Critical Thinking Dispositions of Iranian EFL Teachers and Their Relationship with Teacher Burnout

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Abstract

Teachers always face different challenges in their classrooms. One of the skills that might help them overcome these challenges is critical thinking. Since burnout has been mentioned as one of the most important challenges in reducing the efficiency of teachers, the purpose of this study is to investigate the extent of critical thinking skill among 303 Iranian EFL teachers from different universities and its relationship with their burnout. To conduct the study, the researchers selected 303 EFL teachers randomly and administered Paul and Elder Critical Thinking Questionnaire (2012) and Maslach and Jackson Burnout Questionnaire (1986) among them. Employing Structural Equation Modeling (SEM), the researchers analyzed the obtained data. The results indicated that Iranian EFL teachers tend to be intellectually integrated. Besides, while gender had no effect on their inclinations, teaching experiences played an important role in creating critical thinking. The regression results also showed that the tendency to struggle with negative attitudes had the greatest impact on teachers' burnout, and critical thinking skill has the ability to predict teachers' burnout in general. Principals and stakeholders can provide regular opportunities for language teachers to reflect on their teaching experiences by collaborating with their co-workers, especially cooperation between experienced and inexperienced teachers.

Keywords: critical thinking, teacher burnout, teacher education, teacher development, teacher education program

1. Introduction

One of the most significant factors that has recently received particular attention in EFL contexts is Critical Thinking (CT) (Butler, Pentoney, & Bong, 2017; Saloviita & Pakarinen, 2020). Since CT skills might play a key role in the academic success, the importance of this skill has been emphasized in English language contexts recently (Alvandi, Mehrdad, & Karimi, 2015; Budsankom, 2015; Goertel, 2018). Due to its standing position in the educational domain, Zandvakili, Washington, Gordon, and Wells (2018) stated that CT is one of the essential features for success in EFL contexts. Researchers believe that when learners think critically, they evaluate the possible solutions and choose the best option for their thinking processes. In other words, CT is a kind of thoughtful thinking that focuses on comprehending a problem, generating and evaluating solutions, and reaching an adequate conclusion (Hopkins & Spillane, 2014, p. 12). Development of CT skill is one of the main purposes of most EFL contexts where language learners have access to the required knowledge and have the ability to overcome language learning challenges more effectively (Hopkins & Spillane, 2014). Therefore, language teachers with CT dispositions may have the capability to generate lively learning contexts (Liu & Stapleton, 2018; Marcos, Sanchez, & Tillema, 2008). CT is a multidimensional concept that includes not only a set of mental abilities but also a myriad of dispositions and constructs affected by numerous factors.

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Researchers, on the other hand, believe one of the factors that might play a vital role in the effectiveness of CT is teacher burnout. Teacher burnout is an essential issue because it might affect teachers' practice and students' learning (Li, Liu, Chen, & Yao, 2021). Burnout is commonly defined as fatigue, dullness, lethargy, dissatisfaction, disability, aging, insensitivity and decreased job motivation and enjoyment of life. It is usually experienced in person due to work conditions that require face-to-face contact and the employer expects high performance from the employee (Butler et al., 2017; Mellati, Khademi, & Abolhassani, 2018). Teacher burnout is a significant occupational problem worldwide (Moslemi & Habibi, 2019; Vandenberghe & Huberman, 2011). Teacher burnout is a syndrome of emotional fatigue and pessimism (Li, Liu, Chen, & Yao, 2021; Mellati & Khademi, 2018).

As Evers, Brouwers, and Tomic (2002) explain, emotional fatigue or exhaustion might happen because of extreme physical, affective, and cognitive tension. They believe that the central dimension of teacher burnout is the negative self-evaluation they have from their job accomplishments (Grayson & Alvarez, 2008; Mellati, Khademi, & Shirzadeh, 2015). Chang (2009) maintains that burnout is the result of a negative judgment of teachers about their teaching abilities about natural or imaginary stressors in the learning environment. Burnout can lead to aggression, reduced performance, quality, and competence. It not only affects the tired teacher, but also the other people with whom they interact. Especially on the performance of teachers who are responsible for educating people in the community. Decreased performance in teaching means teachers' less concern of about students, principals, parents, and their jobs. Teachers with burnout can also negatively affect people such as students, parents and colleagues with whom they are in contact. To support teachers and create solutions, it is important to determine the factors that affect the rate of burnout of teachers who teach different groups of students. Following this, this research aims to point out if CT dispositions could be a protective factor against teacher burnout.

Regarding the above-mentioned issues, several studies have been conducted on CT dispositions and teacher burnout or in relationship with other affective variables in TEFL (Alvandi, Mehrdad, & Karimi, 2015; Li, Liu, Chen, & Yao, 2021; Moslemi & Habibi, 2019; Vandenberghe & Huberman, 2011). Still, to the knowledge of the researchers, few studies have examined the relationship between these variables among EFL teachers in Iran. Khodabakhshzadeh, Garmabi, and Bakhtiari Fayendari (2017) investigated these variables, but the study had two limitations; the small number of participants and sampling procedure. To address these limitations and shed light on latent aspects of the issue, the researchers intended to investigate the relationship between teacher CT dispositions and teacher burnout.

