

RESEARCH ARTICLE



The Interplay Between Attitude Toward Intelligence, Ambiguity Tolerance, and Job Burnout: The Case of Afghan English as a Foreign Language Teachers

Mohammad Bagheri^{1,*}

¹*Department of Human Sciences, Kateb University, Afghanistan*

Abstract: The present study seeks to examine how and to what extent Afghan English as a Foreign Language (EFL) teachers' attitude toward intelligence and their ambiguity tolerance affected their levels of burnout in the teaching profession. To conduct the study, 154 Afghan EFL teachers were requested to answer the items in three questionnaires: Language Teachers' Conceptions of Intelligence Scale, Multiple Stimulus Types Ambiguity Tolerance Scale-II, and Maslach Burnout Inventory. The obtained data were examined using descriptive statistics, inferential statistics, correlation, and path analysis. Findings of the analyses indicated there were significant relationships among teachers' attitude to intelligence, their tolerance of ambiguity, and their perceived level of job burnout. In addition, our findings revealed that two dimensions of attitude about intelligence—increasability and applied English language teaching—were negatively correlated with two aspects of burnout—emotional exhaustion and reduced personal accomplishment. Besides, it was found that teachers with higher levels of tolerance for ambiguity experienced significantly lower levels of all three dimensions of teacher burnout. Implications of the research for the teaching profession will be discussed.

Keywords: ambiguity tolerance, attitude toward intelligence, intelligence, teacher burnout, teaching profession

1. Introduction

Burnout is defined as a state of emotional depletion, loss of motivation, and commitment reduction that is experienced by human service workers who are exposed to difficult and stressful circumstances for an extended period of time [1]. As Maslach and Leiter [2] state from the time burnout became known as a psychological concept, it has been recognized as a job-related threat for professions in that there is a considerable number of face-to-face communications between the individuals. Teaching has been identified as one of the professions in which practitioners experience a very high level of work stress and burnout [3]. Teacher burnout can bring about destructive effects on the teachers, learners, and the educational system. To state it more specifically, teachers who suffer from burnout experience a feeling of exhaustion and become emotionally detached from the learners; therefore, they are unable to carry out their responsibilities adequately and according to the standards established by the education department [4]. As a result, teacher burnout should be regarded as a big threat to the function of education systems and much more deliberate attention should be dedicated to this phenomenon [5]. Accordingly, many studies have been conducted to identify the principal causes of teacher burnout. Some of the factors whose influence on teacher burnout has been investigated include students' misbehaviors [6], teachers' perceptions

about sources of work stress [7], teacher autonomy [8], teachers' attitudes about testing and evaluation [9], and teachers' personal traits, and their emotional intelligence [10]. Besides, Erden et al. [11] as well as Răducu and Stănculescu [12] study the effect of personal attributes such as age, gender, marital status, and work experience on teacher burnout.

One factor that is potentially an antecedent of teacher burnout but whose relationship with this concept has not been explored sufficiently is teachers' attitudes toward intelligence. The way teachers define intelligence determines their beliefs about teaching and learning [13], the teaching style they prefer [14], and the goals they set for their classes [15]. Teachers' attitude about intelligence originates from their beliefs about students' mental capabilities and whether such capabilities can be enhanced as a result of cooperative endeavors that take place in the classroom between teachers and students. Hence, these attitudes affect both students' school performance and teachers' conceptions regarding their profession. In a similar fashion, attitude to intelligence affects the way teachers react to students' needs [16] and also the caring practices they exhibit to their students [17]. If attitude to intelligence influences teachers' instructional involvement and their relations with the students, it can work in the opposite direction as well. In that case, special attitudes toward intelligence may detach a teacher from his/her learners and lead to his/her experiencing burnout [18].

What's more, it is believed that individuals' beliefs and attitudes are influenced by their level of ambiguity tolerance [19, 20].

