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Structural Equation Modeling to Assess the Relationship among Iranian EFL Teachers' Creativity, Reflective Thinking, and Burnout Levels

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Abstract

This study investigated the relationship among Iranian EFL teachers' creativity, reflective thinking, and burnout levels. Two hundred and eight teachers from different universities and schools were requested to answer three questionnaires, namely the English Language Teacher Creativity Scale, Reflective Thinking Scale, and Maslach Burnout Inventory. To examine the hypothetical model of relationships, structural equation modeling was used. Results represented that there were significant internal correlations among all the latent variables and their subscales. Moreover, the results of multiple regression analysis revealed that creativity strongly predicted reflective thinking, with creativity having more predictive power compared to burnout. It was also reported that all subscales of creativity and reflective thinking are statistically very relevant. On the other hand, burnout weakly predicted reflective thinking, with burnout having less predictive power than creativity. In total, there was a negative relation between creativity and burnout in which all their subscales were negatively correlated with each other.

Keywords: Burnout; Creativity; Reflective Thinking; Structural Equation Modeling

1. Introduction

Being a teacher has always been an important job in society. However, the nature of education is changing, with up-to-date and emerging management systems relying on teacher's fear, embarrassment, and guilt, as shown by the increase in student standardized test scores (Bullough,

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2005). According to Valli and Buese (2007), teaching becomes even more stressful, less personal, and intense, and the curriculum becomes more inflexible and focused on teacher control. Teachers play an important role in improving students' competencies; thus, they should be creative and assist their students to be creative. Among the various variables, English as a Foreign Language (EFL) teachers' creativity, reflective thinking, and burnout because of the significant effect they have on teachers' performance, have attracted much more attention.

Creativity is one of the most important characteristics of an effective teacher. In a changing world and growing global competition, there is a growing interest in creativity and novelty (Baer & Oldham, 2006). It is considered the key to individual and organizational social success. As Livingston and Boyd (2010) pointed out, creativity has been considered in all professions because "creativity becomes a force of great value when it is applied to causes that benefit humankind and the world at large" (p. 61). According to Afida et al. (2013), a teacher is assumed to be creative while "combining the existing knowledge with a new way that is new or unique or introduces a new process to nourish cognition to obtain a useful outcome (learning)" (p. 9). It is assumed that teachers' creativity affects the effectiveness of their teaching. In the field of teaching, many studies have focused on teacher creativity (Celep & Yilmazturk, 2012; Dobbins, 2009; Ghonsooly & Raeesi, 2012; Landeche, 2009) to examine the role of these variables.

Reflective thinking, as the second characteristic of English teachers, plays a decisive role in the quality of their teaching. As stated by Akbari (2007), reflective thinking "empowers teachers and places them on equal footing with their academic counterparts" (p. 3). Akbari argued that reflective thinking can be effective in increasing teachers' self-efficacy and job satisfaction. Reflective thinking stimulates teachers to think and examine the quality of teaching and the connection between theory and practice (Qing, 2009). In a comparable study, Kang (2008) pointed out that if teachers think about their teaching, they can manage their performance. Moreover, Kang stated that reflective thinking helps teachers improve their teaching. Reflective thinking is widely proposed as a response to reduce teacher burnout and help make better instructional decisions. Despite the existence of theoretical discussions in praise of reflective thinking, practical research has not investigated its effectiveness (Moradkhani & Shirazizadeh, 2017).

The third characteristic of EFL teachers is burnout, which is defined as fatigue, boredom, low mood, dissatisfaction, disability, or insensitivity.

Burnout may lead to a decrease in the enjoyment of life and job motivation that is individually experienced, considering that job conditions require high-performance expectations and face-to-face contact (Brunsting et al., 2014). According to Maslach et al. (2001), burnout has three dimensions: (a) emotional exhaustion, which relates to the feeling of exhaustion of people's physical and emotional resources due to severe physical, emotional, and cognitive stress; (b) depersonalization, is a condition of disconnection with parents, students, and other teachers that disrupt the teacher's personal and professional life; and (c) decreased sense of personal accomplishment associated with negative self-evaluations of individuals regarding their job performance. Few studies have examined the relationship between teacher reflective thinking and burnout (e.g., Mahmoodi & Ghaslani, 2014; Safari et al., 2020; Safari, 2022; Shirazizadeh & Karimpour, 2019).

As mentioned above, the quality of English teachers' teaching relies on some individual and social characteristics, and if these characteristics face problems, it can negatively affect the education system. Moreover, a small number of studies have investigated the correlation among variables such as Iranian EFL teachers' creativity, reflective thinking, and burnout level, especially using structural equation modeling (SEM). It is important to simultaneously explore the complex relationships between the factors identified by measurement and structural models.

2. Literature Review

In this section, the theoretical foundations and empirical research in the field of three latent variables of teachers' creativity, reflective thinking, and job burnout are presented using SEM.