Teacher burnout, on the other hand, is another recent issue, which deserves close attention. Teachers believe that this is a costly problem for both them and the education system (Goldhaber & Cowan, 2014; Mellati, Fatemi, & Motallebzadeh, 2013). According to Lloyd and Sullivan (2012), novice teachers who leave the profession after investing time and money to earn a degree have often been unable to satisfy themselves in the educational environment and make their educational investments. They generally feel overwhelmed and upset about their lost money and energy. As this construct has several dispositions, it is significant to explore what kind of relationship exists between these dispositions and various aspects of teacher burnout. The literature found that numerous factors such as gender and teaching experience might influence teacher burnout and their CT dispositions. However, no empirical research has been conducted to reveal this relationship so far.

We need to know to what extent intellectual traits have been fostered among teachers. We need to know if intellectual dispositions reduce teacher burnout or not. We need to know to what extent factors such as teachers' gender and teaching experiences might affect this relationship. Since the relationship between CT dispositions and teacher burnout is a global language classroom problem, the finding of this particular study can be significant for the EFL researchers. Furthermore, the findings of current research will offer some suggestions for the development of CT dispositions in teacher education programs.

Few empirical studies have been conducted to show the relationship among these constructs. However, more studies are required to shed light on latent aspects of this complicated and multidimensional issue (Khodabakhshzadeh et al., 2017). To fill this gap, the study explores firstly, the level of CT dispositions in Iranian EFL teachers, secondly, the difference between male and female EFL teachers and between experienced and inexperienced teachers in terms of CT dispositions. And thirdly, it explores which one of the CT dispositions is a stronger predictor of teacher burnout.

1.1. *Research Questions*

The following research questions guide this study:

Research Question One: To what extent do Iranian EFL teachers display different types of CT dispositions in their teaching practices?

Research Question Two: Is there any statistically significant difference between male and female Iranian EFL teachers in their CT dispositions?

Research Question Three: Is there any statistically significant difference among Iranian EFL teachers across four groups with different teaching experiences in their CT dispositions?

Research Question Four: Which one of CT dispositions is a stronger predictor of teacher burnout?

2. Review of Literature

2.1. Critical Thinking

The literature on CT is derived from the major academic disciplines of philosophy and psychology (Butler, 2012). These two separate schools of thought, according to their different attitudes, define CT by expressing their concerns (Avalos, 2011; Wang, 2017). While most researchers and educators of teacher training courses believe that teachers must have sufficient CT skills to succeed in teaching, there is no clear definition or method of teaching this skill to teachers or language learners (Brouwers & Tomic, 2002; Murphy et al., 2014). Although there are various definitions of CT in different parts of the world, they all agree on the importance and critical role of CT in language teaching (Murphy et al., 2014, Wang & Zheng, 2016).

To disseminate the information to students efficiently, teachers are required to develop their CT skills (Li, Ren, Schweizer, Brinthaupt, & Wang, 2021). Although many teachers have a strong interest in teaching higher thinking skills, they either do not have enough information to do so or do not have the required techniques to teach these higher thinking skills. (Soufi & See, 2019). To develop teachers who are critical thinkers, CT skills need to be taught widely in educational settings (Avalos, 2011). Teachers need to teach students CT skills so that students can perform better in individual, environmental, ethical, and social decision-making processes (Hyytinen, Toom, & Postareff, 2018). Teachers help democrats with different mindsets and set an example for them. To do this, teachers themselves must have these CT skills as well as the required skills to teach them (Avalos, 2011). To teach CT skills effectively, teachers must practice these skills on a daily basis (Soufi & See, 2019).

Paul and Elder (2012) proposed a taxonomy of intellectual dispositions. They believe that the continuous use of ct standards promotes the growth of elements of thinking such as intellectual autonomy, intellectual courage, intellectual empathy, intellectual honesty, intellectual humility, intellectual perseverance, rationalism and self-confidence. To promote students' critical thinking skills, an increasing number of educators are trying to design training courses. Numerous studies have focused on teaching CT through the use of reason mapping, Paul's thoughtful guide, and questions from Socrates (Avalos, 2011; Bessick, 2008; Janssen et al., 2019). The findings of these studies show that although these training strategies can be useful for improving CT, more research is needed on this topic.

This view is based on the principle that teachers need new and different skills to be able to succeed in different educational environments (Borman & Dowling, 2008). Basik (2008) cited pre-

university preparation and the responsibility of educational institutions in developing and enhancing higher-level thinking skills as a core activity. He also believed that university students generally had difficulty with reading, writing, math and CT skills; however, because of the lack of preparedness in the basics, schools have become so focused on general academics that efforts to enhance the development of CT skills in their students are minimal. The Verburgh (2019) examined ways to improve the CT skills of teachers and students by considering the elements and standards of Paul reasoning in all curricula. This study suggested that the value of combining elements and standards of Paul reasoning can have a positive and significant effect on students' achievements in the areas of writing clarity, sentence analysis, as well as teachers' creativity.

