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Original article

# Turkish adaptation and validation of the short form of the Foreign Language Enjoyment Scale

## *Adaptation et validation de la forme courte de l'Échelle de Plaisir d'Apprendre une Langue Étrangère*

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ABSTRACT

*Introduction.* – Emotions have an important role in the foreign language learning process. Positive emotions as one of the strong predictors of learning have important pedagogical implications. Enjoyment, which is one of the leading positive emotions, can be associated with solidarity and support among students in the classroom environment, the general classroom atmosphere, the content of the teaching, the personal characteristics of the teachers and their behavior towards the students. Although there are important pedagogical aspects of enjoying learning a foreign language, studies have been conducted on negative emotions such as foreign language anxiety instead of positive emotions about learning a foreign language for years. It can be said that measuring the anxiety or boredom experienced while learning a foreign language will not be enough to reveal how much enjoy students while learning a foreign language. For this reason, studies should be conducted on more positive emotions such as enjoying learning a foreign language.
*Objective.* – This study tries to explore the validity and reliability of the short form of the Foreign Language Enjoyment Scale adapted to Turkish.
*Method.* – A total of 255 students who learn foreign languages in Turkey participated voluntarily in the study. The Turkish short form of the Foreign Language Enjoyment Scale was applied to the students online. The data of the study were evaluated in terms of, standard Rasch model analysis, confirmatory factor analysis, convergent and discriminant validity analyses.
*Results.* – According to the reliability analyses, Cronbach Alpha value was found to be 0.840. According to the Rasch Model analysis all scale items were found to be productive for measurement. Revealed with confirmatory factor analysis, the model was confirmed. Convergent and discriminant validity analyses supported the construct validity of the scale.
*Conclusion.* – It is important to enjoy learning a foreign language and to know how much students enjoy it. The Turkish short version of the Foreign Language Enjoyment Scale is a practical, valid and reliable measurement tool that can be easily applied to students and does not take much of their time.


*Mots clés :*
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RÉSUMÉ

*Introduction.* – Les émotions occupent une place primordiale dans le processus d'apprentissage d'une langue étrangère. Comme les émotions positives sont l'un des prédicteurs forts de l'apprentissage, elles ont des impacts pédagogiques essentiels. Le plaisir, qui est l'une des principales émotions positives, peut être associé à la solidarité et au soutien entre élèves dans l'environnement de la classe, l'ambiance générale de la classe, le contenu de l'enseignement, les caractéristiques personnelles des enseignants et leurs comportements envers les élèves. Bien que le plaisir d'apprendre une langue étrangère présente des aspects pédagogiques importants, des études ont été menées pendant des années sur les émotions négatives telles que l'anxiété liée à une langue étrangère au lieu des émotions positives liées à l'apprentissage d'une langue étrangère. Il est à souligner que mesurer l'anxiété ou l'ennui ressentis lors de l'apprentissage

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d'une langue étrangère ne suffira pas à révéler à quel point les étudiants s'amusent. C'est la raison pour laquelle il est conseillé que les études futures soient menées sur des émotions plus positives comme le plaisir d'apprendre une langue étrangère.
*Objectif.* – Cette étude tente d'explorer la validité et la fiabilité de la forme courte de l'Échelle de Plaisir d'Apprendre une Langue Étrangère traduite en turc.
*Méthode.* – Au total, 255 étudiants, qui sont en train d'apprendre une langue étrangère en Turquie, ont volontairement participé à l'étude. La forme courte en turc de l'Échelle de Plaisir d'Apprendre une Langue Étrangère a été appliquée aux étudiants en ligne. Les données de l'étude ont été évaluées en termes d'analyse du modèle de Rasch standard, d'analyse factorielle confirmatoire, d'analyses de validité convergente et discriminante.
*Résultat.* – Selon les analyses de fiabilité, la valeur alpha de Cronbach est de 0,840. Selon l'analyse du modèle de Rasch, tous les éléments de l'échelle se sont avérés productifs pour la mesure. Étant révélé à l'aide d'une analyse factorielle confirmatoire, le modèle a été confirmé. Des analyses de validité convergente et discriminante ont prouvé la validité de construit de l'échelle.
*Conclusion.* – Il est fort important de prendre plaisir à apprendre une langue étrangère et de savoir à quel point les élèves l'apprécient. Cette version courte en turc de l'Échelle de Plaisir d'Apprendre une Langue Étrangère est un outil de mesure pratique, valide et fiable qui peut être facilement appliqué aux étudiants et ne prend pas beaucoup de temps.



