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Development of a social-emotional foreign language learning scale (SEFLLS) for young adults

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Abstract
The social and emotional challenges of adjusting to university are inherently different from those faced by primary and secondary school students. This article describes the development and evaluation of a new instrument to measure university students' social-emotional foreign language learning needs. A series of cross-sectional questionnaire surveys was conducted with four different samples of 1613 preparatory school students from a university to examine the psychometric properties of the 24-item Social-Emotional Foreign Language Learning Scale (SEFLLS). Results revealed a correlated three-factor structure: Self-regulation, Social Relations, and Decision-Making, with internal consistency values above .80. Scale scores provided evidence of adequate internal consistency and convergent validity. Confirmatory factor analysis attested to the discriminant validity of the scale. SEFLLS appears useful for research purposes with young adults at the university level, particularly those learning a foreign language. Limitations and directions for future research are discussed.

Keywords Social and emotional learning (SEL) · Social and emotional competence (SEC) · Scale development · Scale validation

Introduction

Prior to recent decades, students' career development was largely defined by academic achievement, making educational opportunities and life expectations dependent on academic performance. However, it was observed that students educated in this way became less interested in classroom interactions and had difficulty in managing their emotions, overcoming ambiguous situations, communicating, and finding ways to learn or develop their self-awareness and social awareness (Benson, 2006). Thus, in the second half of the twentieth century, researchers gave great importance to development of a child's 'non-academic skills', now referred to as life skills, soft skills, non-cognitive skills, twenty-first century skills, or social-emotional development. As these skills are all harbored in Social and Emotional Learning (SEL), efforts to educate students through SEL have come into serious consideration (CASEL, 2012; Durlak et al., 2011; Elias et al., 1997; Greenberg et al., 2003; Weissberg et al., 2015). Additionally, educators have integrated SEL skills into their work, as the competences within SEL provide a basis for students' development in the management of emotions, goal-setting and achievement, empathizing with others, maintenance of positive relationships, and effective decision-making (Zins et al., 2004). However, educators have had difficulty teaching and measuring social and emotional skills effectively in order to determine their effects on students' outcomes.

Since these skills are not assessed in standardized academic tests, there was a need for different measures such as surveys asking individuals to rate their own skills, questions asking individuals how to behave in hypothetical situations, or experts rating an individual's teamwork ability. Therefore, many researchers and practitioners have drawn their attention to the development and validation of scales to assess students' social-emotional skills, which focus on different dimensions of SEL (Coryn et al., 2009). For example, Humphrey et al. (2011) reviewed the literature to understand the psychometric and implementation characteristics of the scales. They found that some measures such as *the Strengths and Difficulties Questionnaire* (LeBuffe et al., 2009) and *the Behavioral and Emotional Rating Scale* (Benner et al., 2008) were very time-consuming as these scales count on behavioral checklists completed by teachers or parents for each individual student;

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some of them included different constructs apart from the multiple dimensions of social-emotional competence such as family and community support, school climate, and students' academic competence, which are not aligned with CASEL's competences (e.g., *The Developmental Assets Profile* by Search Institute, 2014; *The Comprehensive School Climate Inventory* by National School Climate Center, 2014; and *The Social Skills Improvement System* by Gresham & Elliott, 2007), and some of them were too narrow in scope as they only include a few of CASEL's social-emotional competences (e.g. *the Assessment of Children's Emotion Skills* by Schultz et al., 2010 and *the Prosocial Tendencies Measure – Revised* by Carlo et al., 2003).

