



Predictors of Iranian EFL Teachers' Beliefs about Language Learning / Teaching: Critical Thinking, Reflectivity and Emotional Intelligence in Focus

Mehdi Dehghayedi

Ph.D. Candidate, Department of Foreign Languages, Shiraz Branch, Islamic Azad University, Shiraz, Iran

Mohammad Sadegh Bagheri*, Ph.D.

Department of Foreign Languages, Shiraz Branch, Islamic Azad University, Shiraz, Iran

Abstract

This study examined the relationship between EFL teachers' emotional intelligence, critical thinking, and reflectivity and their language learning as well as teaching beliefs. It investigated how well each of the variables can predict EFL teachers' language learning beliefs and its respective levels. Accordingly, four questionnaires were given to 130 EFL teachers, and the elicited data were analyzed via correlational and multiple/multivariate regression analyses. Results revealed that 18% of teachers' beliefs was significantly explained by the triplex unity. Critical thinking and emotional intelligence had significant contributions of 25% and 19%, respectively. The collective contributions of the three variables were only significant to three of the five dependent levels, i.e. 8% to language nature, 17% to motivation and expectation, and 22% to learning and communication. Accordingly, some pedagogical implications were elucidated.

Keywords: Critical thinking, emotional intelligence, reflectivity, teachers' beliefs0

Introduction

Teachers' strategies and viewpoints can be critical in interpreting and boosting the pedagogical trends. Teachers' techniques for handling difficulties in their educational environment can be connected with the way they think and believe. To gain an understanding of the prevalence of certain beliefs and practices it is important to examine how they relate to the teachers' behavioral features. Many researchers have explored language learning beliefs in various studies, covering varying groups of practitioners in different settings of learning (Bernat, 2004; Diab, 2006; Horwitz, 1987, 1988; Kern, 1995; Loewen et al., 2009; Peacock, 2001; Riley, 2009; Sakui & Gaies, 1999; Yang, 1999). This reflects the potential impact of the beliefs on language learning, and consequently on the outcome of learning (Abraham & Vann, 1987; Mori, 1999; Tanaka & Ellis, 2003). One aspect of teachers' beliefs may be pertained to critical thinking (CT): the

potential to criticize and to make wise decisions (Reed, 1998) via scrutinizing the viewpoints to facilitate perception (Klimoviene, Urboneine & Barzdiukiene, 2006). Scriven and Paul (2012) take it as the commonsensical rule-governed trend of dexterously imagining, practicing, examining, combining, and assessing the data collected produced through diverse ways of experiencing. This trend can also be pertinent to the concept of reflectivity, as a significant behavior applied by teachers to cope with their unique viewpoints about the pedagogical processes (Akbari, 2007; Akbari et al., 2010). This behavior can assess strategies meticulously leading to some change in the beliefs (Griffith, 2000; Jay & Johnson, 2002). In addition, such reflectivity may be the result of an individual's mental life including two minds, a thinking mind and a feeling mind (Aghayar & Sharifi, 2008). When the emotions are aroused, the balance between these two minds is disturbed, causing the Emotional Intelligence to overcome the thinking mind. Accordingly, there is a common tendency to combine emotion with intelligence (Cekmecelioglu et al., 2012). Goleman, Boyatzis and Mckee (2006)

*** Corresponding Author**

Email: bagheries@yahoo.com

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believed that in order to overcome the incoming challenges, one should enhance the components of Emotional Intelligence, which requires raising consciousness, handling the behaviors, and monitoring social and acts upon information of an emotional nature intrapersonally and connections.

For many years in the method era, the role of language teachers was only to follow what language teaching authorities realized as “the theories of language, language learning, and of language teaching” (Kumaravadivelu, 2006, p. 162). Now, it has been confirmed that language teachers should go beyond such insufficient traditional methods because the limitation of the notion of the method has paved the way for the emergence of this awareness that “method has little theoretical validity and even less practical utility. Its meaning is ambiguous, and its claim dubious” (Kumaravadivelu, 2006, p. 170). Hence, in recent years, with the appearance of the post-method era and the ending of the method era, the role of teachers has been more and more scrutinized with regard to a wide range of variables which bring them to the limelight. In this way, attending the important role of education in each society, teachers should raise their consciousness in this context to improve their teaching profession.

Thus, reflective teaching is considered as an approach through which teachers are engaged in the improvement of their profession and know the real concept of teaching (Mahmoodi, Izadi & Dehghannezhad, 2016). Reflectivity in teaching refers to a process in which teachers enhance their professional practice and learn how increasingly to promote an effective teaching by ongoing reflection on their actions and beliefs in the educational context (Farrell, 2008).

Reflective teaching has been positively associated with various beneficial outcomes in the teaching context such as increasing the interpersonal relationship between the teacher and students and among teachers themselves, making sense of this relationship, job satisfaction, and the enhanced sense of self-efficacy beliefs of teachers (Akbari, 2007).

Griffiths (2000) stated that reflective teaching has beneficial outcomes not only for students to succeed in the classroom but also for teachers to enhance their self-efficacy, autonomy, confidence, and competence in teaching. Reflective practice is essential for both novice and experienced teachers to promote in the teaching context (Javadi & Khatib, 2014; Steeg, 2016).

Critical thinking is concerned with higher-order thinking skills that enable individuals to successfully participate in a society. In fact, critical thinking skills

allow individuals to become independent thinkers, capable of analyzing and solving problems. Among an extensive inventory of critical thinking skills, we can refer to analysis, interpretation, inference, explanation, synthesis, evaluation, reasoning, self-regulation, decision-making, and problem-solving as the core skills at the heart of critical thinking models or taxonomies (Wright, 2002). The incorporation of critical thinking skills in educational programs has been the concern of theorists and practitioners around the world for years. In recent decades, many scholars have forcefully agreed upon the fact that teaching individual practitioners how to think critically must become the primary goal of schooling (Kumaravadivelu, 2006)

The concept of critical thinking reflects the idea that EFL practitioners can actively be engaged in such mental processes as problem-solving, discovery-learning, questioning, analyzing, making predictions, formulating and reformulating hypotheses to expand their knowledge of language (Aghayar & Sharifi, 2008). These processes, indeed, allow practitioners to become efficient as well as competent language users and encourage them to avoid acquiring information and content via memorization and rote learning (Mahmoodi & Ghaslani 2013).

