

# Anxiety and use of cognitive emotion regulation strategies within the foreign language classroom

PATRICIA AYLLÓN-SALAS

ALICIA OLMO-ESPINOSA

FRANCISCO D. FERNÁNDEZ-MARTÍN

*Universidad de Granada*

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**ABSTRACT:** The aims of this study were to identify the existent levels of foreign language learning anxiety in students of the sixth grade of Primary Education of different bilingual and non-bilingual schools, and to determine which cognitive emotion regulation strategies these students would use in a hypothetical stressful situation. For this purpose, anxiety in Foreign Language Class and cognitive emotion regulation strategies were measured to the students ( $n = 262$ ). The descriptive analysis of the obtained results led to the following conclusions: the levels of anxiety were higher in the non-bilingual sample; however, these students made more use of cognitive emotion regulation strategies.

**Keywords:** English foreign language; anxiety; cognitive emotion regulation; adaptive strategies; Primary Education.

## La ansiedad y el uso de estrategias cognitivas de regulación emocional en el aula de lengua extranjera

**RESUMEN:** Los objetivos de este estudio fueron identificar los niveles existentes de ansiedad en el aprendizaje de lenguas extranjeras en alumnos de sexto curso de Educación Primaria de diferentes colegios bilingües y no bilingües, y determinar qué estrategias cognitivas de regulación de emociones utilizarían estos alumnos en una hipotética situación estresante. Para ello, se midió la ansiedad en clase de Lengua Extranjera y las estrategias cognitivas de regulación de la emoción a los alumnos ( $n = 262$ ). El análisis descriptivo de los resultados obtenidos permitió llegar a las siguientes conclusiones: los niveles de ansiedad eran más elevados en la muestra no bilingüe; sin embargo, estos alumnos hacían un mayor uso de las estrategias cognitivas de regulación de la emoción.

**Palabras clave:** Lengua extranjera; ansiedad; regulación cognitiva de las emociones; estrategias adaptativas; Educación Primaria

## 1. INTRODUCTION

Second language researchers and theorists have long been aware that anxiety is associated with language learning (Horwitz et al., 1986). This type of anxiety, commonly known as language anxiety, was first defined by MacIntyre and Gardner (1994) as “the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning” (p. 284). One important classification of anxiety is the

following (Spielberger & Vagg, 1995): trait anxiety, state anxiety, and situational anxiety. The first would be characteristic of the individual's personality, while the other two would be responses to specific stimuli. In this sense, Horwitz et al. (1986) identified foreign language anxiety as a type of situational anxiety since they considered that foreign language learning can be a stressful experience for those students who show no predisposition towards it (De La Morena et al., 2011).

In accordance with the idea of foreign language learning as a stressful situation, teachers and students generally feel that anxiety is a frequent and serious obstacle (Horwitz et al., 1986), and that is the reason why anxiety on language acquisition has been the central focus of research for about three decades. Many researchers have been focused on studying the effects of anxiety on language acquisition, while others have attempted to identify its causal factors (Liu & Chen, 2014). According to Young (1991), some manifestations of foreign language anxiety could be nervous laughter, avoidance of eye contact, short answers, avoiding participation in class activities, coming unprepared to class, acting indifferent, avoiding speaking, crouching in the last row, etc. Furthermore, several studies have revealed that foreign language learning anxiety is predominantly debilitating, so those students with high levels of anxiety not only have poor performance, but they also show a low tendency to speak and participate, and when they do, it is in an inaudible manner (Liu & Huang, 2011).

Therefore, it seems that anxiety can have serious effects on many aspects of foreign language learning, so it is important to be able to identify those students who are particularly anxious during foreign language classes (Horwitz et al., 1986). In fact, with reference to possible causal factors of language anxiety, it should be pointed out the six potential sources proposed by Young (1991): "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" (p. 427). From all these sources, personal and interpersonal anxieties are the most cited and discussed, specifically low self-esteem and competitiveness (Young, 1991). Talking about instructors' beliefs about language teaching also encompasses their reaction to errors and the way they create a stressful environment in the class, since these factors have been reported to be significantly related to foreign language anxiety (Tanveer, 2007).

In line with these studies, Liu (2006) investigated the anxiety levels of undergraduate Chinese students at three different proficiency levels, and this study revealed that: (a) a considerable number of students at each level felt anxious when speaking English in class; (b) the more proficient students tended to be less anxious; (c) the students felt the most anxious when they responded to the teacher or were singled out to speak English in class; they felt the least anxious during pair work; and (d) with increasing exposure to oral English, the students felt less and less anxious about using the target language in speech communication.

In order for the teachers to deal with anxious students, Horwitz et al. (1986) proposed two different options. The first one was to help those students cope with the situation that provokes that anxiety, and the second one was to make the context less stressful through recent approaches that are explicitly directed at reducing learner anxiety, such as community language learning and suggestopedia (Horwitz et al., 1986). However, what really matters is to consider the possibility that anxiety may be responsible for the student's poor performance.

One of the most widely used instruments for measuring foreign language anxiety is the Foreign Language Class Anxiety Scale (FLCAS) (Horwitz et al., 1986), since it presents satisfactory levels of validity and consistency (Argaman & Abu-Rabia 2002), as well as the Spanish version of FLCAS (De la Morena et al., 2011). The administration of this instrument provides information about the levels of foreign language learning anxiety of the students but not about the coping strategies used by them to face those stressful situations. According to Folkman and Moskowitz (2004) coping can be defined “as the thoughts and behaviors used to manage the internal and external demands of situations that are appraised as stressful” (p. 745). It is also important to consider that coping is not a stand-alone phenomenon but is part of a complex process that involves the person, the environment, and the relationship between them (Folkman & Moskowitz, 2004).