Other scales that try to measure SEL differ by age groups. They can be accurate and predictive, and their internal consistency as well as convergent and discriminant validity can be proven, but they cannot be used for every age group. For example, *Social-Emotional Learning Scale* developed by Coryn et al. (2009) was designed for elementary-aged students to evaluate their social-emotional learning needs. Although data was collected from a large and reasonably diverse sample, the participants were from fourth, fifth, and sixth grade elementary school students. *The Social and Emotional Competences Evaluation Questionnaire* (QACSE) developed by Coelho et al. (2015) focused on the high middle school students' social and emotional competences. Although the scale assesses most of the key competences identified by CASEL (2012) and it is easy to fill, it is difficult to adopt and scale for different age groups. Another scale was *Social Emotional Competence Questionnaire* (SECQ) developed by Zhou and Ee (2012), which aimed to measure children's and adolescents' social emotional competences (SEC). Although the scale has value in assessing individuals who need a valid appraisal of their SEC, it is not appropriate for older groups such as students at the university level. *The Social- Emotional and Character Development Scale* (SECDS) developed by Ji et al. (2013) aimed to measure social-emotional skills and character for elementary school-age children. The SECDS can be used for the assessment of the social-emotional skills and character development during elementary grades but not the other grades. *The Social-Emotional Assets and Resiliency Scale for Preschool* (SEARS-Pre) developed by Ravitch (2013) focused on a behavior rating scale designed to measure SEL skills in preschool-age children. As this scale was designed for pre-school children, the items in the behaviour rating scale were filled by pre-school instructors about the students in their classrooms. *The Delaware Social-Emotional Competency Scale* (DSECS-S) developed by Manz et al. (2016) was designed to assess elementary, middle, and high school students' social-emotional competences. On the other hand, *Social Emotional Learning Skills Scale* developed by Kabakçı and Korkut Owen (2010) aimed to evaluate the social and emotional learning competences of students. While it can be used for different age groups (Aftab et al., 2015; Candan & Yalçın, 2018) including university students (Kocakülah & Kırtak-Ad, 2015), it has not yet proven its usefulness in examining social and emotional needs of students in the foreign language learning context. There are also other scales that can be used for social and emotional development of students. However, these scales have various types of assessment systems and can be expensive (e.g., *Behavioral and Emotional Rating Scale* by Epstein & Sharma, 1998 and *Social Skills Improvement System Rating Scales manual* by Gresham & Elliott, 2007).

Apart from all these scales, there are some popular emotional intelligence (EI) scales designed to assess some emotional competences and positive social behaviors (e.g., *Emotional Competence Inventory (ECI)* by Boyatzis & Goleman, 2005; *Bar-On Emotional Quotient Inventory (EQ-i)* by Bar-On, 2000; and *the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)* by Mayer et al., 2000). However, EI scales are not used in the assessment of all social-emotional competences as these scales give much more importance to emotional competences than social ones.

It is clear that there have been continuous improvements in the field of SEL measurement. However, these scales are not adequate for the purposes of this study. These instruments have been generally designed for children in primary, secondary, or high schools, where social and emotional skills are often seen as part of the learning process, not for the young adults at the university level, particularly those having intense foreign language education. Therefore, there is a need for a scale assessing university students' SEL competences, as the transition from high school to university is a significant life event (Doygun & Gulec, 2012; Goldfinch & Hughes, 2007). While most students are eager to explore new experiences, anxiety, confusion, fear, or stress quickly emerge for many (Gibney et al., 2011). These negative emotions arise from the challenges students experience as associated with university life such as leaving their family, moving to a new area, being a part of a new social network, feeling isolated, comparing oneself to other students, and becoming discouraged. Some students overcome these fears when they make this transition. However, far too many students succumb to them especially when they face unfamiliar academic studies such as learning a foreign language, which is a must for many university students. To make it clear, before these students start their academic life at a university, they have to take an exam to test whether their English is sufficient enough to follow their courses, interpret academic publications in English, and keep up with the scientific and technological developments in their departments. In accordance with the results of the test, they begin their courses either at the faculties they have enrolled in or at the English preparatory school to learn English well. It is worth mentioning that their success in learning a foreign language depends on many interrelated factors such as the

language learning context, cultural beliefs, the target language status, and their belief system. These factors may improve or hinder language learners' progress in learning a new language. Moreover, they have an impact on students' understanding, processing information, and more importantly their thinking. For instance, if students feel secure, happy, or excited about the subject, they learn more easily. On the contrary, negative emotions such as anger, anxiety, and sadness put a barrier against students' learning. Apart from this, it is important to emphasize that foreign language learning is much more different than other learning (Arjuluyana, 2018; Bocanegra-Valle, 2015) because while learning a language, there is a need to learn the culture of the language. Gardner (1985) states that learning does not mean only the acquisition of new language structures but also the assimilation of new cultural and social ideas. If a student does not understand the cultural setting and social behavior of a language use, it can cause some misunderstandings and breakdowns in the communication with others because language is not simply sending or receiving information but it functions as a social behavior in a certain cultural context. Therefore, it is necessary to develop learners' awareness of the cultural context to obtain proficiency in intercultural communication of target language. In fact, it is not easy for students to adapt this intercultural approach because in this approach, students are expected to behave appropriately in the social context and mediate between cultures. However, if students develop social and emotional competences such as recognizing emotions and thoughts, strengths and weaknesses, managing stress, setting and working toward goals, empathizing with others, establishing and maintaining relationships, and making healthy choices (CASEL, 2016), they will have a chance to cope with the challenges that they face. Kramsch (1998) states that if students want to be successful in intercultural communication, they should have the awareness about self and others, have the ability to interact with others, respect others' perception of the world, and appreciate and mediate the differences. These are all related to social and emotional competences which have a great impact on learners' success at university. However, little is known about what kinds and levels of socio-emotional skills would be possessed by university students learning a foreign language. Hence, the researcher designed a self-report scale based on the Collaborative for Academic, Social, and Emotional Learning (CASEL) model (, 2013) containing the social and emotional dimensions of SEL and twenty-first century skills.