2.1.Creativity

Depending on how we look at creativity, there are different definitions of creativity "as a property of the people (who we are), processes (what we do) or products (what we make)" (Fisher, 2005, p. 8). As stated by Bentley (2001), creativity is "the application of knowledge and skills in new ways to achieve a valued goal" (p.136). In accordance with Cremin (2009), a variety of personality traits of creative teachers include: passion, confidence, curiosity, commitment, openness to emotions, feeling like a creative being, and a confident knowledge of the subject. In this regard, Mahmoudi-Shahrbabaki (2015) conducted a study to examine the impact of language teachers' creativity on their burnout level. Using a structural equation modeling, this research suggests a model that examines the direct

impact of teacher creativity on language teachers' burnout. The results showed that the effect of total creativity on all dimensions of burnout is significant. Creative teaching is related to teachers' personal creativity, critical thinking, and personality (Craft, 2009). According to Cremin (2009), teaching for creativity "is seen to involve teachers in identifying children's creative strengths and fostering their creativity" (p. 41). Teaching creativity becomes practical only when teachers know how to teach creatively and have the desire to do so (Craft, 2009). The personal ability and creativity of teachers are the main components of creative teaching, which is characterized by the usual activities and functions of teachers that increase the individual growth of students in moral, spiritual, social, and cultural aspects (Lapeniene, 2011).

Conventionally, there has been a popular belief that creativity comes from the interaction of individual and social factors (Hodges, 2008). Nevertheless, there is not much information about the predictors of teachers' creativity. However, there is ample evidence of motivation for work (Lapeniene, 2011), epistemological beliefs (Hong, et al., 2009), organizational climate (Lapeniene & Bruneckiene, 2010), and leadership style (Mousavi et al., 2011). Sadeghi (2010) also increased our comprehension of creativity in education. Sadeghi conducted a case study and concentrated on the subscales of the classroom psychological environment, such as - participation, dependence, task orientation, teacher support, competition, discipline, clarity of rules, organization, innovation, and teacher control. Each of the subscales has been shown to have a significant impact on student learning. In addition, he indicated that a classroom with a calm environment leads to the emergence of innovative ideas and thinking, two vital necessities for a creative classroom.

2.2.Reflective Thinking

Reflective thinking is closely related to metacognitive reasoning, in which individuals study their method of reasoning and recognize the administration of their thinking. Zalipour (2015) stated, "Reflective practice challenges teachers who have unquestioned assumptions about good teaching and encourages them to examine themselves and their practices in the interest of continuous improvement" (p. 4). In accordance with Dewey (1933, as cited in Demirel, Derman, and Karagedik, 2015), reflective thinking is "active, persistent, and careful consideration of any belief or supposed form of knowledge considering the grounds that support it and the further conclusion to which it tends" (p. 2088). There are different features of reflective thinking, in which the scientific

classification of Choy and Oo (2012) is widely accepted. Reflective thinking in this description consists of four criteria: (1) reflection as retrospective analysis (the ability to self-evaluate); (2) reflection as problem-solving (awareness of how to learn); (3) critical self-reflection (creating continuous personal development); (4) reflection on self-efficacy beliefs. Considering these four dimensions together, it can be assumed that reflective teachers are increasingly attentive to the current situation and are increasingly organized to navigate critical situations, such as encountering problematic performance and improving instruction in the classroom.

Bilač and Miljković (2017) investigated the influence of reflective practice on job satisfaction in classroom management. Participants were selected from among primary school teachers. The findings did not show any effect of reflection training on job satisfaction. In a similar study, Javadi and Khatib (2014) examined the correlation between dissatisfaction and burnout among Iranian English teachers who practice reflective teaching. Correlation analysis showed that teachers' reflection has a significant and inverse relationship with their feelings of burnout. Safari et al. (2020) investigated the impact of job satisfaction, self-efficacy, and reflective thinking of English teachers on their professional development using SEM. The findings showed a significant internal correlation among all latent variables and their subscales. In addition, multiple regression analysis showed that reflective thinking not only did not predict professional development but was partially predicted by professional development. Then, Safari and Davaribina (2021) in another study, intended to examine the relationship between job satisfaction of Iranian teachers of English, reflective thinking, and professional development. The findings of multiple regression analysis revealed that reflective thinking positively predicts job satisfaction.

2.3. Burnout

Schwarzer and Hallum (2008) described burnout as "a chronic state of exhaustion due to long-term interpersonal stress within the human service profession" (p. 154). Maslach and Jackson (1984) argued that burnout is a structure that includes three subscales: depersonalization, emotional exhaustion, and reduced personal accomplishment. In education, burnout occurs when teachers feel emotionally cold, in personal isolation, and unaware of students' personal characteristics. Ghanizadeh and Jahedizadeh (2016) studied the role of burnout in teachers' creativity. To investigate these statistical relationships, a path analysis was performed.

