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Research Article

Teachers' Emotions: Validation of the Teacher Emotions Scales in Albanian

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The topic of teacher emotions has gained increasing research attention over the past years. Initial predominantly qualitative inquiry methods have been complemented by quantitative ones, and different instruments to measure teacher emotions have been developed. These instruments mainly stem from Western, educated, industrialized, rich, and democratic (WEIRD) countries, and yet it is still unknown if these instruments are of universal cultural functionality. The current study aimed to validate the Teacher Emotions Scale (TES) in the low-to-middle income, Southeastern European country of Kosovo. Findings from $N = 258$ teachers in Kosovo provide evidence that TES-Albanian operates equivalently in terms of factor structure as the original German version of TES and the English version. Supporting the external validity of the scale, we found consistent low-to-medium relationships between the three emotions measured with the TES (enjoyment, anger, and anxiety) with other teachers' experiential and behavioral constructs such as positive and negative affect, job satisfaction, burnout, self-efficacy, and the teacher–student relationship. Overall, we conclude that TES can effectively be translated into different languages to measure teacher emotions also in non-WEIRD cultural contexts.

1. Introduction

Emotions are present in every aspect of life. Since birth, we and everyone around us, experience emotions and express ourselves through them [1]. Later in life, we learn to regulate emotions [2]. Recently, there is an urge to study the complexity of emotions and their effects on various aspects of life. However, there are still some understudied fields. One of these fields is emotions in occupational contexts, including the teaching job.

Although teacher emotions seem crucial in this process due to their effects on student outcomes and their well-being and retention (see [3, 4]), they have received strikingly little research attention [5]. A crucial prerequisite for designing for exploring the effects of teacher emotions on student outcomes, and for evaluating corresponding interventions, is the existence of validated measures. In the past years, researchers developed different quantitative instruments to measure several teacher emotions (see [6–9]). The vast majority of studies employing those measures of teacher emotions are based on Western, educated, industrialized, rich, and democratic (WEIRD) teacher samples with a well-structured educational system. Very little is known about the validity and applicability of those instruments in non-WEIRD countries with lower income, a less-structured educational system, and a more Eastern cultural imprint. The key goal of the present study was to translate one of the most widely used measures of teacher emotions, the Teacher Emotions Scale (TES; [8]), into Albanian and explore its validity and psychometric quality within a sample of teachers from Kosovo.

1.1. Education in Kosovo. Kosovo is a small country with around 1.7 million people located in Southeastern Europe. More concretely, it is located in the Balkan Peninsula. Kosovo is known for having the youngest population in Europe, with more than 20% of the population belonging to the range 15–29 years old [10]. The majority of the population in Kosovo are Albanians (93%), and the other part

consists of minority groups, such as Bosnians, Serbs, and Roma [10].

After the war in 1998–1999, Kosovo experienced hard times, rebuilding the destroyed financial and education system, and Kosovo still remains one of the poorest countries in Europe [11]. As a new country, Kosovo faced a lot of challenges in different fields of life. The unemployment rate is one of the crucial challenges, with 26% of the population in Kosovo being unemployed. Together with low participation in public life, lack of health care, educational services, and security issues, unemployment represents the major challenges that youth faced after the war [12]. The latest report on youth challenges and perspectives in Kosovo showed that almost 60% of the respondents would consider leaving the country in the next 3 years [13]. The lack of perspective and the low quality of education are mentioned among the main reasons for the youth to leave the country.

Education in general and its quality specifically pose a significant barrier for Kosovo. The problems are seen from kindergarten to higher education. At the onset of the transition, access to public services such as education was free and compulsory, which resulted in high attendance rates—up to 38 students per class on average. However, after the war, the situation changed drastically, and it affected both attendance and the quality of education. In recent years, the economic decline had devastating effects on educational services. For example, many previously state-funded early education institutions were closed down due to the collapse of collective and state-owned companies. As a result of such changes, only 10% of the children under 5 years attend early education, and there are a considerable number of children who abandon elementary school, although it is compulsory. This is the reason why the investments from the government in the field of education were directed at building and improving infrastructure and increasing enrollment rates. However, the working conditions, as well as general political and economic circumstances, posed a considerable threat to the facilitation of high-quality learning environments.

Yet, economic circumstances limit investment in education in Kosovo. The Kosovar government assigned 4.1% of its GDP to education [14]. Although public expenses cover the wages of teachers, they are often underpaid, which is a typical situation for teachers in many non-WEIRD countries. In addition, the lack of public resources limits the quality and reach of teacher training programs. The result, that is, a shortage of qualified teachers and/or an oversupply or untrained teachers, is discussed as a major cause of deterioration in the quality of education. To address the challenges, Kosovo introduced many new policy efforts and education becomes a priority of educational policy. However, this was always more prone to strategies and not implementation. Yet, many of the capacity-building efforts have not been translated into operational practice, or, in some cases, do not reflect current knowledge regarding, for example, developmentally appropriate practices [15]. As such, traditional teacher-centered instructional strategies are still used, and teachers have, on average, 1.18 min to spend with one student. This hinders the teacher–student relationship and the feedback that can be offered (Friedrich Ebert Stiftung [16]). In addition, the lack of adequate education system management hinders the development and implementation of consistent high-quality educational services at every level of education [17]. As a result, the education system's performance in Kosovo remains to lag behind international benchmarking standards in education [14, 15]. This is reflected, for example, in the results of the PISA 2015 survey in Kosovo, which showed that the country was amongst the worst-ranked nations [14].

In a context like Kosovo, where the challenges to providing quality education are severe, teacher emotions have so far been neglected. Although it can be assumed that they are just as important for teacher performance as in other cultural contexts, the lack of funds for research and teacher training makes them unseen in the field of intervention. Political considerations and resources in low-to-middle-income countries often hinder the development of systematic research capacity, which has resulted in governments and stakeholders relying upon research from developed, economically advantaged contexts and building strategies that do not fit Kosovo's context. Until now, only a few studies have addressed the importance of students' emotions in the academic context in Kosovo (e.g., [18]), and to the best of our knowledge, there is no single study on teacher emotions in Kosovo.

