

Children's Foreign Language Anxiety Scale: Preliminary Tests of Reliability and Validity

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Recommended citation: Aydın, S., Harputlu, L., Güzel, S., Uştuk, Ö., Savran-Çelik, Ş. & Genç, D. (2016). Children's foreign language anxiety scale: Preliminary tests of reliability and validity. *Turkish Online Journal of English Language Teaching (TOJELT)*, 1(3), 144-150.

Received:
28 July 2016
Accepted:
01 September 2016
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E-ISSN: 2458-9918

Abstract: Foreign language anxiety (FLA), which constitutes a serious problem in the foreign language learning process, has been mainly seen as a research issue regarding adult language learners, while it has been overlooked in children. This is because there is no an appropriate tool to measure FLA among children, whereas there are many studies on the scales that aim to measure anxiety levels among adult learners. Thus, the current study aims to conduct the preliminary tests of reliability and validity of the Children's Foreign Language Anxiety Scale (CFLAS) and to report on the pilot examination of reliability, validity and factor structure of the CFLAS. The findings of the pilot study show that CFLAS is a reliable and valid tool to measure FLA levels among children who learn English as a foreign language (EFL) within the age range of 7-12 in a Turkish EFL context.

Keywords: Foreign language anxiety, children, scale, validity, reliability

1. Introduction

FLA, a type of uneasiness and an anxious state of mind generally caused by the unique nature of the language learning process which includes various challenges for learners (McIntyre & Gardner, 1994), is a considerable variable that has negative influences on the foreign language

learning process (Aydın, 2008). FLA manifests itself in the language classroom in many ways since the language learning process is a unique situation in that it addresses multiple skills (McIntyre & Gardner, 1994). One of the reasons that causes FLA is that achievement is measured and appreciated based solely on test scores rather than whole performance throughout the learning period. Another reason is that comments of others and the teacher during language learning affect language performance (Kitano, 2001). The last reason is that language learners experience communication apprehension during interaction and communication with native, second or foreign speakers of the target language. In conclusion, it is important to measure FLA, a considerable issue in the language learning process, with valid and reliable tools to have a deep understanding of how to cope with it.

Latest research on the validity and reliability of the scales that aim to measure FLA among adult learners draws attention in the field of foreign language learning and teaching. In this sense, researchers mainly preferred Horwitz's (1986) Foreign Language Classroom Anxiety Scale (FLCAS) to measure anxiety levels. For instance, several studies focused on the reliability and validity of the FLCAS developed by Horwitz (1986) among adult learners and reached mainly positive results in terms of the validity and reliability of the FLCAS (e.g. Aida, 1994; Paredes, & Muller-Alouf, 2000; Toth, 2008; Yaikhong, & Usaha, 2012). However, while it is possible to trace studies dealing with FLA with the help of FLCAS concerning adult learners, there is a serious lack of study on FLA among children (Aydın, 2013).

As underlined above, over the past years, the number of studies focusing on the role and rate of anxiety among young learners has been fairly sparse (Ay, 2010; Aydın, 2012; Chan & Wu, 2004). In addition, one of the main limitations of those studies was that the FLCAS that was designed for adult language learners was used to measure anxiety among children. Thus, considering the differences, including psychological, cognitive and social developments of children, it is very difficult to collect reliable data and draw conclusions without a scale that is designed specific to young learners. Furthermore, children who are surveyed might feel more anxious provided that they cannot figure out the meaning of items belonging to a survey that has not been intentionally created for young learners. Moreover, in order to identify the sources and extent of anxiety, situations creating anxiety and ways to lower it, it is valuable to prepare and conduct a FLAS among children.