In accordance with the results, the debilitating role of teachers' burnout in creativity was demonstrated. Kermanshahi and Pishghadam (2022) conducted a study to investigate the willingness of Iranian teachers to receive feedback and its relationship with job burnout. The obtained results indicated a significant and negative relationship between the desire to receive direct feedback and job burnout. Thus, the more teachers are willing to receive direct feedback, the later they may experience burnout. In another related study, Naji Meidani et al. (2019) tried to study the role of time perspectives in the job burnout of language teachers. Results showed that there is a significant positive relationship between job burnout, depersonalization, and emotional exhaustion with negative fatalistic time views and the past present, and significantly with positive past, hedonic, and future views.

Burnout has been the subject of intense research in recent years. In a related research, Sotirios et al. (2019) examined job satisfaction and burnout of teachers in public and private schools. The results indicated that there is a negative relationship between job satisfaction and burnout. Teachers had balanced burnout and a high level of job satisfaction. In other related research, Karavasilis (2019) showed a negative statistical relationship between variables in which there was higher job satisfaction and a very low rate of burnout syndrome among Greek teachers. Similarly, Kroupis et al. (2019) showed that teachers who experienced moderate to low burnout were more satisfied with their jobs and supervision. In a similar research, Košir et al. (2015) indicated that reflective thinking is not a direct predictor of burnout and stress. Safari (2022) then sought to study the potential correlation between burnout in Iranian teachers and reflective thinking. SEM was applied to examine the hypothetical model of relationships. The findings showed that burnout poorly predicts reflective thinking.

To achieve the goals of the current research, the following research questions were raised:

Is there any statistically significant relationship between EFL teachers' creativity and reflective thinking?

Is there any statistically significant relationship between EFL teachers' creativity and burnout levels?

Is there any statistically significant relationship between EFL teachers' reflective thinking and burnout levels?

3. Methodology

3.1. Design of the Study

The method of this research was a questionnaire-based quantitative approach that used of quantitative interpretations of the findings obtained through structural equation modeling to analyze the data to provide a more comprehensive understanding. To do this, an exact model (Figure 1) was suggested to represent the possible correlation between Iranian EFL teachers' creativity, reflective thinking, and burnout levels.

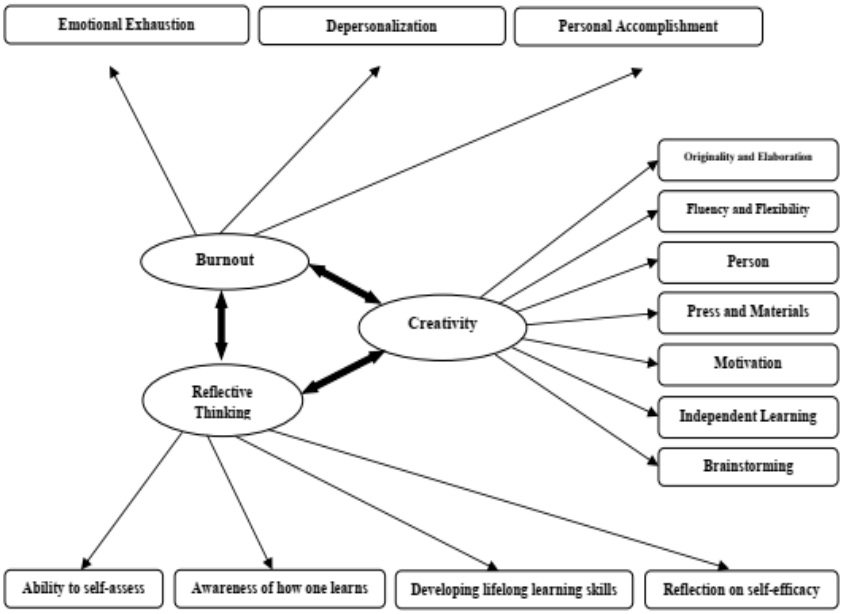

Figure 1. *Hypothesized Model of Correlations Between Study Variables*

3.2. Context and Participants

The participants of the current research were 208 English language teachers (132 males and 76 females) working in different schools and universities in Ardabil and Tehran provinces, who were randomly selected. It should be noted that three questionnaires were distributed to the main set of participants through email, social networks (mainly What's App), and on paper. As noted earlier, 208 English teachers completed the questionnaires, which were the main data of the research. The participants were classified into two experienced and novice teachers with active working years between 5 and 35 years. They ranged in age from 25 to 65, and most teachers ranged in age from 26 to 35. All teachers were informed when the questionnaires were distributed. The confidentiality of the findings and results of this research was communicated to the teachers so

that they could participate in completing the questionnaires with more confidence.

Table 1. represents the demographic characteristics of the teachers. In accordance with Table 1, more than half of the participants (63.46 %) were male teachers. Most of the participants were aged between 26 and 45 years (75.48 %), showing that most of the teachers were young, while only 5.77% of the teachers were between 56 and 65 years old.