## 1. Introduction

There are many factors that affect student success in the process of foreign language learning. One of them is to learn a foreign language within the framework of a positive classroom climate. Classroom climate affects students socially, emotionally and physically. Studying in a pleasant environment supports the learning process of the student and encourages positive relationships in the classroom (Sieberer-Nagler, 2016). It is very important in the teaching process to reward students' efforts and progress, to appreciate them, to try new teaching strategies in the classroom environment and to encourage students to learn. However, without the appropriate positive teaching environment, these actions may remain superficial. Students need a learning environment where they are not constantly judged negatively, are not afraid to dare to try, are not afraid to make mistakes, and receive constructive feedback and have educators who believe in them (Dweck, 2016; OECD, 2021).

In addition to these, the fact that students feel bored instead of enjoying the lesson is another important point that educators should focus on. Because the feeling of boredom triggers the urge to escape from any situation and encourages the motivation to avoid doing something (Pekrun et al., 2010). When this feeling of boredom occurs in educational environments, it can be stated that boredom also causes the student to move away from the learning situation. However, when the lesson is enjoyed, the opposite situation occurs, and it can be said that the student becomes more willing to learn. Some studies have also shown that boredom has a negative effect on students' attention and efforts towards success (Pekrun et al., 2010). According to Eccles (2005), being interested in and enjoying any activity activates positive intrinsic motivation. It is stated that positive intrinsic motivation is a mechanism that plays an important role in revealing students' potential in learning (Altıntaş & Arıcı, 2021).

Emotions have a central role in the foreign language learning process (Dewaele, 2015). In the context of foreign language lessons, enjoying the lesson is defined as a complex emotion that reflects the success drive of individuals in the face of difficult tasks (Dewaele & MacIntyre, 2016). Although many variables in the learning process are effective in the foreign language learning process, positive emotion, being one of the strong predictors of learning and it has important pedagogical implications. Among the important variables associated with enjoyment while learning a foreign language are the solidarity and support among peer groups in the classroom, the general classroom environment, the content of the teaching, the difficulty of the assigned tasks, the characteristics of the teachers who teach in the classroom, and their behavior towards students. Although there are important pedagogical aspects of enjoying learning a foreign language, studies have been conducted on negative feelings such as foreign language anxiety instead of positive feelings about learning a foreign language for years. According to the anxiety, boredom and enjoyment studies conducted in the field of foreign language learning, it has been concluded that all three feelings are closely related to each other, but these feelings emerge and are shaped in different ways according to internal and external variables in the classroom environment (Dewaele et al. (2022). Based on this result, it can be said that the anxiety or boredom experienced while learning a foreign language will not be enough to reveal how much enjoy the students while learning a foreign language. For this reason, studies should be carried out on more positive feelings such as enjoying learning a foreign language.

In the context of the positive psychology movement, the first formal theoretical study in which positive emotions were investigated in the field of foreign language learning was the study of MacIntyre and Gregersen (2012), in which they tried to reveal the role of positive emotions in language teaching. Following this study, MacIntyre and Mercer's (2014) study on positive psychology is another important study emphasizing the importance of positive emotions in foreign language teaching. In these studies, positive psychology was introduced, and it was stated that positive emotions have different functions from negative emotions and facilitate language learning, based on Fredrickson's "Broaden-and-build" theory on positive emotions. Because, according to researchers, positive emotions contribute to broadening the individual's perspective and assimilation of language. On the other hand, negative emotions narrow the individual's focus and restrict language learning (MacIntyre & Gregersen, 2012; MacIntyre & Mercer, 2014). Another researcher, Oxford (2016), who was influenced by positive psychology and tried to reveal the role of emotions in foreign language learning, mentioned the importance of the term "Empathic" in his research. The term empathic is a psychological term that helps students feel well-being, progress quickly, develop certain competencies, and enjoy language learning processes. This term also helps to explain why students who do not have a sufficient level of well-being experience processes such as frustration, anxiety or indifference (Oxford, 2016).

The "Bilingualism and Emotion Questionnaire" study, which explores the relationship between language and emotion and is perhaps the first major online research with a quantitative pattern in applied linguistics, was put forward by Dewaele and Pavlenko

