factors, the results could not reveal significant changes in the pre-test and post-test. However, in terms of individual items of the ARSS, two items were found to have a significant increase in mean scores, which indicates the perceived effectiveness of the strategies contained in the items. Item 5, "I feel more relaxed when making presentations in small groups than by myself." had a significant increase in mean scores. As one of the intervention strategies in this study, pair presentation was carried out instead of individual presentation.

Woodrow (2006) mentions that giving oral presentations and performing in front of classmates are two of the most stressful activities for anxious learners. In order to reduce fear of making presentations in class, having students present in pairs or in small groups is suggested by Phillips (1999). Therefore, pair presentation was included in the present study, which was a new attempt as empirical research and, consequently, its effectiveness was confirmed from the obtained results.

Another item that showed a significant increase in mean score was Item 8, "Doing more small group and pair work reduces my anxiety." This result is in agreement with Wu's (2010) findings, which showed that anxious learners who worry about making mistakes in front of the class felt less anxious when they were in a pair or group. Also, Crookall and Oxford (1991) state that teachers can improve the classroom climate through the use of pair work and small group work, by creating a pattern of student-to-student communication.

The common concept between the two items, which was found to be effective in this study, is "cooperation with classmates." Students in this study seemed to feel less anxious when they receive peer support, such as working together and teaching each other during classroom activities.

The third research question asked what the students thought of the anxiety-reducing strategies implemented in this study. "Positive effects of pair work," "increase in confidence from preparation," "benefits of pair presentation," "importance of individual support," and "positive teacher-student relations" emerged from students' answers to the open-ended post-survey questionnaire on the benefits of intervention.

First, as for introducing pair work, students in this study mainly stated its positive aspects, such as "Working on tasks with classmates makes the classroom more active and cooperative, as opposed to working by ourselves." and "Our anxiety

decreases by sharing what we cannot figure out on our own." In addition to the advantages of promoting learning, students felt somewhat relieved by working in small groups rather than by working individually.

Second, preparing before the presentation was effective for most of the students, but some students still felt a "lingering fear of public speaking" in this study. According to Marwan (2008), lack of preparation is a major contributor to student foreign language anxiety. Although the students in this study felt some anxiety in speaking—despite adequate preparations, if there had been no time spent on preparation, their anxiety would have been more serious. For those who are fearful of speaking in front of a class, repeated practice of speaking English, and accumulating experience in public speaking might be necessary for students to be better able to make presentations with increased confidence.

Third, pair presentations seemed to reduce student feelings of anxiety, as stated in student opinions such as "I felt relieved that someone else is standing next to me when presenting." and "It was a lot better than presenting on my own." As having to speak or perform in front of others is a real anxiety-evoking situation (Young, 1990), it is very important to minimize anxiety in oral presentations by having students present in pairs or small groups.

Fourth, students in this current study said they found it preferable to receive individual advice, as expressed in comments such as "Individual advice is important because everyone has different weak points." Horwitz et al. (2010) states, teachers should "help students reduce their anxiety levels by focusing both on the individual characteristics associated with anxiety and on the instructional factors that contribute to increased anxiety" (p. 108). Teachers should always be sensitive to student voices, and be ready to help them overcome their problems in the classroom.

Finally, maintaining a positive teacher-student relationship was found to be important from the student responses, which corroborates the idea of Marwan (2008), who suggested that teacher role is very important in helping students deal with their anxiety and by incorporating techniques that can reduce student anxiety, students will be able to enjoy their learning. Creating a bond of trust between students and the teacher makes it possible to reduce anxiety in class and promote a positive attitude among students toward classroom activities. As a whole, the strategies employed in the current study were perceived as being beneficial in reducing student feelings of anxiety.

5.5   Conclusion

This study examined the effectiveness of strategies for reducing language anxiety through classroom intervention. From the analysis of a paired *t*-test between the pre- and post-tests, student anxiety scores were found to have decreased significantly, which possibly predicts student language anxiety was alleviated by the strategies implemented in this study. Among the anxiety-reducing strategies utilized in this study, making presentation in pairs, and doing pair work and group work were found to be especially effective in reducing student anxiety. By cooperating and working together with classmates in classroom activities, students could feel more relaxed and less stressed. The advantages of pair work and pair presentations can be confirmed from the student responses to the open-ended questionnaire as well, which stated their positive affect in working with a partner and the helpfulness of being one half of a pair when making presentations. In addition to receiving peer support, students also cited the importance of having the support of the teacher, which helped alleviate their stress in class. Adequate preparation before a presentation was effective

in reducing most of the feelings of anxiety among the students, but some students said a fear of public speaking still remained to some extent. Therefore, it is an important issue to have every student present in a less stressful manner.

There are some limitations that should be noted in this study. First, due to the restrictions of time and place, the study used an open-ended questionnaire to ask for student perceptions of the intervention strategies, instead of carrying out face-to-face interviews. As the responses to the questionnaire were all written, it was not possible to delve deeply into student opinions and their actual feelings underlying their ideas.

Second, the current study was carried out in the form of single-group pretest/posttest design, since a control group was not available at this phase. The effectiveness of the intervention could be examined merely from the pretest and posttest in a single group, and comparison between two conditions was not possible. Therefore, Study 3 will fill this gap by placing a control group to compare the results with the experimental group.