So, what is lacking is localized and context-specific research in order to make more informed decisions about quality provision for education. The current contribution may serve as fundaments in recognizing the importance of teacher emotions while providing a valid instrument to measure them. The existence of such an instrument can fuel interventions aiming at emotions for better quality teaching in Albanian-speaking countries.

1.2. Existing Quantitative Measures of Teacher Emotions. As mentioned earlier, emotions are very complex, multidimensional, and volatile. In regard to this, there is a debate if emotions can be quantified and measured (see, e.g., [19] for an overview). Aiming to quantify teacher emotions, researchers developed quantitative self-reported instruments.

Trigwell [9] developed an instrument named emotions in teaching inventory (ETI). This instrument was initially designed to have a two-factor structure differentiating positive versus negative teacher emotions. For the positive factor, several aspects, such as motivation, pride, confidence, and satisfaction, were included. For the negative factor, anxiety, embarrassment, frustration, boredom, and annoyance were considered. One may criticize that this is a broad collection of affective constructs, which go beyond a clear structure of discrete emotions. Contrary to the initial design idea for the ETI, Trigwell [9] did not find the two-factor pattern; therefore, the scale was finally presented as five factors, differentiating several subfactors.

Within the Chinese cultural context, the teacher emotions inventory (TEI) was developed [7]. The TEI comprises five scales measuring joy, love, sadness, anger, and fear, which teachers may experience, not only in relation to teaching and students but also with colleagues, school, family, policy, and society [7]. The available evidence regarding

the validity of this instrument is very scarce. Moreover, the instrument tends to capture a mix of constructs under the umbrella of certain proposed discrete emotions; for example, the scale of joy contains items addressing pride (e.g., "I feel proud when I see my students make progress") and motivation (e.g., "I am motivated by students' care"), and thus may lack the necessary precision.

Further, there is the Teacher Emotion Questionnaire (TEQ) developed within the Croatian cultural context [6]. The TEQ was developed based on the assumption that teaching and interacting with students, which are the most frequent and important job activities in the teaching profession, trigger various discrete emotions such as happiness, contentment, excitement, curiosity, enthusiasm, pride, love, relief, anger, frustration, rage, disappointment, sadness, exhaustion, anxiety, and hopelessness [6]. The TEQ was developed based on a series of studies using a mixed-approach design with a focus on two levels of education: primary and high school. The final questionnaire, after excluding items with low internal consistency and unclear factorial loading, consists of joy, pride, love, fatigue, anger, and hopelessness. Although this scale was developed following more sophisticated methods, it still lacks on separation of emotions based on their valence, activation, or object focus. While some items in that scale directly measure emotions (e.g., "*I love my students*"), others combine emotions and their causal precursors ("*I am glad when I achieve teaching goals that are set*"), and yet others combine emotions and their consequences ("*When I am proud of my students*, *I feel that my confidence is growing*") so the content validity of some of these instrument's items seems debatable.

Lastly, there are the TES [8], which we chose to use for adaptation into the Albanian language and validation in the Kosovo cultural context. A precursor to the TES is the Achievement Emotion Questionnaire, a very widely used instrument for the measurement of students' achievement emotions [20]. The TES measures three emotions that were considered most relevant in the context of teaching: enjoyment, anger, and anxiety. Across three independent studies, Frenzel et al. [8] have demonstrated that TES are a reliable and valid self-report instrument and that both German- and English-language versions operate equivalently in terms of measurement. Further, there are two versions of the TES: student-group specific and general scale, to accommodate different study purposes. With the general scales, teacher emotions in terms of a person-specific, job-related trait-like phenomenon can be measured. With the class-specific scales, it can be considered that emotional experiences may also vary within teachers, depending on their specific interaction quality with a given group of students, thus considering the highly context-specific nature of emotional experiences (see also [21]).

The TES have been widely used in recent research on teacher emotions exploring their relationships with inter- and intraindividual factors (e.g., [21–39]). Additionally, it was used to measure teacher topic-specific emotions, such as emotions within science (e.g., [40]), and also it was used for validation of other questionnaires on affective content (e.g., [6]).

There are also domain-related instruments that measure only a particular emotion (see [41]) and single-item scales that measure several emotions using only one item [42]. However, these scales are out of the scope of this study, which considers only multiitem scales.

1.3. Aim of the Present Study. Given the undisputable importance of emotions, further scientific inquiry into the field of teacher emotions seems needed. Much of what we know about teacher emotions today stems from studies that sampled Western high-income countries. The key aim of the present study was to translate the Western-based TES into the Albanian language and explore its validity and applicability in the low-to-middle-income, Southeastern European country of Kosovo. We have opted to validate the TES based on three key rationales: first, the TES have established their validity across various languages; second, it is a frequently employed tool for gauging teacher emotions; and third, it measures both general and course-specific teacher emotions.

Clearly, Kosovo can be expected to be a cultural context that does not fit within the definition of WEIRD countries, given its low–average income, its turbulent political history across the past 70 years, and its predominantly collectivistic cultural imprint.

Translating material from the emotional semantic field is highly challenging (see also [43]). As such, it is by no means trivial to assume the Albanian language version of the TES will be functional in a Kosovar teacher sample. Nevertheless, we assumed that emotions are a universal human phenomenon and proposed that by means of careful translation-back-translation procedures, language equivalence should be achievable. In addition, while level differences of experienced joy, anger, and anxiety may well exist due to the extremely challenging educational circumstances in Kosovo, we further proposed that the conceptual structure of the TES as forming three correlated but clearly separable subfactors should be replicable in a Kosovar teacher sample when comparing it against existing data from German and Canadian cultural contexts. Similarly, we also expected that the pattern of relationships between teacher enjoyment, anger, and anxiety as measured with the Albanian-language TES and external validating constructs, including teacher self-efficacy, job satisfaction, burnout, and general affect, would be equivalent with the pattern observed in the German and Canadian teacher samples reported by Frenzel et al. [8].

