Validity and Reliability Testing of the Adapted Foreign Language Classroom Anxiety Scale (FLCAS)

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Abstract
This paper aims to perform a pilot study to test the validity and reliability of the instruments to be used for a major study that targets to identify the causes that lead to anxiety among EFL learners. According to the objectives of the major study, the instrument needed to be divided into three main categories and add to another section. Therefore, there was a need to perform the division and designed open-ended questions to suit the nature of the major study. Due to some slight modification, it is crucial to check its effectiveness of the instrument in terms of face validity, content validity and reliability to prove that the instrument is valid and reliable to be used. The validation process was done by three experts from a private institution who declared the instrument is valid upon receiving the explanation that the items will be explained to the students as they are low proficiency students and marked all items as "essential." Reliability findings indicate a high level of internal consistency concluding that the instrument is highly reliable to be used. In conclusion, the validity and reliability results proved that the instrument is effective to be used for the major study as planned.
Keywords: Validity and Reliability, Instrument, Foreign Language Classroom Anxiety Scale (FLCAS), Adapted, Pilot Study

Introduction
The pilot study refers to a smaller version of a study carried out among a small group of participants or sample which is similar to the major and larger version of the study (Doody & Doody, 2015). Many researchers argued that pilot study is essential in checking the effectiveness of the planned major study within all the areas such as instrumentation, research procedure and analysis as stated by Shanyinde et al. (2011), Pritchard and Whiting (2012) and Abbott, (2014). In other words, the pilot study allows a researcher to evaluate the practicability of the major study before it is carried out on a larger scale (Jeray & Tanner, 2012; Morin, 2013). Following the thread, the present study which is also a pilot study acts as a support and aims specifically in assessing the efficiency of the instruments chosen and designed for a major study that targets to identify the causes that lead to anxiety among EFL learners.

In line with that, a smaller group of a sample which is similar to the major study has been chosen in conducting the pilot study. The instrument chosen for the study has been adapted from Horwitz et al. (1986) Foreign Language Classroom Anxiety Scale (FLCAS). In accordance with that, an international school has been chosen to carry out the pilot study to complement the major study. The international school chosen for the pilot study is located in Malaysia which attracts foreigners. Moreover, the Cambridge Curriculum used by the school is a main curriculum used worldwide in preparing the students to compete globally. The English language being one of the core subjects in the school enables the pilot study to be carried out conveniently.

As stated earlier, the targeted group of leaners for the pilot study carries the same characteristics as the major study in which the learners are from non-English speaking countries such as Japan, China and Korea who are also known as EFL learners according to Kanchru's concentric circle model. These 15 EFL learners possess low proficiency in the English language and their age range from 10 to 12 years old. The minimal exposure towards the English language causes the learners to face difficulty in learning and using the language effectively. This situation eventually results in anxiety when it comes to speaking the language. Therefore, the major study has been designed to tackle the issue of speaking difficulty by lowering their anxiety in speaking while also considering the learners' initiative and effort in terms of their language learning strategies to improve their speaking skill.

Hence, the Foreign Language Classroom Anxiety Scale (FLCAS) designed by Horwitz et al. (1986), has been modified accordingly to suit the nature of the major study. This modification needs to be piloted to prove the effectiveness of the instruments in line with the objectives of the major study. In line with that, researchers use the validity and reliability to check the effectiveness of an instrument. Validity refers to the appropriateness and suitability of the instrument. In other words, validity checks whether or not the instrument measures what it intends to measure (Bolarinwa, 2015). On the other hand, reliability defined as the consistency of the result obtained. According to Kubai Edwin (2019), validity and reliability demonstrate the level of "believability" and "trustworthiness" of the instrument designed. Among the various types of validity and reliability, the present study undertakes the face validity and content validity followed by internal reliability to check the effectiveness of the instrument. Therefore, this study aims to perform a pilot study to assess the validity and reliability of the instrument to be used for a major study that aims in identifying the causes that lead to anxiety among EFL learners at an international school.