Emotional intelligence is defined as "the ability to recognize and regulate emotions in ourselves and in others" (Goleman, 1995, p. 12). In addition, emotional intelligence is assessed to analyze an ability to cope with his immediate world as well as to develop for distinguish strengths and weaknesses in individuals and in facilitation. Mayer and Salovey (2005, p. 189), define it as "the ability to control one's own feelings and those of others, to discriminate and use that information to guide his thinking and actions."

This study was conducted to identify the correlates and predictors of teacher beliefs about language learning and teaching. We think that the identification of such factors are of utmost importance since teacher beliefs are probably the most important predictors of teacher behavior. Given the scarcity of research in this area we decided to investigate teacher beliefs in relation to teacher reflectivity, critical thinking, and emotional intelligence.

The present study addressed the following research questions:

Q1: Is there any relationship between critical thinking skills of Iranian EFL teachers and their belief about language learning and teaching?

Q2: Is there any relationship between reflectivity of Iranian EFL teachers and their belief about language learning and teaching?

Q3: Is there any relationship between emotional intelligence of Iranian EFL teachers and their belief about language learning and teaching?

Q4: Are critical thinking skills significant predictors of Iranian EFL teachers' belief about language learning and teaching?

Q5: Is reflectivity a significant predictor of Iranian EFL teachers' belief about language learning and teaching?

Q6: Is emotional intelligence a significant predictor of Iranian EFL teachers' belief about language learning and teaching?

Method

The present study benefited from correlational design as a subset of ex post facto designs. The reason behind such a choice is that the participants of the present study provided data on beliefs about language learning and teaching (the dependent variables) and the obtained scores were correlated with those of the major variable of the study, critical thinking skills, reflectivity, and emotional intelligence.

Participants

Convenient sampling was used to recruit the participants in this study. The participants of the study were 130 male and female English teachers teaching in language institutes in Shiraz, Borazjan, and Bushehr. The teachers who had at least a two-year teaching experience were included in the study. The participants were either MA holders of ELT, English literature, and translation studies.

Instruments

Four instruments were used in this study as follows:

A) The teacher reflectivity questionnaire developed by Akbari, Behzadpoor and Dadvand (2010) consisting of 29 items in a 5-point Likert format ranging from 1=never to 5= always. It includes the underlying factors of the teacher reflectivity, i.e., affective, cognitive, metacognitive, practical and critical dimensions. This questionnaire is of high reliability and validity for measuring teacher reflectivity (Akbari et al., 2010). Its reliability was measured through Cronbach alpha, yielding the high index of .82.

B) To measure the participants' EQ, Trait Emotional Intelligence Questionnaire-Short Form (TEIQ-SF) test on a 5-point Likert scale was used. It included 15 facets (Petrides & Furnham, 2001). The reliability of the emotional intelligence questionnaire regarding the samples of the present study was .78.

C) To evaluate teachers' critical thinking ability, the "Watson-Glaser Critical Thinking Appraisal" (W-GCTA) (Online Version) was employed. It involves 86 items and includes 5 subtests. The reliability index of this questionnaire regarding the samples of the present study was .82.

D) Beliefs about language learning of Iranian EFL teachers in language institutes were elicited using a modified version of a survey entitled, Beliefs about Language Learning Inventory (BALLI), which was published by Horwitz (1987). This Likert-scale questionnaire consists of 43 items. Horwitz (1987) categorized the 43 BALLI items into five themes. The reliability of BALLI was calculated in this study yielding the index of .77.

Procedure

After selecting the participants and administering the questionnaires, Pearson-moment-correlation coefficient (r) was used to assess the degree of relationship among the quantitative variables. The values of the Pearson Correlation range from -1 to +1 with negative numbers representing a negative correlation (as one variable increases, the other variable decreases) and positive numbers representing a positive correlation (as one variable increases, the other also increases). The closer the value is to -1 or +1, the stronger the association is between the variables. Also, multiple regression was also used to see which variables best predict teacher belief in general.

Findings

First the normality of distribution in the scores related to both critical thinking and language learning beliefs was checked. Figures 1 and 2 confirm the normal distribution of the scores regarding the two mentioned variables.

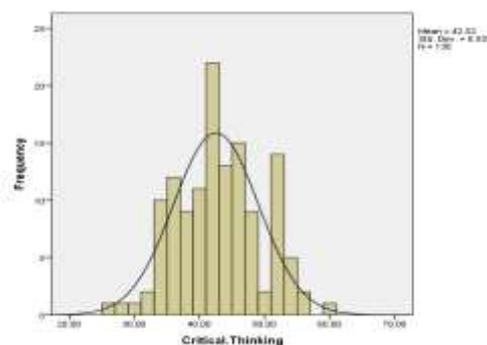


Figure 4. Normal Distribution of Critical thinking Scores

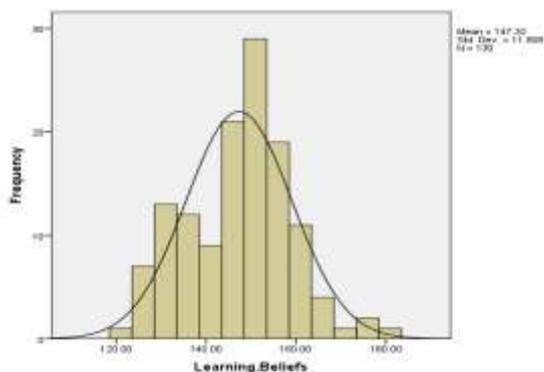


Figure 5.
Normal Distribution of Learning-Belief Scores

After confirming the normality, a correlational analysis was run to indicate the degree of the link between critical thinking and teachers' viewpoints. To this end, both Pearson and Spearman correlations were calculated. Table 1 shows the mentioned correlations related to the respective variables.