2. Methodology

2.1. Participants. The sample consisted of 258 teachers who were recruited from 11 municipalities in the Republic of Kosovo. Of them, 61% were females and 39% were males. The mean age of teachers was 43.49 years old (SD = 10.44) with an average of teaching experience of 15.80 years (SD = 10.06). Teachers taught different courses in four school types: 7.3% in lower primary schools (i.e., grades 1–4), 47% in upper primary schools (i.e., grades 5–9), 20.3% in high schools gymnasiums (i.e., grades 10–12), and 25.4% in high schools professional schools (i.e., grades 10–12). The majority of the teacher (60.3%) had a master's degree, followed by 32.8% who had a bachelor's degree.

2.2. Procedure. Prior to data collection, which happened just before the pandemic that spread in the Balkan in 2020, all the instruments were translated from English and German to Albanian by an English or German native speaker who was fluent in Albanian. These instruments were back-translated to their original language from an Albanian native speaker who is fluent in English or German. Differences in their translations were discussed until translators agreed for an Albanian version of the instruments, which was used to collect the data. Meanwhile, an agreement between the Ministry of Education in Kosovo and the research team regarding data collection permission in educational institutions was ensured. Moreover, we sent out emails with instructions about the research and the data collection procedure to the directors of the schools 2 weeks before collecting the data. Around 420 questionnaires were distributed in total. Participation was voluntary, and the confidentiality of the data was ensured. Teachers were asked to bring back the questionnaires and put it in a sealed box within 3 days. After that, the research team members brought back the box in the main office in Prishtina. The return rate of the questionnaire was 61.4%.

2.3. Instruments

2.3.1. Teacher Emotions Scales (TES-Albanian). In total, there are 12 items for each version of the scale: general and student-group specific (see Tables 1 and 2 for the full list of items for both versions of the scale). Anger was measured with four items (e.g., "*English: I often have reasons to be angry while I teach; Albanian: Unë shpesh kam arsye të jem i/e nevrikosur gjatë mësimdhënies*"), anxiety with four items (e.g., "*English: I generally feel tense and nervous while teaching; Albanian: Unë në përgjithësi ndihem në siklet dhe nervoz gjatë mësimdhënies*"), and enjoyment with four items (e.g., "*English: I generally enjoy teaching*; *Albanian: Unë në përgrgjithësi e pëlqej mësimdhënien*"). Items were answered on a four-point Likert scale labeled strongly disagree (nuk pajtohem fare), disagree (nuk pajtohem), agree (pajtohem), and strongly agree (pajtohem plotësisht). There is evidence that a four-point Likert scale produces high psychometric quality [44]. The order of the items from the three subscales was presented in a mixed order, and both versions of the scale were completed back-to-back (see Tables 1 and 2 for all the items and the instructions for the different versions).

In addition, several other constructs were measured for the external validation of the TES-Albanian. The questionnaires used were the same as in the original paper by Frenzel et al. [8]. Those were (1) positive and negative affect measured using positive and negative affect schedule [45], (2) the three facets of teacher burnout: emotional exhaustion, depersonalization, and personal accomplishment measured using Maslach's Burnout Inventory [46], (3) social desirability as assessed using the balanced inventory of desirable responding [47], (4) teacher job satisfaction as measured using the adapted version from Böhm-Kasper et al. [48], and (5) teacher self-efficacy as measured by a student-group specific adaptation of the Teachers' Sense of Efficacy Scale [49]. In addition, we included a newly developed scale to measure the teacher–student relationship (e.g., "*I personally have a close relationship with this group of students*"; [34]) based on existing evidence that teacher–student relationships are closely linked with teachers' emotional experiences [50].

2.4. Analytic Strategy. To test the conceptual separability of the three emotions (enjoyment, anxiety, and anger), the following three models were estimated, as in the original paper of Frenzel et al. [8]: (a) a one-factor model with all items loading on a single factor; (b) a two-factor model based on the emotional valence of the corresponding emotions: positive vs. negative. In this case, the assumption is that the items of enjoyment should load on one factor (positive), and the items of anger and anxiety should load on the other factor (negative); and (c) a three-factor model, assuming that the items of the three emotions form separate factors (see Figure 1 for a visualization of the models). For general model fit evaluation, the χ^2 statistic with its degrees of freedom and the following fit-indices were considered: the comparative fit index (CFI), the standardized root mean residuals (SRMR), and the root mean square error of approximation (RMSEA). Model fit was considered as good if the CFI values were above .90, the SRMR values were below .08, and RMSEA values were below .06 [51]. Missing data were handled using the full information maximum likelihood algorithm. In fact, the three model forms represented nested models, so in order to directly compare across them, we used the Satorra–Bentler (S–B) scaled χ^2 difference test [52, 53].

For the external validity of the TES-Albanian, we examined the manifest Pearson correlations between the three assessed emotions of teachers and their self-reported general affect, self-efficacy, job satisfaction, burnout, and teacher–student relationships.

To test the equivalency of the language versions, we used the data collected in the present study and the original data collected from Frenzel et al. [8] in Germany and Canada (e.g., the German and the English versions of the scales; data obtained from the study authors). Measurement invariance of the TES across the different samples was inspected by applying a hierarchical procedure (e.g., [54, 55]). This procedure consists of three steps: testing (1) configural invariance, where it is assumed that the same items load onto the same factor in each sample group; therefore, the scales in different language measure the same set of the latent variables; (2) metric invariance where it is additionally assumed that item factor loadings are equivalent across the sample groups which implies that the covariation structures can be compared across language versions; and (3) scalar invariance where it is yet additionally assumed that item intercepts are equivalent, which implies that latent mean differences can be compared across the groups. To assess the change in model fit when imposing equality constraints, we used Chen's [54] recommendations. Accordingly, with adequate sample sizes (as in our studies) for testing loading invariance, a change of .10 or lower in CFI, supplemented by a change of .015 or lower in RMSEA, would indicate noninvariance.