Table 1. *Demographic Characteristics of Participants in the Study*

Variables		Frequency	Percentage	Valid Percentage
Gender	Male	132	63.46	63.46
	Female	76	36.53	36.53
Age group (Year)	26-35	92	44.23	44.23
	36-45	65	31.25	31.25
	46-55	39	18.75	18.75
	56-65	12	5.77	5.77
Year of Teaching	6-15	113	54.32	54.32
	16-25	79	37.98	37.98
	26-35	16	7.70	7.70
Place of teaching	University	96	46.15	46.15
	School	112	53.84	53.84
Total		208	100.0	100.0

It is worth mentioning that this study was conducted only on teachers whose teaching experience was between 6 and 35 years. Given that the predominant age group was 26-45, it seems quite reasonable that most participants had less teaching experience. According to Table 1, the highest teaching experience was between 6-15 and 16-25 years, while only 7.70% of the participants had teaching experience of approximately 26-35 years.

Because some English teachers are active in some other educational environments apart from their official workplace, this study has divided them into two parts: schools and universities. The teachers participating in the research pointed to their workplace at the time of completing the questionnaires. According to Table 1, the higher percentage is related to teachers who work in schools (53.84 %) and the lower percentage is related to teachers who work in universities (46.15 %).

3.3. Instrumentation

For data collection, three questionnaires were employed, namely, (1) the English Language Teacher Creativity Scale, (2) the Reflective

Thinking Questionnaire, and (3) Maslach Burnout Inventory. The researcher considered the advice of some experienced and professional colleagues regarding the validity of the questionnaires to ensure the appropriateness of the items for the intended purposes. They also confirmed the construct and content validity of the questionnaires. The reliability of the questionnaire was also calculated using Cronbach's alpha and SPSS.

3.3.1. English Language Teacher Creativity Scale (ELT-CS)

ELT-CS was used to measure the level of development of the sense of creativity by English teachers and was approved by Pishghadam et al. (2012). This scale consists of 60 multiple-choice items ranging from "always" to "never". ELT-CS is multidimensional and includes seven dimensions: brainstorming, independent learning (autonomy), originality and elaboration, press (environment) and materials, fluency and flexibility, motivation, and person (teacher). The items of the main questionnaire were made in such a way that they should be completed by the students. However, in this research, using the opinions of experts and elites, the researcher has changed the expressions and questions according to the conditions of the teachers so that they can complete the questions related to their current conditions. The SPSS software also declared the overall reliability obtained Cronbach's alpha from the data of this study to be 0.83.

3.3.2. Reflective Thinking Questionnaire (RTQ)

Teachers' reflective thinking questionnaire by Choy and Oo (2012), includes four subscales of reflective thinking: belief about self and self-efficacy (3 Items), developing lifelong learning skills (9 Items), awareness of how one learns (9 Items), and ability to self-express (12 Items). This questionnaire uses a 5-point Likert scale ranging from 1 (Strongly agree) to 5 (Strongly disagree). Cronbach's alpha was employed to examine the reliability of the test and showed a moderate internal consistency among the items (α=.92).

3.3.3. Maslach Burnout Inventory (MBI)

Maslach Burnout Inventory- Educators' Survey (MBI-ES) by Kokkinos (2006) was applied to measure the burnout level of Iranian EFL teachers. This 22-item measurement scale includes three subscales: Personal Accomplishment (PA), Depersonalization (DP), and Emotional Exhaustion (EE). The frequency scale ranged from "never" to "every

day". Low scores on personal accomplishment and high scores on emotional exhaustion and depersonalization are indicators of burnout. Cronbach's alpha coefficient was estimated at .897 for the entire questionnaire. Coefficients for subscales were also measured. The Exhaustion coefficient was .895; .754 for Depersonalization and .815 for Personal Accomplishment.

3.4. Data Collection Procedure

Questionnaires were experimentally implemented using the paper and pencil method by a group of 28 colleagues, and minor changes were made in the expression of some items to improve their comprehensibility. In addition, participants' scores were entered into SPSS version 24 and Cronbach's alpha was calculated for the scales to ensure that they were sufficiently reliable.

It should be mentioned that a group of colleagues in the Ardabil and Tehran provinces were contacted and asked to distribute the questionnaires among their colleagues and request their cooperation. Because some of the teachers were from different parts of the country and it was not possible to meet, questionnaires were sent to them through the Internet (email and social networks) and returned after they were completed.

Questionnaires were distributed to 122 teachers in person, and 165 copies were sent via email or social networks (mainly What's App and Telegram). In total, out of 287 teachers who were contacted, 208 teachers responded to the questionnaires and returned them. These questionnaires were scored, and the obtained data were entered into SPSS software. This step was followed by reviewing and clearing the data to ensure no errors. It should be mentioned that the negative cases with reverse coding and the initial calculations are necessary to adjust the AMOS data and test the hypothetical model in the next step.

3.5. Data Analysis Procedure

After data collection, using three questionnaires related to latent variables, SEM analysis was performed employing SPSS version 24 to examine these relationships in the path model. According to Safari et al. (2020), SEM includes two main stages: exploratory factor analysis and confirmatory factor analysis. Exploratory factor analysis was used to explore the relationship between subscales and their latent variables. It consists of statistical methods such as the KMO-Bartlett test and correlation matrix. In addition, confirmatory factor analysis was

performed with the aim of confirming the hypothesized model using good fit indices and exploring all the relationships between latent variables and their subscales.