In Turkish EFL context, however, the implementation of the FLCAS on children was conducted in a study that focused on the adaptation of FLCAS into a Turkish version and testing its validity and reliability. In this study, Bas (2013) reviewed the adaptations of FLCAS in related literature, and based on the data, a 30-item scale was developed to measure elementary school children's FLA. After the development of scale, it was tested for both reliability and validity. The reliability of the scale was calculated as 0.93 according to Cronbach's Alpha. Bas (2013) detected three factors in the scale, and total variance percentage was calculated as 52.93%. However, it seems that in the study, all the items were kept unaltered in terms of simplicity and syntactic constructs, which contradict the principles of developing scales for children. That is, to develop an effective scale for children, items must be moderated and simplified as much as possible by taking their cognitive levels into consideration.

To conclude, several reasons guided this study. First, FLA is considered as a research area that is mainly related to adult foreign language learners, while children are neglected. Second, current literature shows that there is not any research tool that aims to measure FLA among children who learn a foreign language. Third, researchers mainly preferred Horwitz' (1986) FLCAS to measure the level of anxiety among children without taking into consideration children's psychological, cognitive and social developments. In conclusion, it can be stated that

scale adaptation and development regarding anxiety among children remains an untouched area. Thus, this study aims to carry out a preliminary study on the adoption of an anxiety scale that can be used to measure anxiety levels among children. In a narrower perspective, the current study aims to present preliminary results of the administration of an anxiety scale that was adopted for children in terms of validity and reliability.

2. Method

2.1. Participants

The participants in the study were 174 students enrolled in one primary and one secondary school in Balıkesir, Turkey. The sample group consisted of 23 (13.2%) second graders, 29 (16.7%) third graders, 24 (13.8%) fourth graders, 37 (21.3%) fifth graders, 32 (18.4%) sixth graders and 29 (16.7%) seventh graders. Of the participants, 89 (51.1%) were girls and 85 (48.9%) were boys. Their mean age was 9.71 in the range of seven and 12.

2.2. Tool

The data collecting tools consisted of a background questionnaire examining participants' age, gender and birth date, the FLCAS (Horwitz, 1986) that involved 33 items that were assessed on five facial expressions that ranged from one to five (1=very unhappy, 2=unhappy, 3=neither happy nor unhappy, 4=happy, 5=very happy).

2.3. Procedure

The study consisted of four main phases: (1) Translation and adaptation of the FLCAS into Turkish, (2) simplification and moderation of the FLCAS for children, (3) the administration of the CFLAS and (4) statistical procedure.

Phase 1: Translation and adaptation of the FLCAS into Turkish

Five translators, one who had a Ph.D. degree, three MA students and one BA student in the field of English language teaching translated the Foreign Language Classroom Anxiety Scale (FLCAS) validated by Horwitz (1986) from English to Turkish in blind sessions. Then, they compared and unified their translated versions into one and reached a satisfactory equivalence in a panel after focusing on the semantic and conceptual equivalence. Then, the English version of FLCAS was administered to 85 EFL learners at third and fourth grades in the Department of English Language Teaching of Education Faculty of Balıkesir University, Turkey. The sample group consisted of 63 (74.1%) female and 22 (25.9%) male students in the age range of 19 to 27 ($x=21.09$) at an advanced level of English language proficiency. Four weeks later, the Turkish version of the FLCAS was administered to the same sample group. Both the English and Turkish versions of the FLCAS were found to have internal consistency (Cronbach's Alpha for the original version=0.77; Cronbach's Alpha for Turkish version=0.86) and construct validity (67.19 of the variance for the English version; 73.58 of the variance for the Turkish version). It was concluded that there is equivalence between the Turkish and English versions of the FLCAS regarding validity and reliability (Aydın et al. 2016).

Step 2: Simplification and moderation of the FLCAS for children

The Turkish version of the FLCAS that was appropriate for adults and proficient learners of English was simplified and moderated for children. For this purpose, first, each item in the Turkish FLCAS was simplified in accordance with conceptual and linguistic developments of the related age group by the panelists in a blind session. Second, they discussed each item in panels

and reached a consensus in terms of intelligibility and responsiveness among children. Several activities such as group, peer work and individual drama, process drama strategies and interactional role-plays were used to see how children perceived the items. The sample group that participated in the process consisted of 174 primary and elementary students at two state schools. The participants were from second to seventh graders in the age range of seven to 12. After examining the audio and visual recordings by the panelists, each item was restructured. The panelists reached a consensus regarding the intelligibility and responsiveness of the scale by children.