Table 1: English and Albanian items of the TES—general scales.

	Short names	English	Albanian
General scales			
Instruction		Below you find a list of statements describing your experiences as a teacher. Please indicate your personal response to each of these statements by circling the number that best represents your answer	Qëndrimet e mëposhtme kanë të bëjnë me emocionet akademike që ju i përjetoni në përgjithësi gjatë mësimdhënies dhe përgatitjes së mësimit. Ju lutem përgjigjuni duke u bazuar në shkallën e vlerësimit të më poshtëm
Enjoyment	joy1	I generally enjoy teaching	Unë në përgjithësi e pëlqej mësimdhënien
	joy2	I generally have so much fun teaching that I gladly prepare and teach my lessons	Unë në përgjithësi kënaqem gjatë mësimdhënies sa që me kënaqësi përgatisë dhe ligjëroj mësimin
	joy3	I often have reasons to be happy while I teach	Unë shpesh kam arsye të jem i/e lumtur gjatë mësimdhënies
	joy4	I generally teach with enthusiasm	Unë në përgjithësi ligjëroj me entuziazëm
Anger	ang1	I often have reasons to be angry while I teach	Unë shpesh kam arsye të jem i/e nevrikosur gjatë mësimdhënies
	ang2	I often feel annoyed while teaching	Unë shpesh ndihem i/e inatosur gjatë mësimdhënies
	ang3	Sometimes I get really mad while I teach	Nganjëherë bëhem shumë me nerva gjatë mësimdhënies
	ang4	Teaching generally frustrates me	Mësimdhënia në përgjithësi më frustron mua*
Anxiety	anx1	I generally feel tense and nervous while teaching	Unë në përgjithësi ndihem në siklet dhe nervoz gjatë mësimdhënies
	anx2	I am often worried that my teaching is not going so well	Unë shpesh jam i/e brengosur që mësimdhënia nuk po shkon mirë
	anx3	Preparing to teach often causes me to worry	Përgatitja për mësimdhënie shpesh më shkakton brengosje
	anx4	I feel uneasy when I think about teaching	Unë nuk ndihem mirë kur mendoj për mësimdhënien

Note. *Item ang4 (teaching generally frustrates me) was removed in the TES-Albanian version of the scale.

Table 2: English and Albanian items of the TES—student-group-specific scales.

	Short names	English	Albanian
Student-group-specific scales			
Instruction		When answering the items below, please think of the students in your class this year. If you teach more than one class, please think of your typical Tuesday morning. Envision yourself walking into your first class on Tuesday morning and think of the students in this particular class when answering the following items	Qëndrimet e mëposhtme kanë të bëjnë me emocionet akademike që ju i përjetoni në klasën e orës së parë të së mërkurës. Ju lutem përgjigjuni duke i menduar këta studentët, dhe duke u bazuar në shkallën e vlerësimit të më poshtëm
Enjoyment	joy_s1	I enjoy teaching these students	Mua më pëlqen kur ligjëroj për këta studentë
	joy_s2	I have so much fun teaching these students that I gladly prepare and teach my lessons	Unë kënaqem kur ligjëroj për këta studentë sa që me kënaqësi përgatisë dhe ligjëroj mësimin
	joy_s3	I teach these students with enthusiasm	Unë ligjëroj për këta studentë me entuziazëm
	joy_s4	I often have reasons to be happy while I teach these students	Unë shpesh kam arsye të jem i/e lumtur kur ligjëroj për këta studentë
Anger	ang_s1	I often have reasons to be angry while I teach these students	Unë shpesh kam arsye të nevrikosem kur ligjëroj për këta studentë
	ang_s2	I often feel annoyed while teaching these students	Unë shpesh ndihem i/e inatosur kur ligjëroj për këta studentë
	ang_s3	Sometimes I get really mad at these students	Ndonjëherë nevrikosem shumë me këta studentë
	ang_s4	Teaching these students frustrates me	Të ligjëroj për këta studentë më frustron mua*
Anxiety	anx_s1	I feel tense and nervous while teaching these students	Ndihem në siklet dhe nervoz gjatë ligjërimit për këta studentë
	anx_s2	I am often worried that my teaching isn't going so well with these students	Unë shpesh brengosem që ligjërimi për këta studentë nuk po shkon si duhet
	anx_s3	Preparing to teach these students often causes me to worry	Përgatitja për të ligjëruar për këta studentë shpesh më shkakton brengosje
	anx_s4	I feel uneasy when I think about teaching these students	Unë nuk ndihem mirë kur mendoj për ligjërimin për këta studentë

Note. *Item ang_s4 (teaching these students frustrates me) was removed in the TES-Albanian version of the scale.

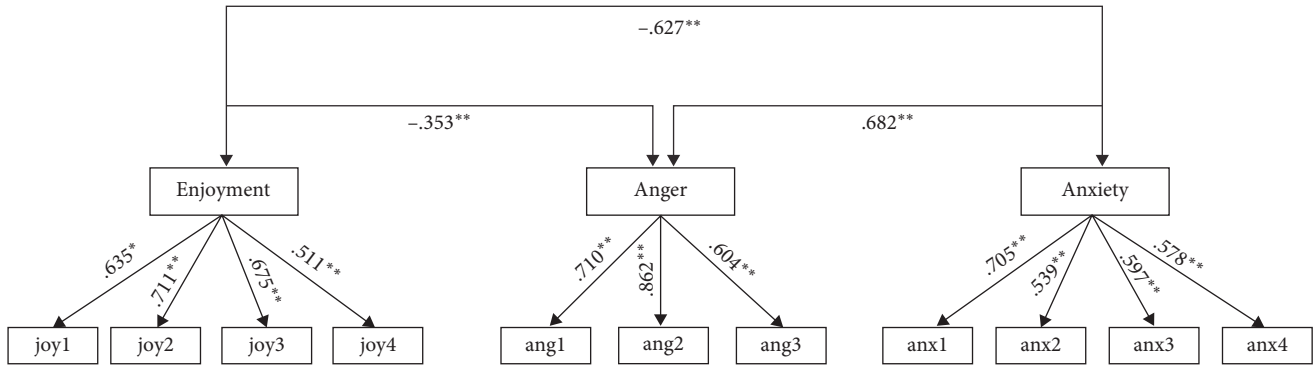

Figure 1: Three-factor model after removing one item for the general version of the scale.