Zandvakili et al. (2018) investigated the effectiveness of CT skills training through asynchronous conversation groups with the help of teaching assistants and also examined the interaction patterns between students and teachers as well as the depth of CT skills in them. The results of this study acknowledged that teachers who use Socratic conversations during online group discussions can successfully improve students' CT skills in a large university classroom. The findings of this study also showed that completing, explaining and justifying students' answers can have the greatest impact on their learning.

Van Erp (2008) examines the experiences of an instructor and a group of language learners in three online graduation courses that emphasize CT skills training alongside course content. Based on the findings of this study, Van Erp suggests that CT should be embedded in the curriculum because it is very difficult to master. Therefore, teachers should classify learning and express it according to carefully planned topics. Purposeful question & answer can affect learning because it forces learners to think reflectively and critically.

2.2. Burnout

Maslach and Leiter (2008) divide the studies on burnout into three main brabces. The first branch considers teachers' burnout as a complicated problem. The second branch is related to the studies that consider teachers' burnout as a physical and mental fatigue. This mental state can involve the teachers for a long time and can have severe consultations. The third branch is related to the studies argue that the main stressor responsible for the beginning of burnout is environment. Teachers-students, teachers-colleagues, and teachers-principals relationships, teachers' gender, teachers' teaching experiences, and the organizational working circumstances are among the examples of environmental stressors.

There are several factors that may influence teacher burnout. Gender, for example, has been reported to be a differentiating factor (Grayson & Alvarez, 2008; Lackritz, 2004). There are mixed results on how Age and Experience might influence burnout. While some studies suggest age and experience as predictors of burnout, other studies show no significant relationship between them (Grayson & Alvarez, 2008). Another factor that has been studied in this regard is Marital Status. Hong (2010) indicates that single instructors show higher levels of emotional fatigue. This study also showed that married men showed a lower level of depersonalization than unmarried men did, while single female teachers suffered less from reduced personal accomplishments than married ones.

In recent years, instead of addressing the general problem of teacher stress and burnout, which affects all teachers, even experienced teachers, most studies of teacher burnout have focused on new teachers (Medigan & Kim, 2021). Another focus of studies was the rapid and legendary elimination of teacher burnout. Many researchers have argued that adopting the right curriculum and choosing the right teaching method can increase teacher retention rates and improve students' outcomes (McCarthy, Lambert, & Fitchett, 2018). The next focus of research in recent years has been on inadequate teacher preparation programs. Some teacher training programs may not prepare teacher students for teaching facts or actual challenges of the language classrooms. Hence, many teachers start their careers without knowing the strategies needed to manage student learning, which leads to premature burnout. They either find little motivation to stay at work or lose their motivation (Goldhaber & Cowan, 2014). The general perception is that teachers' burnout is due to out-of-

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control resources such as poor pay, lack of time and lack of educational facilities (Mahmoodi-Shahrebabaki, 2019).

Many studies (Goldhaber & Cowan, 2014) have avoided using the term teachers' burnout and have used terms such as 'job stress' instead. Most researchers seem to believe that there is no such concept as burnout. They stated that teachers only suffer from job stress, which is normal and they have to overcome these stresses. In a similar move, several studies examined stressors and attrition in the educational environment (Madigan & Kim, 2021), not teachers' burnout. However, these cases bore many similarities with burnout. There was no research on teachers' burnout, so more studies focused on attrition and job stress. Other similar studies have been performed in this field. Hong (2010), for example, analyzed the reasons for the burnout rate. This study addresses a variety of issues that can cause teachers' burnout, but does not add to how these factors affect CT skills. The focus of this study was more on identifying the factors affecting teachers' burnout (Lackritz, 2004).

While a number of qualitative studies have pointed to some of the factors associated with teacher burnout, almost all of them are significant gaps in how these various factors relate to and affect teachers and their CT skills. Most of these studies only mentioned one or more factors related to teachers' burnout and reported a significant relationship for them. For example, Fisher (2011) provided a statistically significant relationship by analyzing the effects of factors such as experience, gender, age, self-acceptance, stress, and job satisfaction on teachers' burnout (Abate, Schaefer, & Pavone, 2018; Atmaca, Rızaoğlu, Türkdoğan, & Yaylı, 2020; Chan, Ho, Ip, & Wong, 2020; Derakhshan, Kruk, Mehdizadeh, & Pawlak, 2021; Dreer, 2021; Holzberger, Maurer, Kunina-Habenicht, & Kunter, 2021). However, these studies did not consider other factors such as teachers' CT tendencies that are associated with burnout.

3. Methodology

3.1. Participants

The study population was 303 Iranian EFL teachers who teach English at territory levels in different universities. To increase the number of participants, the researchers distributed the questionnaires in paper and pencil format and online format. The participants were invited through email. The link of the online questionnaire was sent to their email addresses. To conduct the study, employing convenience sampling, the researchers selected 303 Iranian EFL teachers who teach English at the tertiary level (N= 303). Sixty-eight participants had less than 30 (22.4%), 142 participants were between 31-41 years (46-9 %), 69 were between 41-50 (22.8%), and 24 participants (7.9%) had more than 50 years of age. One hundred fourteen participants (37.6) were male, and 189 (62.4%) were female. The ethnographic information also showed that 90 participants (29.7%) had teaching experiences less than five years, 81 (26.7%) had teaching experiences between 6-10 years, 102 (33.7%) had teaching experiences between 11-20 years, and 30 participants (9.9%) had teaching experiences more than 20 years.