In order to achieve complete coping effectiveness, it is necessary to consider the features of the context and the fit between those features and various types of coping. The most frequently assessed dimension of the context is the opportunity for personal control or changeability (Folkman & Moskowitz, 2004). Therefore, people who choose coping strategies that fit the changeability of a task will have better outcomes than people who do not (Folkman & Moskowitz, 2004).

One of the earlier nomenclatures proposed by Folkman and Lazarus (1980) distinguished two functions of coping: “the management or alteration of the person-environment relationship that is the source of the stress (problem-focused coping) and the regulation of stressful emotions (emotion-focused coping)” (p. 223). Some examples of problem-focused coping strategies are making a plan of action or concentrating on the next step, while some examples of emotion-focused coping strategies are engaging in distracting activities, using alcohol or drugs, or seeking emotional support (Folkman & Moskowitz, 2004). Besides the distinction between problem-focused coping and emotion-focused coping, several investigators identified another type of coping, which is meaning-focused coping, and it involves managing the meaning of the situation (Folkman & Moskowitz, 2004). Some examples of meaning-focused coping strategies are positive comparisons and selective ignoring (Folkman & Moskowitz, 2004).

Traditionally, research on affect and health has focused on stress and coping processes. Thanks to the cognitive revolution in Psychology, there was a shift from the stimulus-response models to the stimulus-organism-response models (DeSteno et al., 2013). Consequently, Lazarus (1993) proposed the inclusion of the concept of stress within the concept of emotion, leading to the use of ‘emotion regulation’ concept instead of ‘coping’, as it is a much broader concept, and it includes all the processes by which emotions are regulated. Therefore, all coping strategies came under the broad definition of emotion regulation (Garnefski et al., 2001), which is defined by Thompson (1994) as “the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one’s goals” (pp. 27-28).

According to DeSteno et al. (2013), emotion-regulatory processes can be divided into five types: (a) situation selection, which involves acting to increase the probability of being in a situation we expect would give rise to the emotions that we would like to have; (b) situation modification, which means modifying the physical environment to alter one’s emotional responses to that environment; (c) attentional deployment, which refers to influencing

our emotional response by redirecting the attention within a given situation; (d) cognitive change, which involves changing one or more of the judgements that give rise to different emotions; and (e) response modulation, which refers to influencing directly the physiological, experiential or behavioral responses once an emotional response has been generated. Nevertheless, in this educational research report, the terms ‘cognitive coping’ and ‘cognitive emotion regulation’ will be used interchangeably, since both can be understood as the cognitive way of managing the emotional information of the situation (Garnefski et al., 2001).

As for the traditional coping model (Lazarus & Folkman, 1984), it considers indistinctly both cognitive coping strategies and behavioral ones, so the measurement instruments that were designed in accordance with this model provide data reflecting the combined effects of the two types of strategies (cognitive and behavioral), but not of each one separately. Fortunately, this limitation is overcome in the cognitive emotional regulation model, in which cognitive factors are conceptualized and measured independently of behavioral ones, since it is based on the assumption that thinking and acting are different processes (Domínguez et al., 2011).

About 20 years ago, there were no instruments available for measuring the cognitive components of emotion regulation in adolescents and adults (Garnefski & Kraaij, 2007). That is why, in 2001, the Cognitive Emotion Regulation Questionnaire (CERQ) was developed. CERQ evaluates nine strategies of cognitive coping, which can be grouped into two other categories: adaptive strategies and less adaptive strategies (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018). As demonstrated by the study of Omran (2011) in an Iranian students’ sample, most less adaptive strategies (i.e., rumination, catastrophizing, and self-blame) were related to high levels of anxiety and depression, while most adaptive strategies (i.e., refocusing, positive reappraisal, and refocus on planning) were related to lower levels of anxiety and depression.

Different studies have demonstrated the correlation between language proficiency and anxiety levels. Arnaiz and Guillén (2012) studied the individual differences in the foreign language anxiety of university students, and the statistical analyses revealed that those students who had a lower proficiency level shown higher anxiety levels. These results were consistent with those of Garner et al. (1997), since they found that the higher the experience and proficiency, the lower the anxiety levels.

Therefore, it has been demonstrated how important is being aware of the levels of foreign language anxiety of the students, as well as the strategies they use to face those situations in which they feel in that way. According to Crookall and Oxford (1991) high levels of linguistic anxiety can cause other problems associated with self-esteem, self-confidence, and the ability to take risks. So, language anxiety is not implicated just in the student’s performance in the foreign language, but also in their own personality.

One research analyzed the relationship between cognitive emotion regulation strategies and anxiety in adults with autism spectrum disorder. In this regard, there were significant correlations between them. This study found a positive correlation between the maladaptive cognitive regulation strategies of rumination, other blame, catastrophizing, and self-blame. However, none of the adaptative cognitive regulation strategies were negatively correlated with anxiety. On another note, only self-blame, catastrophizing and acceptance were predictors of anxiety symptoms (Bruggink et al., 2016).

The purposes of this study were, on the one hand, to identify the existent levels of foreign language learning anxiety in a primary education students' sample from two different schools (bilingual and non-bilingual), and, on the other hand, to determine which cognitive emotion regulation strategies students are used by students in the foreign language classroom. In accordance with these aims, the following hypotheses were established: (a) the participants from the bilingual school will show lower levels of foreign language learning anxiety; and (b) the participants from the bilingual school will choose more adaptive cognitive coping strategies than those of the non-bilingual school.