Third, as the current study focused on examining how effective the strategies were in reducing student language anxiety, the FLCAS was used solely for calculating the anxiety levels of students. It would be meaningful to investigate what the sources of student anxiety are and how they changed through the intervention, by analyzing each of the FLCAS items. Accordingly, in the next chapter, Study 3 will consider how student anxiety sources vary due to the intervention for reducing language anxiety. In addition, the reduction of student anxiety levels will be compared with another class where no special intervention was attempted, as a control group. By taking the form of a non-equivalent control group pretest/posttest design, Study 3 will aim to complement the findings in this study.

6. An Evaluation of the Changes in Student Language Anxiety Levels and Sources of Anxiety Through Quasi-experimental Study (Study 3)

6.1   Research questions

This study is complementary to Study 2, and here the influence of intervention with anxiety-reducing strategies on student anxiety levels and sources of student anxiety will be further examined by comparing the results of experimental and control groups. Especially, this study aims to identify which sources of student language anxiety could decrease with the teaching strategies employed in the classroom. In the study, by comparing with a class where no particular anxiety reducing strategies were employed, and by looking at the differences in the changes in student anxiety levels, effective strategies are expected to be shown. The study posed the following research questions:

1) Which areas of language anxiety decrease due to intervention?

2) Which individual sources of language anxiety are alleviated by intervention?

3) How different are the results of the experimental and control groups?

6.2 Method

6.2.1   Participants

In this study, two groups of students participated, an experimental group ($N= 50$) and a control group ($N= 32$). The experimental group is comprised of the same participants as in Study 2. They are first-year undergraduate students at a national university in Hokkaido, Japan. Thirty-five of the participants were female, and 15 were male, age ranging from 18 to 19. The students in this class were taking the English I class, which is a required elective class for studying general English and was taught by

the author. During this class, classroom intervention was carried out by utilizing anxiety-reducing strategies.

The other group of students in this study, a control group were first-year undergraduate students at another national university in Hokkaido, Japan. Seven female and 25 male students participated, age ranging from 18 to 21. These students were taking a class of English for general academic purposes, which was taught by a teacher different from the teacher of the experimental group. In this control group class, no particular strategies for reducing anxiety were employed, making it possible to designate it as a control group in this study. The detailed information of the study participants is shown in Table 16.

Table 16
General Information of Participants

Variable	Experimental group ($N = 50$)	Control group ($N = 32$)
Gender		
Male	15	25
Female	35	7
Age		
Age range	18-19	18-21
Average age	18.4	19.3
EFL learning experience		
1-7 years	35	17
8-13 years	14	14
Over 14 years	1	1

6.2.2   Instruments

In this study, the Foreign Language Classroom Anxiety Scale (FLCAS; Horwitz et al., 1986) was used as the survey instrument, which was assigned to the students in Japanese. The FLCAS was given to both the experimental and control groups twice, as pre-test and post-test. The FLCAS is comprised of 33 items, classified into three categories, 1) communication apprehension, 2) test anxiety, and 3) fear of negative evaluation. The current study utilized this scale for calculating the total scores of students to assess the anxiety levels, in addition to comparing the changes in specific items which could indicate what sources of anxiety decreased or increased.

6.2.3   Intervention

The classroom interventions were carried out with the experimental group only. The anxiety-reducing strategies carried out as interventions include the following: 1) introducing pair work, 2) student preparation before presentations, 3) presentations in pairs, 4) giving advice to students individually, and 5) maintaining a positive relationship between teacher and students. More details of these interventions are stated in Chapter 5.

The control group did not include any interventions for reducing language anxiety. Since this class is at a university different from the one where the experimental group is enrolled, the material covered in the English class differed somewhat. Thus, this study is a quasi-experimental study, which is designed as a non-equivalent control group pretest/posttest design.

6.2.4   Data collection

This study was conducted in two different universities during the 2016 academic year. In the class of the experimental group, there were classroom interventions, while in the class of the control group there was no particular interventions aimed at reducing language anxiety. In both groups, the FLCAS (Horwitz et al., 1986) was administered as a pre-test and post-test. The pre-tests were given out in the first class of each class, and the post-tests in the last class of the course. Both classes had a total of 15 lessons. All students in these classes had agreed to participate in the current study.

6.2.5   Data analysis

The results of the FLCAS were computed using the IBM SPSS Statistics 22. First, the total score of the students in the experimental and control groups were compared and the changes between the pre- and post-tests were determined. To evaluate the changes, a two-way repeated measures ANOVA (analysis of variance) was conducted for the total scores of the FLCAS and for the three areas of the language anxiety sources. Prior to this analysis, subscale scores were computed to group the three categorizations of language anxiety sources of the overall FLCAS items. In addition, results of the individual items of the FLCAS were also compared, using the non-parametric Wilcoxon signed-ranks test.

