Examining Feelings of Anxiety Experienced by Secondary Students in L2 Evaluative Situations

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The main purpose of this study is to examine the potential impact of self-reported test anxiety on L2 academic achievement. The study sample consisted of eighty-five students from ten different state secondary schools in Majorca. Data were collected using the Spanish version of the Cognitive Test Anxiety Scale (CTAS). The results show that participants suffer from moderate to high test self-reported anxiety levels, regardless of actual academic English proficiency. The findings reveal a significant effect of participants' self-reported English proficiency on both general test anxiety, and test anxiety directly related to a high-stakes English test (the Spanish University Entrance Examination, SUEE), suggesting that self-perception of proficiency is a stronger predictor of test anxiety than actual academic grades. Additionally, a significant relationship between gender and self-reported test anxiety on the high-stakes English test was found, which indicates that female students tend to perceive certain exam situations as more personally threatening than males. In contrast, school setting (urban versus suburban) was not directly related to test anxiety.

Keywords: cognitive test anxiety; academic achievement; English as an L2; Spanish upper secondary students; high-stakes tests

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El análisis de los sentimientos de ansiedad experimentados por el alumnado de secundaria en situaciones evaluativas de aprendizaje de la L2

El objetivo principal de este estudio es examinar el impacto potencial de la ansiedad ante los exámenes en el rendimiento académico en la L2. La muestra consistió en ochenta y cinco estudiantes de diez centros de enseñanza secundaria públicos de Mallorca. Los datos se recogieron utilizando la versión española de la Escala de Ansiedad Cognitiva. Los resultados indican que los participantes sufren niveles moderados y altos de ansiedad ante los exámenes, independientemente de su nivel académico de inglés. Se señala, además, un efecto significativo de la percepción del dominio del inglés de los participantes, tanto en el constructo de ansiedad general ante los exámenes como en la ansiedad específica ante los exámenes relacionados con una prueba de inglés estandarizada (EBAU), lo que sugiere que la autopercepción del dominio lingüístico es un mejor predictor de la ansiedad ante los exámenes que las calificaciones académicas reales. Asimismo, se encontró una relación significativa entre el género y la ansiedad ante los exámenes de inglés estandarizados, lo cual indica que las mujeres tienden a percibir ciertas situaciones evaluativas como personalmente más amenazantes que los hombres. Por el contrario, el entorno escolar (urbano versus suburbano) no mostró relación directa con la ansiedad ante los exámenes.

Palabras clave: ansiedad cognitiva ante los exámenes; rendimiento académico; inglés como L2; estudiantes españoles de secundaria superior; exámenes de gran impacto

1. Introduction

Among the various types of anxiety related to L2 classroom environments, test anxiety has steadily gained recognition due to the ever-increasing role that language tests play in educational policies worldwide. *Test anxiety* can be defined as a group of phenomenological, physiological and behavioural reactions associated with the potential negative consequences or expectations related to anticipated performance on an exam or a test (Zeidner 1998; Zeidner and Matthews 2005). Although test anxiety has been approached from different perspectives, it has generally been conceived as a bi-dimensional construct composed of two main cognitive and affective components, namely, *worry* and *emotionality* (Liebert and Morris 1967; Zeidner 1998; Chapell et al. 2005). *Worry* describes the cognitive dimension of testing anxiety and refers to test-takers' concerns and negative thoughts and expectations associated with the testing situation (Hembree 1988), which may result in the creation of irrelevant thoughts, lack of concentration and decreased attention and working memory (Eysenck 2001; Hong and Karstensson 2002; Keoghi et al. 2004; Eysenck et al. 2007). The affective component, or *emotionality*, refers to the physiological reactions to testing situations, such as nervousness, dizziness, shortness of breath or general physical discomfort (Liebert and Morris 1967; Hembree 1988; Hancock 2001; Cassady and Johnson 2002; Oludipe 2009). Both components of test anxiety are reported to adversely affect academic performance (Cassady and Johnson 2002; Keoghi et al. 2004; Zeidner 2007; Goetz et al. 2008). Nevertheless, the cognitive dimension specifically has been found to play a major detrimental role in L2 academic achievement, both at undergraduate and graduate levels (Liebert and Morris 1967; Williams 1991; Bandalos et al. 1995; Sapp et al. 1995; McCraty 2007; Zeidner 2007; Goetz et al. 2008). According to the cognitive interference model (Sarason 1975), students with high test anxiety are likely to experience intruding or competing thoughts during test performance, which interferes with their task effectiveness and leads them to score poorly in test situations. Research on information processing has also identified a number of cognitive operations (i.e. poor information retrieval skills or ineffective storage of content) that hamper information processing and conceptual knowledge. Thus, although several studies highlight the fact that a certain amount of test anxiety might be beneficial (i.e. facilitating anxiety; see Simpson et al. 1995), most authors believe that test anxiety usually has an adverse effect on L2 development and test performance (Naveh-Benjamin et al. 1987; Schwarzer and Jerusalem 1992; Kleijn et al. 1994; Cassady and Johnson 2002). This latter type of debilitating anxiety is thought to inhibit learners' response capacity and cause them to abandon risky learning activities which are directly linked to the source of anxiety (Seipp 1991; Simpson et al. 1995; Horwitz 2000, 2001; Gregersen 2003; Sheen 2008; Khalid and Hasan 2009; Joy 2013).