Step 3: Administration of the CFLAS

The CFLAS was administered to the participants in the fall semester of the 2015 – 2016 academic year.

Step 4: Statistical procedure

The data gathered was analyzed using SPSS software. First, participants' gender and grade frequencies in percent were computed. Then, mean score for age was calculated. Second, Cronbach's Alpha was computed to see the extent to which items in the CFLAS represent reliability. Third and last, an exploratory factor analysis was used to compare and to understand the extent to which the CFLAS reflects the construct validity. For this purpose, a principal component analysis and the Varimax method were carried out. After this procedure, eight items in the scale that were not functioning and not related to any factor were removed from the scale, leaving 25 items in the CFLAS (See Appendix A).

3. Results

3.1. Descriptive data

The range of scores for the data set was from 30 to 87 with a mean score of 74.36. The standard deviation was found to be 13.22.

3.2. Reliability

Values demonstrate that the reliability level of the CLAS is acceptable. That is, the internal consistency was .85 in Cronbach's Alpha and .85 in Cronbach's Alpha Based on Standardized Items.

3.3. Validity

As previously underlined, the CFLAS was analyzed by an exploratory factor analysis. In the analysis, principal components with Varimax rotation was used. The items and their loadings on each factor given in Table 1 and 2 showed that the rotated factors explained 59.83% of the variance. In the CFLAS, eight items loaded on the first factor which explained 22.28%, whereas four items loaded on the second factor explained 39.85%. For five items loaded on the third factor, cumulative % was 46.05, whereas, for four items loaded on the fourth factor, cumulative % was 51.50. In addition, two items loaded on the fifth factor explained 55.74%, whereas two items loaded on the sixth factor explained 59.83%. In sum, a six-factor solution was identified that accounted for 59.83% of the variance. The eigenvalues, amount of variance explained and scree test showed that the CFLAS obtained an optimal factor solution.

Table 1. Factor Loadings for Exploratory Factor Analysis with Varimax Rotation

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.57	22.28	22.28	5.57	22.28	22.28	4.13	16.51	16.51
2	4.39	17.57	39.85	4.39	17.57	39.85	2.90	11.58	28.09
3	1.55	6.21	46.05	1.55	6.21	46.05	2.47	9.89	37.99
4	1.36	5.45	51.50	1.36	5.45	51.50	2.22	8.88	46.87
5	1.06	4.24	55.74	1.06	4.24	55.74	1.93	7.71	54.58
6	1.02	4.09	59.83	1.02	4.09	59.83	1.31	5.25	59.83

Extraction Method: Principal Component Analysis.

Table 2. Rotated Component Matrix

Items	Component					
	1	2	3	4	5	6
17	.791	-.007	.205	.029	.134	.120
1	.774	.020	.019	-.049	.103	-.079
20	.772	.167	.053	.150	-.011	.028
5	.718	.147	.230	-.037	.116	.040
8	.596	.116	.070	-.232	.268	.425
3	.577	-.230	.244	.012	-.198	.111
14	.561	-.022	.236	.139	-.138	-.040
30	.404	.381	.238	-.109	.368	.190
7	.046	.807	-.162	.035	.061	.147
23	.057	.794	.097	.021	.124	.100
10	.025	.503	-.185	.292	.157	.003
2	.191	.478	-.018	.358	.293	-.379
13	.162	-.221	.717	-.023	.034	-.024
22	.272	-.078	.699	-.116	-.245	.048
21	.211	-.076	.677	-.165	-.058	.326
19	.037	.428	.515	.179	.203	-.109
24	.348	.125	.502	-.039	.014	-.106
11	-.087	-.011	-.040	.795	.073	-.086
9	.314	.114	-.210	.629	.161	.061
4	.036	.406	.115	.604	.128	.270
12	-.187	.319	.004	.459	.420	.398
33	.075	.093	-.021	.124	.804	.142
31	.056	.289	-.125	.263	.705	-.122
25	.405	.257	.195	.119	.045	.508
15	.041	.416	-.192	.340	.122	.464