Six main steps in SEM, as defined by Kline (2011), were followed: specifying the model, evaluating model identification, selecting the measures, estimating the model, respecifying the model, and reporting the results. In addition, the analytical method in the present research followed what Kline refers to as model building (i.e., the initial model was modified if it did not fit the data). The overall SEM model consists of two sub-models: a measurement model and a structural model. Sub-models measure factor loadings between indices and latent variables and define the relations between observed and unobserved variables. The structural sub-model defines the hypothesized structural relations between factors and relations between latent variables by specifying how latent variables directly or indirectly influence changes in other latent variables.

As mentioned by Hoyle and Panter (1995), the following fit indices were used to examine the fit of the hypothesized model: normal chi-square, goodness of fit index (GFI), incremental fit index (IFI), comparative fit index (CFI), and root mean squared error of approximation (RMSEA). In accordance with Hoyle and Panter, GFI, IFI, and CFI values range from 0 to 1.0, with values closer to 1.0 generally indicating better-fitting models. In line with Hoyle and Panter, GFI, IFI, and CFI values range from 0 to 1.0, with values closer to 1.0 generally indicating better-fit models. In addition, the loading factors showed a high correlation between each latent variable and its subscales, and Spearman's bivariate correlation and multiple regression analysis were used to predict the model path.

Furthermore, SEM may provide a coherent approach in which models are combined to eliminate redundant models and create more accurate explanations. Finally, to clarify and better understand the relationships among constructs, SEM represents the path of each relationship and effect among all variables in a complete image (Kline, 2011). SEM is a suitable approach to investigate and analyze the relationships between the latent variables of this study.

4. Results

According to the cases mentioned in the previous section, various statistical methods were employed to answer the research questions. To achieve these goals, descriptive statistics, correlation matrix, KMO, Bartlett test, SEM, and multiple regression were used. Descriptive statistics for all subscales of the latent variables are shown in Table 2.

Table 2 shows that continuous variables (Skewness and Kurtosis < 2) are not normally distributed; therefore, to calculate the relationship between these three variables, Spearman's bivariate correlation was used.

Table 2. *Descriptive Statistics for all Subscales of Latent Variables*

Latent Variables	Subscales	N	Mean	D	Skewness	Kurtosis
Creativity	Originality and Elaboration	208	3.92	.28	-.31	1.92
	Fluency and Flexibility	208	3.54	.35	.86	2.83
	Person	208	3.76	.34	-.16	-.72
	Press and Materials	208	4.43	.58	-.84	.17
	Motivation	208	3.94	.28	-.34	1.96
	Independent Learning	208	3.63	.36	.87	2.89
	Brainstorming	208	3.45	.34	-.12	-.73
Reflective Thinking	Ability to self-assess	208	3.91	.29	-.30	1.98
	Awareness of how one learns	208	3.53	.36	.85	2.80
	Developing lifelong learning skills	208	3.75	.35	-.15	-.70
	Reflection on self-efficacy	208	4.42	.59	-.83	.11
Burnout	Emotional Exhaustion	08	3.34	.40	-1.16	2.16
	Depersonalization	208	3.27	.43	-.88	1.32
	Personal Accomplishment	208	3.12	.40	-.60	1.97

In Table 3, the correlation matrix of latent variables and their subscales are shown, and a significant correlation was found between latent variables and a negative correlation between creativity and job burnout and their subscales. In addition, not only were all latent variables negatively correlated with their subscales, but some subscales were negatively correlated with other latent variables and subscales. It is important to mention that there was a positive correlation between creativity and reflective thinking compared with job burnout.

Table 3. *Correlation Matrix for Latent Variables and their Subscales*

Variables	**CR**	OAE	FAF	PE	PAM	MO	IL	BS	**RT**	ATSA	AOHOL	DLLS	ROSE	**BO**	EE	DP	PA
CR	1																
OAE	81	1															
FAF	76	52	1														
PE	.66	.43	.53	1													
PAM	.78	.46	.45	.5	1												
MO	.85	.67	.61	.62	.59	1											
IL	.69	.53	.48	.58	.43	.56	1										
BS	.82	.39	.37	.49	.53	.44	.36	1									
RT	.56	.53	.56	.64	.69	.65	.51	.52	1								
ATSA	.64	.67	.57	.65	.66	.61	.56	.62	.70	1							
AOHOL	.57	.55	.64	.56	.68	.63	.65	.69	.57	.24	1						
DLLS	.68	.45	.53	.54	.51	.63	.56	.43	.64	.43	.26	1					
ROSE	.64	.65	.59	.66	.55	.57	.62	.63	.72	.33	.05	.18	1				
BO	-.12	-.09	-.02	.19	.05	-.08	.22	.10	.23	.11	.21	.23	.18	1			
EE	-.11	-.18	-.09	.09	-.03	-.14	-.19	-.10	.29	.31	.19	.11	.22	.84	1		
DP	-.21	-.12	-.23	.22	-.17	.25	-.21	-.26	.21	.13	.24	.32	.22	.83	.50	1	
PA	-.12	-.33	-.13	.14	.15	.04	.26	.07	.23	.23	.31	.27	.25	.86	.61	.55	1

