EFL TEST ANXIETY AMONG CHINESE GRADUATE STUDENTS: EFFECTS OF TEST CHARACTERISTICS

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Abstract

The paper is a qualitative study of the effect of test characteristics on test anxiety among Chinese graduate students. Different from previous research, the study wants to emphasize the importance of test characteristics in controlling both trait and state test anxiety in EFL testing contexts. Research results suggest time pressure, item type, item difficulty sequencing and test taking information given would affect test takers' trait and state test anxiety in EFL tests. Implications obtained from this study include EFL test designers should consider the effect of test characteristics on highly anxious test takers, and alter test methods to reduce the debilitating effects of test anxiety on test results so as to improve test validity and reliability.

Keywords: Trait test anxiety, state test anxiety, test characteristics, EFL tests, Chinese graduate students.

INTRODUCTION

As English tests play a more and more important role in China and have become high stakes tests, the wash back effects of English tests cannot be ignored. Test anxiety, as one of the factors that may affect test results, need to be taken into thorough study in test design to achieve high test validity and reliability. An extensive amount of research has revealed test anxiety has an impact on test results (Hembree, 1988; Hill & Wigfield, 1984; Oostdam & Meijer, 2001; Browne, 1991; Howard, 1987), and the effects could be stronger when the tests are high stakes ones. Therefore, it

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becomes important to examine factors that would affect test anxiety in EFL testing contexts, in order to reduce the possible debilitating effects of test anxiety. The "method effect" (Alderson, Clapham & Wall, 2000) indicates that the language test methods may themselves affect the student's score, and thus they are likely to interact with test anxiety to affect test performance. This study attempts to explore variations of test anxiety with test characteristics among Chinese graduate students in EFL testing contexts.

REVIEW OF LITERATURE

While language testing research has so far produced an impressive amount of insight into individual and test characteristics affecting test validity and reliability, the research on test anxiety, one of the individual characteristic that may affect test validity, is very limited, especially on the effect of test characteristics on test anxiety. The research on test anxiety must play an important role in the improvement of language test design, considering that many language testing researchers and test anxiety researchers concur that the effect of test anxiety on test performance is pervasive, and cannot be ignored. In this sense, studies on anxiety in language tests can yield insightful implications for effective language test development, which as a result of wash back effects can benefit language teaching and learning. Among the researches on factors of test anxiety, most have contributed to the study of test taker's individual characteristics, such as achievement motivation, self-cognition, language proficiency level, etc, while the effect of test methods or characteristics such as item type, item number, item sequencing, etc. on test anxiety has received little attention. However, test anxiety is determined not only by a test taker's personal factors but also by the test characteristics. Test takers who exhibit high anxiety in a language test may show low anxiety level in another language test with the same test purpose but with different test methods. Besides, test characteristics are much easier to be controlled than the personal characteristics because normally personal characteristics are developed over a long time, and the change of them is a long term process, but test characteristics can be easily controlled by test designers. Therefore, research on the relationship between test characteristics and test anxiety plays an important role in the development of effective language testing.

RESEARCHES ON FACTORS AFFECTING TEST ANXIETY

Test anxiety researchers have tried to identify factors that affect test anxiety. Spielberger (1983) states the intensity of the state anxiety reaction will vary as a function of the degree of perceived threat, which depends on a

number of factors, such as the nature of the test questions, the student's general ability and aptitude in the subject matter area, how diligently he or she has prepared for the examination and individual differences in test anxiety as a personality trait. As pointed out by Sapp (1993), factors that account for the relationship between test anxiety and test performance include time pressure, methods of feedback, difficulty levels of examinations, motivational variables and test environment. In addition, academic demands do not occur in isolation; they exist also in a social context. Schwarzer, Van der Ploeg and Spielberger (1982) state test anxiety must be viewed as a result of a threat to the self within the social and academic setting. A student's reaction to success and failure is influenced by his comparison to those in the same environment.