In accordance with the CASEL model (, 2013), there are five core sets of cognitive, affective, and behavioral competences associated with SEL, each of which is composed of multiple SEL skills, abilities, and twenty-first century skills. These sets are defined as self-awareness, self-management, social-awareness, relationship management, and responsible decision making. Since all these have been studied within the general education context below the tertiary level, the aim of this study was to develop a scale with a specific focus on university students learning a foreign language. The following sections elucidate the process, the components, and the validation of the scale entitled *Social and Emotional Foreign Language Learning Scale* (SEFLLS).

Method

Participants

The participants in this study were preparatory students attending a university in the south of Turkey. In total, 1630 students from different classes were recruited. Descriptive statistics of these students including gender, age, and the school they graduated from were obtained to get further information about the profile of university students who were learning a foreign language (see Table 1). Of these, 54% were female and 46% were male. As the sampling was restricted to university students, the age range of the respondents was limited. Seventy-six percent of the sample fell into the range of 18–21, followed by the age range of 22–25 (24%). The students had graduated from different types of high schools, divided in this study into two categories: state (77%) and private (23%).

Research Design

This study consisted of cross-sectional non-experimental design using a survey questionnaire with convenience samples of preparatory students during the academic semesters between 2016 and 2018. The reason for choosing this type of design was to gather information about the characteristics of the samples at a single point in time. Furthermore, this design paves the way for collecting substantial information in the quickest way.

Table 1 Demographic Characteristics of Participants

Characteristic	Frequency	Percentage
Gender		
Male	748	46
Female	865	54
School		
State	1248	77
Private	365	23
Age		
18–21	1233	76
22–25	380	24

Scale Development

In developing a measurement for Social-emotional Foreign Language Learning, a multi-staged study was conducted. Processes in scale development recommended by Hinkins (1995) were applied, which were identifying construct domains, generating an initial item pool, and expert review.

An extended literature review on SEL was performed to determine construct domains for this study. Five construct domains, self-awareness, self-management, relationship skills, social awareness, and responsible decision making, emerged from this. As there were some deficiencies in terms of scales that measure university students' SEL competences, it was difficult to generate scale items only from a literature review. Thus, the researcher also interviewed 25 university students, utilizing 25 open-ended questions to specify themes or constructs in terms of students' SEL competences. A total of 179 SEL items under five construct domains were developed from a review of literature and interviews. Then, four university instructors experienced in language teaching and two native language teachers reviewed the initial set of 179 items in an iterative process. Each construct domain was defined at the beginning of the questionnaire to avoid ambiguity. They were asked to provide comments with regard to item clarification and reinforcement of the construct domain. Several items were deleted from the scale as a result. Meanwhile, the researcher completed the ethical requirements to administer a questionnaire to students. Afterwards, the classes were arranged for the surveys and the researcher gave information to the instructors about the study. All the students were provided with information about the study and how to complete the questionnaire at each phase, as the number of students varied in each phase.

Then, this revised instrument was examined by performing confirmatory and exploratory factor analyses (CFA and EFA) with the data collected from the students to refine the scale. The final outcome was a scale comprising three aspects of social-emotional learning: Self-Regulation (SR), Social Relations (SoR), and Decision Making (DM). It was named *Social and Emotional Foreign Language Learning Scale*, and included demographic information of the respondents.

This paragraph gives a general summary of the main points followed. In EFA, any item that had a factor loading lower than .4 was removed during the analysis. Moreover, any item that loaded on more than one factor with a loading score equal to or greater than .4 on each factor was examined qualitatively and placed under the correct factors in line with their item descriptions. Considering the internal consistency of the developed items, the reliability of scales was assessed using Cronbach's alpha score. Some items were omitted from the scales before the implementation of further analytical procedures as they reduced the internal consistency. After these processes, such as identification of the number of factors and removal of the problematic items, CFA was conducted for each identified factor of the measurement model. Then, CFA was conducted for all factors at the same time to determine the final measurement model. The evaluation of the measurement model was carried out by taking into account the model fit indices as proposed by Hair Jr. et al. (1998), which are chi square to the degrees of freedom ratio, comparative fit index (CFI), goodness-of-fit Index (GFI), and root mean square error of approximation (RMSEA).