Purpose of Pilot Study
The attempt to carry out a pilot study has been undertaken to check and prove the effectiveness of the instrument which is FLCAS by Horwitz et al. (1986). According to the objectives of the major study, it is necessary to identify the learners' causes of anxiety in speaking English effectively and to identify the learners' learning strategies to enhance their speaking skill, the instrument needed to be divided into three main categories that stipulated as the ultimate causes of anxiety. However, the instrument chosen which was designed by Horwitz et al. (1986), consists of a total of 33 items which are not divided into its categories as stated above.

Therefore, there was a need to perform the division in order to suit the objective of the study. Besides, along with this survey, open-ended questions have been designed to identify the learners' learning strategies to enhance their speaking skill to satisfy the second research objective of the major study. On the whole, the instrument has undergone a slight modification, therefore, it is crucial to check its effectiveness of the instrument in terms of validity and reliability to prove that the instrument is suitable with relevant reliability and valid to be implemented in the major study. At the same time, it also prevents any problem to occur during the implementation of the major study. Hence, the purpose of this paper is to perform a pilot study to test the validity and reliability of the instruments to be used for a major study that aims in identifying the causes that lead to anxiety among EFL learners at an international school. In line with that, the study will be carried out to fulfil the following objectives and answer the following questions.

Pilot Study Objectives
   a) To test the face validity and content validity of the adapted Foreign Language Classroom Anxiety Scale (FLCAS) designed by Horwitz's et al (1986)
   b) To measure the reliability of the adapted Foreign Language Classroom Anxiety Scale (FLCAS) designed by Horwitz's et al (1986)

Pilot Study Questions
   a) What are the face validity and content validity of the adapted Foreign Language Classroom Anxiety Scale (FLCAS) designed by Horwitz's et al (1986)?
   b) What is the reliability of the adapted Foreign Language Classroom Anxiety Scale (FLCAS) designed by Horwitz's et al (1986)?

Development of the Instrument
Hamed (2016) asserted that surveys are one of the ways to obtain valid and reliable findings for a study. In accordance with that, a survey instrument that was chosen for the major study was designed by Horwitz's et al (1986) and it is known as Foreign Language Classroom Anxiety Scale (FLCAS). According to Horwitz et al (1986), the three main contributors to anxiety are communication apprehension, test anxiety and fear of negative evaluation. These three main domains are made the constructs of FLCAS which consists of 33 items in total with a 5-point Likert Scale which ranges from strongly agree, agree, neutral, disagree to strongly disagree. Each range has given a point from 1(strongly disagree) to 5(strongly agree). As cited by Masoomeh and Fahimeh (2014), for items number 2, 5, 8, 11, 14, 18, 22, 28 and 32, the point was reversed as 1(strongly agree) to 5(strongly disagree) to show the highest point as higher anxiety.

Development of Adapted Instrument
However, as stated earlier, the instrument needed to undergo some modifications to suit the objectives of the major study. Therefore, the instrument has been divided into three parts according to the constructs which proven to be the ultimate causes of anxiety such as Part A (communication apprehension), Part B (fear of getting negative evaluation) and Part C (test anxiety). Secondly, open-ended questions have been designed and attached to the survey. Part A, Part B and Part C will be used to answer the first research question of the major study which is to identify the learners' causes of anxiety in speaking English effectively while Part D will be answering the second research question of the major study which is to identify the

learners' learning strategies to enhance their speaking skill, respectively. Lastly, the words "language" and the phrase "foreign language" used in the original FLCAS have been changed to "English" according to the nature of the major study.

Testing Validity of the Adapted Instrument

The present pilot study was carried out to assess the validity and reliability of the instrument used. Therefore, the pilot study process followed the exact procedure of the major study. Firstly, the validation process was carried out. In order to validate the instrument, face validation and content validation has been used whereby three experts from a private institution have been chosen to conduct the validation process. The experts chosen are from a similar field but different positions such as English teacher, Head of English Department and the Key Stage Head. Face validity was done by these experts to determine whether or not the items present in the instruments are suitable for the level of targeted students. Besides, the Lawshe's (1975) model has been used as a guide in completing the content validation process whereby Content Validity Ratio (CVR) is calculated according to the "essentiality" of the items present in the instrument to determine the validity of the instrument. As stated by Hameed (2016), CVR is a straight change of a relative degree of concurrence on the number of "experts" rate an item as "essential." According to the model, an item should reach the minimum CVR value of 0.5 in order to be sustained in the instrument or else it will be removed. Therefore, the CVR value was calculated using the Lawshe's formula to determine the essentiality of the items.