*Corresponding author: Mohammad Bagheri, Department of Human Sciences, Kateb University, Afghanistan. Email: m.bagheri@kateb.edu.af

Ambiguity of tolerance is defined as an orientation from aversion to attraction toward stimuli that are complex, unfamiliar, and insoluble [21]. As Spinelli et al. [22] argue, ambiguity-tolerant persons can behave logically and calmly in situations when the stimuli are unclear. Geller et al. [23] reason that ambiguity tolerance is a fundamental competence because it determines how individuals manage ambiguous and uncertain situations and this trait has an important role in their professional advancement. McLain [21] assert that ambiguity tolerance has an influential role in employees' beliefs and professional efficiency. Teaching is a profession characterized by a lot of ambiguities and uncertainties. These ambiguities arise because teachers may face dilemmas about what teaching styles to adopt, what instructional content to choose, and what learning outcomes to specify for the students to achieve [24]. Therefore, the way teachers evaluate unclear circumstances and respond and react to them is largely dependent on their degree of ambiguity tolerance. In spite of the fact that scholars' understanding regarding the relationship between ambiguity tolerance and teachers' instructional practices has increased, the number of studies investigating the role of ambiguity tolerance/intolerance in teachers' perceptions about their career is few and far between. So, the paucity of research studies in this domain necessitates that more studies should be conducted to investigate the association between the two variables.

As formerly stated, due to the importance of teacher burnout, many researches have been carried out to discover its causes and origins. Despite all these research efforts, education is still grappling with the issue of burnout. Besides, some of the burnout predictors such as teachers' attitude toward intelligence and tolerance of ambiguity have not been explored sufficiently by the researchers. Such research gaps justify the need for doing further research on this topic. Thus, the present study is an attempt to examine how teachers' attitude to intelligence and their level of ambiguity tolerance can predict their perceived levels of burnout.

2. Literature Review

2.1. Burnout

Burnout is a concept that was first introduced by Freudenberger in 1974, and it refers to a cumulative reaction to prolonged job stressors. Initially, burnout was conceptualized to be a uni-dimensional phenomenon [25] consisting of exhaustion only, which was measured according to a simple dichotomy. Subsequently, Maslach and Jackson [26] develop an expanded theory of burnout and present it as a three-dimensional concept. According to them, burnout consists of three aspects: emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion means feelings of being emotionally overextended and being depleted of one's emotional resources. Depersonalization refers to the feeling of becoming indifferent and callous toward the people who are the recipients of one's service. Reduced personal accomplishment is characterized by a tendency to evaluate oneself negatively, particularly with regard to one's work with clients [1].

It has been reported that when employees experience work-related stress, both their occupational performance and their health conditions are adversely affected [27, 28]. Regarding the effect of burnout on work performance, scholars state that employees/workers experiencing burnout may exhibit different forms of job withdrawal such as being late, being absent, intention to quit the job, and actually leaving the job. But even if burned-out personnel remain in their jobs, they do not do their best and their work performance will be at its minimum level. This condition leads to decreased job efficiency, lower levels of engagement, and reduced levels of job satisfaction [29]. When

employees/workers experience stress that results from emotional exhaustion, their physical well-being is negatively affected. So, they might experience headaches, sleep disturbances, muscular tension, and gastrointestinal problems. On the other hand, the two other aspects of burnout—depersonalization and reduced personal accomplishment—may adversely affect individuals' mental health and their social relationships [1].

2.2. Teacher burnout

Ingersoll [30] compares the rate of turnover in different professions and concludes that compared with people in other professions, teachers are at a higher risk of quitting their jobs. Travers [31] also categorizes teaching as one of the very stressful professions. In an attempt to reduce the rate of burnout among teachers, researchers have conducted studies to identify factors that might be possible causes of this phenomenon. Erden et al. [11] as well as Răducu and Stănculescu [12] conclude from their studies that teachers' demographic variables like age, gender, and marital status affected their experience of burnout. Savas et al. [32] as well as Fathi et al. [33] state that teachers with lower levels of self-efficacy reported higher levels of burnout. Daniilidou et al. [34] reports the same type of negative relationship between burnout and resilience. Level of education has also been found to affect burnout [26]. Some factors relating to students such as their misconduct and their parents' involvement have also been associated with teacher burnout [6, 35]. Carroll et al. [36] and Meredith et al. [37] indicate that variables of educational settings such as absence of occupational assistance, work pressure, and uncertainties about work duties may precipitate the incidence of burnout among instructors.