6.3   Results

6.3.1   Changes in student language anxiety

A two-way repeated measures ANOVA was performed based on the results in both the experimental and control groups, to compare the changes in student language anxiety at the start and end of the course. As a result of the intervention for reducing

language anxiety, the repeated measures ANOVA indicated that changes in the anxiety scores of the FLCAS were marginally significant in the experimental group when compared with the scores in the control group, although it did not reach the conventional level of significance (see Figure 9 and Table 17). As can be seen, students in the control group originally tended to be low-anxious compared to the students in the experimental group. The graph shows that anxiety levels in both groups decreased to certain extent, with the inclination in the experimental group steeper than that in the control group.
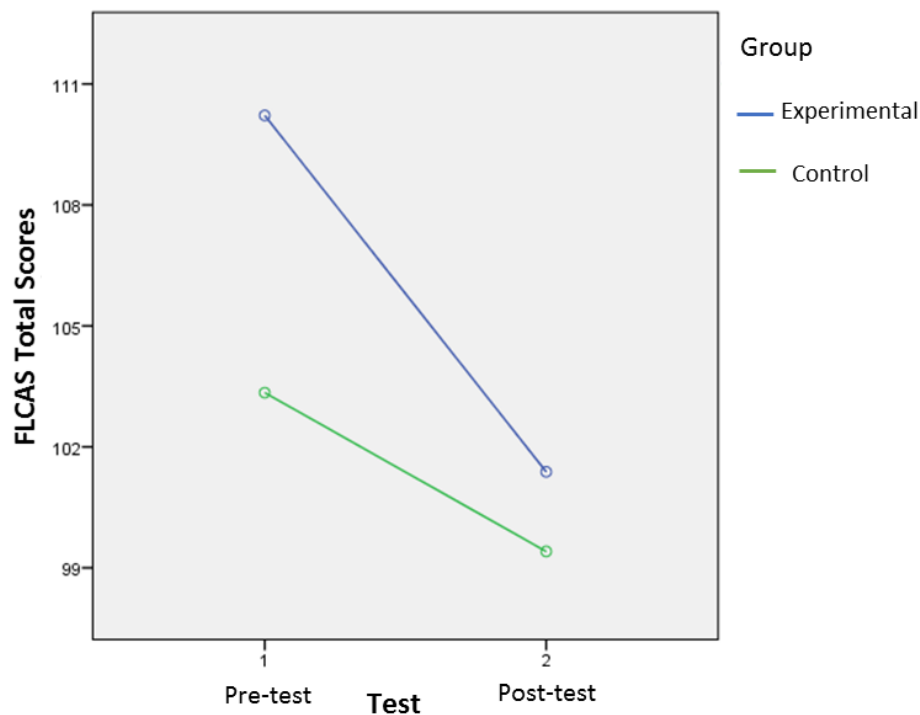
Figure 9. Changes in student language anxiety plotted at the start and finish of the course. The lines represent the changes in FLCAS scores in the pre- and post-tests of the experimental and control groups.

Thereafter, in order to investigate the changes in student anxiety sources, subscale scores were calculated regarding three areas of language anxiety: 1) communication apprehension, 2) test anxiety, 3) fear of negative evaluation and, repeated measures ANOVA was performed based on these three areas in both the experimental and control groups. The summarized results of the two-way repeated measures ANOVA are shown in Table 17. The ANOVA showed statistically significant results for communication apprehension, with an F ratio of $F(1, 80) = 4.375$, $p = .037$, indicating that items related to communication apprehension decreased significantly among the students in the experimental group. This result demonstrates that the intervention carried out in the experimental group was effective in decreasing student anxiety related to communicating and speaking English in the classroom. Test anxiety was close to the level of significance, with an interaction effect of $F(1, 80) = 3.618$, $p = .06$. The overall anxiety yielded an F ratio of $F(1, 80) = 3.367$, $p = .07$.

Table 17

Results of Repeated Measures ANOVA for Experimental (N= 50) and Control Groups (N= 32)

Anxiety Source	Experimental		Control		F (1,80)	p (Anxiety × Group)
	Mean (Pre-test)	*Mean (Post-test)*	*Mean (Pre-test)*	*Mean (Post-test)*		
Communication apprehension	3.56	3.32	3.16	3.13	4.375	.037
Test anxiety	3.21	2.88	3.09	2.95	3.618	.060
Fear of negative evaluation	3.29	3.10	3.17	2.97	0.005	.950
Overall anxiety (FLCAS total scores)	110.22	101.38	103.34	99.41	3.367	.070