Average variance extracted (AVE) was also computed to check whether the items measured were reliable in evaluating each construct. In addition, convergent validity and discriminant validity of the model were tested using AVE. Further, one-way Multivariate Analysis of Variance (MANOVA) was run to understand the differences between Self-Regulation, Social Relations, and Decision Making based on students' demographic characteristics with the last 24-item version.

Data Analysis

This study was a multiphase study: development of the scale for measuring university students' competences occurred over three years of item testing, from an initial item bank of 179 items covering five aspects of SEL (including assessments in preparatory university classes in 2016–2017 academic year and the subsequent summer classes) to a 53-item trial version in 2017–2018 covering three main factors including the five aspects, and finally to the final 24-item version (also covering three main factors including the five aspects). These five SEL aspects were related to the Collaborative for Academic, Social, and Emotional Learning (CASEL) model used mainly in non-university levels of education. The research leading to the 24-item version was completed in five phases as shown in Table 2.

Results

The primary purpose of this study was to develop and validate a SEFLLS for university students learning a foreign language. Based on this, multiple analyses were implemented towards a validated scale. This next part includes a description of the sixth phase and the results of the analyses for the separate-stand-alone 24-item scale.

Factor Analysis

The SEFLLS, a correlated three-factor model, was based on the theoretical constructs of SR, SoR, and DM derived from the CASEL categorizations of social-emotional learning. The testing of the model with data collected from 610 students in a University Preparatory School in the 2017–2018 academic year yielded a marginally good fit as indicated by the

Table 2 The five phases of scale development

Phases	Methodology	Participants	Results
Phase 1-Item Generation	-Literature Review −25 open-ended questions	25 Students 6 Teachers	−179 items initially −10 items deleted after experts' suggestions -Placing 169 items under the five competences -Five different questionnaires were developed under the headings of *self-awareness, social-awareness, self-management, relationship skills, & responsible decision making.*
Phase 2- First pilot study	-Distribution of the questionnaires (1st round) -Descriptive statistics and exploratory factor analysis (EFA) -Examination of items that demonstrated inadequate psychometric properties	647 students in 2016–2017 Academic Year	- 134 items left
Phase 3- Second pilot study	-Distribution of the questionnaires (2nd round) -Descriptive statistics and EFA	176 students in 2016–2017 summer school.	−115 items left -Compilation of items under three aspects of social-emotional learning based on EFA: ***Self-Regulation (SR)*** including items in Self-Awareness and Self-Management ***Social Relations (SoR)*** including items in Social Awareness and Relationship Skills ***Decision Making (DM)*** Items in Responsible Decision Making.
Phase 4- Reduction to three groups	-EFA and Confirmatory Factor Analysis (CFA)		−53 items left
Phase 5- Third pilot study before Phase 6 as presented in the Results section	-Distribution of the questionnaire (3rd round) -EFA and Confirmatory Factor Analysis (CFA)	610 students in the 2017–2018 academic year	−46 items left as EFA suggested −24-item left as CFA suggested (see results)

following criteria: $\chi 2/df = 4.90$, RMSEA = .080, CFI = .90, and GFI = .80 (see Fig. 1). The reliability of this scale as calculated by Cronbach's Alpha (α) was found to be .85. Moreover, exploratory factor analysis was conducted with the 24-item SEFLLS, yielding factor loadings ranging from 0.50 to 0.92 as shown in Table 3.

In terms of the model assessment, Byrne (1998) states that a model can be assessed by taking into account the significance of the statistics and the validity of parameter estimates along with the appropriate standard errors, model fit indices, and squared multiple correlations for each indicator observed. In this model, aside from the Cronbach's Alpha of each factor, standardized factor loadings and AVE values were examined (See Table 3). Since the AVE revealed low values for the two factors, the composite reliability (CR) was used as a control tool, which is based on standardized factor loadings and error variances in a confirmatory factor analysis (CFA). As Fornel and Larcker (1981) suggest, low AVE values (<0.50) can be accepted if the CR value is above 0.70. In this analysis, all CR values were above .070; thus, the AVE values were accepted.

As shown in Fig. 1, internal consistency across the items in the constructs was acceptable ($\alpha = .81$ $\alpha = .85$) (Hair Jr. et al., 1998). A good internal consistency was also observed in multiple indicators for each construct in accordance with the composite reliability estimates, ranging from .78 to .89 (i.e., composite reliabilities > .7, Hair Jr. et al., 1998) (see Table 3). The AVE of all three constructs was greater than unexplained variances (i.e., AVE > .5) (Fornell & Larcker, 1981). Moreover, all the factor loadings for individual items were significant (>.5).