Table 3: Internal validity of the TES-Albanian: model fit test of the one-, two-, and three-factor models for both versions of the scale: general and student-group specific.

	n	χ^2	df	AIC	BIC	CFI	RMSEA	SRMR
General scale								
One-factor model	219	221.8	44	4,286	4,360	.715	.136	.097
Two-factor model: positive vs. negative affect	219	128.6	43	4,195	4,273	.863	.095	.072
Three-factor model: enjoyment, anger, anxiety	219	72	41	4,142	4,227	.950	.059	.049
Student-group-specific scale								
One-factor model	215	289.1	44	4,088	4,162	.719	.161	.098
Two-factor model: positive vs. negative affect	215	144.8	43	3,946	4,023	.883	.105	.063
Three-factor model: enjoyment, anger, anxiety	215	115.4	41	3,920	4,005	.915	.092	.054

Note. *df*, degree of freedom; χ^2, chi-square; CFI, comparative fit index; SRMR, standardized root mean residuals; RMSEA, root mean square error of approximation.

3. Results

As described earlier, we estimated three confirmatory models for both variants of the scale (general and student-group specific) and compared them in order to find the model that best fits the data. Our first result from these analyses, including all four items for each of the three emotions, indicated that none of the models fitted well. However, when comparing across those three poorly fitting models, it already became evident that the three-factor model showed significantly ($p < .001$) a better fit to the data in comparison to the two other models.

Yet, to explore the reasons for model misfit, we ran modification indices and other item analyses and found that there was one item in particular that caused these problems. This item was "*Teaching generally frustrates me*" (in Albanian: "*Mësimdhënia në përgjithësi më frustron mua*"), which was supposed to measure anger but demonstrated a rather low factor loading for the scale of anger in the Albanian language version. Thus, we decided to remove this item for further analyses, reducing the number of items in the TES-Albanian to 11.

We repeated the model comparison, which again confirmed that the three-factor model was superior to the one- or two-factor model. Figure 1 represents the factor loadings and latent variable correlations of the model for the general variant of the scale. This model showed a good fit to the data (see Table 3). Further, all the items showed satisfactorily high factor loadings, ranging from .511 to .862. Concerning the latent factor correlations, there was a positive correlation between anger and anxiety ($r = .682$, $p < .001$), and enjoyment was negatively correlated with anger ($r = -.353$, $p < .001$) and negatively correlated with anxiety ($r = -.627$, $p < .001$).

Next, the three-factor model was estimated for the student-group-specific variant of the scale. Figure 2 represents the factor loadings and latent variable correlations of the model, which showed a satisfactory fit to the data (see Table 3). Further, all the items showed satisfactorily high factor loadings, ranging from .554 to .858. In addition, there was a positive correlation between class-specific anger and anxiety ($r = .770$, $p < .001$). Similarly as earlier, class-specific enjoyment was negatively correlated with anger ($r = -.569$, $p < .001$) and negatively correlated with anxiety ($r = -.580$, $p < .001$).

Means, standard deviations, and internal consistencies (McDonalds' Omega) for the items of the general and student-group-specific variants of the TES-Albanian version are presented in Table 4. The ratings for enjoyment were relatively high: 3.7 out of 4 for general variant and 3.6 out of 4 for the student-group-specific variant. In contrast, the ratings for anger and anxiety were below 2 on the four-point scale

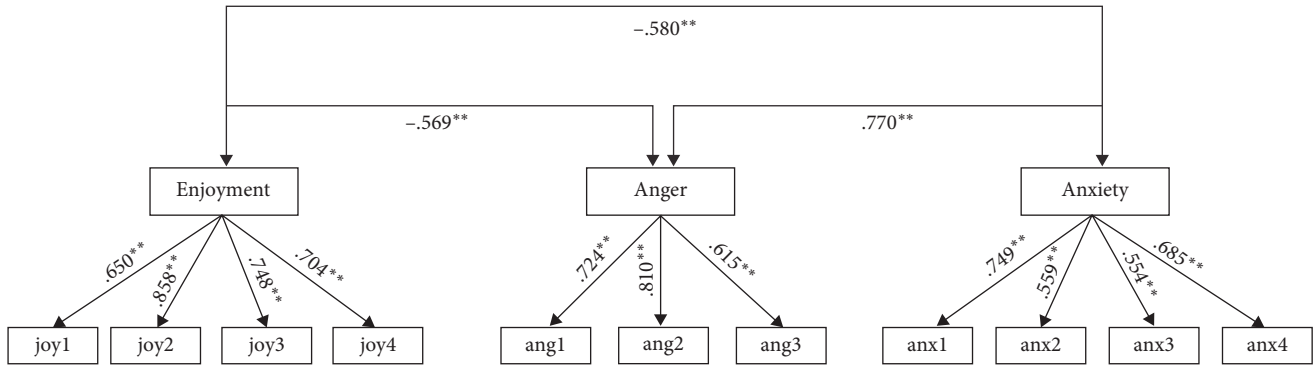

Figure 2: Three-factor model after removing one item for the student-group specific version of the scale.