3.2. Instrumentations

3.2.1. Critical Thinking Dispositions Questionnaire

The Critical Thinking Dispositions Questionnaire (CTDQ) was developed to determine the existence and level of CT dispositions. The first version of this researchers-made inventory derived from the taxonomy of CT dispositions proposed by Paul and Elder (2012) contained 60 questions. To check its validity in the Iranian EFL context, the researchers administered a preliminary form of the CTQ to a sample of 303 people from territory level in different teaching contexts. Then, Exploratory Factor Analysis (EFA) was conducted. The results of EFA showed that the questionnaire measure four factors. Reviewing the literature, the researchers called them Intellectual Integrity, Intellectual Perseverance, Intellectual Courage, and Intellectual Humility.

Employing confirmatory factor analysis, the factorial validity of the CTQ was measured with maximum likelihood estimation procedure in AMOS software (version 24.0). The hypothesized

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model included all the 55 items of the first version of CTQ loading on four distinctive factors. To verify the factorial structure of the CTQ, the researchers tested the model. The model's fit to the data was measured based on the values of multiple fit indices: the comparative fit index (CFI), Goodness-of-Fit Index (GFI), Normed fit Index (NFI), and root mean square error of approximation (RMSEA). Examination of modification indices and the covariate table indicated development in the fit of the model if several residual errors were deleted. Those items that did not fit the model were deleted. In consequence, the four-factor model and the last version of the CTQ consisted of 25 items. To check the reliability of the questionnaire, the last version of the questionnaire was piloted with 50 participants of the same population. Using Cronbach Alpha coefficient, it showed the reliability index of .82 (r = .82).

3.2.2. Teacher Burnout Inventory

To measure teacher burnout, the researchers employed Maslach and Jackson's questionnaire (1986). It is one of the most popular measures of teacher burnout and has been used in many empirical studies. This questionnaire is developed to determine the three constructs of teachers' burnout that were depersonalization, emotional exhaustion, and reduced personal accomplishment. It has 22 items, which are classified into three subcategories. The items are some statements about attitudes or personal feelings (e.g., "I feel burned out from my work"). The items of the questionnaire are answered on a 6-point Likert scale ranging from 0 never to 6 every day. The questionnaire takes about 10 to 15 minutes to fill out. Complete and comprehensive instructions are also provided for the respondents without any change in its items. To check its reliability, the researchers piloted the questionnaire with 50 participants of the same population. The results of the Cronbach Alpha coefficient showed a reliability index of .79 (r = .79).

3.3. Procedure

To investigate the relationship between teachers' CT dispositions and burnout, the researchers distributed the Critical Thinking Disposition Questionnaire and Teacher Burnout Inventory to EFL teachers who teach English in different educational settings in both paper and pencil and online format. Out of 1000 distributed CTQ, only 303 ones were returned; therefore, the number of participants was 303 (N = 303). The collected data were analyzed using the following statistics. The descriptive statistics were employed to answer the first research question. MANOVA was employed to answer the sub-questions of the first question (1.1 & 1.2). Finally, Pearson correlations were used to answer the second research question and to uncover the relationships between the two variables. Then, employing Structural Equation Modeling (SEM), the data were analyzed. Several fit indices are used to inspect the goodness of fit of the hypothesized model to the data. The indices are goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root mean square of approximation (RMSEA), comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and normal fit index (NFI).

4. Results

4.1. Data Analysis for the First Research Question and its Sub-questions

The first research question was as follows:

Research Question One: To what extent do Iranian EFL teachers display different types of CT dispositions in their teaching practices?

To answer the first research question, the researchers conducted descriptive statistics. The descriptive statistics show the means and standard deviations of every type of CT dispositions that are integrity, courage, perseverance, and humility.

Table 1: Descriptive Statistics for Four CT Dispositions

	N	Mean	Std. Deviation	Variance
Integrity	303	35.1056	5.61001	31.472
Courage	303	25.2079	6.46691	41.821

Perseverance	303	18.3003	6.73915	45.416
Humility	303	17.3234	4.10713	16.869
Valid N	303			

The results of Table 1 show that integrity and courage dispositions have the highest value of means among five CT dispositions.

To answer the first research question, the researchers used descriptive statistics for every question of every CT dispositions. The results of these analyses are presented in the following Tables.