The traditional distinction between *state anxiety* (i.e. a situation-specific form of anxiety) and *trait anxiety* (i.e. an individual's general anxiety response) has also been used in terms of the test anxiety construct (Spielberger 1972a). In fact, advocates of

the additive model of test anxiety (see Zohar 1998) point out that test anxiety is a combination of these two main aspects: state anxiety and trait anxiety, both of which individually have a detrimental effect on students' academic performance (Spielberger 1972a). Research indicates that students with high test anxiety are likely to show concern about not being adequately prepared for the test (Schwarzer and Jerusalem 1992; Kurosawa and Harackiewicz 1995), and to experience low self-confidence. Evaluative contexts also seem to be perceived as major threatening environments by individuals with high anxiety levels, and this affects all stages of information processing and test performance (Spielberger and Vagg 1995; Gutiérrez-Calvo 1996; Zohar 1998; Önem 2010). In contrast, students with high self-confidence are reportedly able to manage test anxiety more effectively than those with low self-confidence and to obtain higher test grades (Horwitz et al. 1991a; Greenberg et al. 1992; Schwarzer and Jerusalem 1992; Aida 1994; Zohar 1998; Segool et al. 2014).

Multidimensional models of test anxiety have added further dimensions to the two-factor model (i.e. *worry* and *emotionality*) of test anxiety. Hodapp (1995), for example, distinguished between four main components of test anxiety: a) worry; b) emotionality; c) interference; and d) lack of confidence. Additionally, Sarason (1984) provided a new reconceptualization of the construct of test anxiety including the Reactions to Tests (RTT) scale, which contains four main dimensions: a) tension; b) bodily symptoms; c) irrelevant thinking; and d) worry. Nevertheless, several research findings suggest that most multidimensional scales show high degrees of inter-correlation among the different subscales (Sarason 1986; Cassady and Johnson 2002; Furlan et al. 2009).

As regards gender-related differences associated with test anxiety, female students have been consistently found to suffer from higher levels of test anxiety than their male counterparts (Zeidner 1990; Cassady and Johnson 2002; Chapell et al. 2005; Furlan et al. 2009; Putwain and Daly 2014; Bozkurt et al. 2017). One of the reasons for these differences has been attributed to higher levels of *emotionality* among females, although female participants are also reported to experience higher levels of cognitive test anxiety (Hembree 1988; Furlan et al. 2009). Other researchers point to females' lower academic achievement compared to males as a possible source of gender differences related to test anxiety (Zeidner 1990). However, the evidence indicates that females usually obtain better scores in examinations than males (Hembree 1988; Steinberg 1996; Chapell et al. 2005; Karatas et al. 2013). A third reason for gender differences in test anxiety pointed out by Cassady and Johnson (2002, 274-75) refers to learners' perceptions of threat in exam environments. Apparently, females are likely to perceive testing situations as more personally threatening than males, which leads them to experience higher cognitive interference (Schwarzer and Jerusalem 1992; Putwain and Daly 2014). A final proposed explanation for gender differences in test anxiety is that males appear to show more reluctance to admit to anxiety than females in order to avoid failing to fulfill certain gender expectations typically associated with their masculinity (Núñez-Peña et al. 2016).