A literature survey on the empirical study of test anxiety reveals that so far most empirical researches on factors of test anxiety have contributed to the study of test taker characteristics or individual differences, such as self cognition and perceived academic achievement (Zeidner & Schleyer, 1999; Weiner & Samuel, 1975; Putwain, Woods & Symes, 2010; Putwain, Connors & Symes, 2010; Hank, Pohl & Krampen, 2009; Peleg, 2009), motivation variables (Cismas, 2009; Sud & Monga, 2009), attitudes (Akman, Izgi, Bagce & Akilli, 2007; Sansgiry & Sail, 2006), personal experiences (Bradshaw & Gaudry, 1968; Mandler & Sarason, 1953; Mousavi, Haghshenas, & Alishahi, 2008), and social factors such as parental pressure, peer comparison and teacher achievement goals (Putwain, Woods, & Symes, 2010), while the empirical research on the effect of test characteristics on test anxiety is more limited. Furthermore, solutions to the problem of debilitating test anxiety are confined to the use of test taking strategies and training (Li, 2004; Knigge-Illner, 2009) or medical anxiety treatment and healing methods (Parish, Buntman, Buntman, 1975; UTZ, 1978; Handelzalts & Keinan, 2010; Yuan, Zhang, Zhuo & Fang, 2008, Ahghar, 2008; Kim & Ahn, 2005; Parks-Stamm, Gollwitzer, & Oettingen, 2010; Nelson, Knight, Graham, Vettraino, Seifeldin & Singal, 2010; Benor, Ledger, Toussaint, Hett & Zaccaro, 2009; Honarmand & Moghaddam, 2008). The following presents relevant studies that have been carried out to investigate the effect of test methods on test anxiety.

RESEARCH ON TEST CHARACTERISTICS AFFECTING TEST ANXIETY

Hill (1984)'s study is one of the most systematic researches that focus on testing characteristics that affect test anxiety.

Hill's Three "Critical Testing Characteristics"

Through a 10-year longitudinal program of research, Hill (1984) put forward with three "critical testing characteristics" that contribute to affect test anxiety and can be more easily controlled. The three categories of critical testing characteristics are: (1) time limits and time pressure; (2) difficulty of test material; and (3) test instructions, question and answer formats, and other testing mechanics. Specifically,

(1). Time pressure makes a significant difference to test anxiety, and is regarded as the most critical aspect of standardized testing that contributes to debilitating test anxiety as well as the easiest characteristic to change. Hill also suggests relaxed time limit would be particularly important for competence tests used to assess basic skills that should be mastered for promotion and graduation. His argument is that the primary interest of competence tests is whether the students have mastered the skills and can demonstrate them in a reasonable amount of time, not necessarily under time pressure. Therefore, additional 50 100 more time has been suggested, especially for competency test.

(2). Test difficulty is the second testing characteristic that contributes to debilitating test anxiety. Variations in item difficulty can ameliorate the interfering effect of test anxiety. Practices of giving tests one or several levels below grade level for high anxiety students are encouraged, due to the fact that test failure impact is particularly strong for high test-anxiety, low-performing students.

(3). Testing mechanics, such as instructions, question-answer format, and computerized answer sheets constitute the third major testing characteristic that contributes to test anxiety. Besides, Hill also proves the facilitating effect of providing information and reassurance about test difficulty on lowering test anxiety; the difficulty information provides students with more realistic expectations for how well they would do on the test, thus reducing students' anxiety.

The research results of Hill's study constitute the primary theoretical framework for this study. Based on the results, this study is designed to investigate the effects of time pressure and test mechanics such as item type and test information given on test anxiety. The test characteristic of test difficulty is not considered in this study because test difficulty is often prescribed in the test syllabus and usually cannot be changed.

OTHER RESEARCH ON THE EFFECT OF TEST CARACTERISTICS ON TEST ANXIETY

The following findings of the study with regard to the effect of test characteristics on test anxiety also deserve attention. According to Clovis (1999), time structure and inflexibility, associated with standardized testing, is one facet said to add stress to the testing process. Zigler and Harter (1969) claim that variations in item difficulty and test instructions can affect test anxiety. Williams (1976) stresses the necessity of adding information about test difficulty to lower test anxiety (as cited by Hill, 1984). Snow (1993) developed a continuum of test formats with multiple-choice items (MC) at one end and a broad collection of portfolios at the other end, and explained that the MC format might help high-anxious students maintain attention to the task, while constructing a response might disrupt their thinking. Schmitt and Crocker pointed out that different item types, for example MC (multiple choice) and CR (Construct response), would cause different levels of test anxiety (as cited by Lee, 2000). To compare the effect of different test conditions on test anxiety, Shermis, Mzumara and Bublitz (2001) examined the gender differences in test anxiety between computer adaptive and self-adapted testing, and found significant gender effects with regard to test anxiety.

Based on the findings of the above studies, this empirical study is carried out to examine the effects of time limits, item type, item difficulty sequencing, and test taking information given to test-takers on test anxiety.