Table 1.
Correlation between Teachers' Critical Thinking and Learning Beliefs

	Critical Thinking	
Beliefs	Pearson Correlation	-.347**
	Sig. (2-tailed)	.000
	Spearman's rho	-.307**
	Sig. (2-tailed)	.000
	N	130

The correlational analysis (Table 1) reveals a meaningful connection between teachers' critical thinking and their beliefs on language learning ($p = .00 < .01$). However, since $r = -.34$, i.e. $.30 < r < .49$, it can be interpreted as a negative medium correlation (Cohen, 1988, pp. 79-81; cited in Pallant, 2016). Moreover, the normality of the reflectivity scores was also checked. Figure 2 illustrates the normal distribution of the reflectivity scores via a histogram.

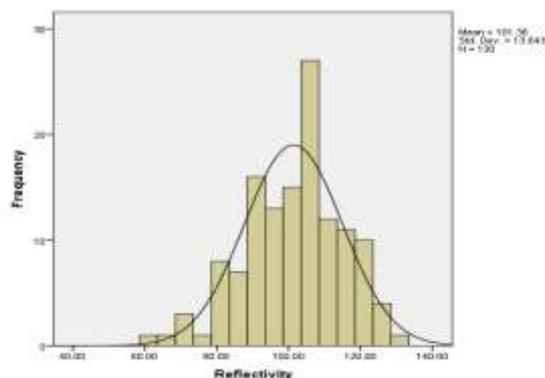


Figure 3.
Normal Distribution of Reflectivity Scores

After confirming the normality, a correlational analysis was run to indicate the degree of the connection between reflectivity and teachers' viewpoints. To this end, both Pearson and Spearman correlations were calculated. Table 2 shows the mentioned correlations related to the respective variables.

Table 2.
Correlation between Teachers' Reflectivity and Learning Beliefs

	Reflectivity	
Learning Beliefs	Pearson Correlation	-.290**
	Sig. (2-tailed)	.001
	Spearman's rho	-.234**
	Sig. (2-tailed)	.007
	N	130

The correlation (Table 2) shows a meaningful link between teachers' reflectivity and their viewpoints ($p = .00 < .01$). However, since $r = -.29$, i.e. $.10 \leq r \leq .29$, it can be interpreted as a negative small correlation (Cohen, 1988, pp. 79-81; cited in Pallant, 2016). Furthermore, the normality of the emotional-intelligence scores was assessed (Figure 4).

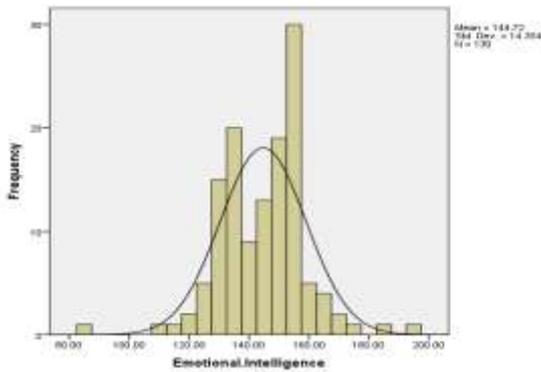


Figure 4.
Normal Distribution of Emotional-Intelligence Scores

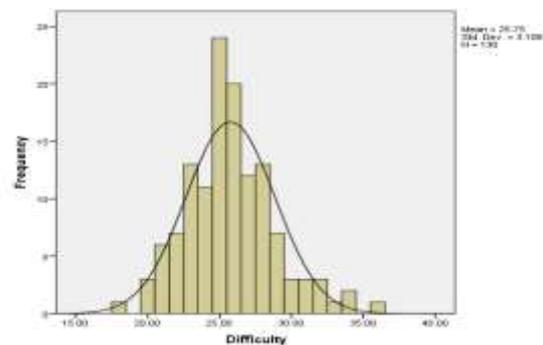
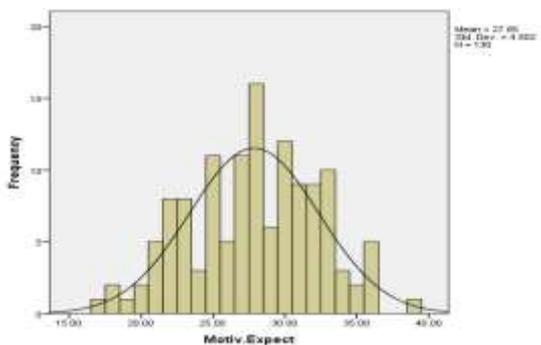
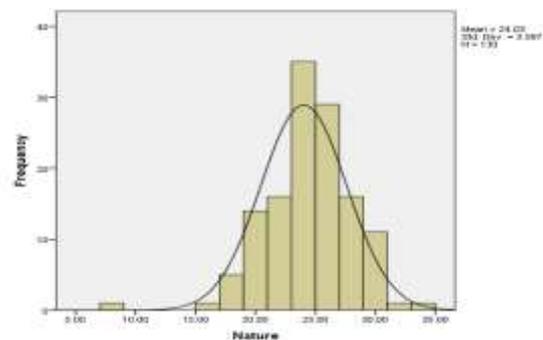
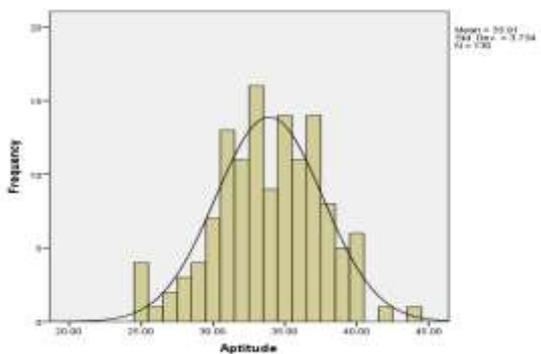
To indicate the degree of the relationship between emotional intelligence and teachers’ viewpoints, a correlation was run. To this end, both Pearson and Spearman correlations were employed. Table 3 shows the mentioned correlations related to the respective variables.