## 2. METHOD

### 2.1. Participants

A total of 262 primary school students from the province of Granada (Spain), aged between 11 and 13 years, participated in this study. Eight public schools from Granada participated in the study, four were bilingual schools and four were non-bilingual schools. Non-bilingual schools had 129 students compared to the 133 in bilingual schools. Furthermore, 112 participants were males, and the other 150 were females.

The sample was selected using a non-probability technique, following a convenience sampling method (Kalton, 2020).

### 2.2. Materials

The Spanish version of FLCAS (De la Morena et al., 2011). Just like the original version (Horwitz et al., 1986), this is a Likert-type scale made up of 33 items estimated between one point (*Strongly disagree*) and five points (*Strongly agree*) grouped into four different dimensions (De la Morena et al., 2011): (a) communicative apprehension, which indicates shyness, anxiety and corporal reactions when speaking in the foreign language; (b) anxiety before the learning processes and situations of the foreign language, which causes performance anxiety and has its origin in the fear to fail in the foreign language classroom; (c) certainty in the use of the foreign language inside and outside the classroom, which reflects the student's comfort when using the English language; and (d) negative attitudes towards learning, which can be triggered by the use of a foreign language with which the students are not familiarized, the fear to receive negative feedback from teachers and classmates and a low self-esteem. The main purpose of FLCAS is to identify the three different types of anxiety implicated in foreign language learning (i.e., apprehension before the communication act, anxiety before the exams, and fear of the negative evaluation) (De la Morena et al., 2011). This instrument was chosen because it is the most widely used to measure anxiety implicated in foreign language learning in adolescents, in addition to showing proof of validity of its factor structure (i.e., principal component analysis) and adequate levels of reliability (i.e., internal consistency with coefficients ranging from 0.64 to 0.91 for the four dimensions) (De la Morena et al., 2011). Nevertheless, for the development of this educational research, due to the long extension of the scale, in order to adapt the measure to the developmental characteristics of the participants, we had to limit the number of items eventually included.

In this sense, a short version of only 21 items was used, including the items with higher factor loading. Furthermore, following the guidelines of the authors of the instrument (i.e., De la Morena et al., 2011; Horwitz et al., 1986), the responses corresponding to four items were reversed and recoded so that a high score represented high anxiety in all dimensions except for certainty in the use of the L2 dimension, in which one item was reversed so that a high score represented less anxiety. Likewise, in the sample of this study, the scale showed a Cronbach's alpha ( $\alpha$ ) between 0.63 and 0.83 for the four dimensions.

The Spanish version of CERQ (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018). Like the original version (Garnefski et al., 2001), it is a Likert scale consisting of 36 items with five response alternatives (i.e., 1 = *Almost never*, up to 5 = *Almost always*) grouped into nine scales or strategies of cognitive coping (Chamizo et al., 2020; Domínguez et al., 2011; Garnefski & Kraaij, 2007; Orgilés et al., 2018): (a) self-blame, which refers to thoughts of blaming yourself for what you have experienced; (b) other-blame, which refers to thoughts of blaming another person or the environment; (c) acceptance, which refers to thoughts of accepting the situation and resigning yourself; (d) rumination, which refers to thinking about the feelings and thoughts you have experienced because of the negative event; (e) positive refocusing, which refers to thinking about pleasant issues instead of thinking about the situation; (f) refocus on planning, which refers to thinking about the next steps to take in order to handle the situation; (g) positive reappraisal, which refers to giving a positive meaning to the situation in terms of personal growth; (h) putting into perspective, which refers to thoughts of leaving aside the seriousness of the situation or emphasizing its relativity when you compare it with other events; and (i) catastrophizing, which refers to thoughts of emphasizing the terror that you have experienced. The objective of the instrument is to measure the cognitive strategies that characterize the style of the individual when responding to stressful events, and it reveals an adequate level of reliability (i.e., internal consistency with coefficients ranging from 0.56 to 0.75 for the nine scales; test-retest coefficients ranging from 0.54 to 0.70 for the nine scales) and validity (i.e., confirmatory factor analysis with excellent goodness-of-fit indices that confirm its internal structure and convergent validity on depression and anxiety symptomatology). This information was obtained from the study of Orgilés et al. (2018), in which they validated the CERQ in a community sample of children in Spain. However, for the development of this research, a short version of 18 items was used, including on each scale just the two of the four items with the higher factor loadings, in order to adapt the measure to the developmental characteristics of the participants. Indeed, in this study, this short Spanish version of the CERQ yielded acceptable levels of internal consistency (i.e.,  $\alpha$  between 0.61 and 0.72 for the nine scales).

Sociodemographic information (i.e., age, gender, course, and group) was assessed by a self-reported measure comprising four items with multiple-choice and open-ended responses.

### 2.3. Design and procedure

An ex post facto methodological research design was adopted (Ato et al., 2013). The Spanish version of the FLCAS (De la Morena et al., 2011) and the Spanish version of the CERQ (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018) were administered to the sample during class time, in each one of the groups, once the required institutional

authorization had been secured. The administration was carried out on two different days by one of the members of the research team, together with the teacher-tutors of each group, in the first half of April 2022. On the first day, the instrument that was administered in the four groups was the Spanish version of FLCAS (De la Morena et al., 2011). The next day, the Spanish version of CERQ (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018) was administered. Before starting to complete each questionnaire, the instructions were read aloud by the researcher to solve any doubts that may arise, highlighting the fact that there were no correct or wrong answers. Those instructions were to read attentively each one of the items and to answer them with honesty. Furthermore, each student had to create a personal code with the initial of their first surname and the day of their birthday. That code would allow us to relate both questionnaires to each of the students since the questionnaires were answered anonymously. The whole procedure took approximately 25 minutes per day, and it was done by pen and paper format.