2.3. Intelligence in education

A large number of academic studies performed in the field of teaching and learning have confirmed the beneficial function that intelligence performs in students' academic life and their school-related accomplishments [38–40]. In the field of second/foreign language education, two contrasting viewpoints have emerged that attempt to explain the relationship between intelligence and language learning. The first viewpoint, which is called the non-modularity view, states that the ability needed to learn a second/foreign language is similar to other mental abilities. The second viewpoint, which is the modularity view, states that the mental ability needed for language learning is separate from and independent of abilities needed to perform other cognitive operations [41]. The modularity view is substantiated by several studies in which inverse relationship has been found between general IQ measures and language learning outcomes. For example, Ganschow and Sparks [42] find out in their study that some students had high score in IQ tests, but they performed weakly in learning a second language. In another study, Sparks and Atzer [43] discover that some students had obtained a low IQ score, yet they performed very well in acquiring a second language.

Past studies have testified that intelligence plays a significant role in all types of learning and in acquiring a second/foreign language in specific [41]. In 2011, Pishghadam introduced a new theory named "applied English language teaching (ELT)" and presented a new paradigm regarding the relationship between intelligence and L2 learning. This theory explains how L2 learners' intelligence can be enhanced by means of acquiring a foreign language. So, applied ELT attempts to find out how learners' psychometric and emotional intelligence are affected by the process of L2 learning. Based on this theory, language teachers should assume a new role because they are

anticipated to include everyday matters of life into the syllabus of the foreign language classes and to help learners become whole-person individuals. In a later study, Pishghadam et al. [44] argue that English as a Foreign Language (EFL) teachers should be educational language teachers. It means that not only EFL teachers should be experts in teaching a foreign language but also they should gain the instructional expertise relevant to their professional domain as well.

2.4. Teachers' attitude toward intelligence

Persons have their specific attitudes about the concept of intelligence and this attitude determines how they view themselves and others, what goals they set for themselves, and what they wish to achieve in educational contexts [45, 46]. Attitudes toward intelligence are usually named implicit theories of intelligence, meaning that the views held by individuals about intelligence and the characteristics of mental capabilities are to some degree structured, and in addition, they can influence the way individuals behave and evaluate their surrounding environment [47]. Two contrasting theories have been proposed with regard to the implicit theories of intelligence. The first theory, which is named entity theory, regards intelligence as a characteristic that is fixed, inborn, and beyond our volitional control. The second theory, which is called incremental theory, regards intelligence as a phenomenon which is ever-changing, evolving, and within one's control [47–51].

Like other individuals, teachers' actions and opinions are supposed to be impacted by the way they conceive of intelligence [13]. In fact, teachers' views about students' intellectual abilities determine how they judge students' academic performance and dictate what kinds of behaviors in students they approve of and value [15, 52]. For instance, if some teachers consider intelligence a fixed trait, they are not willing to promote a sense of autonomy and creativity in their students and to create a supportive educational context encouraging intrinsic motivation for them [53]. Thus, they believe that learners' failure hinders their academic achievements. Teachers' attitude to intelligence may lead them to prefer specific teaching behaviors for their classes. In their study, Cutler et al. [14] find out that the more the teachers supported incremental perspective about intelligence, the more they were inclined to use various pedagogical techniques in their classes and to nurture effort, critical thinking, and collaborative learning among students. On the other hand, if teachers believed in entity view of intelligence, they were more likely to employ just one instructional method and emphasize on students' receiving high scores and encouraging competition among them.