In order to confirm the internal consistency of this 24-item scale, it was executed with 180 students in summer school of the 2017–2018 academic year. The crosscheck of internal consistency revealed Cronbach's alpha as .83, which indicated strong internal consistency of the scale. Based on these findings, it can be said that the model fit the sample data, or in other words, matched the observed data as recommended by Hair Jr. et al. (1998). To examine the relationship between the subscales and SEFLLS, their correlations were calculated. As seen in Table 4, moderate to high correlations between subscales and SEFLLS were found, with coefficients ranging from .49 to .84. All correlations were also significant at the .001 level. These correlations indicate that the three factors are interrelated and share a large portion of common characteristics in the general construct of the SEFLLS. The SEFLLS' correlations with sub-scales include self-correlation of the subscale in the total.

Table 3 Scale Items, Factor Loadings, Composite Reliabilities and AVE Results

Factors	Standardized Factor Loading	Composite Reliabilities	AVE
Self-Regulation		.78	.72
I am curious about learning new languages	.79		
I can recognize my own emotions	.51		
I do not hesitate to reflect my feelings while learning English	.50		
If I try, I can do even the hardest work in the class	.82		
I can easily motivate myself when I feel bad	.71		
I always concentrate on school subjects during English class	.55		
I shape my life in accordance with my goals	.50		
I overcome every difficulty to achieve my goals	.66		
I get my family to help me when I have social problems	.72		
I get my friends to help me when I do not solve the problem on my own	.80		
Social Relations		.89	.52
I cooperate with my friends	.74		
I can motivate my friends to do their best in group work	.70		
I try not to criticize my friends when we argue	.70		
I try to prevent others to be alienated	.50		
I help others when they have problems	.56		
I respect others' thoughts	.66		
I recognize how people feel by looking at their facial expressions	.88		
I am sensitive to others' feelings	.92		
Decision-Making		.84	.46
I can discuss the decisions that I consider unfair	.58		
While making decisions, I think about the future consequences of my actions	.60		
While making decisions, I select the one with positive outcomes	.68		
While making decisions about my future, I consider many things	.67		
I make decisions that are appropriate for my personal values	.68		
I can decide between right or wrong	.84		

Moreover, the concurrent validity of SEFLLS was assessed with another well-established scale, the Social Emotional Learning Skills Scale (SELSS) developed by Kabakçı and Korkut Owen (2010) to understand how SEFLLS correlates with a previously validated measure. It was found that the results from SEFLLS are positively and significantly correlated with the results of SELLS in the correspondent scales ($r = .37$, $p < 0.01$). When the correlation results between SEFLLS and SELLS subscales are taken into account (see Table 5), it is observed that *Communication Skills Factor* in SELLS has the highest correlation result with *Social Relations Factor* in SEFLLS ($r = .35$). In fact, it is an expected result as some items in Social Relations Factor such as "I cooperate with my friends" are related to the communication skills that students use while trying to have connections with others particularly at universities. When students start their university education, they have some worries about the relationships they need to build during their college experience. The more students have relationships with their peers, the more they get used to the university life. Therefore, the value of close relations cannot be disregarded for university students who try to deal with change in their lives. To be more precise, students study a lot in a context they are used to before entering the university. After attending the university, they experience lots of changes in their life such as the social context, longing for family, financial problems, unfamiliar academic subjects and learning a different language. At this point, they need peers to communicate, share their problems, and overcome all the difficulties that they face in that period. As for the other factors, *Problem Solving* and *Coping with Stress* in SELLS, they have