Figure 10 shows the changes in student communication apprehension as it changed during the period of the course, as reflected in the results of pre- and post-tests of the experimental and control groups. As the graph shows, the results of student language anxiety related to communication apprehension decreased significantly in the experimental group. The results for the students in the control group suggest that changes in communication apprehension were more limited, as expressed in the difference in the results of the pre- and post-tests.
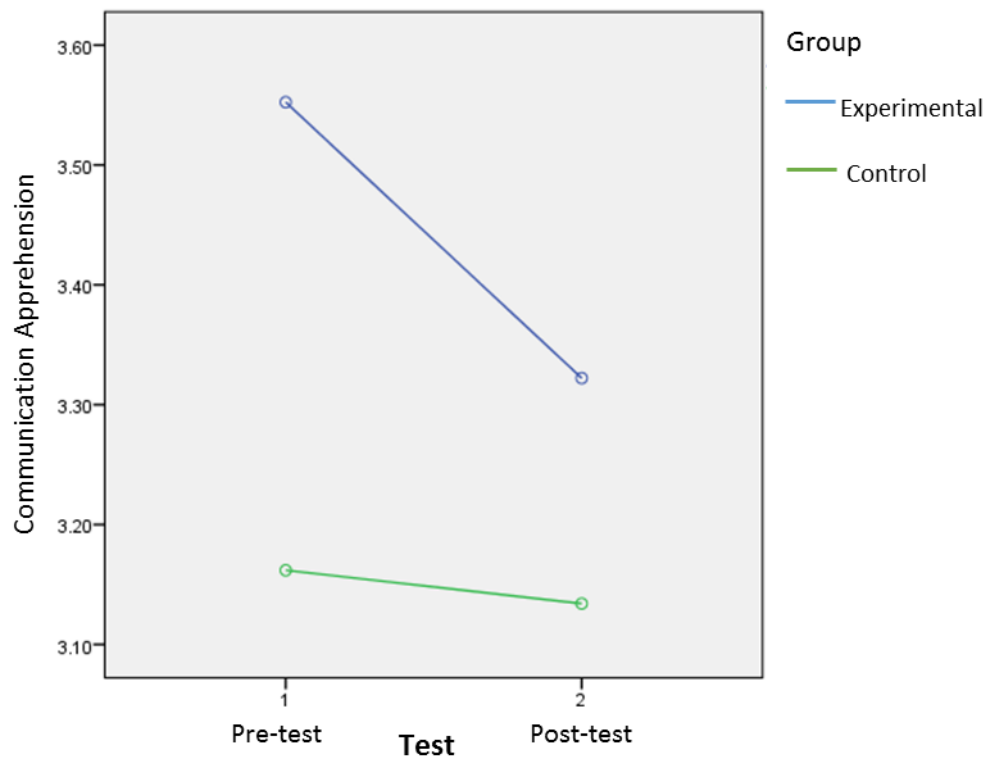
Figure 10. Changes in student language anxiety related to communication apprehension at the start and finish of the course. The lines connecting the plots in the pre- and post-tests express changes in items of communication apprehension of the experimental and control groups.

As the results of communication apprehension yielded a significant interaction, *the simple main effect* was examined as follow-up tests. This analysis shows the difference between groups within each level of the independent variables. The detailed results of simple main effects test are shown in Table 18.

Table 18
Results of Simple Main Effects Test on Communication Apprehension

	Communication Apprehension Pre-test $\times$ Post-test		
	SD	*F*	*p*
Experimental	.19	.938	.337
Control	.17	2.108	.152
	Group Experimental $\times$ Control		
	SD	*F*	*p*
Pre-test	.14	8.319	.005
Post-test	.15	1.492	.226

As a result of the simple main effects test, there was a significant difference in the pre-tests of the experimental and control groups. Students in the experimental group had a significantly higher degree of communication apprehension than the students in the control group. According to the intervention strategies for reducing language anxiety, student communication apprehension in the experimental group decreased considerably, and it may be conclude that the strategies utilized in this intervention helped reduce anxiety related to communication in class among high-anxious students. Even for these high-anxious students, in-class communication tasks could be less-stressful by adopting anxiety-reducing strategies.

6.3.2　Changes in individual sources of student language anxiety

Following the analyses of the changes in three areas of language anxiety (i.e., communication apprehension, test anxiety, and fear of negative evaluation) among students in the experimental and control groups, the changes in the individual sources of anxiety were also investigated. To carry this out, a non-parametric Wilcoxon Signed-ranks test was conducted, since comparing individual items in the scale by mean scores would not be appropriate. Instead of performing parametric paired-samples t-test, the present study adopted non-parametric Wilcoxon signed-ranks test by comparing the items by the median value. Table 19 shows the results of this analysis.

Table 19

Results of Wilcoxon Signed-ranks Test of the FLCAS for Experimental (N= 50) and Control Groups (N= 32)

FLCAS items	Experimental Z- value	Control Z- value
1. I never feel quite sure of myself when I am speaking in my English class.	-3.633 ***	-1.338
2. I don't worry about making mistakes in the English class.	-2.757 **	-2.784 **
3. I tremble when I know that I'm going to be called on in the English class.	-2.086 *	-.626
4. It frightens me when I don't understand what the teacher is saying in English.	-1.937	-1.209
5. It wouldn't bother me at all to take more English classes.	-1.091	-.966
6. During English class, I find myself thinking about things that have nothing to do with the course.	-.669	-.233
7. I keep thinking that the other students are better at English than I am.	-.199	-.837
8. I am usually at ease during tests in my English class.	-2.392 *	-1.359
9. I start to panic when I have to speak without preparation in the English class.	-2.372 *	-.449
10. I worry about the consequences of failing my English class.	-2.305 *	-.655
11. I don't understand why some people get so upset over English classes.	-.337	-1.473
12. In the English class, I can get so nervous I forget things I know.	-3.311 **	-1.007
13. It embarrasses me to volunteer answers in my English class.	-1.403	-.587
14. I would not be nervous speaking English with native speakers.	-.034	-.592
15. I get so upset when I don't understand what the teacher is correcting.	-.573	-.166