Table 3.
Correlation between Teachers’ Emotional Intelligence and Learning Beliefs

		Emotional Intelligence
Learning Beliefs	Pearson Correlation	.270**
	Sig. (2-tailed)	.002
	Spearman’s rho	.305**
	Sig. (2-tailed)	.000
	N	130

The correlation shows a meaningful link between teachers’ emotional intelligence and their viewpoints ($p = .00 < .01$). However, since $r = .27$ and $.10 \leq r \leq .29$, it can be interpreted as a positive small correlation (Cohen, 1988, pp. 79-81; cited in Pallant, 2016). With regard to Spearman’s coefficient, $r = .30$ and $.30 \leq r \leq .49$; consequently, it can be said that this correlation is a medium one as well. Therefore, the correlation between emotional intelligence and learning beliefs can be interpreted as located on the border between the small and medium correlations.

The normality of the five dependent variables, i.e. the five subcomponents of language learning beliefs, was checked. Figure 5 shows a summary of their normality one by one.



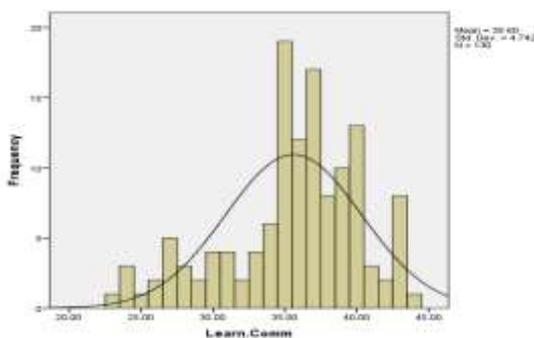


Figure 5.
Normality of Belief Subcomponents as Five Dependent Variables

After confirming the normality, another correlational analysis was conducted to indicate the connection between critical thinking, reflectivity, and emotional intelligence and each of the five subcomponents of teachers' language learning viewpoints, i.e., language aptitude, nature of language,

motivation/expectation, difficulty of learning, and learning/communication. To this end, both Pearson correlation was employed. Table 4 shows the correlation coefficients related to the respective variables mentioned above.

Table 4.
Correlation between Critical Thinking and Emotional Intelligence

		Critical Thinking	Reflectivity	Emotional Intelligence
Aptitude	Pearson Correlation	.060	-.026	.002
	Sig. (2-tailed)	.497	.768	.982
	N	130	130	130
Nature	Pearson Correlation	-.238**	-.204*	.159
	Sig. (2-tailed)	.006	.020	.071
	N	130	130	130
Mot/Exp.	Pearson Correlation	-.403**	-.259**	.130
	Sig. (2-tailed)	.000	.003	.141
	N	130	130	130
Difficulty	Pearson Correlation	-.076	-.069	.105
	Sig. (2-tailed)	.389	.435	.236
	N	130	130	130
Learn/Comm.	Pearson Correlation	-.342**	-.249**	.376**
	Sig. (2-tailed)	.000	.004	.000
	N	130	130	130

As Table 4 shows, there are both significant and insignificant relationships among the variables; this might be regarded as a natural phenomenon since the crucial issue is the presence of a sort of relationship between each of the independent variables and the general dependent variable on the whole. As a result, based on the above table of correlations, there are significant relationships between critical thinking and nature of language, i.e. $r = -.23$, $p < .01$; critical thinking and motivation and expectation, i.e. $r = -.40$,

$p < .01$; critical thinking and learning and communication, i.e. $r = -.34$, $p < .01$; reflectivity and nature of language, i.e. $r = -.20$, $p < .05$; reflectivity and motivation and expectation, i.e. $r = -.25$, $p < .01$; reflectivity and learning and communication, i.e. $r = -.24$, $p < .01$; and emotional intelligence and learning and communication, i.e. $r = .37$, $p < .01$.

Besides, the analysis employed was multiple regression. However, prior to the analysis, it was made sure that the data to be analyzed could actually be

analyzed using multiple regression. This was done because it is only appropriate to use multiple regression if the data passes several assumptions that are required for multiple regression to entail a valid result. Accordingly, as it was observed in the previous research question, the normality of distribution in the scores related to all the independent and dependent variables was checked as a prerequisite for checking their correlation.

Additionally, it was checked that the dependent variable was measured on a continuous scale, i.e. the

language learning belief was a continuous variable. Similarly, the three independent variables were also checked in this regard; i.e. all the three variables of critical thinking, reflectivity, and emotional intelligence were also of a continuous-scale type. Then, the independence of observations, i.e. the independence of residuals, were checked using the Durbin-Watson statistic via SPSS which can be observed in the Model Summary table of multiple regression analysis below (Table 5).

Table 5.
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.428a	.183	.164	10.79884	1.878

a. Predictors: (Constant), Emotional Intelligence, Critical Thinking, Reflectivity

b. Dependent Variable: Learning Beliefs

As it is shown in Table 5, the Durbin-Watson analysis indicated that $d = 1.87$, which was between the two critical values of $1.5 < d < 2.5$ (Statistics Solutions, 2017). Therefore, it could be assumed that there was no first order linear auto-correlation in the present multiple linear regression data. Next, as it was previously confirmed in the correlational analyses, there were linear relationships between the viewpoints and critical thinking, reflectivity, and emotional intelligence, also violating the multicollinearity assumption. In line with this issue, collinearity statistics also confirmed the lack of multicollinearity regarding the variables in the present phase of the study. In other words, the two values of Tolerance and VIF (Variance Inflation Factor) yielded satisfactory indices. Table 6 shows the extent of these two values.