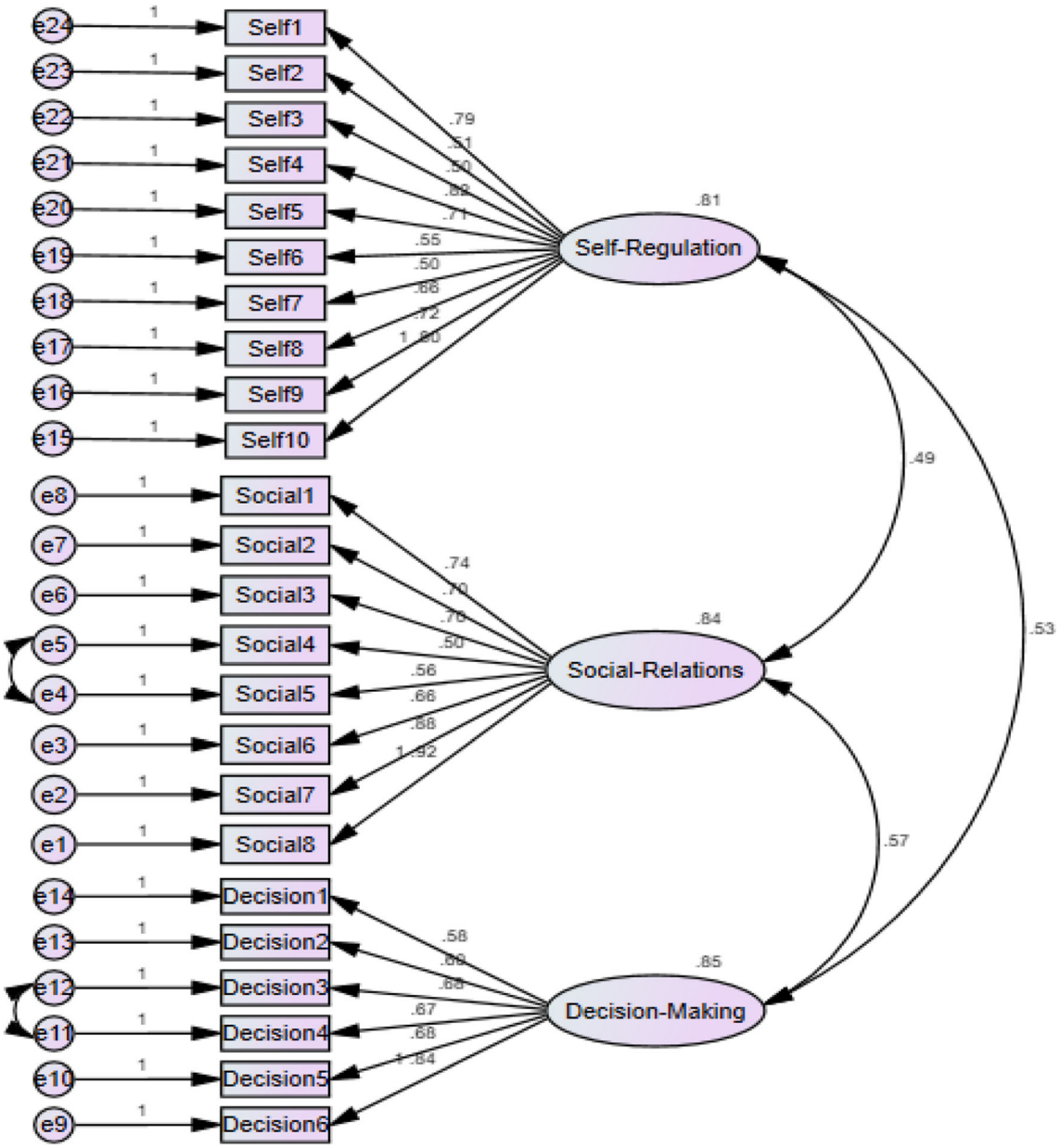

Fig. 1 Factor Structure of the Social-Emotional Foreign Language Learning Scale

the highest correlations with the *Self-Regulation Factor* in SEFLLS (r = .59 and .40 respectively). In the Self-Regulation Factor, while some items are related to students' ability to overcome obstacles to achieve their goals such as "I overcome every difficulties to achieve my goals", which overlaps the Problem Solving Factor, some items are related to students' positive energy to cope with negative situations in their learning (such as "I can easily motivate myself when I feel bad", which overlaps Coping with Stress Factor). *Coping with Stress* in SELLS is the only factor that has correlations with all the factors in SEFLLS although there is a weak correlation with *Social Relations* and *Decision Making* (r = .22 and .13 respectively). This can result from students' possibility of being under stress in every step of their life. If university students have self-regulatory skills, they can cope with

Table 4 Correlation Coefficients Between Subscales and SEFLLS

	1	2	3	4
1. Self-Regulation	1			
2. Social Relations	.49*	1		
3. Decision Making	.53*	.57*	1	
4. SEFLLS	.84*	.83*	.81*	1

* Correlation is significant at the 0.01 level

Table 5 Correlations between Self-report results between SEFLLS and SELLS

SELLS	SEFLLS		
	Self-Regulation	Social Relations	Decision Making
Communication Skills	.18*	.35*	.05
Problem Solving	.59*	.28*	.06
Coping with Stress	.40*	.22*	.13*
Self-Esteem Enhancing	.09	.08	.37*