SIGNIFICANCE OF THE STUDY

Except for Lee (2000), the few studies that have been carried out to investigate the relationship between test characteristics and test anxiety are not concerned with language tests. In addition, none of the studies were conducted in the EFL testing context in China, where the ever-increasing growth of exchange between China and other countries has created a craze for studying English as a foreign language (EFL), and high-stakes EFL tests abound. These points raise questions as to the generalizability of the findings of across different subject areas, social, educational and cultural settings. Thus, considering the features of language tests as well as the specific EFL learning environment in China, this study intends to fill in the gap by studying how test characteristics affect Chinese graduate students' test anxiety in EFL tests.

DIMENSIONS OF TEST ANXIETY TO BE STUDIED IN THE RESEARCH

Before the research design is introduced, four dimensions of test anxiety need to be presented and clarified first. Spielberger (1983) has distinguished state test anxiety from trait test anxiety. State test anxiety is a transitory emotional state or condition experienced during examinations, while trait anxiety refers to relatively stable individual differences in anxiety proneness to differences in the disposition to perceive a wide range of situations involving evaluative stress as dangerous or threatening and to respond to such situation with more or less intense elevations in anxiety.

Another distinction made between debilitative test anxiety and facilitative test anxiety is according to the role test anxiety plays in affecting test performance. Debilitative test anxiety is regarded as negative, inhibiting test takers' working and lowering their efficiency. Individuals high in debilitative test anxiety are so preoccupied with worrisome thoughts during test taking that these thoughts preempt attentional resources, which could have been used for task-relevant mental activities, thereby decreasing performance (Mandler, 1984). In contrast, facilitative anxiety can help the test takers remain poised, alert, and sufficiently unbalanced to prevent over relaxation in a test situation (Brown, 1994). And if the result of the test does not have any consequence for the test taker, they may not pay any attention to it.

In this research, factors that affect graduate students' debilitative trait test anxiety as well as state test anxiety will be examined and studied respectively.

RESEARCH METHOD

The experimental design is aimed at addressing the following research question: What are the test characteristics that affect Chinese graduate students' test anxiety and how different factors affect their test anxiety in EFL tests?

Participants

A total of 307 first year graduate students were randomly chosen from the Graduate University of Chinese Academy of Sciences (GUCAS) to participate in this study. There are two reasons that the graduate students of GUCAS were recruited. First, the research is focused on Chinese graduate students' test anxiety, and the Graduate University of Chinese Academy of Sciences is the largest graduate university in terms of the number of graduate students enrolled. Hence, data collected could be representative of

the Chinese graduate students. Second, these students represent a relatively homogeneous group with respect to English proficiency since they have all passed the English proficiency test of the National Entrance Examination for Graduate Study.

All of the participants in the study are native Chinese speakers, and are peers of the same age, ranging from 21 to 28 years old. They were studying English as a foreign language as prescribed in the national curriculum, and would need to pass the General English Qualifying Test for Non-English Major Graduate Students in year 1 as one of the requirements for degree awarding. The participants included students from different majors, including biology, geography, physics, chemistry, etc. The distribution of them in terms of gender, major and English language proficiency is reflected in Table 1. All the information regarding gender, major and CET-4 (College English Test Band 4) test score was collected through self-reports in the questionnaire survey. The student's major is classified into two categories: Social Science, and Science, and their English proficiency is classified into three levels: Upper, Moderate and Lower.

TABLE 1
Participant Distribution by Gender, Major and English Proficiency Level

Gender			**Major**			**English Proficiency Level**			
Female	Male	Total	Social Science	Science	Total	Upper	Moderate	Lower	Total
95	212	307	59	248	307	23	236	48	307

Instruments

The instruments adopted in the study for measuring trait and state test anxiety are: the Achievement Anxiety Scale (AAS), designed by Alpert and Haber in 1960 and the State-Trait Test Anxiety Inventory (STAI) designed by Spielberger in 1983. AAS is employed to check the status quo of graduate students' trait test anxiety. It is a 19-item self-report inventory that measures two components of test anxiety: facilitative anxiety and debilitative anxiety on a five point scale. The facilitative subscale is made up of 9 items like "I work most effectively under pressure", while the debilitating subscale consists of 10 items like "Nervousness while taking an exam hinders me from doing well." The scores for each item range from 0-4, meaning NOT AT ALL, A LITTLE, MEDIUM, A LOT, ALWAYS respectively. Therefore total scores range from 0 to 36 for the facilitative subscale, and 0 to 40 for the debilitative subscale; higher scores indicate higher level of test anxiety for both facilitative and debilitative subscales.