The research was carried out in accordance with the Declaration of Helsinki (World Medical Association, 2013).

#### **2.4. Data analysis**

A The initial analysis consisted of checking linearity, atypical, missing, and influential cases, and data distribution (i.e., Kolmogorov–Smirnov test). Descriptive statistics, including the mean and standard deviation, were calculated to analyze the data. In order to test our research hypotheses, non-parametric analyses were performed (i.e., Mann-Whitney U test).

Statistical analyses were carried out using Statistical Package for the Social Sciences 28.0 (IBM Corp., Armonk, NY, USA).

### **3. RESULTS**

The results of the initial analysis confirmed the absence of atypical, missing, and influential cases, and the Kolmogorov–Smirnov test did not yield a normal univariate distribution of the students' average scores on variables.

Likewise, the descriptive analysis of the dimensions of foreign language classroom anxiety variables regarding the bilingual and non-bilingual groups is presented in Table 1 in order to test the research hypotheses. The analyses indicate that there are significant differences in communicative apprehension, negative attitudes, and anxiety, with non-bilingual students showing the highest levels.

**Table 1.** Mean, Standard Deviation and Mann-Whitney U Test Results for Independent Samples of the Foreign Language Classroom Anxiety Variables

Variable / group	N	M	SD	U	p
Communicative apprehension					
Bilingual	133	2,85	0,83	5356	0,001
Non-Bilingual	129	3,31	0,66		
Negative Attitudes					
Bilingual	133	2,81	0,68	3866	0,001
Non-Bilingual	129	3,56	0,75		
Certainty					
Bilingual	133	2,96	0,77	8704	0,837
Non-Bilingual	129	2,93	0,60		
Anxiety					
Bilingual	133	3,04	0,77	4501	0,001
Non-Bilingual	129	3,66	0,70		

Note: M = Mean, SD = Standard deviation

Furthermore, statistically significant relationships were identified in the following cognitive emotional regulation strategies: self-blame, putting into perspective, and catastrophizing; in which non-bilingual students demonstrate higher levels.

**Table 2.** Mean, Standard Deviation and Mann-Whitney U Test Results Cognitive Emotional Regulation Strategies

B/NB	N	M	SD	U	p
Self-Blame					
Bilingual	133	2,89	1,22	4745	0,001
Non-Bilingual	129	3,69	0,71		
Acceptance					
Bilingual	133	3,46	0,95	7840	0,218
Non-Bilingual	129	3,58	0,64		
Rumiation					
Bilingual	133	3,31	1,18	7979	0,321
Non-Bilingual	129	3,55	0,05		
Positive Refocusing					
Bilingual	133	3,37	1,19	8136	0,465
Non-Bilingual	129	3,54	0,75		
Planification					
Bilingual	133	3,50	1,12	9145	0,348
Non-Bilingual	129	3,52	0,67		



Positive Reappraisal					
Bilingual	133	3,27	1,16	7881	0,248
Non-Bilingual	129	3,55	0,64		
Putting into Perspective					
Bilingual	133	3,37	1,04	7130	0,016
Non-Bilingual	129	3,61	0,70		
Catastrophizing					
Bilingual	133	2,76	1,10	5739	0,001
Non-Bilingual	129	3,45	0,89		
Other Blame					
Bilingual	133	1,90	1,14	9380	0,173
Non-Bilingual	129	1,72	0,88		

Note: *M* = Mean; *SD* = Standard deviation

#### 4. DISCUSSION AND CONCLUSIONS

The aim of this study was to identify the existent levels of foreign language learning anxiety in a sample of primary education students of two different schools (bilingual and non-bilingual) and to determine which cognitive emotion regulation strategies these students would use in a hypothetical stressful situation experienced in the foreign language classroom. In general, anxiety in foreign language classrooms has been extensively researched (Arnaiz & Guillén, 2012; Crookall & Oxford, 1991; Hashemi, 2011; Tanveer, 2007), highlighting its significance and impact on learners in this domain.

The results show statistically significant differences in three out of the four foreign language classroom anxiety dimensions between bilingual and non-bilingual groups of students. The findings indicate that non-bilingual students tend to experience higher levels of communicative apprehension, negative attitudes towards learning, and anxiety before the learning processes and situations of the foreign language than their bilingual counterparts, and thus, hypothesis 1 could be partially accepted. In this sense, bilingual students' certainty in the use of the foreign language inside and outside the classroom seems to be similar to that of non-bilingual students. In fact, the results yield low levels of bilingual and non-bilingual students' comfort when using the English language, which may be determined by their English level (i.e., basic users of the language). However, bilingual students seem to have fewer negative attitudes towards learning English than non-bilingual students, as well as lower anxiety-related physiological reactions to English learning processes and situations, which may be the result of longer exposure to the foreign language, as stated in the specialized literature. For example, in the study of Liu (2006), in China with five hundred and forty-seven first-year undergraduate non-English majors (430 male and 117 female), the students with higher exposure to the English language (in this sample, it referred to those students who were taking English classes outside the educational institution) were less likely to feel anxiety.

The study also reveals significant differences in cognitive emotional regulation strategies used by the two groups. Non-bilingual students demonstrate higher levels of self-blame, putting into perspective, and catastrophizing than bilingual students, which means that, in general, non-bilingual students use more cognitive emotional regulation strategies than bilingual students, and therefore, hypothesis 2 should be rejected.