Table 2: The Frequency and Percent of Every Question of the CTDQ

	True		False	
	Frequency	Percent	Frequency	Percent
Integrity				
Q1	270	89.2	33	10.9
Q2	210	69.3	93	30.7
Q3	256	84.4	47	15.6
Q4	211	69.7	92	30.3
Q5	255	84.2	48	15.8
Q6	241	79.5	62	20.4
Q7	220	72.5	83	27.3
Q8	205	67.7	98	32.3
Courage				
Q9	117	38.7	186	61.4
Q10	122	40.2	181	59.7
Q11	129	42.6	174	57.4
Q12	118	39	185	61
Q13	109	36	194	64
Q14	170	56.1	133	44
Q15	136	44.9	167	55.1
Q16	113	37.3	190	62.7
Perseverance				
Q17	169	55.8	134	44.2
Q18	180	59.4	123	40.5
Q19	185	61	118	39
Q20	172	56.7	131	43.3
Q21	159	52.4	144	47.5
Humility				
Q22	242	79.9	61	20.1
Q23	203	67	100	33
Q24	233	77	70	23.1
Q25	229	75.6	74	24.4

The results of Table 1 show the frequency and percent of every question of the CTDQ. The questions with a percent more than 50 percent are bolded in the table. The results demonstrate that EFL teachers show a high degree of intellectual integrity. It means they respect others in the same way they want to be respected. The results also show a high percent of intellectual perseverance. They show motivation to learn and the tendency to not give up on learning. A high degree of intellectual humility is represented in the Table 1 that means sensitivity to bias, prejudice, and limitations of one's viewpoint. However, the results also indicate that the participants show a low degree of intellectual courage that means a desire to fight against negative beliefs.

4.2. Data Analysis of Research Question 1.1

1.1. Is there any statistically significant difference between male and female Iranian EFL teachers in their CT dispositions?

To answer this research question, the researchers conducted MANOVA. It compares the means of the two groups (male and female Iranian EFL teachers) on the different dispositions of CTDQ. The results of this analysis are presented in Table 3 (see Table 3).

Table 3. Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	Pillai's Trace	.019	1.444[a]	4.000	298.000	.220	.019
	Wilks' Lambda	.981	1.444[a]	4.000	298.000	.220	.019

The results of Table 3 show that a one-way between-groups multivariate analysis of variance was conducted to explore gender differences in CT dispositions. Four dependent variables were employed: integrity, courage, perseverance, & humility. The independent variable was gender. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was no statistically significant difference between males and females Iranian EFL teachers on their CT dispositions, $F (4, 298) = 1.44$, $P = .22$; Wilks' Lambda = .98; partial eta squared = .01.

4.3. Data Analysis of Research Question 1.2

1.2. Is there any statistically significant difference among Iranian EFL teachers across four groups with different teaching experiences in their CT dispositions?

To answer this research question, the researcher conducted MANOVA. It compares the means of the groups (teachers with different teaching experiences) on the different dispositions of CTDQ. The results of this analysis are presented in Table 4 (see Table 4).

Table 4: Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Teaching Experience	Pillai's Trace	.082	2.087	12.000	888.000	.016	.027
	Wilks' Lambda	.919	2.095	12.000	778.142	.015	.028

The results of Table 3 show that a one-way between-groups multivariate analysis of variance was performed to investigate teaching experiences in CT dispositions. Four dependent variables were used: integrity, courage, perseverance, & humility. The independent variable was teaching experience. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no violations noted. There was a statistically significant difference between Iranian EFL teachers with different teaching experience on their CT dispositions, $F (12, 778) = 2.09$, $P = .01$; Wilks' Lambda = .91; partial eta squared = .02. To check differences among the groups, the researchers conducted post hoc comparisons. The results of these analyses are presented in Table 5 (see Table 5).

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Table 5: Tests of Between-Subjects Effects

Source	Dependent Variable		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	dimension1	Integrity	135.824	3	45.275	1.562	.199	.016
		Courage	269.067	3	89.689	2.264	.081	.022
		Perseverance	439.938	3	146.646	3.328	.020	.033
		Humility	47.509	3	15.836	.992	.397	.010
Teaching Experience	dimension1	Integrity	135.824	3	45.275	1.562	.199	.016
		Courage	269.067	3	89.689	2.264	.081	.022
		Perseverance	439.938	3	146.646	3.328	.020	.033
		Humility	47.509	3	15.836	.992	.397	.010

The results of Table 5 represent information concerning each of your dependent variables. Do teachers with different teaching experiences differ on the four dependent variables or just some of them? The results show that only one of the dependent variables (perseverance) showed a significance value less than the cut-off value. Therefore, the only statistically significant difference among Iranian EFL teachers with different teaching experiences was on their perseverance disposition.

4.4. Data Analysis for the Second Research Question

The second research question was:

Research Question Two: Which one of CT dispositions is a stronger predictor of teacher burnout?

To answer this question, the researchers conducted multiple regressions analysis in AMOS (version 24). The results of this analysis are presented through the following tables (see Table 6 to 12). The fit of the model to the data was assessed based on the values of multiple fit indices:

Table 6: The Results of Minimum Discrepancy

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	14	5.836	1	.016	5.836
Saturated model	15	.000	0		
Independence model	5	169.573	10	.000	16.957

While the value of CMIN/DF is acceptable when it is less than 4, the value near this value is also acceptable. The results of Table 6 reveal that the data fit a hypothesized measurement model. In the current, study this value is 5.83 that is slightly above the cut-off value. Another critical value in this table is the significant value of $P = .01$.