(2001–2003). In this study, it was concluded that individuals who learn a foreign language through education express their emotions in a foreign language less frequently than individuals who learn a foreign language at an early age. The first important quantitative study investigating positive emotions in the field of foreign language learning was Dewaele and MacIntyre's study (2014), in which they investigated foreign language enjoyment in foreign language classes and anxiety experienced in foreign language classes. The subject of enjoying a foreign language started to come to the fore and gained popularity in 2014, with Dewaele and MacIntyre's development of the "Foreign Language Enjoyment Scale (FLES)". Since the FLES is a pioneer in its field, researchers from many different countries tried to demonstrate its validity and reliability by using different sample, and the effect or relationship of enjoying a foreign language on other variables was investigated. FLES is a 21-item Likert-type scale and it was used to determine the level of enjoyment of the participants. It was found that foreign language learners' level of enjoyment of a foreign language was higher than their anxiety level, and that the enjoyment of a foreign language and anxiety are related to various variables such as age, gender, foreign language level, number of known foreign languages. In one of the studies in which this scale was used, it was observed that enjoying a foreign language positively affects speaking skills in a foreign language (Saito et al., 2018). Li et al. (2018) have concluded that enjoying a foreign language develops depending on various internal and external factors. In a recent study by Su (2022), it was stated that foreign language anxiety is a situation related to the student himself, while enjoying a foreign language is more closely related to the teacher who teaches the course. Although there are many qualitative and quantitative studies in the literature using the original version of the scale, it can be said that more studies are needed on the short version in order to reveal its validity and reliability.

The FLES, which has been used in many studies' day by day, has been updated by Botes et al. (2021) and its short version (S-FLES) has been revealed. However, when we look at the literature, it has been seen that S-FLES has not been used in other studies and has not yet been adapted to other languages. Therefore, information about the validity and reliability of the scale in other cultures and languages is not available. For this reason, in this study, it will be tried to contribute to the literature by trying to reveal the validity and reliability of the Turkish version of S-FLES by using a Turkish sample learning a foreign language.

## 2. Method

### 2.1. Design and sample

Validity and reliability analyses were carried out on the quantitative data collected through a scale in order to reveal the level of enjoyment of foreign language learners in their foreign language learning processes. For this reason, it can be stated that the research is conducted according to the survey model, which tries to reveal some facts and events by obtaining data from large groups with a quantitative design (Karakaya, 2012).

The participants of the study consist of faculty of education students studying in the 2021–2022 spring semester of a state university, 1st, 2nd 3rd 4th grade students of foreign languages education department and foreign language preparatory class students. Our sample consisted of 255 participants (65.9% females, 34.1% males) aged between 18 and 58. These participants are taught in English, German, French and Arabic departments. For the transparency of the research, no specific classes were chosen for the study. An attempt was made to reach all students.

Of the participants, 40% were studying in the German department, 30.2% in English, 14.5% in Arabic and 15% in French. Of the participants, 50.2% were in the preparatory class, 20.4% were in the 1st grade, 9.8% were in the 2nd grade, 8.6% were in 3rd grade and 11% were in the 4th grade. When the language levels of the participants were examined, it was seen that they were generally at the intermediate and upper-intermediate level. Only 1.6% of the participants stated that they have A1 language level. In addition, 4.3% of the participants stated that they spoke the foreign language they studied as their mother tongue.

In determining the sample size to achieve accurate analysis results in scale studies, it is recommended that the sample cover at least fivefold or tenfold of the number of the items in the scale (Tabachnick et al., 2019). Kline (2013), on the other hand, states that working with at least 20 participants per item will yield much better results in the analyses. From this point of view, it can be said that it is quite sufficient to work with a sample of 255 participants for the 9-item scale.

### 2.2. Translation of S-FLES and content validity

For the language validity, S-FLES was translated from English to Turkish by three experts from the Department of English Language Teaching who are native Turkish speakers and are fluent in both languages. After the most appropriate statements had been selected as a result of the translation, the scale was re-translated into English by two experts from the Department of English translation and interpreting who were native Turkish and English speakers. Translators had not seen the original English version of the scale. The statements in the re-translated version were compared with those in the original version of the scale.

Each scale item has been scored out of 10 points to evaluate the content validity of the Turkish version of S-FLES. Five experts from the English Translation Department and English Language Teaching Department (three Associate Professors and two Professors), who assigned scores ranging from 1 to 4 (1 = inappropriate, 2 = the item needs to be made appropriate, 3 = appropriate but needs minor alterations and 4 = very appropriate) have rated each item in the Turkish S-FLES. The content validity of the items was calculated using the content validity index and Kendall's W test. All items were given scores of 3 and 4 by experts. The content validity index was found to be significant in the range of 0.90–1.00. Based on the result of Kendall's W test falling between 0 and 1, it was concluded that there was no significant difference in scoring among the experts (Kendall's W = 0,861; $p$ = 0,000; $p$ > 0,05).

Accordingly, the expert's opinions were determined to be compatible in terms of the content validity of the scale. No change was required in terms of content for any of the items. Only for item 9, a very short explanation has been added in parentheses about what is meant by "legends".