Researchers have also examined the relationship between test anxiety and perceived test importance, showing that high-stakes tests, whose results may have serious consequences for students' future academic opportunities, are associated with higher degrees of test anxiety than ordinary classroom tests, or low-stakes tests (In'nami 2006; Segool et al. 2013). Additionally, some evidence suggests that contextual factors, such as school setting, may also be directly related to test anxiety. In this respect, several studies have found that urban schools are likely to be under more pressure to meet certain achievement goals, and high-stakes testing standards, than suburban schools, resulting in increased levels of test anxiety among urban students (Putwain 2007, 2008a; Goetz et al. 2008; von der Embse and Hasson 2012).

In light of the existing research, it is clear that test anxiety plays an undeniable role in students' test performance and academic success. Since research consistently points to the cognitive dimension of test anxiety as the most reliable predictor of lower academic achievement (Everson et al. 1994; Goetz et al. 2008; Derakshan and Eysenck 2009; Cassady 2010a), this study focuses exclusively on measuring the cognitive aspect test anxiety using Cassady and Johnson's (2002) *Cognitive Test Anxiety Scale* (CTAS). The CTAS combines Liebert and Morris's (1967) cognitive component (*worry*) and some dimensions of *emotionality* (i.e. bodily symptoms) included in Sarason's (1984) *Reaction to Tests* (RTT), in a single one-dimensional cognitive test anxiety construct. The CTAS has been cross-culturally validated as a reliable tool for measuring cognitive test anxiety across all stages (pre-, during-, and post-) of the evaluative situation (Cassady and Johnson 2002; Cassady 2004; Chen 2007; Furlan et al. 2009; Baghaei and Cassady 2014; Bozkurt et al. 2017).

The main goal of the present study is to explore both L2 students' general cognitive test anxiety and test anxiety specifically linked to a high-stakes English test which forms part of the *Spanish University Entrance Examination* (SUEE). The English test in the SUEE is a high-stakes norm-referenced test that enables upper secondary students to enter higher education in Spain. The important consequences stemming from SUEE results, such as being denied admission to specific university programmes, are likely to put a great amount of pressure on secondary school students, who tend to suffer from considerable levels of anxiety during test preparation and test performance. In fact, the English Test in the SUEE has been shown to have a negative impact, or washback effect (Hughes 1989), on the classroom (Amengual-Pizarro 2009), supporting research findings that point to the close relationship between exam stakes and test anxiety levels (Casbarro 2004; Zeidner and Matthews 2005; Putwain 2008a; von der Embse and Hasson 2012; Wood et al. 2016).

Because of the growing importance of standardized tests to measure educational attainment, and to demonstrate accountability in today's competitive society, it is critical to carefully examine the different variables that may affect students' test anxiety so as to be able to minimize the influence of construct-irrelevant aspects associated with L2 proficiency tests.

To this end, this study posed the following research questions:

RQ1: What is the degree of cognitive test anxiety experienced by Spanish secondary school students?

RQ2: Is there any relationship between students' cognitive test anxiety and their academic achievement?

RQ3: Is cognitive test anxiety influenced by the high-stakes nature of the SUEE English test?

RQ4: Are there any significant differences in students' cognitive test anxiety as a function of gender?

RQ5: Are there any significant differences in students' cognitive test anxiety across school setting (urban versus suburban)?

2. METHOD

2.1. Participants

The participants in this study were all volunteers from four urban (N = 39) and six suburban (N = 46) state secondary schools in Majorca (Balearic Islands, Spain). Participants were all senior secondary students studying English as an L2. There were forty-six females and thirty-nine males, with 97.6% of the participants being between seventeen and eighteen years of age, and 2.4% of them being between nineteen and twenty years old. All participants involved in the study were in their final year of secondary schooling and were preparing for the high-stakes English test in the SUEE.