Table 7: The Results of the Comparative Fit Index (CFI) & Normed Fit Index (NFI)

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.966	.656	.971	.697	.970
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Other vital values of fit indices are the Comparative Fit Index (CFI) and Normed Fit Index (NFI). CFI and NFI values higher than 0.90 indicate a good fit of the data to the model. However, values higher than .8 are also acceptable and demonstrate a good fit of the data to the model. The results of Table 7 represent that the values for NFI and CFI are .966 and .970, respectively.

Table 8: The Results of Goodness-of-Fit Index (GFI)

Model	RMR	GFI	AGFI	PGFI
Default model	6.143	.992	.886	.066
Saturated model	.000	1.000		
Independence model	10.034	.826	.739	.551

Like other values of fit indexes, GFI values higher than 0.90 show a good fit of the data to the model, and values higher than 0.95 are considered an excellent fit. The results of Table 8 show that the GIF value for this analysis is .99 that shows an excellent fit.

Table 9: The Results of Root Mean Square Error of Approximation (RMSEA)

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.127	.044	.234	.061
Independence model	.230	.200	.261	.000

The results of Table 9 show that the model has a reasonable fit. The majority of researchers consider that RMSEA values lower than 0.05 indicate a very good fit and values up to 0.08 signals a reasonable fit (Byrne, 2010). However, Tabachnick and Fidell (2013) argued that non-significant Chi-Square and RMSEA values for a population of more than 200 are normal.
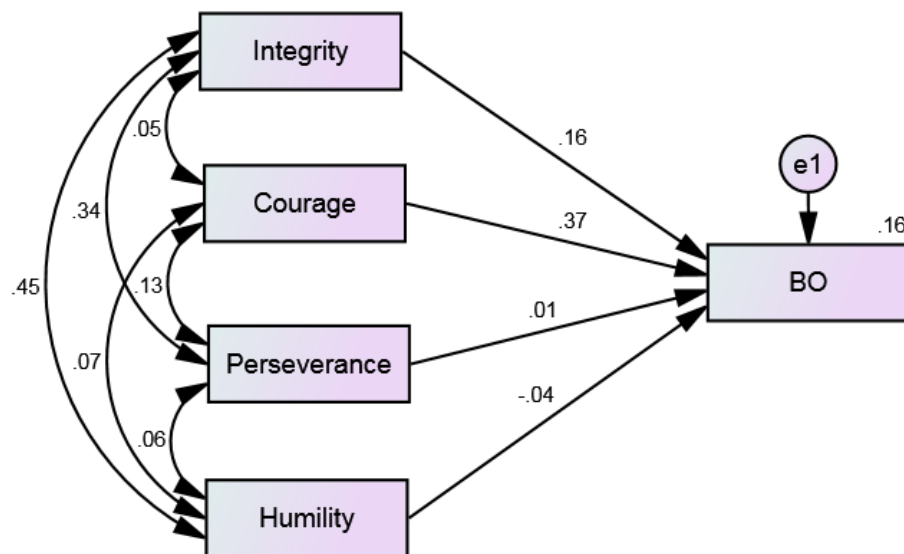

Figure 1: The Results of Multiple Regressions for Burnout

As it can be seen in Figure 1, the most significant prediction is attributed to the courage variable. In addition, the covariance between integrity and humility is slightly high. However, the deletion of integrity from the model did not enhance the fit of the model.

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Table 10: Regression Weights for Burnout and Dispositions of CTDQ

			Estimate	S.E.	C.R.	P	Label
BO	<---	Integrity	.366	.147	2.490	.013	
BO	<---	Courage	.740	.107	6.896	.000	
BO	<---	Perseverance	.012	.110	.106	.916	
BO	<---	Humility	-.141	.189	-.746	.456	

The results of Table 10 confirm that integrity and courage made significant contributions to variances in burnout scores.

Table 11: Standardized Regression Weights for the Variables in the Model

			Estimate
BO	<---	Integrity	.158
BO	<---	Courage	.367
BO	<---	Perseverance	.006
BO	<---	Humility	-.045

The results of Table 11 show which variable is contributed to the prediction of the burnout. Comparison of each CT dispositions shows that the most considerable statistically significant value attributed to courage. This value indicates that integrity uniquely explains 13 percent of the variance in burnout scores. The second significant variable is integrity that uniquely explain one percent of the variance in burnout scores.

Table 12: Squared Multiple Correlations for Burnout

	Estimate
BO	.160

The results of Table 12 demonstrate that integrity, courage, perseverance, and humility predict 16 percent of variances in perceived burnout of the Iranian EFL teachers.

5. Discussions and Conclusions

This study investigated the relationship between teacher CT dispositions and teacher burnout. It explored firstly, the level of CT dispositions in Iranian EFL teachers, secondly, EFL teachers' CT dispositions in different gender and teaching experience, and thirdly, this study explores which one of the CT dispositions is a stronger predictor of teacher burnout.