Another instrument adopted in the research is the state subscale of STAI used to test the state test anxiety of the participants while they are taking English tests. It consists of 20 items that ask how a person feels now, and reflects situational factors that may influence anxiety levels. Items are like, "I feel calm now", "I feel tense", etc. Four scales are used to rate the results, NOT AT ALL, A LITTLE, MEDIUM, A LOT.

In this study, the administration copies of both AAS and the state subscale of STAI were in Chinese, which were translated by the author and named AAS and STA respectively. To check the clarity of the language used in the scales, 8 graduate students from GUCAS, who are not participants of the study, were invited for a pilot test. Each student was asked to tell how they understand each item and comment on the language, and the feedback from the students led to rephrasing some statements so as to eliminate any misunderstanding and make the meaning of the statements clearer.

PROCEDURES OF DATA COLLECTION AND EXPERIMENTAL DESIGN

The study was carried out in two sections to examine the factors of graduate students' test anxiety in EFL tests. In the first section, 307 students were recruited in a questionnaire survey to test their trait test anxiety level in EFL tests, and then a semi-structured interview was adopted, which focused on analysis of their self reports of trait test anxiety and recall of how test anxiety took place in EFL tests. Based on the results of students' trait test anxiety level, eight students who exhibited high debilitative test anxiety with score of debilitative subscale higher than 25 were interviewed according to a set of semi-structured questions to find out whether such factors as time pressure, item difficulty sequencing, item type, test taking information given, etc. would affect their high debilitative anxiety. In addition, two students who exhibited low debilitative anxiety level (score of debilitative subscale is lower than 10; the total score ranges from 0 to 40) were interviewed to compare with the highly anxious students. Each interview lasted about 30-40 minutes for each student, and was audio-taped. The interview questions asked in this section can be found in Appendix 1.

In the second section of the research design, 25 students randomly chosen from an English class in GUCAS were tested twice within two weeks to find test characteristics that might have caused difference in graduate students' state test anxiety across two tests. Two weeks before they sat the 2006 General English Qualifying Test for Non-English Major Graduate Students, the test result of which is an important consideration in awarding Master or PHD degree, a model test was administered to them. The test paper of 2005 General English Qualifying Test for Non-English

Major Graduate Students is used in the model test, and the two test papers used in the model and real tests are of the same test syllabus and specs. The STA scale was administered to the test-takers immediately after they finished each test. Then 11 participants who showed big variance in state test anxiety across the two tests were interviewed on test characteristics that had caused the difference, according to a set of structured questions. All interviews have been audio-taped. The interview questions asked in this section are listed in Appendix 2.

RESEARCH RESULTS AND DISCUSSION

The main results of each section of the research design are reported as follows.

Results from Section 1

The eight students exhibiting high debilitative test anxiety level reported the following test characteristics would affect their anxiety level in EFL tests: item difficulty sequencing, time pressure, item type, and test taking information given. The following Table 2 displays the factors that have been reported and the number of interviewees who have reported each factor, and Table 3 shows the test characteristics reported by each interviewee to have affected their anxiety level in EFL tests. The four test characteristics affecting test anxiety, item difficulty sequencing, time pressure, item type and test taking information given, are numbered 1, 2, 3 and 4 respectively, and the eight interviewees are numbered A, B, C, D, E, F, G, and H respectively.

TABLE 2
Test Characteristics Affecting Test Anxiety Reported by the 8 Interviewees

Factors	Number of interviewees	Percentage of interviewees
item difficulty sequencing	5	62.5%
time pressure	7	87.5%
item type	4	50%
test taking information given	3	37.5%

TABLE 3
Test Characteristics Affecting the Anxiety Level of Each Interviewee

Interviewee	Test characteristics affecting the anxiety level of the interviewee
A	1, 2
B	2,3
C	2,3,4
D	1
E	1, 2,4
F	2
G	1, 2,3,4
H	1, 2,3

Overall, all of the four test characteristics have an effect on test taker's anxiety level in EFL tests. However, this general effect is not across the board. From Table 2, we can see that for different test characteristics, a different number of interviewees have reported its effect on their test anxiety levels. That is to say, not all factors will have the same effects on different test takers in terms of test anxiety. The anxiety levels of most students (7 out of 8) have been affected by time pressure in EFL tests. Item difficulty sequencing and item type have an effect on most students, 62.5% and 50% of the total participants respectively. Relatively fewer students, about 37.5% of the total, reported to have been affected by test taking information provided by their teachers. An examination of the data in Table 3 reveals that all of the interviewees reported to be affected by at least one test characteristic. However, only 1 of the 8 interviewees reported to be affected by all factors, and the others reported to be affected by some of the test characteristics but not others.