2.2. Instrument and Data Collection

Data for this study were collected by means of a questionnaire which included four main sections. The first section asked for participants' demographic information (i.e. age, gender, mother tongue, official English certificates) as well as information on their average English course grades. The second section contained the Spanish version of the CTAS (Cassady and Johnson 2002) developed by Furlan et al. (2009). The *Spanish Cognitive Test Anxiety Scale* (S-CTAS) is a shortened version of the original CTAS that has been shown to provide reliable and valid measurements of cognitive test anxiety. As with the original CTAS (Cassady and Johnson 2002), the model includes cognitive (i.e. *worry*) as well as *emotionality* components (Sarason 1984). However, the S-CTAS also supports the conceptualization of cognitive test anxiety as a single-factor construct, since all the different subcomponents are a strong fit with the one-dimensional cognitive test anxiety model (Furlan et al. 2009). The S-CTAS consists of sixteen positively phrased items rated on a four-point Likert-type scale ranging from 'not at all typical of me' to 'very typical of me.' The range of possible scores is from 16 to 64. In all instances, high scores are indicators of high levels of cognitive test anxiety. The third section of the questionnaire asked participants to rate their self-perceived level of English proficiency

on a five-point Likert scale (from 1 = very poor to 5 = excellent). Finally, the last section of the questionnaire required respondents to rate their perceived level of anxiety and self-confidence associated with the high-stakes SUEE English exam.

Since the original S-CTAS was created for use with Argentinian Spanish students (Furlan et al. 2009), the sixteen items of the scale were reviewed by a Castilian Spanish speaker working in the Spanish Department at the Universitat de les Illes Balears (UIB), in order to adapt them to the linguistic and cultural characteristics of Castilian Spanish students. The Castilian Spanish version of the scale was piloted with a small sample of ten secondary school students to check face and content validity. The study data were collected by the researchers between March and April 2019. Volunteers completed the questionnaire individually in approximately twenty-five to thirty-five minutes during their regular classroom lessons. The partial completion of the questionnaire by three respondents reduced the S-CTAS sample size from eighty-five to eighty-two participants. The *Statistical Package for the Social Sciences* (SPSS) 22.0 was used to carry out statistical analysis. The Cronbach's alpha coefficient for the 16-item S-CTAS in this study was 0.82, which indicates a high level of internal consistency.

3. Results and Discussion

3.1. What is the Degree of Cognitive Test Anxiety Experienced by Spanish Secondary School Students?

To examine the degree of cognitive test anxiety that participants may experience, total scores were calculated for each respondent, with results ranging from a minimum of 19 to a maximum anxiety score of 57 points. The scale mean and the standard deviation were 34.85 and 7.71 respectively. Based on students' total test anxiety scores, three main groups were distinguished: a) low; b) moderate; and c) high test anxiety participants. Low test anxiety students were those whose scores were one or more than one standard deviation below the mean (i.e. 27 or lower scores). Students whose total scores were one or more than one standard deviation above the mean (i.e. 43 or higher scores) were classified as participants with high test anxiety. Finally, students with moderate test anxiety were those whose scores were within a standard deviation of the mean (i.e. scores between 26 and 42; see Chapell et al. 2005). The descriptive statistics reveal that most of the participants (N = 60, 73.2%) appear to be moderately test anxious. In line with Putwain and Daly (2014), who found that around 15% of high school students reported high test anxiety levels, the data in our study indicate that 14.6% (N = 12) of the respondents admitted suffering from high levels of test anxiety, while 12.2% of them (N = 10) reported low levels of test anxiety. Overall, the results reveal that 87.8% of the respondents experienced moderate or high test anxiety levels.

Table 1 shows the mean scores and standard deviation for the sixteen items comprising the S-CTAS arranged in descending order according to students' anxiety levels. As can be observed, the majority of items (11 out of 16) registered a mean

score above 2 points (mid-point) on a four-point scale, which suggests that respondents display a substantial degree of cognitive test anxiety. The highest test anxiety-provoking situations, that is, those which scored above 2.5 points, were the following: 'After taking a test, I feel I could have done better than I actually did' (item 8, M = 2.93, SD = 0.80), 'I worry more about doing well on tests than I should' (item 9, M = 2.66, SD = 1.00) and 'When I take a test, my nervousness causes me to make careless errors' (item 16, M = 2.66, SD = 0.82). These results indicate that participants show great concern about their performance on tests and believe they worry too much over them. Respondents also admit to making careless mistakes due to their nervousness during the test, which supports the view that test anxiety is linked to distraction and tends to diminish learners' attention and concentration during test taking, hindering their academic performance (Kleijn et al. 1994; Eysenck 2001; Hong and Karstensson 2002; Keoghi et al. 2004; Eysenck et al. 2007).