Furthermore, attitude toward intelligence influences what kinds of caring behaviors teachers exhibit to their students and what types of feedback they provide for them. With regard to this issue, Pishghadam et al. [41] conclude from their research that teachers who believed in applied ELT and increasability of intelligence used corrective feedback less frequently and those teachers who believed in modularity of mind tended to provide more stroke to their students. In another study, García-Cepero and McCoach [54] explore the correlation between teachers' attitudes about intelligence and the way they identified academically talented students. Based on the results they obtained, teachers who believed that creativity is an important component of intelligence preferred to use a number of different strategies to discover which students were academically talented. On the other hand, teachers who believed analytical abilities were significant feature of intelligence tended to employ only one method—administering IQ tests to the students—to identify those who were intellectually

gifted. The findings of the study conducted by Jonsson et al. [55] indicate that teachers in the fields of language education, social sciences, and practical disciplines held the belief that intelligence is incremental; while teachers of mathematics tended to endorse the entity view of intelligence. Additionally, their findings revealed that the teachers who were at the beginning of their profession and had the least experience as well as the teachers who were the oldest and had the most experience preferred the entity view toward intelligence.

2.5. Ambiguity tolerance/intolerance

Frenkel-Brunswick [56] was the scholar who first introduced ambiguity intolerance as a psychological concept in 1948. As Kurniasari and Indriani [57] state a great deal of research has been conducted over this concept in the past 60 years and as McLain et al. [58] express this concept is still a popular subject for scholarly investigations. At first, ambiguity intolerance was considered from a sociopsychological point of view and it was theorized through its association with concepts such as ethnocentricity, narrow-mindedness, and autocratism [58]. Subsequently, Budner [59] focuses more closely in this concept without expanding it to sociological correlates or implications. He stated that individuals who are ambiguity-intolerant perceive ambiguous situations as threatening but ambiguity-tolerant individuals are inclined to perceive ambiguity as interesting. According to Budner [59], ambiguous condition refers to circumstances in which individuals do not have adequate cues about a problem and this uncertainty does not allow them to fully structure and categorize a condition. Ambiguity arises due to three reasons: novelty, complexity, and insolubility. As Budner [59] classifies, novel conditions are ones in which all cues are unknown, complex situations are ones in which the individual should consider many cues to make a decision, and insoluble conditions are ones in which different cues signify different meanings. He points out that when individuals face ambiguous situations and they need to grasp a clear understanding about them, they feel stressed and anxious, and denial and delay occur in their decision-making.

Later, McLain [60] reasons that tolerance/intolerance of ambiguity is characterized by a variety of reactions that individuals exhibit to ambiguous conditions. According to him, ambiguity tolerance is defined by reluctantly accepting the unclear situations, while intolerance means rejecting the unclear situation. He further argues that this concept is not rated by a dichotomy the two extreme ends of which are tolerance and intolerance, but instead persons' level of tolerance is measured on a continuum. One end of this continuum signifies rejection of novel, complex, and insoluble situations and the other end signifies attraction to such situations. A notion that is often employed interchangeably with intolerance of ambiguity is intolerance of uncertainty, which means individuals attempt to avoid uncertain conditions that seem to be menacing [61, 62]. The difference between the two concepts is that most of the studies examining intolerance of uncertainty have been conducted in the field of sociology and they aim to measure this variable in groups of people. Thus, researchers regard uncertainty avoidance as a group characteristic as opposed to an individual one.

Hammond et al. [63] hold the idea that tolerating ambiguity is an inseparable part of professional practice. Despite the importance attached to this trait, not many studies have been done to investigate the relationship between ambiguity tolerance and job burnout. Besides, those limited number of studies that have explored this relationship fall outside the realm of education. In a study carried out by Iannello et al. [64], the researchers discovered that physicians whose tolerance of ambiguity was at lower levels

confronted ambiguous situations with more inflexibility, and thus, they experienced more stress in their jobs. In a similar study, Zuo [65] finds that intolerance of ambiguity was associated with higher levels of role stress and lower levels of academic performance. Along the same line, Bardi et al. [66] conclude that in the setting of academic life transition, ambiguity tolerance and openness are positively correlated with the sense of well-being. Frone [67] performs a meta-analysis of 13 empirical studies that examined the relationship of ambiguity tolerance with factors such as role stress and job satisfaction. He concluded that employees who had higher levels of ambiguity tolerance expressed higher levels of satisfaction with their jobs.