Table 6.
Collinearity Statistics

Model	Tolerance	VIF
1 Critical Thinking	.839	1.192
Reflectivity	.835	1.197
Emotional Intelligence	.943	1.060

a. Dependent Variable: Learning Beliefs

Table 6 shows that the variables of the present phase are not highly correlated due to the appropriate extent of Tolerance and VIF values related to all independent variables; i.e. critical thinking: Tolerance = $.83 > .10$, and VIF = $1.19 < 10$; reflectivity: Tolerance = $.83 > .10$, and VIF = $1.19 < 10$; and emotional intelligence: Tolerance = $.94 > .10$, and VIF = $1.06 < 10$ (Pallant, 2016). Accordingly, the presence of multicollinearity is rejected.

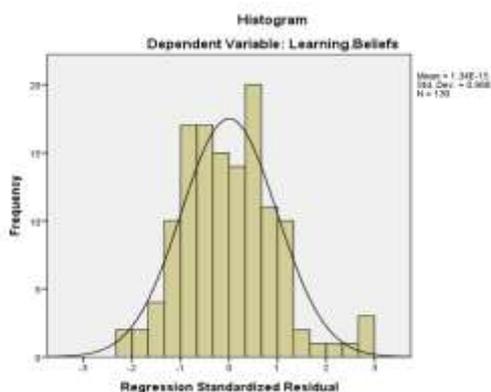


Figure 6.
Normality Histogram of Regression Standardized Residual

Finally, Figures 5 and 6 can imply some information related to the absence of considerable outliers in the present data. Tabachnick and Fidell (2013; also cited in Pallant, 2016, p. 160) defined

“outliers as cases that have a standardized residual of more than 3.3 or less than -3.3”. Table 7 confirms the concerned issue as follows.

Table 7.
Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	137.1975	158.8639	147.3231	5.05548	130
Std. Predicted Value	-2.003	2.283	.000	1.000	130
Residual	-24.08582	31.61270	.00000	10.67253	130
Std. Residual	-2.230	2.927	.000	.988	130

a. Dependent Variable: Learning Beliefs

As it is indicated in Table 7, the maximum and minimum cases of standardized residuals are 2.92 and -2.23, respectively. In other words, this table shows that all the 130 cases in this study were within the standardized residual value range, i.e. from -3.00 to 3.00, devoid of any outliers; that is, the standardized residual values could mostly be regarded as close to the standardized predicted values, i.e. between -2.00 and 2.28. Figure 7 better depicts such normality within

the -3.00/+3.00 range through a scatterplot. It shows that there is no clear or systematic pattern to the residuals; no curvilinearity or skewedness can be observed. It illuminates that the residuals are roughly rectangularly distributed, with most of the scores concentrated in the center along the zero point, indicating no violation of the regression assumptions.

Table 8.
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.428a	.183	.164	10.79884

a. Predictors: (Constant), Emotional Intelligence, Critical Thinking, Reflectivity

b. Dependent Variable: Learning Beliefs

As it is shown in Table 8, $R^2 = .18$. In other words, R square or the coefficient of multiple determination indicates that 18 percent of the variance in the dependent variable of learning beliefs is explained jointly by the three independent variables of critical

thinking, reflectivity, and emotional intelligence. Nonetheless, in order to see whether this percentage of contribution is significant or not, the ANOVA table must be observed. Table 9 reveals this issue.

Table 9.
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3296.960	3	1098.987	9.424	.000b
	Residual	14693.470	126	116.615		
	Total	17990.431	129			

a. Dependent Variable: Learning Beliefs

b. Predictors: (Constant), Emotional Intelligence, Critical Thinking, Reflectivity

As Table 9 shows, the mentioned R^2 in the previous table is a significant contribution. In other words, 18% of teachers' beliefs on language learning

is significantly explained by the combination of their critical thinking, reflectivity, and emotional intelligence, i.e. $F = 9.42$, $p < .05$. In order to see each

independent variable contribution, Table 10 below must be viewed.

Table 10.
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	157.502	14.315		11.003	.000
Critical Thinking	-.454	.159	-.251	-2.859	.005
Reflectivity	-.134	.076	-.154	-1.752	.082
Emotional Intelligence	.157	.068	.190	2.296	.023

a. Dependent Variable: Learning Beliefs

As it is evident in the table of coefficients (Table 10), two of the independent variables, i.e. critical thinking ($t = -2.85$, $p < .05$) and emotional intelligence ($t = 2.29$, $p < .05$), have significant contributions; that is, 25% critical thinking (Beta = $-.25$) and 19% emotional intelligence (Beta = $.19$). However, this is not the case regarding the reflectivity variable. Although the reflectivity variable explains 15% of the variance (Beta = $-.15$), its contribution is insignificant ($t = -1.75$, $p > .05$). Therefore, it can be interpreted that the proportions that teachers' critical thinking and emotional intelligence can predict their beliefs on language learning are 25% and 19%,

respectively. However, reflectivity cannot be a significant predictor in this regard.

In order to answer research questions four, five, and six, i.e. the extent to which each of the three independent variables of critical thinking, reflectivity, and emotional intelligence can predict each of the five subcomponents of teachers' language learning beliefs, a multivariate regression analysis was run. Collinearity statistics also confirmed the lack of multicollinearity regarding the variables in the present phase of the study. In other words, the two values of Tolerance and VIF (Variance Inflation Factor) yielded satisfactory indices. Table 11 shows the extent of these two values.

Table 11.
Collinearity Statistics

Model	Tolerance	VIF
1 Critical Thinking	.839	1.192
Reflectivity	.835	1.197
Emotional Intelligence	.943	1.060

a. Dependent Variables: Aptitude, Nature, Mot/Exp., Difficulty, Learn/Comm.