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16. Even if I am well prepared for English class, I feel anxious about it.	-.852	-2.165 ∗
17. I often feel like not going to my English class.	-1.626	-1.135
18. I feel confident when I speak in the English class.	-2.120 ∗	-3.452 ∗∗
19. I am afraid that my English teacher is ready to correct every mistake I make.	-1.388	-1.249
20. I can feel my heart pounding when I'm going to be called on in the English class.	-2.378 ∗	-1.778
21. The more I study for the English test, the more confused I get.	-.752	-.532
22. I don't feel pressure to prepare very well for the English class.	-1.426	-.450
23. I always feel that the other students speak English better than I do.	-.070	-1.338
24. I feel very self-conscious about speaking English in front of other students.	-.816	-2.251 ∗
25. The English class moves so quickly I worry about getting left behind.	-4.157 ∗∗∗	-.091
26. I feel more tense and nervous in my English class than in my other classes.	-4.624 ∗∗∗	-1.089
27. I get nervous and confused when I am speaking in the English class.	-3.241 ∗∗	-.623
28. When I'm on my way to the English class, I feel very sure and relaxed.	-3.889 ∗∗∗	-2.915 ∗∗
29. I get nervous when I don't understand every word the English teacher says.	-2.277 ∗	-1.213
30. I feel overwhelmed by the number of rules you have to learn to speak English.	-.335	-1.348
31. I am afraid that the other students will laugh at me when I speak English.	-1.404	-1.431
32. I would probably feel comfortable around native speakers of English.	-.450	-3.581 ∗∗∗
33. I get nervous when the English teacher asks questions which I haven't prepared in advance.	-2.068 ∗	-2.284 ∗

Note. All the expressions of "foreign language" in the original FLCAS (Horwitz et al., 1986) are modified into "English" in order to fit the contexts of the current study.

*** $p < .001$, ** $p < .01$, * $p < .05$

According to the analysis of Wilcoxon signed-ranks test data, the results yielded a clear contrast between the two groups of students. Anxiety sources of students in the experimental group decreased significantly in a total of 15 items and, the anxiety sources of students in the control group which only had a significant decrease was only 7 items.

Among the 15 items which had a significant decrease in anxiety sources, item 1 "I never feel quite sure of myself when I am speaking in my English class." , item 25 "The English class moves so quickly I worry about getting left behind.", item 26 "I feel more tense and nervous in my English class than in my other classes." and item 28 "When I'm on my way to the English class, I feel very sure and relaxed (reversal item)." were significant at the $p < .001$ level. The common features of these items could be, anxiety sources which come from classroom-related practices or classroom-based activities. The results indicate that these kinds of anxiety sources were especially minimized due to the intervention carried out in this study. In addition, item 2 "I don't worry about making mistakes in the English class (reversal item).", item 12 "In the English class, I can get so nervous I forget things I know.", and item 27 "I get nervous and confused when I am speaking in the English class." decreased significantly at the $p < .01$ level. These three items represent nervousness when speaking English in class and presenting in class, which is strongly related to communication apprehension. As with the results of the repeated measures two-way ANOVA on three areas of language anxiety explained in the previous section (6.3.1), student language anxiety related to communication apprehension were found to have been alleviated to a certain extent, likewise in this analysis of the Wilcoxon signed-ranks test according to individual items of the FLCAS.

6.4 Discussion

The present study examined the effectiveness of intervention strategies for reducing anxiety in English classes, by comparing the results of pre- and post-tests among two different groups of students. This study was carried out as a non-equivalent control group pretest/posttest design, known as one example of quasi-experimental

study. As an outcome of this study, there was a clear tendency of a decrease in student anxiety levels in the experimental group, where anxiety-reducing strategies were implemented as an intervention for a total of 15 lessons. The control group, where no language anxiety reducing intervention was carried out, had quite subtle changes in student anxiety levels after 15 weeks of English lessons. Such results suggest the effectiveness of the intervention for reducing language anxiety which was carried out in this study.

The first research question asked which areas of language anxiety decrease due to the intervention. According to the analyses of two-way repeated measures ANOVA of the FLCAS (Horwitz et al., 1986), communication apprehension was found to decrease significantly in students in the experimental group compared to the control group.

Communication apprehension consists of 11 items in the FLCAS, which represent items related to anxiety as the basis for communication or interactions in the English language (e.g., I never feel quite sure of myself when I am speaking in my English class). This result is in agreement with Nagahashi's (2007) findings which showed that an intervention including pair work and group work could decrease student communication apprehension. Nagahashi reported that the top five sources of language anxiety among the participants in that study were all related to communication apprehension. This is quite reasonable, since communicative English class is known to generate more anxious student response compared to the conventional grammar translation method (Arnold & Brown, 1999). Especially in English classrooms in Japanese contexts, students are prone to feel highly anxious toward "speaking in front of the class", "presenting opinions in English", and "communicating with classmates in front of other students," according to the study of

Hojo (1995). Hojo mentions the effectiveness of group work, for those who feel uneasy about speaking in front of a large group. Communication apprehension seems to be a major contributor to language anxiety for Japanese learners of English, therefore decreasing its negative impact is essential for creating a less-stressful classroom.

Test anxiety was also found to be marginally significant, with a .06 level of interaction effect (see Table 17). Test anxiety consists of 15 items which is the largest numbers of items in the FLCAS, so this result is quite convincing, that it almost reached the conventional level of significance. Test anxiety items in the FLCAS is comprised of not only items directly associated with test situations, rather, there are items of anxiety related to classroom practice or classroom-based tasks (e.g., I tremble when I know that I'm going to be called on in the English class). Thus, reduction in test anxiety of the FLCAS may be seen to indicate an alleviation of classroom-related anxiety in general.