Participants rated five out of the sixteen items as the least anxiety-provoking factors, with mean scores below 2. The three aspects that caused the least amount of anxiety in descending order of importance were the following: 'I am not good at taking tests' (item 13, M = 1.91, SD = 0.94), 'I tend to freeze up on final exams' (item 2, M = 1.87, SD = 0.79) and finally, 'When I take a test that is difficult, I feel defeated before I even start' (item 11, M = 1.85; SD = 0.89). This suggests that students are able to more effectively manage some negative thoughts linked to test taking, such as lack of self-confidence or feelings of defeat (items 13 and 11) before the examination. They are also able to better cope with emotional symptoms of test anxiety, such as mental blocking (item 2) during test performance, which could also be attributed to exam preparation practices and test familiarity (Putwain 2008b). It is, however, worth noting that, overall, average results concerning cognitive test anxiety are relatively high in all cases (above 1.80).

TABLE 1. Cognitive Test Anxiety. Descriptive statistics per item: mean and standard deviation

Items: Cognitive Test Anxiety	Mean*	SD
B8. After taking a test, I feel I could have done better than I actually did.	2.93	0.80
B9. I worry more about doing well on tests than I should.	2.66	1.00
B16. When I take a test, my nervousness causes me to make careless errors.	2.66	0.82
B7. During a course examination, I get so nervous that I forget facts I really know.	2.24	0.98
B12. I am a poor test taker in the sense that my performance on a test does not show how much I really know about a topic.	2.19	0.88
B10. During tests, I have the feeling that I am not doing well.	2.16	0.88
B3. During tests, I find myself thinking of the consequences of failing.	2.16	0.97

Items: Cognitive Test Anxiety	Mean*	SD
B6. During tests, the thought frequently occurs to me that I may not be too bright.	2.13	0.99
B15. I do not perform well on tests.	2.09	0.97
B5. My mind goes blank when I am pressured for an answer on a test.	2.08	0.99
B1. I lose sleep over worrying about examinations.	2.05	0.88
B14. When I first get my copy of a test, it takes me a while to calm down to the point where I can begin to think straight.	1.96	0.94
B4. At the beginning of a test, I am so nervous that I often can't think straight.	1.93	0.84
B13. I am not good at taking tests.	1.91	0.94
B2. I tend to freeze up on final exams.	1.87	0.79
B11. When I take a test that is difficult, I feel defeated before I even start.	1.85	0.89
Overall mean = 34.85; SD = 7.71, N = 82		

* Mean values (minimum 1 = 'not at all typical of me'; maximum 4 = 'very typical of me')

3.2. Is there any Relationship between Students' Cognitive Test Anxiety and their Academic Achievement?

In order to address the second research question, a one-way analysis of variance (ANOVA) was conducted to determine whether there were significant differences between students' course grades (which are always out of 10) in English, measured as an ordinary variable with four levels (1 = grade below 5; 2 = grade between 5 and 6.9; 3 = between 7 and 8.9; and 4 = between 9 and 10), and their total cognitive test anxiety level. Normality of data was tested using the Shapiro-Wilk test of normality (p-value greater than 0.05). We also made sure there were no significant outliers by means of scatterplots. No statistically significant differences between grade levels were observed, which indicates that all students experience similar levels of test anxiety regardless of their academic English proficiency. Independent t-tests also showed no significant effect of possession of an official English proficiency certificate on cognitive test anxiety levels [$t(80)$ = -0.573, p = 0.56]. That is, participants who had an official English proficiency certificate (M = 34.29, SD = 8.36) suffered from a similar degree of test anxiety to those who did not possess one (M = 35.28, SD = 7.25).

In contrast, the ANOVA revealed statistically significant differences between participants' self-perceived proficiency in English (measured as an ordinary variable ranging from 1 = very poor to 5 = excellent), and cognitive test anxiety levels [$F (2, 79)$ = 4.99, p = 0.009, $\eta2$ = 0.112]. A Scheffe's post-hoc test showed significant differences between those students who reported their English proficiency level as 'poor or very poor' (N = 13, M = 40.77, SD = 3.72) and those who considered their command of the English language to be 'fair' (p = 0.02) (N = 26, M = 33.62, SD = 7.86), or 'good or excellent' (p

= 0.015) (N = 43, M = 33.81, SD = 7.82). In short, the data indicate that students with self-perceived low English proficiency are likely to suffer from a higher degree of cognitive test anxiety than those with more positive evaluations of their abilities (see also Aida 1994; Huang 2015). This finding also supports the claim that self-perception of proficiency is a greater predictor of test anxiety than actual academic grades (see Bandura 1986).