Table 11 demonstrated that the variables of the present phase are not highly correlated due to the appropriate extent of Tolerance and VIF values related to all independent variables; i.e. critical thinking: Tolerance = $.83 > .10$, and VIF = $1.19 < 10$; reflectivity: Tolerance = $.83 > .10$, and VIF = $1.19 < 10$; and emotional intelligence: Tolerance = $.94 > .10$, and VIF = $1.06 < 10$. According to Pallant (2016, p.

159), the "commonly used cut-off points for determining the presence of multicollinearity" include the "tolerance value of less than $.10$, or a VIF value of above 10 ," none of which are present in the current study. Consequently, this issue rejects the presence of multicollinearity in the independent variables of the present phase.

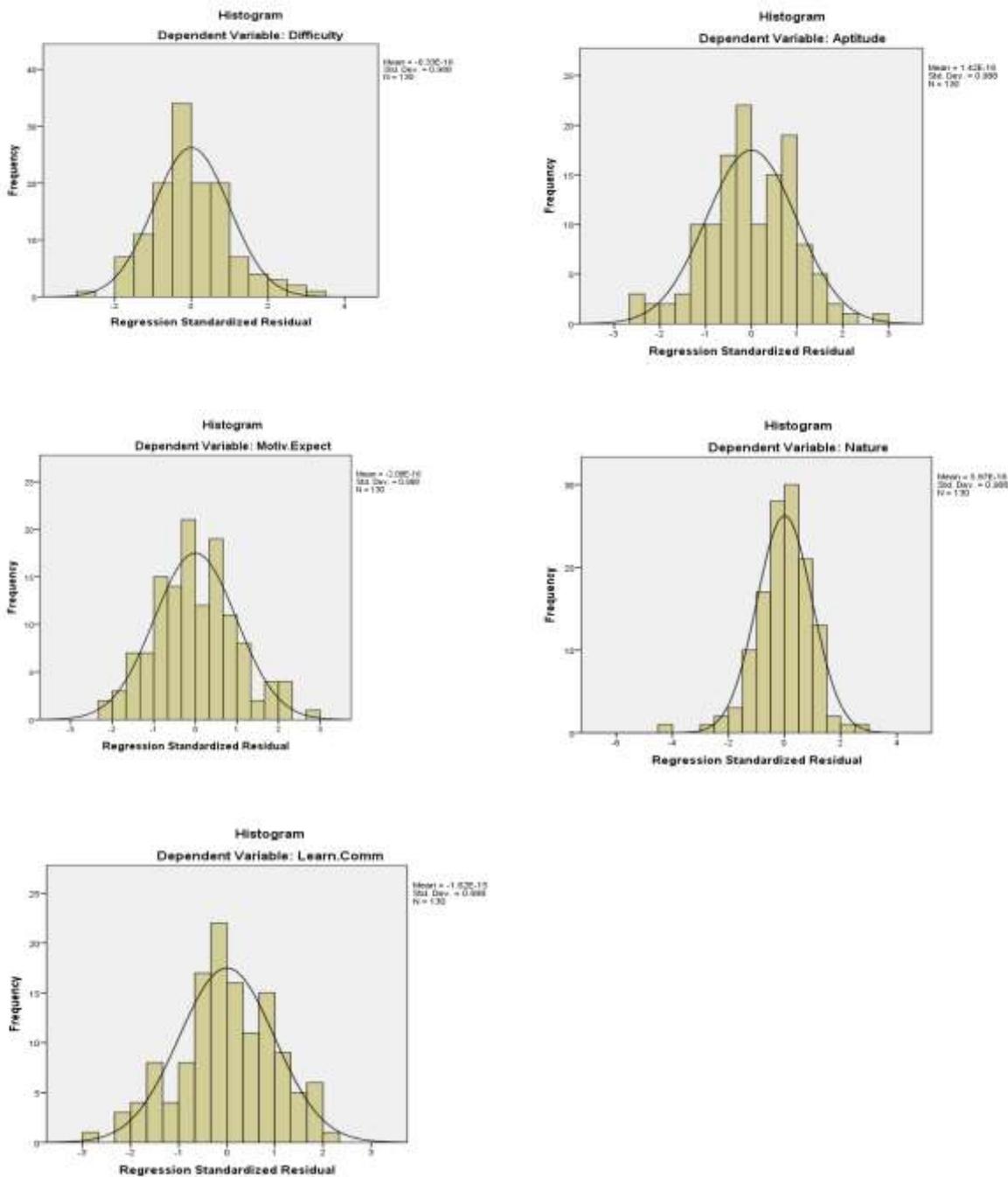


Figure 7.
Normality Histograms of Regression Standardized Residual

Finally, Figures 6 and 7 can imply some information related to the absence of considerable outliers in the present data. Also, Figure 10 better depicts such normality within the $-3.00/+3.00$ range through five scatterplots. In general, they show that there is no clear or systematic pattern to any of the

residuals; no conspicuous curvilinearity or skewedness can be observed. It illuminates that the residuals are roughly rectangularly distributed, with most of the scores concentrated in the center along the zero point, indicating no violation of the regression assumptions.

Table 12.
Model Summary

Source	Dependent Variable	Type III Sum of Squares	Mean Square	F	Sig.	R Squared
Model	Aptitude	11.663	3.888	.274	.844	.006
	Nature	134.912	44.971	3.716	.013	.081
	Mot/Exp.	461.517	153.839	9.004	.000	.177
	Difficulty	18.842	6.281	.645	.588	.015
	Learn/Comm.	650.492	216.831	12.139	.000	.224

As it can be seen from Table 12, the collective contribution of the three independent variables altogether are only significant to three of the five dependent variables, i.e. 8% to language nature ($F = 3.71$, $p < .05$; $R^2 = .08$), 17% to motivation and expectation ($F = 9.00$, $p < .05$; $R^2 = .17$), and 22% to

learning and communication ($F = 12.13$, $p < .05$; $R^2 = .22$). However, this is not the case regarding language aptitude and learning difficulty. Table 13 illustrates the multivariate regression, showing the contribution of each independent variable.