THEMES FROM THE INTERVIEWS OF SECTION 1

The perceptions from test takers have enabled deep interpretation and understanding of how test anxiety takes place and how characteristics affect test anxiety. The following is a detailed description of the interviewees' recall of how each test characteristic affects their test anxiety in EFL tests of different language skills.

Factor 1: Item Difficulty Sequencing

Altogether 5 of the 8 interviewees reported that item difficulty sequencing affected their anxiety level in EFL tests, the other 3 interviewees reported no effect. Among the 5 interviewees, 2 students, A and D, reported

the effect of item difficulty sequencing on a specific test of English skills, while the other 3 students reported the effect on all kinds of English tests.

According to Student A, she has always been nervous when taking a listening test, and the difficulty sequence of test items is the main factor affecting her anxiety in a listening test. Her recount of the effect of item sequencing on her test anxiety level in English listening tests went as follows: "I've always been nervous about listening tasks in the English test. But I often find the listening tasks quite easy after the exam. The truth is if I fail to understand the first several sentences at the beginning of a listening test, I will feel very terrible. I still remember what happened when I was taking the CET-6 exam. I did not have any clue to the first three items of the listening part, which made me very nervous and fail to move on. Therefore, I could not concentrate my mind afterwards. The CET-4 exam was a different situation to me. The first listening task was very easy to me, and then I became more calm and confident while doing the other items." Looking at A's recount more closely, we may find an important reason for the effect of tem sequencing on her test anxiety lie in her test experiences. "Being always nervous in listening tests" seemed to have disposed her to be nervous about listening tests, and lack confidence in her listening ability. Closely linked to this is whether confidence is built up at the beginning of the test. If the first several items are easy to her, she will build up her confidence with her debilitative trait test anxiety and state anxiety level lowered, and vice versa.

Another interviewee D also mentioned why her anxiety level is increased when the test items follow a hard-easy sequence in an English vocabulary test. Interviewee D is often nervous when taking the the vocabulary test because she thinks her vocabulary is very limited due to the fact that she has not had the chance to sit College English Test Band 6 (CET-6) before her graduate study. D said, "I did not learn CET-6 vocabulary as many of my classmates (many year 1 graduate students in China have already passed CET-6), so I often feel very anxious when taking the vocabulary test. Though the vocabulary part does not count much in the total score, it often affects my mood the most. If the first several vocabulary items are beyond me, I start to panic." Item difficulty sequencing was reported to also affect interviewee D in the reading comprehension test. According to her, "Normally I could concentrate myself on the reading tasks when the test starts. But if the first several items are difficult, I will become very nervous." The situation of interviewee D is quite similar to that of interviewee A in that both of them feel nervous about tests of the skills they are not confident in, though the skills they are not confident in are different.

As interviewee D said, her lack of confidence in vocabulary results from her unfavorable English study experience in comparison with the peer's.

Different from interviewees A and D, the other three interviewees reported item difficulty sequencing to be a factor affecting their test anxiety level in EFL tests in general without specifying tests of a specific skill. All of them said the first several items are crucial predicator of their anxiety level in an English test. They reported that their anxiety level will be higher if they find the first several items are difficult, while they would forget to be nervous if the first several items are easy to them.

Factor 2: Time Pressure

A total of 7 out of 8 interviewees reported that time pressure had resulted in their high anxiety level in English tests. According to these interviewees' report, when they suffered from time pressure, they felt panic, and just cannot help wasting time because they cannot concentrate on the test tasks, and their mind seemed to go blank and stop working at that time. Furthermore, even though they had been aware of the negative effect, they cannot do anything to prevent it. Regarding when time pressure is incurred in an English test, an examination of the interviewees' reports shows that they suffer from time pressure when they are doing the reading comprehension tasks and when the end of the test draws near, usually in the last several minutes of the test. Interviewee H said, "While doing the reading comprehension tasks, I often slip my mind, and stop reading and thinking when time limit comes to my mind. Time pressure makes me really nervous when I am trying to finish the reading comprehension tasks." Interviewees A, C and F had the same experience as interviewee H. As reported by one of those interviewees, the greater weight of reading comprehension part than the other parts of an English test could help explain why time pressure affects their anxiety level the most when they are taking the reading compression tests. Interviewees B, E and G faced time pressure at the end of a test, which resulted in high anxiety. Interviewee B said, "Time pressure always makes me very nervous towards the end of the English tests. In the last several minutes of a test, I just cannot help wasting time because I cannot concentrate on the test tasks, and my mind seems to stop working at that time."