### 2.3. Data collection

The "Short Form of the Foreign Language Enjoyment Scale (S-FLES)" developed by Botes et al. (2021) was used as a data collection tool in the research. This scale was adapted from the 21-item "Enjoyment of a Foreign Language Scale" developed by Dewaele and MacIntyre (2014). This short version of the scale consists of "Teacher Appreciation", "Personal Enjoyment" and "Social Enjoyment" sub-dimensions and includes a total of 9 items. The Cronbach Alpha value of the original scale was calculated as 0.81. The scale is a 5-point Likert-type scale and is graded from "strongly disagree (1)" to "strongly agree (5)". Before using the scale, permission was obtained from the scale owner for the use of the scale. A pilot study was conducted with a group of 34 students in line with the data collected online via Google Forms. A different sample was used for the pilot study. After the translation, we wanted to find out if the participants had difficulties or dilemmas in understanding the

**Table 1**
Items and reliability results of Turkish S-FLES.

| Items | Cronbach's Alpha |
|---|---|
| F1: Teacher appreciation | (α = 0.789) |
| 1. The teacher is encouraging (Öğretmen cesaretlendiricidir) | |
| 2. The teacher is friendly (Öğretmen cana yakındır) | |
| 3. The teacher is supportive (Öğretmen destekleyicidir) | |
| F2: Personal enjoyment | (α = 0.704) |
| 4. I enjoy it (Keyif alırım) | |
| 5. I've learned interesting things (İlginç şeyler öğrendim) | |
| 6. I am proud of my accomplishments (Başarılarımdan gurur duyarım) | |
| F3: Social enjoyment | (α = 0.793) |
| 7. We form a tight group (Sıkı bir grup oluruz) | |
| 8. We laugh a lot (Çok güleriz) | |
| 9. We have common 'legends', such as running jokes (Sürekli şaka yapmak gibi ortak "efsanelerimiz (eğlenceli olaylarımız)" vardır.) | |
| | Total: (α = 0.840) |

S-FLES: short version – Foreign Language Enjoyment Scale.

Turkish scale items. We asked the participants to give us feedback if they did not understand the items. We did not receive any negative feedback. Therefore, we found it appropriate to apply the Turkish version of the scale to large sample. According to the results of the reliability analysis of the pilot study, the Cronbach Alpha value was found to be 0.832. After the pilot study, the scale was delivered to the main sample online again via Google Forms. Data were collected over a two-month period.

### 2.4. Analyses

The analysis of the data obtained from the research was carried out in SPSS (25.0), AMOS and Jamovi statistical programs. In the pilot study, Cronbach Alpha reliability analyses were performed. After the scale was applied to the large sample, in the evaluation of the data collected in accordance with the purpose of the research, Cronbach Alpha reliability analysis performed via SPSS. The standard "Rasch Model analysis" was used to reveal the item validity of the scale with the Jamovi program. In order to confirm the structure "confirmatory factor analysis" (CFA) was performed with the AMOS program. In addition to CFA, "convergent" and "discriminant" validity analyses were performed to support the structure revealed.

## 3. Results

### 3.1. Result about reliability analysis

The Cronbach Alpha value, which reveals the reliability of the scale, was calculated as 0.840 for the whole scale. The Cronbach Alpha value for F1 was 0.789, 0.704 for F2 and 0.793 for F3. For reliability, a Cronbach Alpha value of ≥ 0.70 is an acceptable value, and a value of ≥ 0.80 is considered a good value (George & Mallery, 2003). Accordingly, the reliability of the scale has a good value (Table 1).

### 3.2. Results about Rasch model analysis

The Rasch model assumes that there is a relationship between the difficulty of the scale items and the participants' ability to respond to the item. Accordingly, participants are more likely to give more correct answers to easier questions, and less correct to more difficult questions (von Davier, 2014). Based on this explanation, it can be said that the difficulty level of the items affects the measurement quality. When we look at the literature, the most relevant and widely used statistics in Rasch analysis studies are item fit statistics. The statistical results revealing the item validity of the study are shown in Table 2.

**Table 2**
Item fit analysis of Turkish S-FLES.

| | | | | | |
|---|---|---|---|---|---|
| Item1 | 4.30 | −0.804 | 0.0930 | 0.690 | 0.619 |
| Item2 | 3.69 | 0.351 | 0.0799 | 1.061 | 1.066 |
| Item3 | 4.34 | −0.891 | 0.0939 | 0.626 | 0.551 |
| Item4 | 3.83 | 0.114 | 0.0823 | 0.867 | 0.834 |
| Item5 | 3.96 | −0.124 | 0.0850 | 0.769 | 0.753 |
| Item6 | 4.16 | −0.520 | 0.0897 | 1.307 | 1.224 |
| Item7 | 3.47 | 0.682 | 0.0770 | 1.061 | 1.106 |
| Item8 | 3.68 | 0.357 | 0.0798 | 0.814 | 0.802 |
| Item9 | 3.37 | 0.834 | 0.0760 | 0.809 | 0.813 |

S-FLES: short version – Foreign Language Enjoyment Scale.