The results of the frequency and percent of every question of the CTDQ demonstrated that EFL teachers showed a high degree of intellectual integrity. It means they respect others in the same way they want to be respected. The results also revealed that a high percent of intellectual perseverance. They showed motivation to learn and the tendency not to give up on learning. A high degree of intellectual humility represented the participants' sensitivity to bias, prejudice, and limitations of one's viewpoint. However, the results indicated that the participants show a low degree of intellectual courage that means a desire to fight against negative beliefs. About 90 percent of the participants awarded that their prejudices or biases might influence their thinking. When they are aware of this point, they might be able to control the impact of prejudice on their thinking to some extent.

Whether these principles are effective for teaching dispositions, Wang and Zheng (2016) argue that thinking dispositions are learned through enculturation rather than transmission. They believe thinking dispositions are best understood in a cultural milieu in which learners are immersed in a culture of thinking. The transmission model of instruction does not yield the expected results if used for teaching thinking dispositions because it can only pass along the principles, not a commitment to them. If teachers are to accomplish the latter, they should find ways other than transmission. Students need to be convinced, motivated, and inspired to build this dedication and commitment. In a similar vein, about 85 of the participants of the current study understood about the impact of the environment on their thinking ability. They understood that the environment they

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were raised in may have shaped their ideas. It is also a CT disposition or attitude to identify when a language skill or willingness is required to exert mental effort. The researchers argued that lethargic and impatient thinkers may have a significant set of CT skills, but are reluctant to use any of them. Developing expertise in any area, language thinkers need to involve in the intricate processes of thinking. Accordingly, the dispositions are called the ethic for a critical thinker because to develop these dispositions they look at the world through their critical lens. Therefore, CT requires that a critic have both the capacity and the willingness to seek reason, truth, and evidence. Unlike skills, critical tendencies cannot be taught. They can only be nurtured through some activities as a model (Soufi & See, 2019). A CT disposition suggests a practical framework to utilize CT. The questionnaire results in the present study showed the importance of integrity disposition among Iranian EFL teachers. It might mean that Iranian teachers do not fail to behave following their professed beliefs, so their beliefs and actions are consistent.

However, the teachers know their flaws and try to preclude or replace them with more effective teaching habits. They confess in questions 22 and 25 that while they sometimes claim more than what they know. Teachers also reflect on the issues they were wrong in the past. When they think critically, they are weighing the solutions of their thinking processes. In other words, CT as illustrated by Li et al. (2021) consists of reflective thinking focused on thoughtfulness, producing and evaluating solutions, and making adequate decisions. Enabling everyone to evaluate knowledge easily and conquering classroom challenges more easily is one of the main goals of any educational system (Hyytinen et al., 2018). One of the main objectives of CT is developing teachers' critical attitudes by presenting challenge information and understanding strengths and weaknesses.

The findings of the present study also confirmed what Van Erp (2008) called open-mildness. Van Erp believed the most vital theme that came into sight in the course self-assessment was the notion of open-mindedness. Teachers' CT ability was improved especially when they investigate suppositions and they were open-minded. Van Erp also suggested that inserting CT throughout a teacher education program might be a solution to master the CT skills. To do this, the program instructors should support learning and take overboard and systematic approach in their questions that are designed carefully. As a magnificent factor, the quality of the questions can affect learning since these questions might raise disputes that might lead into critical and reflective thinking.

Gender was one of the variables investigated in the current study. The findings of the current study demonstrated that there was no statistically significant difference between male and female teachers in their CT dispositions. This is supported by gender-related findings of previous studies such as Yenice (2012) and Wang (2017). The findings of the current study as well as previous studies confirmed that gender is not a determining factor in CT dispositions. Previous studies demonstrated that teachers who possess CT dispositions would hold the ability to create lively learning contexts in their real classrooms in the future (Verburgh, 2019).

As an important factor in the teaching process, teaching experience might play a key role in this process. The findings also showed that there was a statistically significant difference between CT dispositions of Iranian EFL experienced and inexperienced teachers. The results also confirmed that only perseverance variable showed a statistically significant value less than the cut-off value. Therefore, the only statistically significant difference among Iranian EFL teachers with different teaching experience was on their perseverance disposition. The findings showed that teaching experience is an exceedingly important factor in shaping CT dispositions. The results confirmed that experienced teachers stick to challenging tasks and never give up. Teaching experiences change their thinking skills and teach them how to handle different teaching conditions. Experienced teachers are familiar with various teaching contexts, diverse learners, and challenging teaching activities. The results of the experiment found clear support for this idea that these challenges shaped their intellectual perseverance. This is consistent with what has been found in previous studies such as Kunzman (2003), Soufi & See (2019, and Whipp (2003). All of these studies focused on teaching experience as a leading factor in determining CT dispositions.