Note. * *Correlation is significant at the 0.01 level*

challenges or stress in their academic life especially learning a new language. They use their abilities to control their emotions, behaviors and thoughts, which improves their academic performance and productivity. Moreover, as they know their learning needs, they direct their own learning according to their own needs and use their problem solving skills. When the last factor, *Self-Esteem Enhancing Skill* in SELLS, is taken into consideration, it has the highest correlation with the *Decision Making Factor* in SEFLLS (r = .37). In fact, items in the Self-Esteem Enhancing Skill Factor in SELLS are about how students give importance to themselves and their own values. In the Decision-Making Factor in SEFLLS, some items are also about how students give importance to their personal values but in the process of decision making showing the difference between two factors. Regarding the university context, university students have difficulty in making decisions in terms of their personal values as they are not fully aware of their strengths and weaknesses. Therefore, they may make wrong decisions that affect their future success. In order for them to be successful in this process, they should evaluate or be helped to evaluate the situation, analyze the options and take into account the consequences of the options by giving importance to their personal values.

Group Differences

A multiple analysis of variance (MANOVA) was performed to investigate if there was any significant effect of the independent variables of participants' age, school, and gender on the dependent variables of SR, SoR, and DM as shown in Table 6.

In accordance with the MANOVA results, it was found that there was no statistically significant difference in students' age (18–21, 22–25) and gender with respect to dependent variables, $F(3, 346) = 1.36$, $p = .25$, $F(3, 346) = 2.09$, $p = .10$ ($p > 0.05$). However, a statistically significant difference was found in students' school (Private or State) in regard to two dependent variables, SR (F = 12.99, $p = .00$) and DM (F = 8.19, p = .00), which means that there were differences between the participants from different schools regarding the SR dimension, such as being curious, recognizing their strengths and emotions, motivating themselves, setting goals and seeking help, and the DM dimension. Moreover, it was observed that there was a statistically significant difference between students' gender with regard to the SoR dimension (F = 4.25, $p = .04$) with females scoring higher than males. In other words, male and female students did not have the same thoughts regarding the SoR dimension. There was not any significant difference in the students' age with respect to the SR, SoR, and DM dimensions.

Discussion

This study explored the nature of social-emotional assessment measures while learning a foreign language and identified a need for evaluating social-emotional competences in foreign language learning at universities. In order to meet this need, SEFLLS was developed. Compared with alternative practices, it provides a pool of behaviors that are associated with social-emotional foreign language learning.

In the development of SEFLLS, Hinkins' suggestions (1995) regarding the scale development procedure were followed. Hence, a pool of items was generated, the items were reviewed by the experts, and item elimination procedures were implemented.

The results of exploratory and confirmatory factor analysis indicated a 3-factor structure, with subscales relating to Self-Regulation, Social Relations and Decision Making, which were consistent with similar studies (Coryn et al., 2009; Kabakçı & Korkut Owen, 2010). In addition to construct validity by achieving both convergent and discriminant validity, the criterion validity, and subscale intercorrelations of the scale were found to be adequate, ranging from .49 to .84. These correlations indicate that the three factors are interrelated and share a large portion of common characteristics of the general construct of the social emotional foreign language learning scale. Regarding their relationships, all three factors are multifaceted and multidimensional processes which are affected by various factors such as personal, social, situational and environmental. The concurrent validity of SEFLLS was assessed with another well-established scale, SELSS

Table 6 MANOVA Results with respect to Independent Variables

	Dependent variables	df	F	P
Age	Self-Regulation	1	0.28	.60
	Social Relations	1	1.91	.17
	Decision Making	1	0.02	.88
	SEFLLS	3	1.36	.25
School	Self-Regulation	1	12.99	.00
	Social Relations	1	0.46	.50
	Decision Making	1	8.19	.00
	SEFLLS	3	9.58	.00
Gender	Self-Regulation	1	2.79	.10
	Social Relations	1	4.25	.04
	Decision Making	1	0.18	.67
	SEFLLS	3	2.09	.10

developed by Kabakçı and Korkut Owen (2010). Based on the results, it can be deduced that SEFLLS is positively and significantly correlated with SELSS.

The three factors are thought to be important foreign language learning factors and likely to have an impact on students' language learning process. Factor 1, *Self-Regulation*, which overlaps extensively with the self-awareness and self-management dimensions of SEL competences, explains the ability to realize goals by changing and drawing one's attention to a social situation, enlivening and moderating behavior, and regulating behaviors and emotions. For example, a learner can refrain from interrupting others while they are speaking and can seek help if they need it. Zimmerman (1990) states that self-regulated learners embrace learning tasks confidently as they have the necessary learning skills and responsibility in reaching their goals.