Testing Reliability of The Adapted Instrument

Next, the instrument (survey) was distributed to the targeted learners upon explaining the instrument to the learners. The learners were guided throughout the session to complete it successfully. Further explanations such as the meaning of words were also given when necessary. Following that, the data was collected and analysed using the Statistical Package Social Science (SPSS). Once the data collected from the pilot study is keyed in the SPSS, the reliability of the data was measured and recorded using the Cronbach's alpha formula. According to Bonett, D. G., and Wright, T. A. (2014), Cronbach's alpha is used widely across all areas of studies especially social and organizational sciences to determine the reliability of an instrument. In addition, the instrument is said highly reliable if the Cronbach's alpha value is equal or exceed 0.8 whereas if it is less than 0.5, it is concluded that the instrument is less reliable. The analysis of both validity (face validity and content validity) and reliability were recorded and analysed in this pilot study to check if another round of pilot study is needed with necessary amendments on the instrument prepared.

At the same time, ethical consideration was also followed throughout the piloting process. This includes the explanation of consent to the learners in completing the survey given. Besides, the study also held on to the anonymity principle as their identity was kept anonymous. Most importantly, the learners who have been chosen as the sample of the study volunteered to be part of the process as they were not forced to join the survey. Last but not least, all the secondary data will be cited accordingly in the references part. Hence, this study will strictly uphold the research guidelines as stipulated above.

Findings
Validity
Foreign Language Classroom Anxiety Scale (FLCAS) has been used as research instrument widely in various studies to find out the level of anxiety based on the situations designed on the instrument by Horwitz et al (1986). However, it is necessary to ensure the instrument is valid and reliable to conduct the study as modifications have been done to answer the research questions effectively. Through the validation process, three experts from a private institution were chosen to conduct the validation process namely, face validity and content validity.

Face Validity
Firstly for face validity, the experts determined whether or not the items present in the instruments are suitable for the level of targeted students. Initially, the experts were uncertain if the students will be able to understand the items effectively. However, upon explaining that each item will be explained to them as they are low proficiency students, the experts agreed and concluded that the instrument is clear and good enough to answer the research objectives of the major study.

Content Validity
Furthermore, for content validity process, the Lawshe's (1975) method was executed as stated earlier. Each item will be cross checked to ensure the items are necessary and in line with the research objectives. Similarly, the three experts cross checked each item and marked "essential" which means all the items are necessary to answer the research objectives of the major study. According to Lawshe (1975), if all the items are marked as "essential", the Content Validity Ratio (CVR) is computed as 1.0 that indicates the maximum value to be classified as valid. Therefore, it is concluded that the instrument is valid to be used.

Reliability
On the other hand, reliability was also measured to make the adapted instrument reliable. Though most of the researchers have proven that this instrument is very reliable, a pilot study has been conducted to prove the reliability once again using the Cronbach's alpha formula.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.894	.861	33

Table 1: Reliability statistics

Table 1 above shows the result of the reliability of all the Likert-scale items arranged in a new order according to the categories which also includes the statements with reversed points to show the highest point as high level of anxiety as stated earlier. The Cronbach's alpha reading showed 0.894 compared to the original instrument's Cronbach's alpha value which was 0.93. However, if the Cronbach's alpha values exceed 0.8, it is concluded that the instrument is highly reliable, therefore, the reading that was obtained from the pilot study indicates a high

level of internal consistency. In accordance with that, it can be concluded that the instrument is highly reliable to be used.

Besides, the process of piloting went on smoothly as the explanation given at the beginning of the study helped the students to complete the survey effectively.

Conclusion

Based on the validity and reliability results stated above, the instrument is effective to be used for the major study as planned. Therefore, there are no amendments needed to be done to the instrument and another round of pilot study is also not needed. The amendments which were made earlier on separating the items into three main domains and adding on another part on open-ended questions is sufficient to carry out the major study in answering the research questions respectively.

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