These findings may have important implications for foreign language teaching practices. Teachers and educators can use these results to develop targeted interventions and teaching strategies to address anxiety-related issues in the classroom. To this aim, the proposals included in the research of Silva (2005) can be very useful, since they are strategies, methodologies, and advice whose purpose is to fight against foreign language anxiety. Tsui (1996, cited in Silva, 2005) proposed: (a) to make the students write their answers before saying them out loud, so they have enough time for reflection; (b) to ask questions with more than one correct answer, so participation and security of response will be higher; and (c) to allow students to compare and debate their answers before sharing them with the rest of the class, so they feel more confident. Furthermore, Ortega (2002, cited in Silva, 2005) proposed the following guidelines to reduce the effects of anxiety: (a) to avoid the tendency of constantly correcting the students because the student may stop talking because of the fear of making mistakes; (b) to encourage group work in order to avoid the feeling of being evaluated (pairing the students according to their cognitive level); (c) to carry out presentation activities; and (d) to eliminate the surprise factor as much as possible so the students have enough time to prepare themselves. Finally, Silva (2005) also proposes the use of songs since music is a rich source of motivation, although the topics of the songs should be within the students' interests. Moreover, in line with the proposal of encouraging group work, the study of Nagahashi (2007) suggests the effectiveness of using structured cooperative learning activities for reducing language anxiety since they provide a supportive environment that is optimal for the development of language skills. Particularly, cooperative activities help to reduce communicative apprehension because the students can develop oral skills in small groups.

In order to improve the cognitive emotion regulation of the students, it is important to consider the development of a specific training program on the use of adaptive cognitive strategies instead of less adaptive ones, and students should know the importance of (Rudolph et al., 2007): (a) accepting the situation; (b) being able to get something positive from it; (c) planning an efficient way to face the situation; (d) thinking of other things instead of what has happened; and (e) being able to put things in perspective. In this way, students should also avoid: (a) blaming themselves for what has happened; (b) constantly thinking about the situation; (c) having catastrophic thoughts; and (d) blaming others for what has happened.

Finally, this educational research has several limitations that should be taken into consideration, and the results obtained should be approached with caution. The first one was the existence of differences between both schools (i.e., different cities and different locations in those cities). The second was the use of shorter versions of the instruments. Therefore, in view of future research, it would be reasonable to increase the settings, to choose schools with similar features, to use the entire versions of the instruments, and to carry out other statistical analyses between both variables (e.g., correlation).

In sum, our findings are generally consistent with previous research, and we can state that the information provided by this study could be used to improve the quality of the English teaching in bilingual schools and particularly in the non-bilingual schools.

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# Anxiety and use of cognitive emotion regulation strategies within the foreign language classroom

PATRICIA AYLLÓN-SALAS

ALICIA OLMO-ESPINOSA

FRANCISCO D. FERNÁNDEZ-MARTÍN

*Universidad de Granada*

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**ABSTRACT:** The aims of this study were to identify the existent levels of foreign language learning anxiety in students of the sixth grade of Primary Education of different bilingual and non-bilingual schools, and to determine which cognitive emotion regulation strategies these students would use in a hypothetical stressful situation. For this purpose, anxiety in Foreign Language Class and cognitive emotion regulation strategies were measured to the students ( $n = 262$ ). The descriptive analysis of the obtained results led to the following conclusions: the levels of anxiety were higher in the non-bilingual sample; however, these students made more use of cognitive emotion regulation strategies.

**Keywords:** English foreign language; anxiety; cognitive emotion regulation; adaptive strategies; Primary Education.

## La ansiedad y el uso de estrategias cognitivas de regulación emocional en el aula de lengua extranjera

**RESUMEN:** Los objetivos de este estudio fueron identificar los niveles existentes de ansiedad en el aprendizaje de lenguas extranjeras en alumnos de sexto curso de Educación Primaria de diferentes colegios bilingües y no bilingües, y determinar qué estrategias cognitivas de regulación de emociones utilizarían estos alumnos en una hipotética situación estresante. Para ello, se midió la ansiedad en clase de Lengua Extranjera y las estrategias cognitivas de regulación de la emoción a los alumnos ( $n = 262$ ). El análisis descriptivo de los resultados obtenidos permitió llegar a las siguientes conclusiones: los niveles de ansiedad eran más elevados en la muestra no bilingüe; sin embargo, estos alumnos hacían un mayor uso de las estrategias cognitivas de regulación de la emoción.

**Palabras clave:** Lengua extranjera; ansiedad; regulación cognitiva de las emociones; estrategias adaptativas; Educación Primaria

## 1. INTRODUCTION

Second language researchers and theorists have long been aware that anxiety is associated with language learning (Horwitz et al., 1986). This type of anxiety, commonly known as language anxiety, was first defined by MacIntyre and Gardner (1994) as “the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning” (p. 284). One important classification of anxiety is the

following (Spielberger & Vagg, 1995): trait anxiety, state anxiety, and situational anxiety. The first would be characteristic of the individual's personality, while the other two would be responses to specific stimuli. In this sense, Horwitz et al. (1986) identified foreign language anxiety as a type of situational anxiety since they considered that foreign language learning can be a stressful experience for those students who show no predisposition towards it (De La Morena et al., 2011).

In accordance with the idea of foreign language learning as a stressful situation, teachers and students generally feel that anxiety is a frequent and serious obstacle (Horwitz et al., 1986), and that is the reason why anxiety on language acquisition has been the central focus of research for about three decades. Many researchers have been focused on studying the effects of anxiety on language acquisition, while others have attempted to identify its causal factors (Liu & Chen, 2014). According to Young (1991), some manifestations of foreign language anxiety could be nervous laughter, avoidance of eye contact, short answers, avoiding participation in class activities, coming unprepared to class, acting indifferent, avoiding speaking, crouching in the last row, etc. Furthermore, several studies have revealed that foreign language learning anxiety is predominantly debilitating, so those students with high levels of anxiety not only have poor performance, but they also show a low tendency to speak and participate, and when they do, it is in an inaudible manner (Liu & Huang, 2011).