Fear of negative evaluation showed the smallest difference among the three areas of anxiety in the comparison between the experimental and control groups. This result differed from the findings reported in Alrabai (2015). In Saudi Arabian settings, fear of negative evaluation has been regarded as the main source of language anxiety and, in Alrabai's study, it was the most positively affected variable by the implementation of anxiety-reducing strategies. This may be due to the content of anxiety-reducing strategies employed in Alrabai's study, which placed emphasis on teacher behavior such as avoiding the following manners: overcorrecting errors, blaming students when they made mistakes, engaging students in competition, or offering public comparisons of the performance or grades of different students. In the current study, however, communication apprehension was found to be the main source of student language anxiety, rather than fear of negative evaluation. Sources of anxiety

appears to vary due to different cultural settings, as the backgrounds of the learning environments differ in each country.

As for overall anxiety, which could be computed through the total score of the FLCAS, the reduction in student anxiety levels were consistent in the experimental group compared to the control group, which could be found in Figure 9. Although the two-way repeated measures ANOVA did not yield significant differences in the two conditions, the decrease of language anxiety levels due to the current intervention could be seen from these analyses.

The second research question asked which individual sources of language anxiety decrease due to intervention. From an analysis of the Wilcoxon signed-ranks test, 15 out of 33 FLCAS items were found to decrease significantly in the experimental group. Anxiety sources which were alleviated as a result of intervention include items related to classroom practice (e.g., item 3, item 20, item 26, item 29, item 33), English use in the classroom (e.g., item 1, item 2, item 9, item 12, item 18, item 27), and concern over grades and performances (e.g., item 8, item 10, item 25, item 28). When compared with the study of Nagahashi (2007), these results are quite consistent with the findings there, in that item 33 "I get nervous when the English teacher asks questions which I haven't prepared in advance", item 18 "I feel confident when I speak in the English class", and item 1 "I never quite feel quite sure of myself when I am speaking in my English class" decreased significantly due to the intervention, which were the top 3 sources of anxiety and were found to decrease significantly in the study of Nagahashi as well. However, Nagahashi could not obtain successful results in the reduction of overall anxiety and, there was the limitation of a lack of a control group to compare results with. The current study has put forward a further explanation of the efficacy of intervention for reducing language anxiety, which shows the clear differences between

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experimental and control groups, and found communication apprehension as a factor greatly influenced by anxiety-reducing strategies.

The third research question asked how different the results are between the experimental and control groups. For overall anxiety scores, students in the control group were found to be originally less anxious than students in the experimental group, and in terms of communication apprehension, the gap in the anxiety scores was evident from *the simple main effects test* which showed a significant difference in the pre-test between the experimental and control groups. However, after 15 lessons of intervention, the mean score of communication apprehension decreased greatly in the experimental group only, which leads to significance in the repeated measures ANOVA among the two groups of students. A possible explanation for these results may be the effectiveness of anxiety-reducing strategies related to cooperation with others, which included small group and pair work, giving students opportunities of teaching each other, and introducing pair-presentation instead of self-presentation. These strategies implemented in this study may have been efficient for reducing student communication apprehension as a result.

6.5   Conclusion

The aim of the present study was to further examine the effectiveness of the intervention for reducing language anxiety, in a comparison with students in a control group. This study has shown that the anxiety-reducing strategies utilized in the intervention were effective in minimizing student anxiety related to speaking or interacting in the classroom using English. Among the three sources of language anxiety, *communication apprehension* was found to decrease as an outcome of experimental intervention. The differences between the experimental and control

groups were apparent, both in the analyses of repeated measures ANOVA and Wilcoxon signed-ranks test.

The findings of this study suggest that anxiety-reducing strategies which require students to use collaborative tasks such as pair work, group discussion, and pair-presentations could be efficient in alleviating communication apprehension. By cooperating with classmates, students will gain confidence and start to feel more comfortable using English. Before having them present in front of a large audience, it is important to let them prepare thoroughly in smaller groups. Letting students discuss with their partners beforehand may minimize their anxiety of public speaking as well. In addition, presentation in pairs was found to be effective in the current study, in that students could feel a little bit of relief that someone is standing beside them when presenting. It may be possible for teachers to introduce such activities in order to alleviate student anxiety in the English classrooms.

It is essential to continue to research and explore how to combat student anxiety, and alleviate concerns and stress about language learning. This research provides a framework for the exploration of the intervention for reducing language anxiety. Further research is necessary to help students overcome their anxiety in various learning contexts.

7. Conclusions

In this final chapter, an overall summary of the current study will be given, followed by details of the significance of the findings, the pedagogical implications, limitations of the study, and suggestions for future research.

7.1 Summary

In this study, three main research projects were carried out to be able to identify possible avenues to reducing student language anxiety in English classrooms in Japanese contexts. The studies were conducted to be able to address the following three research problems:

1) How can the strategies for reducing language anxiety be conceptualized? (Study 1)

2) How effective are the strategies for reducing language anxiety? (Study 2)

3) How do student language anxiety levels and sources change due to anxiety-reducing strategies? (Study 3)

Study 1 set out to conceptualize strategies for reducing student language anxiety in English classrooms. An original scale was compiled in accordance with the findings of previous studies, itemized, and then distributed to Japanese learners of English. Based on the obtained data, item analysis, exploratory factor analysis and correlation analysis were conducted. As a result, the questionnaire items that attracted higher mean scores differed slightly from high-anxious students to low-anxious students. From a factor analysis, four factor structures were identified: cooperation with others; building confidence; assistance from the teacher; and less-stressful teaching methods. Subscale scores were calculated according to these factor structures, and a correlation analysis

was conducted to compare the results for high-anxious and low-anxious students. The findings of this study suggest that high-anxious students consider teacher assistance to be just as important as cooperation with others.