Table 13.
Multivariate Tests

Effect		Value	F	Sig.	Partial Eta Squared
Critical Thinking	Pillai's Trace	.183	5.474	.000	.183
	Wilks' Lambda	.817	5.474	.000	.183
	Hotelling's Trace	.224	5.474	.000	.183
	Roy's Largest Root	.224	5.474	.000	.183
Reflectivity	Pillai's Trace	.037	.936	.460	.037
	Wilks' Lambda	.963	.936	.460	.037
	Hotelling's Trace	.038	.936	.460	.037
	Roy's Largest Root	.038	.936	.460	.037
Emotional Intelligence	Pillai's Trace	.121	3.355	.007	.121
	Wilks' Lambda	.879	3.355	.007	.121
	Hotelling's Trace	.138	3.355	.007	.121
	Roy's Largest Root	.138	3.355	.007	.121

As Table 13 shows, critical thinking and emotional intelligence can be considered as significant predictors, i.e. $F = 5.47$, $p < .05$; $F = 3.35$, $p < .05$, respectively. In fact, critical thinking has a large contribution with the effect size of .18, which is greater than .14, interpreted as a large effect (Cohen, 1988, as cited in Yamini & Rahimi, 2007, p. 81); i.e. 18% of the variances in the dependent variables is explained by the variance in critical thinking. Also, emotional intelligence has a moderate contribution with the effect size of .12, which is greater than .06

and less than .14, interpreted as a moderate effect (Cohen, 1988, as cited in Yamini & Rahimi, 2007, p. 81); i.e. 12% of the variances in the dependent variables is explained by the variance in emotional intelligence. However, as it can be seen from the table above, reflectivity is not a significant predictor; although 3% of the variance seems to be explained by reflectivity, its contribution is not meaningful. Table 14 illuminates the tests of between-subjects' effects, showing the contribution of each independent variable to each of the dependent ones.

Table 14.*Tests of Between-Subjects Effects*

Source	Dependent Variable	Type III Sum of Squares	Mean Square	F	Sig.	Partial Squared	Eta
Critical Thinking	Aptitude	10.414	10.414	.734	.393	.006	
	Nature	42.126	42.126	3.481	.064	.027	
	Mot/Exp.	270.608	270.608	15.839	.000	.112	
	Difficulty	2.246	2.246	.231	.632	.002	
	Learn/Comm.	149.308	149.308	8.359	.005	.062	
Reflectivity	Aptitude	4.829	4.829	.340	.561	.003	
	Nature	18.676	18.676	1.543	.216	.012	
	Mot/Exp.	29.304	29.304	1.715	.193	.013	
	Difficulty	1.138	1.138	.117	.733	.001	
	Learn/Comm.	20.034	20.034	1.122	.292	.009	
Emotional Intelligence	Aptitude	.069	.069	.005	.945	.000	
	Nature	16.319	16.319	1.348	.248	.011	
	Mot/Exp.	3.694	3.694	.216	.643	.002	
	Difficulty	9.307	9.307	.956	.330	.008	
	Learn/Comm.	263.569	263.569	14.755	.000	.105	

As Table 14 reveals, the contribution of critical thinking is significant only to two of the dependent variables, i.e. motivation/expectation ($F = 15.83$, $p < .05$) and learning/communication ($F = 8.35$, $p < .05$), with the moderate effect sizes of .11 and .06, respectively. In other words, 11% of the variance in motivation and expectation, and 6% of the variance in learning and communication are significantly explained by critical thinking. Moreover, the contribution of emotional intelligence is significant only to one of the dependent variables, i.e. learning/communication ($F = 14.75$, $p < .05$), with the moderate effect size of .10. In other words, 10% of the variance in learning and communication is significantly explained by emotional intelligence. However, the table reveals that the variance of none of the dependent variables is significantly explained by reflectivity.

Discussion and Conclusion

As it was indicated, critical thinking and emotional intelligence were considered as significant predictors of teachers' language learning beliefs in general ($F = 5.47$, $p < .05$; $F = 3.35$, $p < .05$, respectively). In fact, critical thinking had a large contribution with the effect size of .18. This can be in line with what educational researchers have addressed about the issue of how to help students gain critical thinking skills (Brown & Campione, 1990; Browne & Keeley, 2001; Ennis, 1987; Henderson, 2001; O'Tuel & Bullard, 1993; Perkins, Jay, & Tishman, 1993; Pogrow, 1990, 1994; Raths et al., 1986; Resnick, 1987; Torff, 2003).

In fact, teachers' beliefs about critical thinking activities have been the focus of a growing body of literature in teacher education (Pogrow, 1990, 1996; Raudenbush, Rowan, & Cheong, 1993; Torff, 2005; Torff & Warburton, 2005; Warburton & Torff, 2005; Zohar, Degani, & Vaakin, 2001; Zohar & Dori, 2003), based on theory and research indicating that beliefs are influenced by how teachers interact with practitioners and organize classroom tasks (Anning, 1988, Calderhead, 1996; Fang, 1996; Fenstermacher, 1994; Hollingsworth, 1989; Nespor, 1987; Pajares, 1992; Putman & Borko, 1997, 2000; Richardson, 1994, 1996, 2002; Smylie, 1988).