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

4. Conclusion

This pilot study was designed to develop and examine Children's Foreign Language Anxiety Scale. First conclusion was that the scale obtained a high level of internal consistency. Second conclusion was that the scale resulted in a six-factor solution based on communication apprehension, fear of negative evaluation, test anxiety, fear of making mistakes, peer approval and course content. These conclusions provide evidence for the potential utility of the CFLAS as a developmentally appropriate measurement tool for foreign language anxiety among children aged 7-12. However, it should be noted that these results are tentative, as the current research includes the pilot study of reliability and validity of the CFLAS. In addition, the study is the first examination of factor solution and reliability analysis. Thus, it is necessary to perform an additional examination of the factors complexity in more diverse and larger samples to provide evidence on the relationship with variables found in the current study.

Note

An earlier version of this paper was presented at *the Conference of Glocalisation of Professional Development in ELT: Think Global, Act Local* on 3 – 4 June, 2016 in İzmir, Turkey.

Acknowledgements

This study was supported by the Scientific and Technological Research Council of Turkey (TUBITAK) through the research grant (3001: 115K738) under the title of *Foreign Language Anxiety among Children*. The authors would like to thank TUBITAK for funding and scholarship.

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Aydın, Harputlu, Güzel, Uştuk, Savran Çelik, & Genç (2016)

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Appendix A: Items in the CFLAS

1. İngilizce dersine girince ne hissediyorsun?
2. Derste İngilizce konuşurken ne hissediyorsun?
3. İngilizce derslerinde öğretmen sana seslendiğinde ne hissediyorsun?
4. Daha fazla İngilizce dersine girsen ne hissedersin?
5. İngilizce dersinin sınavlarında ne hissediyorsun?
6. İngilizce dersinde sana söz hakkı verildiğinde ne hissediyorsun?
7. Bir İngiliz'le konuşsaydın ne hissederdin?
8. İngilizce konuşmak için öğrenmen gereken çok kural olduğunu gördüğünde ne hissediyorsun?
9. Arkadaşların İngilizcede senden daha iyiyse ne hissedersin?
10. Arkadaşların İngilizceyi senden daha iyi konuştuklarında ne hissediyorsun?
11. İngilizce derslerinde başarısız olursan ne hissedersin?
12. İngilizce dersinde hata yapınca ne hissediyorsun?
13. İngilizce derslerinde parmak kaldırdığında ne hissediyorsun?
14. İngilizce dersine çok iyi hazırlanınca ne hissediyorsun?
15. İngilizce dersinin sınavına çok çalıştığında ne hissediyorsun?
16. İngilizce öğretmenin yaptığın her hatayı düzeltmeye hazırsa ne hissedersin?
17. Arkadaşlarının önünde İngilizce konuşurken ne hissediyorsun?
18. İngilizce dersinde arkadaşların mutsuz olunca ne hissedersin?
19. İngilizce derslerinde hazırlık yapmadan konuşman gerekince ne hissedersin?
20. Öğretmenin İngilizce söylediklerini anlamadığında ne hissediyorsun?
21. İngilizce derslerinde bildiğin şeyleri unutunca ne hissediyorsun?
22. İngilizce öğretmenin çalışmadığın yerden soru sorunca ne hissedersin?
23. İngilizce konuşurken diğer öğrenciler sana gülecek olursa ne hissedersin?
24. İngilizce derslerinde konular hızlı ilerlediğinde ne hissedersin?
25. Öğretmenin düzelttiği şeyi anlamadığında ne hissediyorsun?