Therefore, it seems that anxiety can have serious effects on many aspects of foreign language learning, so it is important to be able to identify those students who are particularly anxious during foreign language classes (Horwitz et al., 1986). In fact, with reference to possible causal factors of language anxiety, it should be pointed out the six potential sources proposed by Young (1991): "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" (p. 427). From all these sources, personal and interpersonal anxieties are the most cited and discussed, specifically low self-esteem and competitiveness (Young, 1991). Talking about instructors' beliefs about language teaching also encompasses their reaction to errors and the way they create a stressful environment in the class, since these factors have been reported to be significantly related to foreign language anxiety (Tanveer, 2007).

In line with these studies, Liu (2006) investigated the anxiety levels of undergraduate Chinese students at three different proficiency levels, and this study revealed that: (a) a considerable number of students at each level felt anxious when speaking English in class; (b) the more proficient students tended to be less anxious; (c) the students felt the most anxious when they responded to the teacher or were singled out to speak English in class; they felt the least anxious during pair work; and (d) with increasing exposure to oral English, the students felt less and less anxious about using the target language in speech communication.

In order for the teachers to deal with anxious students, Horwitz et al. (1986) proposed two different options. The first one was to help those students cope with the situation that provokes that anxiety, and the second one was to make the context less stressful through recent approaches that are explicitly directed at reducing learner anxiety, such as community language learning and suggestopedia (Horwitz et al., 1986). However, what really matters is to consider the possibility that anxiety may be responsible for the student's poor performance.

One of the most widely used instruments for measuring foreign language anxiety is the Foreign Language Class Anxiety Scale (FLCAS) (Horwitz et al., 1986), since it presents satisfactory levels of validity and consistency (Argaman & Abu-Rabia 2002), as well as the Spanish version of FLCAS (De la Morena et al., 2011). The administration of this instrument provides information about the levels of foreign language learning anxiety of the students but not about the coping strategies used by them to face those stressful situations. According to Folkman and Moskowitz (2004) coping can be defined “as the thoughts and behaviors used to manage the internal and external demands of situations that are appraised as stressful” (p. 745). It is also important to consider that coping is not a stand-alone phenomenon but is part of a complex process that involves the person, the environment, and the relationship between them (Folkman & Moskowitz, 2004).

In order to achieve complete coping effectiveness, it is necessary to consider the features of the context and the fit between those features and various types of coping. The most frequently assessed dimension of the context is the opportunity for personal control or changeability (Folkman & Moskowitz, 2004). Therefore, people who choose coping strategies that fit the changeability of a task will have better outcomes than people who do not (Folkman & Moskowitz, 2004).

One of the earlier nomenclatures proposed by Folkman and Lazarus (1980) distinguished two functions of coping: “the management or alteration of the person-environment relationship that is the source of the stress (problem-focused coping) and the regulation of stressful emotions (emotion-focused coping)” (p. 223). Some examples of problem-focused coping strategies are making a plan of action or concentrating on the next step, while some examples of emotion-focused coping strategies are engaging in distracting activities, using alcohol or drugs, or seeking emotional support (Folkman & Moskowitz, 2004). Besides the distinction between problem-focused coping and emotion-focused coping, several investigators identified another type of coping, which is meaning-focused coping, and it involves managing the meaning of the situation (Folkman & Moskowitz, 2004). Some examples of meaning-focused coping strategies are positive comparisons and selective ignoring (Folkman & Moskowitz, 2004).

Traditionally, research on affect and health has focused on stress and coping processes. Thanks to the cognitive revolution in Psychology, there was a shift from the stimulus-response models to the stimulus-organism-response models (DeSteno et al., 2013). Consequently, Lazarus (1993) proposed the inclusion of the concept of stress within the concept of emotion, leading to the use of ‘emotion regulation’ concept instead of ‘coping’, as it is a much broader concept, and it includes all the processes by which emotions are regulated. Therefore, all coping strategies came under the broad definition of emotion regulation (Garnefski et al., 2001), which is defined by Thompson (1994) as “the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one’s goals” (pp. 27-28).

According to DeSteno et al. (2013), emotion-regulatory processes can be divided into five types: (a) situation selection, which involves acting to increase the probability of being in a situation we expect would give rise to the emotions that we would like to have; (b) situation modification, which means modifying the physical environment to alter one’s emotional responses to that environment; (c) attentional deployment, which refers to influencing

our emotional response by redirecting the attention within a given situation; (d) cognitive change, which involves changing one or more of the judgements that give rise to different emotions; and (e) response modulation, which refers to influencing directly the physiological, experiential or behavioral responses once an emotional response has been generated. Nevertheless, in this educational research report, the terms ‘cognitive coping’ and ‘cognitive emotion regulation’ will be used interchangeably, since both can be understood as the cognitive way of managing the emotional information of the situation (Garnefski et al., 2001).

As for the traditional coping model (Lazarus & Folkman, 1984), it considers indistinctly both cognitive coping strategies and behavioral ones, so the measurement instruments that were designed in accordance with this model provide data reflecting the combined effects of the two types of strategies (cognitive and behavioral), but not of each one separately. Fortunately, this limitation is overcome in the cognitive emotional regulation model, in which cognitive factors are conceptualized and measured independently of behavioral ones, since it is based on the assumption that thinking and acting are different processes (Domínguez et al., 2011).