Table 4: Means, standard deviations, and internal consistencies (Cronbach's α) for the TES.

	General			Student-group specific		
	Enjoyment	Anger	Anxiety	Enjoyment	Anger	Anxiety
Means	3.70	1.75	1.62	3.60	1.67	1.59
Standard deviations	.36	.68	.53	.46	.62	.55
McDonald's omega	.81	.78	.77	.87	.77	.83

Table 5: Intercorrelations of enjoyment, anger, and anxiety for both versions of the scale.

	General			Student-group specific		
	1. Enjoyment	2. Anger	3. Anxiety	4. Enjoyment	5. Anger	6. Anxiety
1	/					
2	−.28** [−.40, −.16]	/				
3	−.43** [−.53, −.31]	.49** [.38, .58]	/			
4	.45** [.34, .55]	−.28** [−.39, −.15]	−.41** [−.51, −.29]	/		
5	−.22** [−.35, −.09]	.53** [.43, .62]	.32** [.20, .44]	−.45** [−.55, −.34]	/	
6	−.31** [−.43, −.19]	.43** [.31, .53]	.65** [.57, .72]	−.44** [−.54, −.33]	.53** [.43, .62]	/

Note. $^{*}p < .05$, $^{**}p < .001$.

for both variants of the scale. Standard deviations ranged from .36 to .68 for both variants, which are sufficiently large to preclude ceiling or floor effects. Further, internal consistencies of the general variant factors were good (Omega > .70). Internal consistencies for student-group-specific variant factors were also good, ranging from .77 (anxiety) to .87 (enjoyment).

Table 5 presents the manifest intercorrelations among the general and group-specific emotion subscales. Negative emotions—anger and anxiety—were found to positively correlate with one another for both variants of the scale: $r = .49$ for the general variant and $r = .53$ for the student-group-specific variant. However, negative emotions were negatively correlated with enjoyment in both variants of the scale (*r*s ranging from .28 to .45). Further, manifest correlations between the factors of both variants of the scales were calculated (see Table 5). The same pattern was found negative emotions were positively correlated with one another (*r*s ranging from .32 to .43) and negatively related to enjoyment (*r*s ranging from .22 to .31). Additionally, there were consistently positive correlations between the same factors in different variants of the scale (*r*s ranging from .45 to .65).

3.1. External Validity of the Scale. We next aimed to explore the relationship of teacher emotions with other teacher-reported variables to explore the external validity of the TES-Albanian (see Table 6). As expected, and mostly in line with earlier findings using German and Canadian teacher samples as reported by Frenzel et al. [8], general positive affect was positively correlated with enjoyment,

Table 6: External validity of the TES: correlations with related teacher constructs.

	Enjoyment	Anger	Anxiety
General affect: neg	−.19**/−.14 [−.33, −.05]/[−.28, .00]	−.09/−.03 [−.23, .06]/[−.18, .12]	.26**/.12 [.12, .39]/[−.02, .27]
General affect: pos	.15*/.25** [.01, .29]/[.11, .38]	.14/.16* [−.00, .28]/[.02, .30]	−.08/−.09 [−.22, .06]/[−.23, .05]
Emotional exhaustion	−.24**/−.22** [−.37, −.10]/[−.35, −.08]	.37**/.37** [.24, .48]/[.25, .49]	.37**/.29** [.25, .49]/[.15, .41]
Depersonalization	−.30**/−.31** [−.42, −.17]/[−.43, −.19]	.30**/.34** [.17, .42]/[.22, .46]	.40**/.39** [.28, .51]/[.27, .50]
Lack of accomplishment	−.32**/−.36** [.19, .44]/[.24, .48]	.05/−.09 [−.19, .09]/[−.23, .05]	.13/−.12 [−.26, .01]/[−.26, .02]
Teacher self-efficacy	.38**/.47** [.25, .49]/[.35, .57]	−.26**/−.21** [−.38, −.12]/[−.34, −.07]	−.31**/−.37** [−.43, −.18]/[−.48, −.23]
Job satisfaction	.31**/.44** [.18, .43]/[.32, .54]	−.35**/−.22** [−.47, −.22]/[−.35, −.08]	−.38**/−.36** [−.50, −.26]/[−.48, −.23]
Social desirability	.06/−13 [−.09, .20]/[−.27, .02]	.15*/.18* [.01, .29]/[.03, .32]	.15*/.14 [.00, .29]/[−.01, .28]
Teacher–student relationship	.38**/.50** [.26, .49]/[.39, .60]	−.16*/−.35** [−.28, −.02]/[−.46, −.22]	−.18**/−.25** [−.31, −.05]/[−.37, −.12]

Note. $^{*}p < .05$, $^{**}p < .001$. Parameters before the slash indicate the correlations with the general variant of the scale, while parameters after the slash indicate the correlations with the class-specific variant of the scale.

while anxiety was positively related to general negative affect as measured with the general variant of the scale, but not with the class-specific variant of the scale. Counter to expectations, however, anger was unrelated to general negative affect. Further, consistent with expectations and earlier findings, the three facets of teacher burnout emotional exhaustion, depersonalization, and lack of accomplishment were found to correlate negatively with enjoyment for both variants of the scale. Further, emotional exhaustion and depersonalization, but not lack of accomplishment, were positively related with the two negative emotions in the present teacher sample. In addition, teacher self-efficacy and job satisfaction were found to positively correlate with enjoyment and negatively with the two negative emotions. Lastly, social desirability was not found to correlate with enjoyment, but there were small negative correlations with anger and anxiety. These findings were quite similar for both variants of the scale. Lastly, we went beyond the scales used for external validity in the Frenzel et al.'s [8] paper and included another scale that measured the teacher–student relationship. This construct was found to correlate positively with enjoyment and negatively with the negative emotions of anger and anxiety. The class-specific variant of the scale showed higher effect sizes in comparison to the correlations with the general variant of the scale. One reason for this may have been that the teacher constructs were also measured in a class-specific way (i.e., self-efficacy and teacher–student relationships); thus, their level of measurement specificity matched, increasing the potential for their correlation (see also [56]). For all the effect sizes of the correlations and their confidence intervals, see Table 6.