Measure values represent the difficulty level of the items. The difficulty levels of measure values can be divided into 4 groups (Sumintono & Widhiarso, 2015):

- a value less than −1: very easy;
- a value between −1 and 0: easy;
- a value in the range of 0 and 1: hard;
- a value greater than 1: very hard.

In Table 2, it is seen that there is no item with a value greater than 1. All items were rated as "easy" and "very easy". Values with minus value indicate the easiest values. Accordingly, the easiest item of the scale is item 3, and item 9 is the hardest item. Although values greater than 1 are considered very difficult items, the recommended item difficulty values for a measurement range from −3 to +3 (Azizah et al., 2022; Green & Frantom, 2002).

Infit and Outfit values are also one of the most important data of item analysis. Infit and Outfit data reveal a statistical agreement by identifying people with high ability to answer correctly according to the difficulty levels of the items. Compliant items indicate that the item is consistent with the model. Consistency means that the item functions in line with the expectations of the model (Udeme Ezekiel & Ekerete Mathais, 2019). The fact that the fit values are lower than 1.0 indicates that the data is more predictable than the model expects. Too much predictability is also not desirable in terms of item efficiency. 1.0 is indicative of perfect fit. As you go above 1.0, the predictability decreases. According to the test type, the acceptance values of the fit values change. Since S-FLES is a "rating scale" type, fit values are expected to be 0.6–1.4 (Wright & Linacre, 1994). Looking at Table 2, it is seen that all scale items except item 3 have infit and outfit values of 0.6–1.4. While the infit value of item 3 was at the desired level, the outfit value was slightly below the desired value. However, item 3 can still be considered a suitable item. Because even though 0.5 outfit value is not a very productive value, it is not a threatening value for scale validity (Wright & Linacre, 1994). It just shows more predictability of the item than expected and does not have too extreme simplicity like −2.

In Fig. 1, as in Table 2, the difficulty levels of the items are shown. As can be seen in the figure, item 9 stands at the top. This shows that, as mentioned before, item 9 is the most difficult item. Item 1 at the bottom of the figure is the easiest item. However, Fig. 1 not only shows the difficulty levels of the items, but also gives information about the distribution patterns of the items. As can be seen, the items are not collected at the top and bottom of the columns shown. Accordingly, it can be said that the structure is not under a threatening situation such as excessive convenience or difficulty that may disrupt the structure. The distribution of the items also

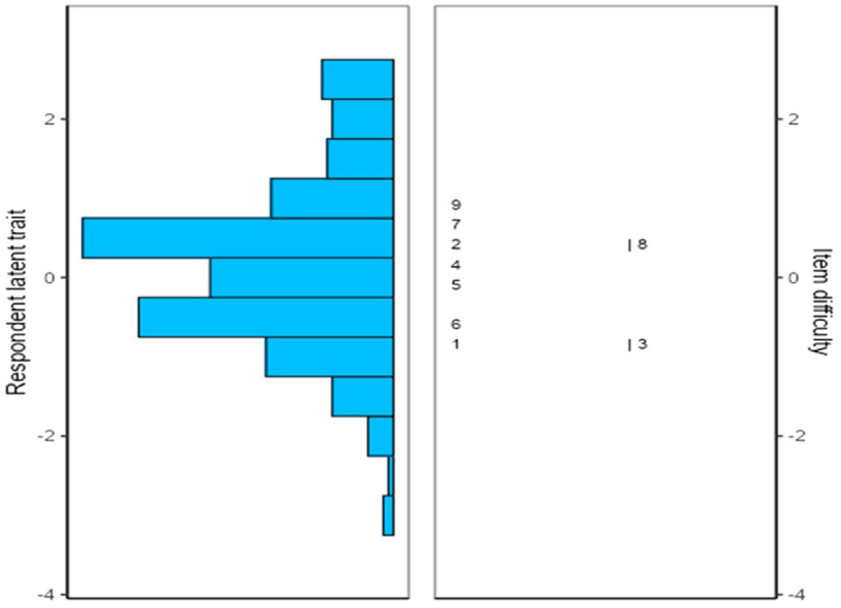


**Fig. 1.** Wright Map of items.

**Table 3**
CFA results of Turkish S-FLES.

| RMSEA | CFI | IFI | GFI | TLI | RMR | NFI | CMIN/df |
|---|---|---|---|---|---|---|---|
| 0.045 | 0.98 | 0.98 | 0.97 | 0.97 | 0.04 | 0.96 | 1.520 |

S-FLES: short version – Foreign Language Enjoyment Scale.

indicates that the difficulties of each item were neither well beyond nor well below the respondents' ability to respond.