3.3. Is Cognitive Test Anxiety Influenced by the High-Stakes Nature of the SUEE English Test?

A one-way analysis of variance (ANOVA) was also used to address research question three. The results showed that self-perception of test anxiety in the high-stakes SUEE English test, measured as an ordinal variable using a five-point Likert scale (1 = very anxious; 5 = very calm), is directly related to general cognitive test anxiety [F (2, 79) = 4.11, p = 0.020, η2 = 0.94]. Significant differences (p = 0.03) between students who were 'very anxious or moderately anxious' (N = 28, M = 38.07, SD = 7.44), and those who felt 'very calm or moderately calm' (N = 28, M = 32.68, SD = 7.71) about their performance on the SUEE English test were observed. That is, 'very anxious or moderately anxious' students experienced higher levels of general cognitive test anxiety than those who felt 'very calm or moderately calm' about the SUEE English test.

Likewise, a chi-square test of independence revealed that self-reported proficiency in English and self-perceived test anxiety about the high-stakes SUEE English test are directly related [X^2 (4, N = 85) = 12.966, p = 0.003]. In fact, a Cramer's V test shows a large effect size (Cramer's V = 0.27, df = 4), indicating that the two variables are strongly linked. Chi-square test results also revealed that self-perceived test anxiety about the high-stakes SUEE English test is strongly associated (Cramer's V = 0.38) with self-confidence (measured on a five-Likert scale, ranging from 1 = very unconfident to 5 = very confident) [X^2 (4, N = 83) = 24.132, p = 0.00]. Specifically, respondents who felt 'very anxious or anxious' suffered from a lower degree of self-confidence about succeeding in the test than 'very confident or confident' participants. This indicates that test anxiety and self-confidence are not independent of each other (see Horwitz et al. 1991a; Greenberg et al. 1992; Schwarzer and Jerusalem 1992; Aida 1994; Zohar 1998; Segool et al. 2014). Nevertheless, it should be noted that more participants reported feeling 'confident or very confident' (N = 40, 48.2%) about passing the SUEE English test than felt 'neither confident nor unconfident' (N = 29, 34.9%) or 'unconfident or very unconfident' (N = 14, 16.9%). This may be due to the fact that more than 90% of the students taking the SUEE in June (ordinary exam call) pass (Herrera-Soler and García-Laborda 2005; Moreno-Herrero et al. 2014). Therefore, test anxiety in this context could possibly be more attributable to the fear of not attaining the minimum cut-off score required for admission to a particular university programme, rather than to failing the SUEE itself.

On the whole, the findings of this study are in line with those of other researchers who assert that test anxiety is a general anxiety problem and not specifically related to foreign language settings (MacIntyre and Gardner 1989; Aida 1994; In'nami

2006). The results of this study also support prior research in L2 learning contexts that indicates that cognitive test anxiety is directly linked to students' self-reported level of English proficiency (Sarason 1984; Seipp 1991; Ackerman and Heggestad 1997). Additionally, the data show that test anxiety seems to be influenced by the high-stakes nature of the SUEE English test. Students may be overwhelmed by the negative consequences of poor performance on the test (i.e. not achieving the score to be admitted to a specific course programme), although the data reveal that most participants feel confident about the possibility of succeeding in the SUEE English test. This may result from extensive preparation and practice for the test (i.e. washback) carried out in secondary schools in Spain in order to help students do well in the SUEE examination (Amengual-Pizarro 2009). In fact, researchers have found that these practices (i.e. preparedness and growing familiarity with the test) seem to be effective in reducing the effects of cognitive test anxiety (Putwain 2008b; Segool et al. 2014).