The results also demonstrated that factors such as teacher burnout play vital roles in determining teacher CT dispositions. Multiple regression analysis was conducted to investigate the role of teachers' CT dispositions in predicting teachers' burnout. Comparison of each CT dispositions, the results of the present study showed that the most considerable statistically significant value in determining teachers' burnout attributed to courage. Courage disposition means that teachers are ready to speak up for what they think is right even if it is not popular. Willingness to try new methods and challenge the current situation is a significant characteristic of critical thinkers. They develop the courage necessary to challenge widespread beliefs (Paul & Elder, 2012). As it indicates, EFL teachers guide and facilitate learning strategies among learners, persuade them, increase their consciousness and engage them in different joint pedagogical tasks and classroom activities. Paul & Elder (2012) considered teachers' capability to control the path of their teaching as the vital factor in CT formation and emphasizes the crucial position of teachers in developing this aptitude. They also highlighted the teachers' function in leading students to meet adequate educational resources and classroom activities. Therefore, teachers support their learners in challenging decision-making process and help them reach their specific educational objectives.

The findings of this study, similar to what Evers et al. (2002) found, confirmed that emotional fatigue or exhaustion might happen because of extreme physical, affective and cognitive tension. The leading dimension of teacher burnout is the negative self-evaluation from their job accomplishments (Grayson & Alvarez, 2008). Similarly, Chang (2009) maintained that the notion of burnout derived from the negative judgment of learners about their capabilities in real learning contexts. This negative judgment that causes assertiveness and reluctance that might affect teachers' performance and their relationships with people in learning environments. Consequently, any reluctance in action might lead to a decline in teachers' concerns about language learners, managers, and most importantly about their job. To support teachers and generate solutions, it is noteworthy to highlight and preclude the factors that are efficient in teachers' burnout levels.

The reason for the lower loadings for two dispositions, i.e., perseverance and humility might be that teachers' motivation attributions might be less student-oriented. This finding contrasted with Avalos, B. (2011), in which student-related factors received the highest loadings and with previous research highlighting the influence of student engagement on teachers' burnout (Saloviita & Pakarinen, 2020). The teachers in the present study might have distanced themselves from student-related factors as sources of burnout or they might be viewing student progress as a natural responsibility of their profession.

The relatively lower loadings for the humility factor might be because teachers did not experience students' negative responses. In Iran, most EFL classrooms are teacher-centered, and students are expected to respect teachers' decisions and obey the rules strictly. Therefore, student behaviors that challenge teachers might be less frequently observed compared to the other educational contexts.

The findings of the current study demonstrated that while Iranian EFL teachers had different critical dispositions, most of them know their strengths and weaknesses. Although they ignore students' feedback as a valuable source of correction, most of them are looking for promotion. They mostly believe in themselves and their knowledge. In addition, most of them accepted that environment and culture have a significant impact on their performances in the actual classrooms, but they usually ignore these factors in their teaching practices. The findings of the study corroborated what Elder et al. (2007) stated about the significant impact of environment and culture on CT dispositions.

Other important factors investigated in the study were gender and teaching experience. Similar to previous studies, the findings of the study demonstrated that gender is not a determining factor in CT dispositions. The findings also demonstrated that teaching experience is a determining factor in CT dispersions. In comparison to inexperienced teachers, perseverance is loaded significantly in the experienced teachers. It means that the experienced teachers might be able to control classroom challenges.

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In searching for the relationship between CT dispositions and teacher burnout, the researcher found that courage is a magnificent factor in determining teacher burnout. According to the results, about 36 percent of changes in teachers' burnout can be predicted by teachers' courage. It means that teachers are ready to articulate what they consider is true even if that that way of thinking is not popular. Willingness to try new methods is a significant characteristic of these teachers. They develop the courage necessary to challenge popular beliefs.

The experience was beneficial, according to the findings of the study. EFL teachers participated in a project to share their teaching experiences with their colleagues. Such kind of attention and collaboration will increase teaching quality. Cooperation at this level creates a strong friendship among teachers for language development in teaching contexts.

Principals and stakeholders can provide regular opportunities for language teachers to reflect on their teaching experiences by collaborating with their co-workers, especially cooperation between experienced and inexperienced teachers. Persuading such intellectual activities presents precious information about their teaching quality and teaching practices. To foster trust, university administers and school principals can create a friendly atmosphere for open discussions among EFL teachers. Scheduled discussions about CT dispositions would be helpful in developing teaching quality and open-mindedness among teachers and administers.

They should teach experienced teaching approaches using the experiences of experienced teachers, attending seminars and reading professional journals. After that, it is necessary to evaluate the ability of teachers to apply critical thinking methods and to develop their ability. These activities should be designed in such a way that teachers learn the ability to transmit this information as well as control the learning environment and improve the quality of the learning environment. Teachers need to be able to understand different attitudes as well as pay attention to strengths and weaknesses. Designing and creating such activities among teachers gives them the opportunity to improve their participatory skills.

The study can be replicated to explore other variables such as age, socio-cultural features, and educational level within the demographic information. The study can be replicated to investigate the same variables within contexts other than EFL contexts. Teachers have different perceptions of their professional freedom that could be highlighted in future studies. Future studies can investigate how EFL teachers grow strategies that influence students' learning. More studies are required to know about how EFL teachers make a decision about the best strategy to employ to improve students' learning.

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