### 3.3. Results about confirmatory factor analysis

CFA shows that the structural equation modeling result of the scale is significant at the $p < 0.01$ level. The 9 items and 3 sub-dimensions of the scale coincide with the scale structure. No modifications have been made to the model. For fit indices, a RMSEA value of less than 0.05 is said to be excellent, a RMR value of less than 0.05 and a CMIN/DF value of less than 3 are considered good. CFI, IFI, GFI, TLI and NFI fit indices take values between 0–1. Acceptable standard values for fit indices are between 0.90 and 0.95. Values of 0.95 and above indicate perfect fit. The fact that these fit indices have a value of 0.95 and above indicates that they have a perfect fit. If we look at the fit indices in Table 3, RMSEA is excellent, CMIN/DF and RMR values show a good fit. Since the other fit indices CFI, IFI, GFI, TLI and NFI have values above 0.95, they show a perfect fit (Byrne, 2011; Harrington, 2009; Sencan, 2005; Simon et al., 2010).

The dimensions of the 3 sub-dimensional S-FLES were confirmed by CFA. Structural equation model was established with scale diagram because multiple normal distribution, multicollinearity and necessary reliability conditions were met. For a DFA model, the $p$-value of the Chi-square test is higher than 0.05, the CFI value is higher than 0.95, and the RMSEA values are less than 0.06, indicating that this model has a good model-data fit (Hu & Bentler, 1999). The model diagram of the scale is shown in Fig. 2.

### 3.4. Results about convergent and discriminant validity analyses

In addition to CFA for construct validity, it is recommended to calculate convergent and discriminant validity to determine the structure of a measurement tool (Campbell & Fiske, 1959). Convergent validity is when there is a high correlation between measurements performed with independent measurement techniques among similar constructs. Conversely, the presence of a low correlation between different constructs is discriminant validity (Kinnear & Taylor, 1996). For the convergent and discriminant validity of the Turkish S-FLES, the average variance and internal consistency reliability values for each factor were calculated. The results of convergent and discriminant validity analyses performed in accordance with the Fornell-Larcker criterion are shown in Table 4. In line with this criterion, the CR value (composite reability) must be 0.70 and above. As seen in Table 4, the sub-dimensions exceeded this value. Average variance extracted (AVE) value is expected to be 0.50 and above (Byrne, 2010). As can be seen, the "personal enjoyment" dimension has not reached this value with a very small margin. However, in cases where CR values are above 0.70, AVE values less than 0.50 can still be considered sufficient (Fornell & Larcker, 1981; Lam, 2012; Peterson, 2000). These data show that the convergent validity of the scale is provided. For discriminant validity, AVE values should be higher than MSV (the maximum shared variance) values, and MaxR(H) (maximum H reliability) values should be higher than CR values. In addition, the square root of the AVE values should be higher than the correlation values between the variables (Byrne, 2010). Looking at Table 4, it is seen that AVE values are higher than MSV values and MaxR(H)

**Table 4**
Convergent and discriminant validity of Turkish S-FLES.

| | CR | AVE | MSV | MaxR(H) | Personal enjoyment | Teacher appreciation | Social enjoyment |
|---|---|---|---|---|---|---|---|
| PE | 0.737 | 0.495 | 0.425 | 0.797 | 0.703 | | |
| TA | 0.819 | 0.606 | 0.425 | 0.857 | 0.652 | 0.778 | |
| SE | 0.801 | 0.576 | 0.297 | 0.832 | 0.539 | 0.545 | 0.759 |

S-FLES: short version – Foreign Language Enjoyment Scale.