Another noteworthy theme was the negative attitudes the 7 interviewees held towards the strict time limit set for English tests. Some of the students discussed the negative effects of time pressure on their anxiety and performance in EFL tests as well as the necessity of eliminating such effects. Interviewee C said, "Time pressure always makes me panic and very nervous, and I just could not concentrate myself on the test because of time

pressure. Time pressure causes high anxiety, thus inhibiting my working efficiency most in reading comprehension tests. I do not think my reading skills are poor nor my reading speed is slow, and actually I am quite good at reading academic papers in my field. However, I become nervous and even a little annoyed at reading as long as there is a time limit. The last several items of a reading comprehension test always make me extremely anxious. I do not think such strict time limit is necessary."

When asked about the extra time necessary to release time pressure, all of the interviewees reported that 10 more minutes would need to be given to eliminate the negative effects on anxiety. When talking about the most "evil" factor that caused high anxiety in him, interviewee F said, "I think time pressure has the strongest negative effect on my anxiety level when I take the reading compression test. For me, ten more minutes will change the whole situation."

Factor 3: Item Type

All of the 8 interviewees were asked about the effect of item type on their test anxiety in EFL tests, and 4 of them reported that the effect of item type on their test anxiety level was limited to English listening tests, and that multiple choices would cause lower anxiety in them compared with short answer questions. For example, interviewee B said: "Item type could affect my anxiety level in an English test, but the effect is only limited to the listening section of a test. I will feel much more relaxed if multiple choices are used for the listening tasks, but I get very nervous if the item type of short answer question is adopted in the listening test." How can we understand the effect of item type on test anxiety in English listening tests rather than English tests of other skills? One possible explanation lies in the access to the target information and information retrieval. For listening tests, the test taker has a very limited number of accesses to the target information through listening, and the information retrieval process is complicated and difficult because the test taker need to store the information before they retrieve it to complete the task. However, when the test taker is taking tests of other skills such as reading comprehension, vocabulary, and writing, they can have as many accesses to the text information as they want, and do not need to store the text information to complete the tasks. As for the interviewees' report about the relationship between test anxiety and the two most frequently adopted item types of listening tests, multiple choices and short answer questions, this may be due to the fact that multiple choices give information, which helps the test taker retrieve the target information. As interviewee C said, "For the listening comprehension tasks, multiple choices

would result in lower test anxiety than short answer questions, and can ease my anxiety. That is because multiple choices look easier because there is information given in each choice." Based on interviewee H's report, multiple choices relaxed him because the item type made him more positive and confident about the test result, thus resulting in lower anxiety.

The effect of unfamiliar item types on test taker's test anxiety level in EFL tests is compared with that of item types familiar to the test taker. The interview with Student G reveals that unfamiliar item types can be threatening to the test taker, and thus result in high anxiety. Interviewee G said, "Usually I feel nervous towards item types that are different from those that I've been familiar with. I will fail the test if it includes item types which I have never or seldom worked on." In addition to unfamiliar item types, a different number of items from what is conventionally adopted for a single reading comprehension task will also increase his test anxiety level. The interviewee recounted, "Too many questions or items will result in strong anxiety in me. Four to five items for one reading comprehension passage are fine with me, but more than eight questions make me suffer from high test anxiety and think very slowly."

Factor 4: Providing Test Taking Information

In this research, test-taking information refers to information about item types, item numbers, item difficulty, weight of each part and time limit. When asked about the effect of the test taking information given on their test anxiety, 3 of the 8 interviewees reported that being given test taking information is helpful to alleviate their anxiety, and they attributed the relationship to two reasons. One is that having been informed of the test taking information, they had better idea about what the test is going to be like, and made them more familiar with the test. Another reason is that test taking information given by the teacher helped them to be proactive and better prepared for the test, thus resulting in more confidence in their test result and lower anxiety in the test. Interviewee C mentioned, "Definitely the information will lower my anxiety because with the test taking information, I can do some preparations accordingly." Interviewee E said, "If I have been informed of the test taking information, I will have better idea about what the test is going to be like, and I will be better prepared for the test and not feel too much fear about the test."