3.2. Cross-Language Equivalence. Based on the recommendations of Chen [54], the configural invariance models for both variants of the scale showed satisfactory fit, indicating that the factor structure could be assumed to be equivalent across three languages for both the general and the class-specific TES, in its shortened 11-item version with four items each for enjoyment and anxiety, and three items for anger (see Table 7). When imposing factor loading constraints (metric invariance), the model fit did not change significantly, as ΔCFI values were lower than .10, and ΔRMSEA values were lower than .015, which corresponds with negligible loss of fit according to Chen's [54] suggestions. However, when additionally constraining intercepts (scalar invariance), model fit decreased significantly for all the models except for the group-specific scales across the German and Albanian language versions. This means that construct correlations, but not means, can be compared across language versions. Mean comparisons can be conducted for the group-specific scales across the German and Albanian language versions, as the model showed scalar invariance. As this is the only subscale that showed scalar invariance, mean comparisons for this subscale should be made with caution.

4. Discussion

The goal of this study was to validate a widely used instrument to measure teacher emotions (the TES; [8]) in the non-WEIRD country of Kosovo. Rooted in the assumption that emotions are a universal human phenomenon that is not unique to WEIRD cultures, we expected that the Albanian version of the TES variants (i.e., general and student-specific

Table 7: Tests of measurement invariance for the German, English, and Albanian versions of the TES.

	df	χ^2	CFI	RMSEA	$\Delta\chi^2$	ΔCFI	ΔRMSEA
German vs. Albanian comparison							
General scale							
Configural invariance	82	161.79	.936	.066	/	/	/
Metric invariance	90	175.83	.931	.065	14.05	.005	.001
Scalar invariance	98	302.65	.835	.097	126.81	.096	.031
Student-group-specific scale							
Configural invariance	82	224.75	.983	.086	/	/	/
Metric invariance	90	240.62	.983	.084	15.86	.001	.002
Scalar invariance	98	287.63	.978	.091	47.02	.005	.006
English vs. Albanian comparison							
General scale							
Configural invariance	82	190.20	.944	.068	/	/	/
Metric invariance	90	211.33	.937	.069	21.13	.007	.001
Scalar invariance	98	414.61	.835	.107	203.28	.102	.038
Student-group-specific scale							
Configural invariance	82	188.77	.987	.067	/	/	/
Metric invariance	90	210.43	.986	.068	21.66	.002	.001
Scalar invariance	98	318.68	.974	.089	108.25	.012	.020

Note. *df*, degree of freedom; χ^2, chi-square; CFI, comparative fit index; SRMR, standardized root mean residuals; RMSEA, root mean square error of approximation.

variants) would have similar factor structures, although there are differences in language construction and contextual factors. We also expected that TES-Albanian would have similar external validity as the original version. In sum, we expected that thanks to careful translation-back-translation procedures, TES-German and TES-Albanian would be equivalent in terms of language, and we tested this using measurement invariance.

The consideration of emotions in the context of learning and teaching has seen a considerable surge in research interest, which also reflects in the fact that multiple quantitative measures of teacher emotions using different approaches have been developed in recent years (e.g., [6, 7, 9]). These instruments were mainly developed using samples from WEIRD countries. However, as others proposed, emotions may vary across countries, as countries differ in culture and also in their educational systems [57]. But, Siperstein et al. [57] assert that dissimilarities in emotional states typically emerge among nations with disparate cultural backgrounds and variable GDPs, as individuals' emotional well-being is susceptible to the influence of economic circumstances. Nevertheless, this does not imply that distinctions in the methods used to measure emotions necessarily arise. The principal objective of the current investigation was to furnish fresh empirical evidence that scales devised to quantify emotional states, such as the TES, may possess universal measurement properties, even though the magnitude of experienced emotions may diverge.

4.1. Internal Validity. To test the internal validity of the Albanian TES, we conducted confirmatory factor analyses. Results showed that one item did not function well, namely the item "*Teaching generally frustrates me*," which was supposed to be measuring anger. While this item seems to have worked sufficiently well in the German and English language versions, it is worth noting that anger and frustration may well be two separable constructs (see [58] for an overview and see [59] for the separation of anger and frustration in the context of teaching). Upon reflection of the Albanian item wording, it also became evident that while "frustron" seems to be a perfectly equivalent translation of "frustrate" in English or "frustrieren" in German, as they all stem from the same Latin language root; however, in the day-to-day usage of the term "frustron" in Albanian, it is actually a term of comparably low negative affective intensity (specifically compared to the other adjectives used in the teacher anger scale, angry, annoyed, or mad), which predominantly connotates a blockage of goal attainment rather than an emotional experience. As such, we deemed it highly reasonable to remove the item from the Albanian version of the TES and realized that even with rigorous translation-back-translation techniques, quantitative scale comparisons could bear important insights on the success or failure of translated item content.

After the removal of this item, we tested a three-factor model, in comparison to one- and two-factor models to explore which one fit best to the data, similar to Frenzel et al.'s [8] paper. Results showed that the three-factor model fits best to the data for both variants of the scale (general and student-specific variants). All the fit indices were in accordance with the criteria suggested by Hu and Bentler [51]. Similarly to Frenzel et al. [8], results showed that the general variant of the scale showed a slightly higher psychometric quality in comparison to the student-specific variant of the scale. Further, the pattern of the latent correlations was the same in the original study and the current study. The two emotions that are negative in valance (anxiety and anger) were positively related to each other and negatively related to the emotion that is positive in valance (enjoyment).