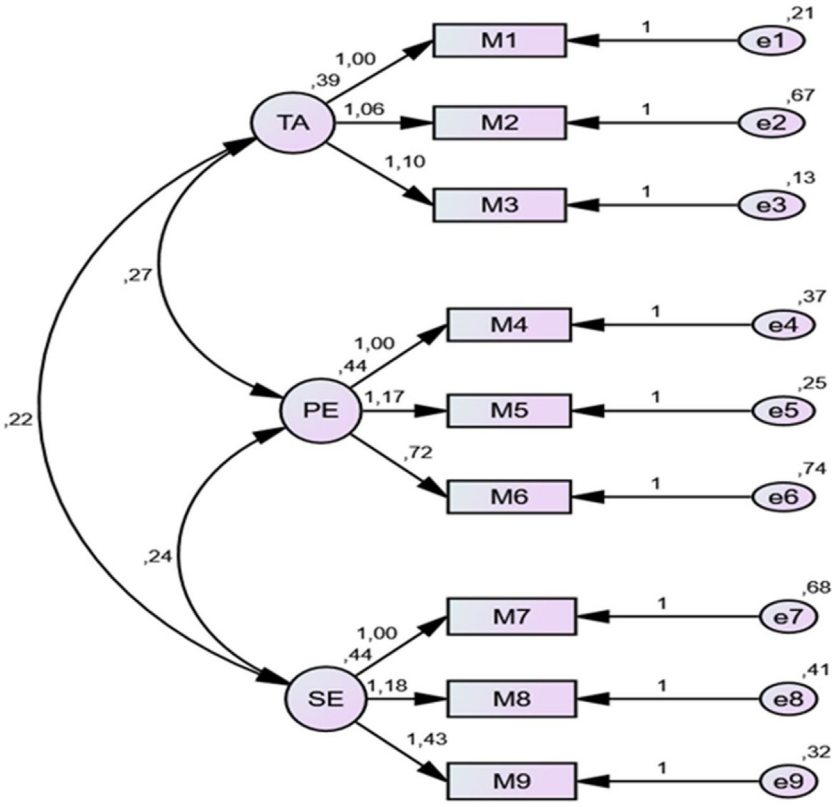


**Fig. 2.** Model of Turkish short version – Foreign Language Enjoyment Scale (S-FLES).

values are higher than CR. In addition, the square roots of the AVE values are higher than the correlations between the variables. Thus, it can be said that discriminant validity is achieved. Convergent and discriminant validity results support the accuracy of the scale structure presented.

## 4. Discussion and conclusion

In the study, in order to determine the validity and reliability of "the Short Form of the Foreign Language Enjoyment Scale (S-FLES)", the scale was adapted to Turkish and applied to students (German, French, English, Arabic) studying at a state university in Turkey.

Qualitative and quantitative studies have shown that emotional factors play a significant role in the learning process. Specifically, when it comes to learning a foreign language, experiencing enjoyment in the target language motivates students and makes them feel good during the learning process, which contributes to their success in language learning tasks (Han & Wang, 2021). A recent meta-analysis conducted by Botes et al. (2022) found a significant positive relationship between enjoyment of the foreign language and academic achievement. These findings suggest that teachers should focus more on creating a positive emotional experience for their students during foreign language instruction. It is also emphasized that the development of measurement tools for assessing students' emotional experiences is an important area of consideration.

As previously mentioned, the leading measurement tool for assessing students' enjoyment of a foreign language is the "Foreign Language Enjoyment Scale" developed by Dewaele and MacIntyre (2014). Recently, there has been a growing emphasis on developing and utilizing shortened versions of the scale. In our study, we utilized the most recent and shortest version of the scale, which consists of nine items and was developed by Botes et al. (2021). Prior to the development of the 9-item and three-dimensional shortest version of the scale, numerous studies have been conducted to develop and validate shortened versions of the original scale.

Dewaele and MacIntyre (2016) developed the first short version of the original scale, which consisted of 14 items. This short version yielded good results with two dimensions and factor loadings, and therefore, it was considered to be a 2-dimensional scale (Social and Private). The reliability coefficient was calculated as 0.86. The scale was later shortened by Dewaele and Dewaele (2017) to 10 items using a British sample, and this new version revealed a 3-dimensional structure (Social, Private and Atmosphere). The study on shortening the original scale continued by Li et al. (2018) with the application of the scale to a Chinese sample. As a result, the Chinese short version of the scale consisted of 11 items and showed a 3-dimensional structure (Teacher, Private, and Atmosphere), with a reliability coefficient ranging between 0.70 and 0.90. Jin and Zhang (2019) developed a 16-item version of the Foreign Language Enjoyment Scale that maintained the factor structure of the original scale. This revised 16-item scale exhibited a more robust dimensional structure and superior psychometric properties compared to the scale developed by Li et al. (2018). These results carry important implications for researchers, as they can now utilize a more concise and reliable version of the scale (Jin & Zhang, 2019).

Recently, Botes et al. (2021) developed the shortest version of the scale, which consists of only 9 items and also shows a 3-dimensional structure (Teacher, Personal and Social). It can be stated that all of the developed short versions of the scale have sufficient levels of reliability coefficients and generally constitute a 3-dimensional structure.