Note: CR= Creativity, OAE= Originality and Elaboration, FAF=

Fluency and Flexibility, PE= Person, PAM= Press and Materials, MO= Motivation, IL= Independent Learning, BS= Brainstorming, RT= Reflective thinking, ATSA= Ability to self-assess, AOHOL= Awareness of how one learns, DLLS= Developing lifelong learning skills, ROSE= Reflection on self-efficacy, BO= burnout, EE= Emotional Exhaustion, DP= Depersonalization, PA= Personal Accomplishment

In accordance with one-to-one correlation between subscales of the present research, it can be found that the highest relationship is between "Brainstorming" belonging to Creativity and "Awareness of how one learns" under reflective thinking (r = .69), bearing in mind that the lowest correlation is between "Originality and Elaboration" owning Creativity and "Personal Accomplishment" under burnout (r= -.33). Furthermore, all the subscales of creativity are negatively related to burnout.

Despite the existence of multiple relationships between latent variables and their subscales, simple correlation analysis cannot be used as a powerful confirmatory measure because of measurement errors. Therefore, in addition to confirming the relationships between variables of the hypothesized model, both exploratory and confirmatory analyses of SEM were used.

Bartlett's test was used to check the correlation between the subscales

within themselves and with their latent variables. It should be noted that the result of Bartlett's test should be significant ($p<0.05$). The KMO test was also used to examine the adequacy of the sample. The indicated test represents whether each subscale sufficiently loads on its associated factor or not. It is important to know that the KMO test value should be between .5 and .9. A small value for KMO ($p<.5$) indicates a problem with the sampling procedure. Therefore, variables with small values should be excluded.

Table 4. *KMO and Bartlett's test*

Latent Variables		**Creativity**	**Reflective Thinking**	**Burnout**
KMO measure of sampling adequacy		.712	.568	.596
Bartlett's test	Approx. Chi-Square	185.233	95.112	88.334
	Df	3	2	5
	Sig.	.000	.000	.000

In Table 4, all KMO measurement statistics are higher than 0.5, which indicates the appropriateness of sampling. Additionally, a confidence level of 0.00 for Bartlett's test confirms the fit of the factor model for all latent variables. According to Jöreskog and Sörbom (1996), goodness-of-fit indices for the model were calculated using the maximum likelihood estimation approach in AMOS version 24.

More comprehensively, the following fit indices were applied to test the hypothesized model's fitness: Normal Chi-square ($(\frac{x^2}{df})< 5$), Root Mean Squared Error of Approximation (RMSEA <.05), Root Mean Squared Residual (RMR ≥ 0), Goodness-of-Fit Index (GFI >. 9), Adjusted Goodness-of-Fit Index (AGFI >.85), Normal Fit Index or Bentler-Bonett Index (NFI >.90), Comparative Fit Index (CFI >. 90) and Incremental Fit Index (IFI >. 90). According to Hoyle and Panter (1995), GFI, IFI, and CFI values range from 0 to 1.0, with values closer to 1.0 typically indicating high model fit. The eight criteria used to test the fit statistics of the model are shown in Table 5.

Table 5. *Structural Equation Model: Fit Statistics*

Evaluation	**Acceptable level**	**Current level**	**Fit statistics**
Normal Chi-Square	$\left(\left(\frac{x^2}{df}\right) < 5\right)$	3.7	Accept
Root Mean Squared Error of Approximation	RMSEA <.05	.06	Accept
Root Mean Squared Residual	RMR ≥ 0	.05	Accept
Goodness-of-Fit Index	GFI >. 9	.97	Accept
Adjusted Goodness-of-Fit Index	AGFI >.85	.94	Accept
Normal Fit Index or Bentler-Bonett Index	NFI >.90	.96	Accept
Comparative Fit Index	CFI >. 90	.97	Accept
Incremental Fit Index	IFI >. 90	.97	Accept

Based on the results indicated in Table 5, all indices are accepted for the model of creativity, reflective thinking and job burnout (Normal Chi-Square = 3.7; RMSEA=.06; RMR =.05; GFI = .97; AGFI =.94; NFI =.96; CFI =.97; IFI =.97). Figure 2 shows a schematic representation of the accepted and modified model based on the previously mentioned criteria. This figure also represents the standardized path correlations between the latent variables and their subscales.