3.4. Are there any Significant Differences in Cognitive Test Anxiety as a Function of Gender?

Since many research findings have found significant differences associated with test anxiety across gender, this last issue was also addressed in this study. In line with previous work (Cassady and Johnson 2002; Chapell et al. 2005; Furlan et al. 2009; Putwain and Daly 2014; Bozkurt et al. 2017), the descriptive statistics showed that, in this sample, females seem to suffer from slightly higher test anxiety (M = 36.34, SD = 7.89) than their male counterparts (M = 33.13, SD = 7.22). However, independent t-tests revealed no statistical differences between females and males regarding general test anxiety levels [t (80) = -1.908, p = 0.60].

In contrast, a chi-square test of independence showed a significant association [X^2 (2, N = 85) = 6.87, p = 0.032] between gender and self-reported anxiety about the high-stakes SUEE English test (Cramer's V = 0.28), with females perceiving themselves as more anxious than males in this high-stakes situation (see also Putwain 2007). This finding supports the claim that gender differences in self-reported anxiety may be related to perceptions of threat in evaluative contexts (Arch 1987; Spielberger and Vagg 1995; Cassady and Johnson 2002). That is, females tend to perceive certain exam situations as personally threatening, which may lead them to feel more uncomfortable and unwilling to perform the evaluative task than their male counterparts. In fact, the data in our study revealed that the English course grades of female students were slightly higher than those of their male counterparts, although chi-square tests revealed no significant association between gender and course achievement grades [X^2 (2, N = 76) = 4.138, p = 0.12]. The relationship between gender and self-reported English proficiency was also found to be not significant. Furthermore, chi-square results showed no significant relationship between gender and students' self-confidence [X^2 (2, N = 83) = 2.506, p = 0.28]. That is, females did not perceive themselves as less capable in their ability to succeed in the SUEE English test than males.

3.5. Are there any Significant Differences in Cognitive Test Anxiety across School Setting (Urban versus Suburban)?

In order to examine possible cognitive test anxiety differences associated with learners' type of institution (urban versus suburban), an independent t-test was performed. The data indicate that there is no statistically significant relationship between general cognitive test anxiety and whether students are from urban (M = 34.70, SD = 8.04) or suburban (M = 34.98, SD = 7.52) schools. Similarly, the chi-square test of independence between school setting and self-reported anxiety associated with the high-stakes SUEE English test showed no significant results [X^2 (2, N = 85) = 5.935, p = 0.051], indicating that type of institution is not a significant factor in determining test anxiety levels.

On the contrary, a significant relationship [X^2 (2, N = 76) = 7.357, p = 0.025] was found between school setting and English course grades (Cramer's V = 0.31). Furthermore, chi-square results showed significant differences [X^2 (2, N = 85) = 8.047, p = 0.018] between school type and self-reported English proficiency (Cramer's V = 0.30). Likewise, a significant association [X^2 (2, N = 83) = 8.025, p = 0.018] between the type of institution and students' self-confidence was observed. In short, school setting seems to be a significant factor in determining English course grades, students' self-reported English proficiency and students' self-confidence (Cramer's V = 0.31). The findings of this study reveal that urban students achieved higher English course grades (urban, M = 3.00, SD = 0.827 versus suburban M = 2.30, SD = 0.891) than suburban students, which may account for their higher self-perceived level of English proficiency (urban, M = 2.62, SD = 0.633 versus suburban M = 2.17, SD = 0.769), and their higher levels of self-confidence (urban, M = 2.57, SD = 0.603 versus suburban M = 2.11, SD = 0.795) about succeeding in the SUEE English test.

4. Conclusion

This study aimed at analyzing the influence of test anxiety and its relationship with L2 learners' academic achievement. The data reveal that most respondents appear to be moderately- (N = 60, 73.2%) or highly-test anxious (N = 12, 14.6%). This is mainly attributed to feelings of general worry and nervousness over test performance, which may lead students to engage in task-irrelevant thoughts and to commit careless mistakes during tests (see table 1). These results support the view that test anxiety negatively affects students' attention and concentration during test taking, hindering their academic performance (Eysenck 2001; Hong and Karstensson 2002; Keoghi et al. 2004; Eysenck et al. 2007). Although still slightly high, overall cognitive test scores show that participants are likely to more successfully manage certain negative thoughts associated with test taking, such as lack of self-confidence or feelings of defeat prior to the examination. Likewise, participants seem to be able to deal with certain emotional symptoms of test anxiety more effectively, such as mental blocking during

test performance, which could be partly attributed to preparedness and test familiarity (Putwain 2008b; Segool et al. 2014).