The prominence of online education in recent times can be argued to have influenced the quality of developed measurement tools. Wang et al. (2021) have developed a shortened online version of the Foreign Language Enjoyment Scale, utilizing a Chinese sample. Consequently, the "Online Foreign Language Enjoyment Scale"

(OFLES) has emerged. This new version, consisting of 11 items, has a distinct 4-dimensional structure (Teacher, Private, Interaction, and Competence) compared to other scales. The addition of a new sub-dimension can be interpreted as a distinction in foreign language enjoyment among students in online education compared to traditional classroom instruction.

Among the 6 short version scales examined, 4 of them have a common sub-dimension of "Teacher". Moreover, the sub-dimension of "Teacher" has generally obtained the highest score among all sub-dimensions (Botes et al., 2021; Li et al., 2018; Wang et al., 2021). These results indicate that the teacher is among the most important factors in students' enjoyment of learning a foreign language. As Piccardo (2013) argues, establishing positive relationships between teachers and students, as well as implementing effective pedagogical practices, are critical components for enhancing student motivation and fostering positive affect.

According to Botes et al. (2021), "S-FLES is a valid and reliable measurement tool that can easily be included in any assessment battery examining individual differences in FL learning." When we adapted S-FLES into Turkish and applied to a Turkish sample, we did not obtain significantly different results. The 3-dimensional structure of the short version of the scale was also supported by factor analysis when adapted to the Turkish language. When the other statistical results of the two scales are compared, the reliability of the original S-FLES was much better in the "Teacher Appreciation ($\alpha = 0.91$)" sub-scale, but the reliability of the Turkish version S-FLES for the whole scale was higher with 0.84. The Cronbach Alpha value of the Turkish short version scale shows similarity with other short versions of the scale. After confirming the suitability of the items, we conducted a CFA analysis. The results revealed that the Turkish S-FLES demonstrated an excellent fit in a Turkish sample, with RMSEA = 0.045, TLI = 0.97, and CMIN/DF = 1.52. In comparison, the CFA results of the original S-FLES were RMSEA = 0.059, TLI = 0.96, and CMIN/DF = 3.72 (Botes et al., 2021). Additionally, we conducted convergent and discriminant validity analyses to support the construct's accuracy. The findings indicated that the Turkish version of the scale had both convergent and discriminant validity. Thus, the validity of the presented structure was confirmed through multiple analyses.

To ensure the validity of the items in the scale, the standard Rasch model analysis was used, given the limited number of items in the scale. This approach aimed to provide a unique perspective on item validity. Previous studies did not evaluate the items in S-FLES using Rasch analysis. The results of the analysis indicated that the difficulty level of the items did not affect the validity of the scale. Overall, the items were appropriate for measuring foreign language enjoyment. Only item 3, showed higher predictability than expected. However, if the item did not have a suitable value in terms of difficulty, it could have been removed from the scale to avoid causing misunderstandings. Nevertheless, since the scale comprises a small number of items, it was deemed better to retain all items whenever possible.

Although our study had a sufficient number of participants, the volunteer principle meant that we were unable to reach the entire sample, which is a limitation of the study. Nonetheless, the validation of the Turkish S-FLES by applying it to a Turkish sample has made a significant contribution to the literature. Since the S-FLES had not been previously adapted to Turkish, we believe that it will draw the attention of Turkish researchers to conduct studies on positive psychology in the foreign language teaching field. This study may be considered a pioneer for future studies investigating positive emotions in the foreign language teaching field in Turkey.

Moreover, the Turkish version of S-FLES short will not only contribute to the Turkish literature but also provide a valuable resource for future validity and reliability studies of the S-FLES, which has not yet been adapted to other languages. If the S-FLES is adapted to other languages, the Turkish version of the S-FLES will offer the opportunity for cross-cultural comparisons and evaluations. As a result, the Turkish version of S-FLES is a practical, reliable, and valid measurement tool that can be applied to adults learning a foreign language in Turkey. Future studies applying the Turkish S-FLES on different samples in Turkey would also support the validity of the Turkish version of the scale.

## Ethical approval

The study was started after receiving the required permissions from the Gazi University Research Ethics Committee (Date: 22.03.2022, Decision No: 2022-431), Faculty of Education, Gazi University and from the Direktor of the School of Foreign Languages where the study was implemented. It was stated that since the principle of volunteerism was taken as a basis in the research, the individuals participating in the study were free and the data used in the study would be kept in accordance with the confidentiality principle and would not be used out of this research, and they had the right not to participate in the research.

## Disclosure of interest

The authors declare that they have no competing interest.

## Data availability statement

The data that support the results of this study are openly available in OSF repository at [https://osf.io/axvr9/?view_only=4268a864343f46b598f3c4028cb0ac0c].

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