Factor 2, *Social Relations*, overlapping with two other SEL competence dimensions, social awareness and relationship skills, contains items that represent students' social, verbal, and physical interactions in exchanging ideas and feelings with their peers, teachers, and people around them (Hurst et al., 2013). Lobatón (2011) states that in these situations, students gain an opportunity to contribute something to their own knowledge by making comparisons and contrasts with the concepts they have already learned. In this way, they find an opportunity to cooperate, respect their own values, and maintain good relationships regardless of their cultures and backgrounds (CASEL, 2016), which increases their success in language learning. Moreover, through students' relationships with their peers and teachers, students feel part of a specific community, as the language brings students a new identity or self-understanding that is different from what they have constructed from their prior beliefs and experiences.

Factor 3, which overlaps with the *Responsible Decision-Making* dimension of SEL competences, contains items that are related to students' decision-making process in accordance with their personal values and its potential consequences. This process can either cause students to succumb to their difficulties or give them the necessary tools for their careers; as Hargreaves Heap (1992) stated, "Life is experienced as a series of choices" (p. vii). For example, choosing a university can be a life-changing decision. When students do not have the capacity to decide independently, they may simply imitate their friends or allow their parents to influence them. They may further be confused with the options that are presented to them. In this situation, students can feel stressed and make decisions on a "desire to end the pain of indecision without proper evaluation of the consequences" (Drummond, 1996, p. 129). It is necessary to develop students' ability to make responsible decisions through evaluation of alternatives and future consequences of various actions.

Empowering students with SEL skills is important at all levels of education; and it is specifically crucial for preparatory students who struggle to adjust to the university life on the one hand and have to take on the challenges of learning a foreign language on the other. These interdependent three-factor skills depict students' social-emotional foreign language learning ability at the university level comprehensively and create a well-grounded language learning environment where students' learning, development and well-being are prioritized. Self-regulation skills help these students manage their emotions and behaviors in tough situations: They learn to make good friends and participate successfully in group activities in their language classrooms; that is, they develop a feeling of inclusion in this new environment (Scanlon et al., 2007). This high quality relationship with peers leads to high levels of academic performance and increase positive behavior (Greenberg et al., 2017). As they experience the satisfaction of success in language learning, the sense of belonging and attachment to teachers and classmates at university gets stronger.

It is important to note that a whole school approach should be adopted to establish and sustain a successful SEFLL environment. The whole school approach includes joint actions by all parts of the school—administrators, teachers, other school staff, and parents—to promote student social and emotional learning. Such a holistic view guides the administrative and teaching staff to design and implement new policies, curricula, and programs to develop students' social-emotional well-being. Particularly, teachers can include different activities in class sessions to provide psychologically, socially, and culturally secure classroom environments. Apart from classroom activities, some corners can be arranged at the university campus (e.g. *Peace Path*) for the purpose of discussing the problems and finding a solution. Moreover, specific training in the skills can be provided either through curricula inclusion and/or counseling service provision. By the help of such actions, students will find a chance to develop their self-regulation,

social relationship, and decision-making skills, which constitute the building blocks of SEFLLS.

There are some limitations that need to be considered. As SEFLLS is a context-sensitive measurement, it could be conducted with students from other states or countries to increase the generalizability of the results, to determine cultural, regional, or environmental differences in students' SEFLL competences, and to indicate that the developed scale is particularly suited to FL students. Further qualitative methods can also be used to verify and enrich the findings of SEFLLS. Therefore, it is believed that using a multi-method approach in data collection, which includes case studies, classroom observations, and in-depth interviews with students and teachers, might provide valuable insights into improving the survey.

In conclusion, the current research makes a significant contribution to the field by addressing a unique need that enables identification of current socio-emotional levels. It is believed that SEFLLS is a useful tool not only for teachers who want to understand their students' emotional competence such as solving problems, obtaining a better understanding of self and others, and finding the reasons for their poor academic performance, but also for training programs in those skills. In training programs, the scale can be used to measure change in skills or competences as a result of the training as in before and after studies to show development of these skills. However, social emotional foreign language learning is still an under-researched area. Further research is needed to examine its interrelationships with achievement and various demographic variables. It is also important to investigate whether and under what conditions this competence is (un)stable and/or dynamic. All in all, it is hoped this research will provide some guidance for those interested in exploring social-emotional foreign language learning.

Data Availability Statement The datasets generated during and/or analysed during the current study are available from the first author on reasonable request.

Declarations

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethical Statement This study is a piece of a PhD dissertation and the ethical statement is based on the procedures of the institution where the study was carried out.

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