About 20 years ago, there were no instruments available for measuring the cognitive components of emotion regulation in adolescents and adults (Garnefski & Kraaij, 2007). That is why, in 2001, the Cognitive Emotion Regulation Questionnaire (CERQ) was developed. CERQ evaluates nine strategies of cognitive coping, which can be grouped into two other categories: adaptive strategies and less adaptive strategies (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018). As demonstrated by the study of Omran (2011) in an Iranian students’ sample, most less adaptive strategies (i.e., rumination, catastrophizing, and self-blame) were related to high levels of anxiety and depression, while most adaptive strategies (i.e., refocusing, positive reappraisal, and refocus on planning) were related to lower levels of anxiety and depression.

Different studies have demonstrated the correlation between language proficiency and anxiety levels. Arnaiz and Guillén (2012) studied the individual differences in the foreign language anxiety of university students, and the statistical analyses revealed that those students who had a lower proficiency level shown higher anxiety levels. These results were consistent with those of Garner et al. (1997), since they found that the higher the experience and proficiency, the lower the anxiety levels.

Therefore, it has been demonstrated how important is being aware of the levels of foreign language anxiety of the students, as well as the strategies they use to face those situations in which they feel in that way. According to Crookall and Oxford (1991) high levels of linguistic anxiety can cause other problems associated with self-esteem, self-confidence, and the ability to take risks. So, language anxiety is not implicated just in the student’s performance in the foreign language, but also in their own personality.

One research analyzed the relationship between cognitive emotion regulation strategies and anxiety in adults with autism spectrum disorder. In this regard, there were significant correlations between them. This study found a positive correlation between the maladaptive cognitive regulation strategies of rumination, other blame, catastrophizing, and self-blame. However, none of the adaptative cognitive regulation strategies were negatively correlated with anxiety. On another note, only self-blame, catastrophizing and acceptance were predictors of anxiety symptoms (Bruggink et al., 2016).



The purposes of this study were, on the one hand, to identify the existent levels of foreign language learning anxiety in a primary education students' sample from two different schools (bilingual and non-bilingual), and, on the other hand, to determine which cognitive emotion regulation strategies students are used by students in the foreign language classroom. In accordance with these aims, the following hypotheses were established: (a) the participants from the bilingual school will show lower levels of foreign language learning anxiety; and (b) the participants from the bilingual school will choose more adaptive cognitive coping strategies than those of the non-bilingual school.

## 2. METHOD

### 2.1. Participants

A total of 262 primary school students from the province of Granada (Spain), aged between 11 and 13 years, participated in this study. Eight public schools from Granada participated in the study, four were bilingual schools and four were non-bilingual schools. Non-bilingual schools had 129 students compared to the 133 in bilingual schools. Furthermore, 112 participants were males, and the other 150 were females.

The sample was selected using a non-probability technique, following a convenience sampling method (Kalton, 2020).

### 2.2. Materials

The Spanish version of FLCAS (De la Morena et al., 2011). Just like the original version (Horwitz et al., 1986), this is a Likert-type scale made up of 33 items estimated between one point (*Strongly disagree*) and five points (*Strongly agree*) grouped into four different dimensions (De la Morena et al., 2011): (a) communicative apprehension, which indicates shyness, anxiety and corporal reactions when speaking in the foreign language; (b) anxiety before the learning processes and situations of the foreign language, which causes performance anxiety and has its origin in the fear to fail in the foreign language classroom; (c) certainty in the use of the foreign language inside and outside the classroom, which reflects the student's comfort when using the English language; and (d) negative attitudes towards learning, which can be triggered by the use of a foreign language with which the students are not familiarized, the fear to receive negative feedback from teachers and classmates and a low self-esteem. The main purpose of FLCAS is to identify the three different types of anxiety implicated in foreign language learning (i.e., apprehension before the communication act, anxiety before the exams, and fear of the negative evaluation) (De la Morena et al., 2011). This instrument was chosen because it is the most widely used to measure anxiety implicated in foreign language learning in adolescents, in addition to showing proof of validity of its factor structure (i.e., principal component analysis) and adequate levels of reliability (i.e., internal consistency with coefficients ranging from 0.64 to 0.91 for the four dimensions) (De la Morena et al., 2011). Nevertheless, for the development of this educational research, due to the long extension of the scale, in order to adapt the measure to the developmental characteristics of the participants, we had to limit the number of items eventually included.

In this sense, a short version of only 21 items was used, including the items with higher factor loading. Furthermore, following the guidelines of the authors of the instrument (i.e., De la Morena et al., 2011; Horwitz et al., 1986), the responses corresponding to four items were reversed and recoded so that a high score represented high anxiety in all dimensions except for certainty in the use of the L2 dimension, in which one item was reversed so that a high score represented less anxiety. Likewise, in the sample of this study, the scale showed a Cronbach's alpha ( $\alpha$ ) between 0.63 and 0.83 for the four dimensions.