Study 2 was designed to determine the effectiveness of the anxiety-reducing strategies which were conceptualized in Study 1, through a classroom intervention. Fifteen lessons of intervention was carried out, using the anxiety-reducing strategies. As a way of measuring the results, questionnaire surveys were conducted before and after the intervention. The results showed that the anxiety scores of the students had decreased significantly after the intervention. From an analysis of a paired t-test, effective strategies for reducing language anxiety were found to be: making presentations in small groups instead of making presentations individually, and doing pair work and group work in class. From the responses to an open-ended questionnaire survey, student perceptions of the strategies were found to be generally positive. Peer support and teacher support in class were perceived as useful in alleviating student language anxiety.

The aim of Study 3 was to further examine the efficacy of classroom intervention strategies for reducing language anxiety through a quasi-experimental design. This study employed a non-equivalent control group pretest/posttest design to further examine the effectiveness of the anxiety-reducing strategies through a comparison of student responses in the experimental and control groups. Based on the data obtained in the pre- and post-tests, two-way repeated measures ANOVA and Wilcoxon signed-ranks tests were conducted. The results indicated that the intervention utilizing anxiety-reducing strategies were effective in reducing student communication apprehension, and multiple anxiety sources decreased as a result of the intervention. A clear contrast between the experimental and control groups was shown, suggesting that

utilizing anxiety-reducing strategies in the classroom may minimize student language anxiety levels.

7.2   Significance of the findings and pedagogical implications

Through a series of studies which aimed to determine effective strategies for alleviating student language anxiety, the obtained findings improve our understanding of what a less-stressful learning environment could be. An English classroom where students feel unstressed and relaxed can be created by introducing both student-oriented and teacher-oriented anxiety-reducing strategies.

Previous studies which sought to determine possible strategies for reducing student language anxiety usually deal with either student-oriented strategies only (e.g., Kao & Craigie, 2013; Kondo & Yang, 2004; Marwan, 2007) or teacher-oriented strategies only (e.g., Alrabai, 2015; Duxbury & Tsai, 2010; Nagahashi, 2007; Tsiplakides & Keramida, 2009; Tsui, 1996). However, this study dealt with strategies which could be implemented by both teachers and students themselves, which have been found to be successful in decreasing student language anxiety. The findings of this study suggest that cooperation with classmates, such as working in groups or presenting in pairs, were especially important in decreasing student anxiety related to classroom practices. As cooperative learning has been demonstrated as one solution to language anxiety (Duxbury & Tsai, 2010; Nagahashi, 2007, Tsiplakides & Keramida, 2009), and it may be concluded that having students cooperate and collaborate in the classroom works successfully even for high-anxious students.

Both student cooperation and also teacher support were perceived to be effective in alleviating student feelings of anxiety in the current study. The teacher role in the classroom is important for high-anxious learners, as Price (1991) states, "they would

feel more comfortable if the instructor were more like a friend helping them to learn and less like an authority figure making them perform" (p. 107). Similarly, Young (1990) mentions that instructors can reduce language anxiety by adopting an attitude that mistakes are part of the language learning process and that mistakes will be made by everyone. Teachers should always act as calm and placid, showing a generous attitude towards student doubts or questions related to classroom activities, and through this build a positive teacher-student relationship during lessons. Among the four dimensions of the Anxiety-reducing strategy scale (ARSS; Fujii, 2015), Factor 3 (assistance from the teacher) and Factor 4 (less-stressful teaching methods) represent strategies which could be implemented by teachers. Moreover, from the responses to an open-ended questionnaire here, the importance of individual support by the teacher and of maintaining positive teacher-student relations were viewed as essential elements for low-anxiety classrooms.

In the current study, anxiety-reducing strategies implemented as an intervention were especially effective in decreasing student communication apprehension. Fear of public speaking and anxiety related to in-class communication tasks are considered a major concern for high-anxious students in Japanese contexts (Hojo, 1995; Kondo & Yang, 2003; Nagahashi, 2007). Even in situations with students performing in front of a large audience or having them communicate actively in class, it is possible to ensure a low-anxiety classroom by utilizing these anxiety-reducing strategies (e.g., introducing pair work, having students prepare thoroughly before presentations, introducing pair-presentations). Overall, anxiety-reducing strategies which could be carried out by teachers enable students to feel reassured and, strategies for reducing language anxiety which could be carried out by students themselves make it possible for them to attain positive affect, in addition to development in English skills. By

combining anxiety-reducing strategies from both the perspectives of students and teachers, a collaborative, less-stressful English classroom may well be established.

7.3   Limitations and future research

Although this study was mostly successful in offering suggestions for reducing student language anxiety in English classrooms, its limitations should be noted. As an intervention study, this study took the form of a pretest/posttest design and analyzed the results obtained in both phases in order to clarify the effectiveness of intervention. However, an assertion that language anxiety may well decrease due to student habituation is still possible, or other different factors could play a role to decrease student anxiety. In this study, other various independent variables which may relate to student language anxiety levels were not considered separately, with the assumption that student language anxiety decreased as a result of the experimental treatment with all the probability included. In fact, Study 3 has shown clear differences in changes to student anxiety levels, between the experimental group with anxiety-reducing intervention and a control group with no particular intervention carried out. This result provides evidence for the efficacy of the strategies utilized in this study.