Also, emotional intelligence has a moderate contribution with the effect size of .12. This may be congruent with the view that feelings are critical in pedagogy. The findings of the recent studies have shown that an integration of awareness, acquired capabilities, and inherent behaviors can be the optimal manifestation of practitioners' activities (Rastegar & Masumi, 2009). Actually, prior studies revealed that gaining the respective skills and awareness is not enough for optimal instruction. Instructors' behaviors, viewpoints and approaches entail the efficiency of their teaching (Ortactepe, Deniz, & Akyel, 2015). The results of this study are in line with the fact that emotional intelligence encompasses the capability to control affective factors, and apply this capability to lead the beliefs and practices (Salovey & Mayer, 1990). In the same vein, Goleman (1995) purported that emotional intelligence can develop spaces for construction of ideas, power of venturing, and optimal

perception. He asserted that emotional intelligence involves a particular role in making the job of teachers as well as their viewpoints impressive.

However, as it can be seen from the present findings, reflectivity was not a significant predictor; although 3% of the variance seemed to be explained by reflectivity, its contribution was not meaningful. This can be in contrast with the reflective thinking pyramid which “builds progressively from a basic general premise to a peak of reflection epitomized by individual autonomy and self-understanding” (Taggart & Wilson, 1998, p. 41). Also, these findings appeared to be in contrast with the view that reflective thinking is a skill acquired and developed so as to contribute to teachers’ professional ideologies (Cropley & Hanton, 2011; Knowles et al., 2001).

Additionally, based on the results, the contribution of critical thinking was significant only to two of the dependent variables, i.e. motivation/expectation ($F = 15.83$, $p < .05$) and learning/communication ($F = 8.35$, $p < .05$), with the moderate effect sizes of .11 and .06, respectively. In other words, 11% of the variance in motivation and expectation, and 6% of the variance in learning and communication are significantly explained by critical thinking. This issue can be in line with most researchers’ views on criticality. To ponder in a critical way can be a persistent intra-stimulating involvement in difficulties and accordingly come to a resolution (Facione, 2000). Therefore, stimulation can be an essential underpinning for critical behaviors. Likewise, Halonen (1995) stated that intra-stimulation within an individual can entail criticality and attainment. Halpern (1998) also asserted that perseverance can facilitate criticality, which is also confirmed by Paul (1992), purporting that it is mental behavior that can transform an individual’s frame of mind into a critical interpreter. In contrast, several studies have indicated that problem-solving activities, requiring critical thinking, might be more stimulating than the convenient ones (Turner, 1995). On the other hand, critical thinking and learning/communication are interrelated. If communication is defined as a meaningful exchange of information, thoughts and feelings between two living creatures, critical thinking is the engine that provides this meaning. Communication starts with a thought, a feeling and an emotion. The mind builds on this thought before putting it out to the receiver. Critical thinking, quite simply, is the tool to coherently build our thoughts. Effective communication starts with a clear thought process. Critical thinking breeds clarity of thought (Vora, 2014). A constant pursuit of critical thinking equips teachers think rationally, provide sound reasoning and develop a coherent argument. When

teachers think critically and communicate clearly, they are also able to eliminate ambiguity in educational communication (Vora, 2014).

Moreover, the contribution of emotional intelligence is significant only to one of the dependent variables, i.e. learning/communication ($F = 14.75$, $p < .05$), with the moderate effect size of .10. In other words, 10% of the variance in learning and communication is significantly explained by emotional intelligence. This issue is in line with Goleman’s (2001) view about social awareness of emotional intelligence which has direct relationship with communicative issues such as “the empathic individual can read emotional currents, picking up on nonverbal cues such as tone or facial expression” (p. 210). Also, the present results can be in agreement with the view on the part of Mayer et al. (2004) who maintained that the individuals with high emotional intelligence can better perceive emotions, use them in thoughts, understand communicative meanings, and manage communicative emotions better. Furthermore, the significance of emotional intelligence confirms the viewpoint of Marzuki et al. (2015) in their study about the fact that emotional intelligence is a critical factor to identify practitioners’ traits and qualifications in interactions as well as in technological contexts. Indeed, IQ is not a reasonable justification for practitioners’ attainment in education. Psychologists have noted that general intelligence alone only contribute around 20 percent of individual success in life while the remaining 80 percent comes from other factors such as emotional intelligence (Rastegar & Karami, 2013). Thus, emotional intelligence literature can generally confirm the present results (Matthews, Roberts, & Zeidner, 2004; Mayer & Caruso, 2008; Subramanyam, 2012).

One conclusion is that the critical thinking pedagogy can be an effective pedagogy for involving practitioners in classroom dialogue that creates learning and thinking opportunities. It is a step by step process, for teachers and students, creating and practicing more and more classroom lessons, assessments, and experiences in problem-solving manners, until the process becomes systematic to the way teachers teach. Moreover, there is a meaningful link between emotional intelligence and teachers’ viewpoints. Also, it can foresee teachers’ viewpoint about language learning in general. Besides, knowing one’s emotion and motivating oneself can facilitate teachers’ beliefs about language learning. Making aware of one’s own and others’ emotions helps practitioners to cope with emotional obstacles that may influence teachers’ beliefs towards language learning. Accordingly, critical thinking and emotional

intelligence can be applied in EFL teacher education courses to enhance traits in controlling anxiety and promoting emotional intelligence to better perceive feelings and critically boost the potential in coping with complicated contexts. Such courses can assist teachers promote their criticality and ameliorate internal stimulation and achievement in education. In addition, in-service training workshops and seminars of teaching through critical thinking and emotional intelligence can be organized for teachers which can promote teachers' reflectivity via raising their consciousness to participate in various educational events, to study diverse sources pertaining to teaching, and to enhance their meta-cognitive strategies in the teaching and learning processes.

Some limitations of this study were as follows. The geographical diversity of the participants was limited in this study, so the findings must be generalized and used with caution. Using this number of participants was due to manageability concerns, though. In addition, some of the participants were reluctant to take part in the study and; therefore, they did not answer the questions carefully and cooperatively. Such responses were excluded from the data analysis in order not to endanger the reliability of the data and the generalization of the findings of the study.

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