The Spanish version of CERQ (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018). Like the original version (Garnefski et al., 2001), it is a Likert scale consisting of 36 items with five response alternatives (i.e., 1 = *Almost never*, up to 5 = *Almost always*) grouped into nine scales or strategies of cognitive coping (Chamizo et al., 2020; Domínguez et al., 2011; Garnefski & Kraaij, 2007; Orgilés et al., 2018): (a) self-blame, which refers to thoughts of blaming yourself for what you have experienced; (b) other-blame, which refers to thoughts of blaming another person or the environment; (c) acceptance, which refers to thoughts of accepting the situation and resigning yourself; (d) rumination, which refers to thinking about the feelings and thoughts you have experienced because of the negative event; (e) positive refocusing, which refers to thinking about pleasant issues instead of thinking about the situation; (f) refocus on planning, which refers to thinking about the next steps to take in order to handle the situation; (g) positive reappraisal, which refers to giving a positive meaning to the situation in terms of personal growth; (h) putting into perspective, which refers to thoughts of leaving aside the seriousness of the situation or emphasizing its relativity when you compare it with other events; and (i) catastrophizing, which refers to thoughts of emphasizing the terror that you have experienced. The objective of the instrument is to measure the cognitive strategies that characterize the style of the individual when responding to stressful events, and it reveals an adequate level of reliability (i.e., internal consistency with coefficients ranging from 0.56 to 0.75 for the nine scales; test-retest coefficients ranging from 0.54 to 0.70 for the nine scales) and validity (i.e., confirmatory factor analysis with excellent goodness-of-fit indices that confirm its internal structure and convergent validity on depression and anxiety symptomatology). This information was obtained from the study of Orgilés et al. (2018), in which they validated the CERQ in a community sample of children in Spain. However, for the development of this research, a short version of 18 items was used, including on each scale just the two of the four items with the higher factor loadings, in order to adapt the measure to the developmental characteristics of the participants. Indeed, in this study, this short Spanish version of the CERQ yielded acceptable levels of internal consistency (i.e.,  $\alpha$  between 0.61 and 0.72 for the nine scales).

Sociodemographic information (i.e., age, gender, course, and group) was assessed by a self-reported measure comprising four items with multiple-choice and open-ended responses.

### 2.3. Design and procedure

An ex post facto methodological research design was adopted (Ato et al., 2013). The Spanish version of the FLCAS (De la Morena et al., 2011) and the Spanish version of the CERQ (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018) were administered to the sample during class time, in each one of the groups, once the required institutional

authorization had been secured. The administration was carried out on two different days by one of the members of the research team, together with the teacher-tutors of each group, in the first half of April 2022. On the first day, the instrument that was administered in the four groups was the Spanish version of FLCAS (De la Morena et al., 2011). The next day, the Spanish version of CERQ (Chamizo et al., 2020; Domínguez et al., 2011; Orgilés et al., 2018) was administered. Before starting to complete each questionnaire, the instructions were read aloud by the researcher to solve any doubts that may arise, highlighting the fact that there were no correct or wrong answers. Those instructions were to read attentively each one of the items and to answer them with honesty. Furthermore, each student had to create a personal code with the initial of their first surname and the day of their birthday. That code would allow us to relate both questionnaires to each of the students since the questionnaires were answered anonymously. The whole procedure took approximately 25 minutes per day, and it was done by pen and paper format.

The research was carried out in accordance with the Declaration of Helsinki (World Medical Association, 2013).

#### **2.4. Data analysis**

A The initial analysis consisted of checking linearity, atypical, missing, and influential cases, and data distribution (i.e., Kolmogorov–Smirnov test). Descriptive statistics, including the mean and standard deviation, were calculated to analyze the data. In order to test our research hypotheses, non-parametric analyses were performed (i.e., Mann-Whitney U test).

Statistical analyses were carried out using Statistical Package for the Social Sciences 28.0 (IBM Corp., Armonk, NY, USA).

### **3. RESULTS**

The results of the initial analysis confirmed the absence of atypical, missing, and influential cases, and the Kolmogorov–Smirnov test did not yield a normal univariate distribution of the students' average scores on variables.

Likewise, the descriptive analysis of the dimensions of foreign language classroom anxiety variables regarding the bilingual and non-bilingual groups is presented in Table 1 in order to test the research hypotheses. The analyses indicate that there are significant differences in communicative apprehension, negative attitudes, and anxiety, with non-bilingual students showing the highest levels.

**Table 1.** Mean, Standard Deviation and Mann-Whitney U Test Results for Independent Samples of the Foreign Language Classroom Anxiety Variables

Variable / group	N	M	SD	U	p
Communicative apprehension					
Bilingual	133	2,85	0,83	5356	0,001
Non-Bilingual	129	3,31	0,66		
Negative Attitudes					
Bilingual	133	2,81	0,68	3866	0,001
Non-Bilingual	129	3,56	0,75		
Certainty					
Bilingual	133	2,96	0,77	8704	0,837
Non-Bilingual	129	2,93	0,60		
Anxiety					
Bilingual	133	3,04	0,77	4501	0,001
Non-Bilingual	129	3,66	0,70		

Note: M = Mean, SD = Standard deviation

Furthermore, statistically significant relationships were identified in the following cognitive emotional regulation strategies: self-blame, putting into perspective, and catastrophizing; in which non-bilingual students demonstrate higher levels.

**Table 2.** Mean, Standard Deviation and Mann-Whitney U Test Results Cognitive Emotional Regulation Strategies

B/NB	N	M	SD	U	p
Self-Blame					
Bilingual	133	2,89	1,22	4745	0,001
Non-Bilingual	129	3,69	0,71		
Acceptance					
Bilingual	133	3,46	0,95	7840	0,218
Non-Bilingual	129	3,58	0,64		
Rumiation					
Bilingual	133	3,31	1,18	7979	0,321
Non-Bilingual	129	3,55	0,05		
Positive Refocusing					
Bilingual	133	3,37	1,19	8136	0,465
Non-Bilingual	129	3,54	0,75		
Planification					
Bilingual	133	3,50	1,12	9145	0,348
Non-Bilingual	129	3,52	0,67		

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