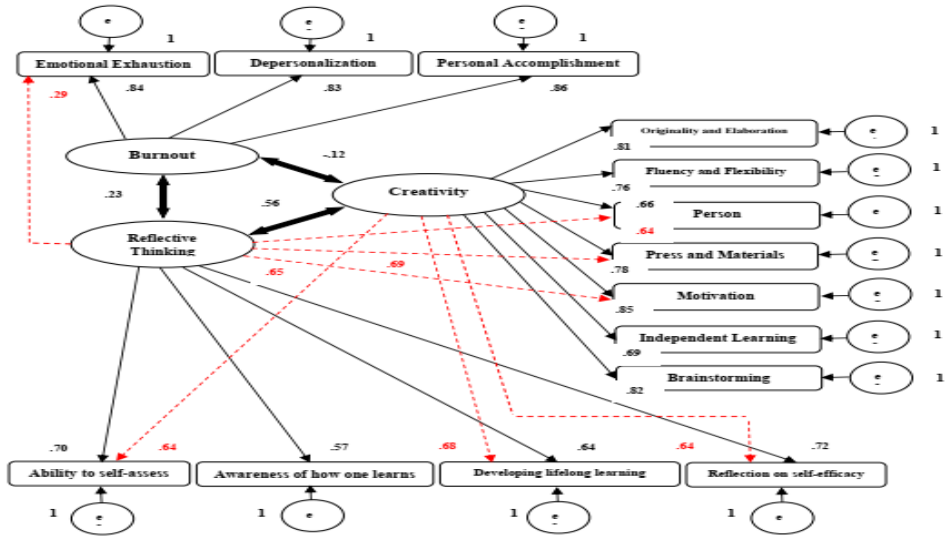

Figure 2. *Structural Equation Modeling of Standardized Estimates after Modification of the Hypothesized Model*

In accordance with Figure 2, there were some positive intergroup

relations, while the highest relation was between reflective thinking and creativity. The results of the correlation matrix analyses represent different bivariate correlations between the measures. Therefore, these bivariate analyses cannot explore the effect of one variable on another. Consequently, multiple regression analysis is required to determine which independent variable is associated with which dependent variable(s).

Regarding Table 6, creativity predicts reflective thinking (B=.628, t=10.156, Sig=.000) more powerfully than burnout (B=.025, t=.692, Sig=.459). According to the independent variables' B and t values, creativity is a positive predictor of reflective thinking which has more predictive power than burnout.

Table 6. *Multiple Regression Analysis Predicting Teachers' Reflective Thinking*

Predictor	**B**	**t**	**Sig.**
(Constant)	1.565	3.723	.000
Creativity	.628	10.156	.000
Burnout	.025	.692	.459

5. Discussion

Using SEM, the present study concurrently examined the correlations among three latent variables, namely creativity, reflective thinking, and burnout. It is important to mention that this research has extended previous related research by finding the correlation between these variables concurrently and employing particular data analysis methods.

The first research question attempted to explore the statistical correlation between EFL teachers' creativity and reflective thinking. According to the findings of the correlation matrix, all the subscales of EFL teachers' creativity are positively correlated with their reflective thinking, and similarly, all the subscales of EFL teachers' reflective thinking are positively correlated with their creativity. According to the one-to-one correlation between subscales of the present research, the highest correlation is found between "*Brainstorming*" belonging to Creativity and "*Awareness of how one learns*" under reflective thinking (r= .69). In other words, creativity has a significant relationship with three subscales of reflective thinking, respectively, *Ability to self-assess* (.64), *Developing lifelong learning skills* (.68), and *Reflection on self-efficacy* (.64). On the other hand, reflective thinking has a significant relationship with three subscales of creativity respectively, *Person* (.64), *Press and Materials* (.69), and *Motivation* (.65). In addition, the obtained findings of the correlation matrix are confirmed by the SEM in standardized estimates (.56). Given these results, teachers with a high level of creativity

are more likely to benefit from higher levels of reflective thinking. Furthermore, some of the factors related to reflective thinking, such as the ability to self-assess, developing lifelong learning skills, and reflection on self-efficacy, can challenge the creativity of teachers who have subjective and personal assumptions about good and effective teaching and encourage them to analyze themselves and their performance in favor of constant development. Teachers need to consider their views and feelings about reflective thinking by expanding attention to personality, material, and motivation in teaching. The obtained results of the present research are in line with Ünver (2003), who believes that at the end of reflective thinking, a person sometimes becomes creative.

The second research question studied the statistical correlation between EFL teachers' creativity and burnout. As definitely reported in the correlation matrix of latent variables and their subscales, there was a negative correlation between creativity and job burnout (r= -.12). Moreover, not only these two latent variables but also all their subscales were negatively related to each other in which the lowest relation was between "*Originality and Elaboration*" under creativity and "*Personal Accomplishment*" owned by burnout (r= -.33). Furthermore, SEM findings showed that creativity has a lower correlation with burnout in compared with reflective thinking. In short, teachers with higher creativity are expected to have lower burnout. The results of this study are in accordance with the results of the previous research (Craft, 2009; Ghanizadeh & Jahedizadeh, 2016; Mahmoudi-Shahrbabaki, 2017), in which it has been determined that people who have job burnout often have a low level of creativity, especially fatigue, cognitive performance impairment, and physical complaints. Consequently, interventions to decrease stressors and increase resources to manage teachers' burnout would be a crucial factor in their creativity. In this regard, Mahmoudi-Shahrbabaki (2015) showed that the effect of total creativity on all dimensions of burnout is significant. Creative teaching is related to teachers' personality, critical thinking, personal creativity, and its manifestations in daily practice (Craft, 2009).