Based on the above results of Section 1 about how test characteristics affect students' trait test anxiety, it can be concluded that different students report different test characteristics affecting their anxiety level in EFL testing, and the effects of these factors vary to tests of different language skills or elements. Section 1 focused on relationship between test

characteristics and the students' trait test anxiety, while the relationship between test characteristics and students' state test anxiety is supported by results from Section 2.

RESULTS FROM SECTION 2

The second section of the research design was carried out by interviewing 11 participants whose state test anxiety level in the real English test was quite different from that in the model English test to find out factors that had caused the difference in their state anxiety across the two tests. The interviewees recounted the following test characteristics were the reasons for their change in test anxiety: item type and number, item sequencing, test taking information given, and time pressure. The results are in agreement with the results from Section 1.

First, a different item type or number of items from what a test taker had been accustomed to increased state test anxiety in the test taker. An interviewee recalled the model and real tests had a different number of cloze items, and the difference made him rather nervous in the second test. The interviewee said, "The test we had earlier (model test) has 10 cloze items, but the real test has 15. When I noticed the difference, I suddenly became nervous." Second, test taker's test anxiety level went up if the test items follow a hard-to-easy sequence. An interviewee attributed her increase of anxiety in the real test to the first part of the test which included items that are difficult to her. Third, not being given the test taking information before, a test resulted in a higher anxiety level in the test taker. A student who was tested to have a much higher test anxiety level in model test than in the real test attributed his higher test anxiety in the model test to the fact that he was not informed about the model test before he came to the classroom, and knew nothing about what kind of test he was going to take; knowing test taking information such as test syllabus, test difficulty, item types used, number of items, time limit, etc. helped to lower his anxiety level in the real test. In addition, when asked whether knowing the test taking information before a test would affect their test anxiety, 6 out of the 11 interviewees gave positive reply. Finally, interview results reveal time pressure will result in higher test anxiety in high stakes tests. According to an interviewee who showed much higher anxiety in the real test, result of the real test was very important to his graduation, and thus during the test he kept worrying about time limit. In conclusion, test characteristics including item type and number, item sequencing, test taking information given, and time pressure affect students' state test anxiety in EFL tests.

CONCLUSION AND IMPLICATIONS

The implications based on the findings in this study are particularly relevant to EFL testing in general, but to EFL Chinese graduate students in particular. The implications for EFL test design and teaching are summarized as follows:

1. EFL test designers should be aware of the effect of test methods on test anxiety and take such effects into consideration when developing an EFL test. The results of the study has substantiated the claim that change of test characteristics will result in the change of test taker's debilitative trait test anxiety and state test anxiety levels, which in return will affect their test result and lower the test validity.
2. EFL test designers are suggested to pay special attention to the four test characteristics of item difficulty sequencing, time pressure, item type, and test taking information given. One of the findings in the study is that the four test characteristics can affect student's debilitative trait test anxiety and state test anxiety levels in EFL tests. The results also demonstrate that test taker's debilitative test anxiety level can be lowered if the test items follow an easy to hard sequencing, test takers do not feel time pressure, and test takers are informed of test difficulty, item types, item numbers, time limit and other test taking information. Thus, these test anxiety factors should be controlled in test design in order to eliminate the debilitating influence of test anxiety.
3. Relaxed time limit must be allowed in EFL proficiency tests, especially in tests of reading comprehension to lower students' debilitative test anxiety and help the students achieve better performance, as long as the time limit is in line with the teaching and testing syllabus. Time pressure seems to carry more weight in affecting student's debilitative trait and state test anxiety levels. The research results reveal almost every participant suffers from time pressure and under-performs in the last 10 minutes in the EFL test, and attributes their debilitative anxiety and high state test anxiety to time pressure. In addition,
4. The design of EFL test items is suggested to follow an easy to hard sequence, particularly in tests of EFL vocabulary, listening and reading comprehension tests, so that the test anxiety level of highly nervous test takers can be lowered.
5. On the condition that test validity is assured, tests of listening comprehension should adopt the item type of multiple choices, which according to the findings of the study, will not put candidates in a state of high test anxiety and will result in their debilitative trait test anxiety than the use of short answer questions. However, since multiple choices are often believed to bear low test validity, it must be admitted here that

test designers have to be careful with the use of this item type.