Secondly, it is unfortunate that this study did not yield the result of significance in student overall anxiety levels between the experimental and control groups, although it almost reached the conventional level of significance. However, the decrease in anxiety levels was stronger in the experimental group than in the control group. When we focus on the three separate areas of language anxiety sources, communication apprehension was found to decrease significantly and, test anxiety was also marginally significant. Moreover, when directing attention to individual items of the FLCAS, the items related to classroom practices or in-class English use as well as items related to

concerns over grades and performances also decreased significantly due to the intervention. The current findings add to a growing body of literature on how to minimize student language anxiety in language classrooms.

For the future, a larger scale study may be necessary to reconfirm the findings of the present study. By adding to the number of participants or lengthening the period of intervention, further understanding of solutions for student language anxiety could become possible. In addition, by using the ARSS (Fujii, 2015), student perceptions of the anxiety-reducing strategies can be compared in different groups including by gender, school major, or various different backgrounds. Moreover, conducting a semi-structured interview would also be useful to listen to student opinions in detail.

Recognizing and addressing language anxiety helps students to be more responsive, and makes language learning a much more enjoyable experience (Tsui, 1996). In order to have students enjoy learning English without feelings of anxiety, it is important for teachers to utilize effective strategies for reducing language anxiety. This study has offered suggestions for dealing with students who suffer from marked anxiety in English classrooms. Introducing effective strategies for reducing language anxiety will prove to be helpful for anxious students, as well as their teachers in choosing appropriate instructional techniques for creating a less-stressful classroom.

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Appendices

Appendix A: Initial version of the Anxiety-reducing Strategy Scale (ARSS)

1. I feel relieved if I consider that my anxiety can be transient and do not develop into a lasting problem.
2. My anxiety decreases if the competition in the classroom is reduced.
3. My anxiety decreases when I am told it is OK to speak English with less than perfect performance.
4. I feel relaxed through music, laughter or games in the classroom.
5. If there are activities meeting various learning styles, I do not feel anxious.
6. My anxiety decreases through repetition of a task.
7. Speaking English in front of a small group is less stressful than speaking to a large group.
8. I feel more relaxed when making presentations in small groups than by myself.
9. If I have individual tutoring from the teacher, my anxiety is reduced.
10. I feel relieved if I can discuss successful language learning periodically with my teacher.
11. Doing more small group and pair works reduces my anxiety.
12. I feel relieved if the English test follows the same format I was taught in class.
13. My anxiety decreases if I prepare thoroughly for the English test.
14. I feel relieved if I am told being able to understand is more important than being able to speak.
15. I feel relaxed if my pronunciation will not be expected to be perfect.
16. My anxiety reduces when there are pre-reading, listening, and writing activities.
17. I feel relieved if my classmates and I teach each other.
18. My anxiety decreases if I work together with classmates.
19. If I know there are more than one correct answer, my anxiety reduces.
20. I feel relieved if my teacher cares for my own anxiety.

*There were initially 20 items in this scale as shown above, however, items 1, 4, 6, 16, and 19 were excluded due to factor analysis conducted in this study, since factor loadings of these items were smaller than .35 in the current study (see Study 1).

The final version of this scale is printed in the next page, both in English and Japanese.

Appendix B: Final version of the Anxiety-reducing Strategy Scale (ARSS)

1. My anxiety decreases if competition in the classroom is reduced.
   授業内で他人と競争する機会が少ないと不安は減る。

2. My anxiety decreases when I am told it is OK to speak English with less than perfect performance.
   英語は完璧に話せなくてもよい、と言われると安心する。

3. If there are activities meeting various learning styles, I do not feel anxious.
   一人ひとりの学習方法に沿った活動があると不安は減る。

4. Speaking English in front of a small group is less stressful than speaking to a large group.
   クラス全体の前で英語を話すより、グループ内で英語を話すほうが不安は減る。

5. I feel more relaxed when making presentations in small groups than by myself.
   発表するときに一人ではなく何人かと一緒だと不安は減る。

6. If I have individual tutoring from the teacher, my anxiety is reduced.
   個人的に先生から指導を受ける機会があると不安は減る。

7. I feel relieved if I can discuss successful language learning periodically with my teacher.
   効果的な英語学習について先生と話し合う機会があると不安は減る。

8. Doing more small group and pair work reduces my anxiety.
   ペアワークやグループワークなどをすると不安は減る。

9. I feel relieved if the English test follows the same format I was taught in class.
   授業で教わった通りのテストだと安心する。

10. My anxiety decreases if I prepare thoroughly for the English test.
    テストの前に事前準備をしていると不安は減る。

11. I feel relieved if I am told being able to understand is more important than being able to speak.
    英語を話せることより理解できることが大切だと考えると不安は減る。

12. I feel relaxed if my pronunciation will not be expected to be perfect.
    発音が完璧でなくてもよいと考えると不安は減る。

13. I feel relieved if my classmates and I teach each other.
    クラスメートと互いに教えあうことで不安は減る。

14. My anxiety decreases if I work together with classmates.
    教室内でクラスメートと協力すれば不安は減る。

15. I feel relieved if my teacher cares for my own anxiety.
    自分が不安に思っていることを先生が理解してくれると、不安は減る。