The third research question examined the relationship between EFL teachers' reflective thinking and burnout. According to the findings of the correlation matrix of all latent variables and their subscales, EFL teachers' reflective thinking was found to be weakly related to their burnout. Afterward, the SEM results confirmed the findings obtained in the correlation matrix (r = .23). Nevertheless, the number found in the relationship between reflective thinking and burnout was the lowest, and

it can still be stated that this correlation is significant. Therefore, this means that teachers who experience lower levels of burnout are more likely to enjoy higher levels of reflective thinking. Based on the SEM findings, reflective thinking influenced one of the burnout subscales, namely, "*Emotional Exhaustion*" (.29). One possible reason for these findings could be that teachers with emotional exhaustion are more likely to use reflective thinking to improve the quality of their teaching. It can also be noted that these teachers tried to think about what they do in their classrooms so that they can develop the strategies they use with more effective people. On this basis, teachers who experience reflective thinking always review their teaching strengths and weaknesses and have lower emotional exhaustion. Reflective thinking is broadly proposed as a response to reduce teacher burnout, help them make better educational decisions, and encourage them to solve educational problems.

It is worth noting that the findings of this research are consistent with the results of Shirazizadeh and Karimpour (2019) who found that reflective teachers have less depression, better decision-making power, and more ability to solve educational problems. It should be noted that the findings of this research contradict the results of other studies (Javadi & Khatib, 2014; Košir et al., 2015; Mahmoodi & Ghaslani, 2014; Safari, 2022). Javadi and Khatib (2014) showed that teachers' reflection has a significant and negative relationship with their feelings of burnout. As Mahmoodi and Ghaslani (2014) reported, reflective thinking was negatively correlated with the level of job burnout. In another related study, Košir et al. (2015) showed that reflective thinking is not a direct predictor of stress and burnout. Recently, Safari (2022) showed that burnout poorly predicts reflective thinking. As Shirazizadeh and Karimpour (2019) stated, reflective teachers have less depression, are better decision-makers, and are more capable of solving teaching problems. Thus, these teachers are less affected by feeling burnout.

6. Conclusions and Implications

In accordance with the findings of the present research, it was understood that teachers' creativity and reflective thinking had a significant influence on their burnout. Teachers' creativity was shown to be a stronger predictor of reflective thinking. As previously stated in the results, there was a negative relationship between creativity and burnout, while not only these two latent variables but all their subscales were negatively related to each other. That is, teachers with a high level of creativity are expected to have less burnout. In addition, the findings

indicated a positive correlation between EFL teachers' creativity and reflective thinking. The findings stated the crucial role of these variables in teachers' creativity. In short, to improve teachers' reflective thinking, their creativity should be considered. Furthermore, creativity has the highest correlation with reflective thinking compared with burnout. In other words, creativity predicted reflective thinking more powerfully than burnout. Therefore, it can be said that teachers who have highly reflective thinking are more creative in their jobs. In addition, the findings showed that although in the hypothesized model, it was predicted that burnout could affect their reflective thinking, the findings showed that this effect was less than creativity. Therefore, it can be understood that EFL teachers' burnout can be directly affected by their reflective thinking on a small scale. In the long term, the stress faced by teachers can affect the quality of teaching, so they need instant attention (Colomeischi, 2015). Overall, it was also reported that all subscales of creativity and reflective thinking are statistically very relevant.

If Iranian EFL teachers approach professionalism more effectively by recreating the identity of EFL professionals, teachers' creativity will improve and their best reflective thinking will decrease their stress and burnout. All stakeholders of language education, such as researchers, teachers, and educational policymakers may benefit from the findings of this study. In addition, this study can assist educators and administrators in better understanding the sociological and psychological characteristics of English language teachers and take steps to improve the achievement of educational goals and remove existing obstacles.

Limitations of the study may influence the generalizability of the results. These limitations are generally due to design limitations involving measurement problems, sampling methods, or misspecification of expected and observed relations. The first and foremost limitation of this research with EFL teachers was the reliance on self-report measures alone. Self-report measures depend on the participants' willingness to answer accurately and complete each measure in a timely manner. The second limitation of this research is related to its quantitative nature. For this reason, the data collection tool consisted of three questionnaires, and the response rate of English language teachers was low, questionnaires related to the detailed experimental profile and detailed teaching were sent to them. The third and last limitation also refers to time, the participants had a maximum of one week to complete and deliver the questionnaires on time. During this time, these participants may have been affected by various experiences and conditions unrelated to their work environment.

Finally, a procedural bias might have influenced the outcomes.

Further research may change the choice of endogenous variables in the model and then examine how creativity, reflective thinking, and burnout may affect these endogenous variables, or they may study other latent variables to extend the findings of this study. In addition, the continuous study of model results and model fit using SEM with different groups of teachers will be valuable. For example, model testing may be more instructive for teachers in other disciplines. Further research may also repeat this study in different contexts, such as teachers in different work environments, or examine these variables, especially burnout, with newly developed concepts such as emotional-educational divorce.

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