6. Test taking information including item types, number of items, time limits, and difficulty level should be made known to test candidates so as to lower the anxiety level of the highly anxious students. According to the research results, test takers may not be free from high anxiety when they are not provided test information before test.
7. Another implication related to reducing debilitative test anxiety concerns student's self cognition about their language ability or skill. From the interview it is clear that students who lack confidence in their language ability or skill whether because of their bad test experiences or due to their language learning experiences, often exhibit high debilitative anxiety in tests of the language ability or skill. Therefore, EFL teachers need to be aware of how students perceive their language ability, find ways of encouraging building up self-confidence in one's language ability or skill, and guide them so that students have a rational evaluation on their language proficiency and be confident about their language ability or skill.
8. The results have also shown the effects of test characteristics on test taker's anxiety level in EFL tests vary to different test taker characteristics as well as tests of different language skills or elements. For example, most participants reported to feel very nervous about taking tests of reading comprehension and listening comprehension, but students who lack confidence in vocabulary find themselves very nervous when taking vocabulary tests; moreover, only part of the students reported that being provided test taking information will lower their debility test anxiety level. Another finding from the study is item type has been found to be the main factor that will affect students' test anxiety in tests of listening, but not in tests of other skills; what's more, time pressure has been reported to be the main factor that causes high test anxiety in reading comprehension tests, but not so evidently in other tests. Therefore, it should be noticed that a test characteristic which is found to be effective in reducing the debilitative test anxiety of some EFL students may not work well for others, and vice versa. Similarly, a test characteristic which is found to be useful in reducing student's debilitative test anxiety in tests of a particular language skill may be found to be less useful in tests of another language skill.

LIMITATION AND FUTURE RESEARCH

The findings of this study need to be viewed with several limitations in mind. First, this research is a tentative study of test methods that affect test anxiety, and is limited to a small number of participants. Therefore, the research results need to be confirmed with a large sample. Second, the pre- and post- tests used in the second section of the research design are confined to one test, the General English Qualifying Test for Non-English Major Graduate Students, which poses the question of generalizability of the results. Thus, the results and findings of section 2 should be viewed with this limitation in mind. Third, due to the scope and methodological constraints of the present study, it has not gone deep into the study of the relationship between test characteristics, test taker characteristics and tests of different language skills. More research should focus on how each test characteristic interacts with each personal characteristic such as language ability or proficiency level, ability or aptitude in the specific subject area, test preparation and self cognition, etc. to affect test anxiety, and how such influence varies to tests of vocabulary, grammar, listening comprehension, reading comprehension, speaking and writing.

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APPENDIX A

Interview Question Used in Section 1

1. How do you rate your English level? Do you think the test scores can reflect your English level?
2. You've been through a lot of English test, right? Do you feel nervous about English tests? The General English Qualifying Test for Non-English Major Graduate Students is drawing close, are you worried about it? Why(not)?
3. Normally how do you feel in English tests? When do you feel nervous in an English test? What are you symptoms when you feel nervous? Anything different with your body, thinking, and attention? Have you ever been in the situation where you have to read the test instructions many times before you understand them? Do you find it hard to concentrate your mind at the beginning of the English test? Have you ever found a test item too difficult in a test, while the same test item can be solved after the test without any difficulty?
4. What do you think make you feel nervous in an English test?
5. Which part of an English test makes you most nervous, listening, reading comprehension, cloze or writing? Why is that?
6. Any changes about test design that affect your anxiety level in an English test? What kind of change will affect your anxiety?
7. Does the item type affect your anxiety level? Which item type makes you feel nervous the most? For example, which makes you more nervous in a test, short answer or multiple-choice? Why? Does such difference in item type have the same or similar effect among

different parts of a test?

8. Do you feel time pressure in an English test? Does the pressure have any effect on your anxiety level? For which part of the test does time pressure affect your anxiety? Why? How much more time do you need to release the pressure?
9. Does item difficulty sequencing have any effect on your anxiety level? Which makes you more nervous, easy-difficult sequencing or difficult- easy sequencing?
10. Normally before an English test, does your teacher provide you with test-taking information, such as item types, item numbers, item difficulty, weight of each part, time limit, etc.? Does the test-taking information given have any effect on your anxiety level about the test? Why(not)?

APPENDIX B

Interview Question Used in Section 2

1. Do you still remember the model test that you took in class, about two weeks before the real exam?
2. Any difference in test design or test characteristics between the model and real test? What are the differences? Any difference in item difficulty, item sequencing, item type, time limit, test information given between the two tests?
3. Any difference in your anxiety level in the two tests?
4. Which parts make you feel very nervous in the two tests respectively? Why do you feel so nervous?
5. According to your self-reports, your anxiety levels in the two tests are quite different. What do you think cause the difference in anxiety?