Nevertheless, contrary to previous research (Seipp 1991; Simpson et al. 1995; Horwitz 2000, 2001; Gregersen 2003; Sheen 2008), the data in this study indicate that all students experience similar levels of test anxiety, regardless of their academic English proficiency. Furthermore, the possession of an official English proficiency certificate does not appear to have an impact on participants' test anxiety levels. These findings concur with those of other researchers who claim that test anxiety is not specifically related to foreign language settings but to a general anxiety problem (MacIntyre and Gardner 1989; Aida 1994; In'nami 2006).

However, the one-way analysis of variance (ANOVA) revealed a significant effect of self-reported English proficiency on cognitive test anxiety, demonstrating significant differences between those students who perceived their English proficiency level to be 'poor or very poor', and those who felt their English language competence was 'fair' or 'good or very good'. This shows that students who are aware of their limited English proficiency are likely to experience higher levels of test anxiety than those who feel confident about their academic English proficiency (Aida 1994; Huang 2015). Students' perceptions were also likely to be affected by the high-stakes nature of the SUEE English test, and the potential negative consequences derived from its results. These findings point to the potential interaction between learner characteristics (i.e. participants' beliefs and expectations) and test anxiety (Weiner 1986), and support the view that self-perception of proficiency is a greater predictor of test anxiety than actual academic grades.

Chi-square test results also show a strong association between self-reported test anxiety on the high-stakes SUEE English test and learners' self-confidence. The data from this study suggest that students with high self-confidence tend to cope better with test anxiety than those with low self-confidence (Horwitz et al. 1991a; Greenberg et al. 1992; Schwarzer and Jerusalem 1992; Zohar 1998; Segool et al. 2014). Surprisingly, most participants reported feeling 'confident or very confident' (48.2%) in their abilities to do well in the high-stakes SUEE English test. Since most students successfully pass the test in June (ordinary exam call) (Herrera-Soler and García-Laborda 2005; Moreno-Herrero et al. 2014), self-reported anxiety is more likely to be related to the pressure of getting high grades on the test in order to attain the minimum cut-off score required to gain entry onto a specific university programme.

The data also showed that females experience slightly higher levels of test anxiety than their male counterparts. However, contrary to previous research (Cassady and Johnson 2002; Chapell et al. 2005; Furlan et al. 2009; Putwain and Daly 2014; Bozkurt et al. 2017), this difference did not reach statistical significance. Interestingly, though, a chi-square test of independence revealed a significant association between gender and self-reported anxiety on the high-stakes SUEE English test. This finding suggests that gender differences regarding test anxiety could be attributed to females'

tendency to perceive certain exam situations as more personally threatening than males (Arch 1987; Cassady and Johnson 2002), or to possible differences in expressions of test anxiety between both groups (Núñez-Peña et al. 2016). The relationship between gender and self-reported proficiency was also shown to be not significant. Similarly, the results revealed no significant effect of gender on self-confidence.

Finally, the findings of this research indicate that urban and suburban students suffer from similar degrees of cognitive test anxiety, since no significant statistical relationship was found between these two variables. Similarly, school setting (i.e., urban versus suburban) was not significantly associated with self-reported anxiety prior to taking the high-stakes SUEE English test. In contrast, chi-square results showed a significant effect of school type on English course grades, as well as on self-reported English proficiency, with urban students obtaining higher English course grades than suburban students, which may lead them to hold a higher perception of their own competence in English. Furthermore, the results indicate that urban students show a statistically significant higher degree of self-confidence in passing the high-stakes SUEE English test than their suburban counterparts, although this does not appear to have an impact on their overall test anxiety levels.

To sum up, the findings of this study suggest that test anxiety exerts a debilitating role on learners' test performance, depriving them of the possibility of achieving their academic potential in the L2. These results indicate the need to conduct more research into this area to ensure accurate measurement of students' academic achievement. Only by increasing our understanding of the negative effect of test anxiety, especially in high-stakes settings, will we be able to better interpret and understand test scores. The implementation of targeted intervention (Knox et al. 1993; von der Embse 2011; Soares and Woods 2020) may be effective in assisting students in mitigating their test anxiety levels so that they are able to perform to their full potential, preventing under-achievement and school failure.

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