4.2. External Validity. Just like for the internal factor structure, we also expected to replicate the correlational pattern of links with a range of validating constructs, including positive and negative affect, teacher self-efficacy, burnout, job satisfaction, and the teacher–student relationship, using the TES-Albanian. Overall, those expectations were met. Enjoyment was positively correlated with positive affect, teacher–student relationship, teacher self-efficacy, and job satisfaction. These constructs, however, were negatively related to anger and anxiety except positive affect. Further, anger and anxiety showed a positive relationship with burnout, which was negatively related to enjoyment. In addition to those relationships being significant and in the expected directions, they were small enough to warrant the distinction of teacher emotions and those other constructs capturing their general as well as job-specific affective experiences. In summary, the results and the patterns of the correlations in this paper were quite similar to Frenzel et al.'s [8] paper. This confirms our expectation that within an Albanian teacher population, the pattern of covariations between discrete teaching emotions and those wider facets of affective experiences seem to function largely equivalently as among the German and Canadian teacher populations. In contrast, when comparing the size of the relationship between student–teacher relationship quality and teacher emotions, more considerable differences occurred. While Hagenauer et al. [50] and Frenzel et al. [21] reported positive correlations as high as .80 and .74 between teacher–student relationship quality and teaching enjoyment and corresponding negative correlations as high as −.64/−.65 with teaching anxiety as well as −.65/−.49 with teaching anger in their German and Austrian teacher samples, in the present Kosovar teacher sample, those correlations were as low as .50 for teacher joy, and −.25 for anxiety, and −.35 for anger. By implication, having a close relationship with their students seems to be an important source of enjoyment, and a lack thereof is an important factor for negative emotional experiences among teachers in those Western teaching cultures, whereas this link is much lower for Kosovar teachers. This could be due to the many problems of the educational system in Kosovo, as described earlier, including an extremely large teacher/student ratios and the corresponding low average time that teachers can spend with each student in a class. Also, more traditional, authoritarian teacher-oriented instructional practices in the Kosovo educational culture may contribute to those effects. It will be an interesting avenue for future research to explore such potential cross-cultural differences in the sources for various teaching emotions.

4.3. Cross-Language Equivalence. We conducted formal statistical tests for measurement invariance between the three versions of the TES (German, English, and Albanian). We found configural invariance and metric invariance for all the variants of the TES-Albanian, both the general and student-group-specific variants. Therefore, we can conclude that all versions of the scale measure an equivalent set of items and that covariance structures can be compared across these cultural contexts. However, we found scalar invariance (i.e., invariance of intercepts in the measurement models) only for the group-specific scales across the German and Albanian languages but not for all other scale comparisons. This implies that for most models, the latent means cannot be compared across language versions, with the exception of the German and Albanian group-specific scales. These findings are in line with the original study by Frenzel et al. [8] in terms of the language equivalency between German and English versions of TES, where metric invariance could be established across the German and Canadian samples. Translating emotional content from one language to another thus seems possible on a semantic content level, but the specific intensities of emotional experiences encoded through emotional adjectives (e.g., angry, anxious) seem highly specific to each language, which results in corresponding items being differentially "hard" or "easy" to agree with in different language versions. For example, the adjective "horrified" would be hard to agree with (i.e., high in intensity), in comparison to the adjective "nervous." Accordingly, the German adjective "nervös," though semantically equivalent with the English "nervous" and the Albanian "nervoz," are not necessarily equal in intensity; thus, item endorsement is not fully equally easy across those languages. In conclusion, the TES can be assumed to operate equivalently and be a universal tool to measure teachers' emotions and their covariations with other constructs. However, it is not advisable to use the different language versions of the TES to quantify the proposed mean level differences of teacher emotions across countries/language versions.

4.4. Research, Policy, and Intervention Implications. There is evidence that teacher emotions are very important in the learning context for teachers themselves and for their students (see [42, 60, 61]). The existence of instruments like the TES in various language versions, also for less-considered countries and languages such as Albanian, will hopefully inspire future substantial research, for example, on sources of positive and negative emotional experiences or phenomena like emotional contagion in the classroom, and it will allow for solid, quantitative scientific evaluations of interventions targeted at teacher well-being.

Considering the relationships that were found between the three emotions and other teacher behavioral aspects, it is arguable that emotions are closely linked with teacher's burnout and satisfaction trajectories, and therefore interventions for optimizing teacher emotions seem recommendable. This can also be done within schools by adapting the capacity-building intervention strategies to include also academic emotions and their regulation.

Lastly, in the context of Kosovo, we highly suggest studies that aim to validate instruments like this one. Like this, we would have a package of instruments for researchers, teachers, psychologists, pedagoges, and others that can be used to measure different aspects of teaching and learning. This would address several issues that were found in Kosovo's educational systems, such as the lack of evidence-based interventions and the lack of students-oriented instructional practices. With these instruments, which are validated for the

culture of Kosovo, we could design specific research-based interventions that can be helpful to further develop educational policies and create new ones that will facilitate learning in Kosovo.

5. Conclusion

Although teacher emotions are indisputably important, it is very challenging to capture and measure them in the context of scientific inquiry. However, recent research has brought up valid and reliable self-report instruments for the measurement of teacher emotions, one of which is the TES [8]. This paper brought new evidence that it was possible to translate the TES into the Albanian language and that the pattern of relationships of the thus-measured teacher enjoyment, anger, and anxiety was highly equivalent across the new Kosovar teacher sample and existing German and Canadian teacher samples. As such, a key finding of the present contribution is that being a WEIRD or non-WEIRD country does not matter in terms of the measurement of teacher emotions, as long as rigid translation/back-translation procedures are applied and when some unexpected language inequivalences were removed. As such, a new language version of this questionnaire is now available, and it paves the way for future cross-cultural research to further deepen our understanding of teacher emotions and to provide evidence for interventions targeted at better learning and teaching processes.

Data Availability

Data are available upon request. For everything regarding the data and this manuscript, please contact the corresponding author.

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Conflicts of Interest

The authors declare that they have no conflicts of interest.

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