Additionally, Cook et al. [68] conduct a survey to find out to what extent Australian general physicians experienced burnout and to discover if concepts such as resilience and tolerance of ambiguity could predict the level of their burnout. The results of their research revealed that those practitioners who exhibited higher levels of uncertainty avoidance and anxiety and who were reluctant to reveal their uncertainty reported higher levels of burnout in their careers. Besides, practitioners with higher levels of resilience were less inclined to avoid uncertain circumstances, to experience burnout, and to show hesitancy in displaying their doubts. Identically, Kuhn et al. [69] argue that intolerance of uncertainty was positively correlated with emotional exhaustion and it manifested the largest correlation with burnout, testifying to the power of this variable in predicting job burnout.

3. Purpose of the Study

Since teachers' attitudes toward intelligence directly affect their professional identity and their instructional practices, gaining a more comprehensive understanding about the ideas they hold about this concept is essential [13]. Therefore, to attain the first objective of this study we hypothesize that teachers' attitudes about intelligence influence whether or not they experience burnout. Besides, it has been suggested by Budner [59] that individuals who have low levels of ambiguity tolerance are more likely to experience anxiety and stress. Hence, to achieve the second objective of the study, we hypothesize that teachers' level of ambiguity tolerance affects their burnout, which is characterized by stress and anxiety. Considering these facts, the current study will address the following research questions:

- 1) What is the relationship between Afghan EFL teachers' attitudes toward intelligence and their level of job burnout?
- 2) What is the relationship between Afghan EFL teachers' ambiguity tolerance and their level of job burnout?

4. Methodology

4.1. Participants

To collect data for this quantitative study, we used convenience sampling to find 154 Afghan EFL teachers from different language institutes in Kabul, the capital city of Afghanistan. The sample consisted of both male ($n=81$) and female ($n=73$) teachers. Their ages were between 20 and 46 years old. Since language institutes in Kabul make recruitment decisions based on applicants' overall English proficiency and work experience (and not based on their academic degree), participants who agreed to answer the questionnaires had majored in different disciplines such as English literature, sociology, engineering, etc. Moreover, a number of them had obtained teaching certificates from academic centers other than the universities.

4.2. Instruments

In order to collect the data from the participants, the three following questionnaires were adopted from previous studies:

4.2.1. Language Teachers' Conceptions of the Intelligence Scale (LTCI-S)

In order to determine EFL teachers' attitudes toward intelligence, Pishghadam et al. [41] construct and validate a questionnaire named Language Teachers' Conceptions of Intelligence Scale (LTCI-S). This questionnaire includes 12 items that fall under three categories (increasability, modularity, and applied ELT). Items in the increasability category (items # 2, 3, 6, and 8) ask respondents about whether intelligence is stable or if it can be increased. Items in the modularity category (items # 1, 4, & 11) ask respondents if, in their opinion, there is a separate mental module for language learning. Items under the category of applied ELT (items #5, 7, 9, 10, & 12) ask respondents about their opinion regarding the effect of second language learning on L2 learners' mental abilities. Items are scored along a Likert Scale consisting of six points, in which choice 6 means strongly agree and choice 1 means strongly disagree. But, since a number of items are negatively worded, reverse scoring should be applied for them. The minimum score a respondent can receive is 12 and the maximum score is 72. According to Pishghadam et al. [41], this questionnaire has a high degree of reliability as evidenced by Cronbach's alpha reliability coefficient, which is 0.76. Besides, in the current study, Cronbach's alpha coefficient was calculated to be 0.86.

4.2.2. Multiple Stimulus Types Ambiguity Tolerance Scale-II (MSTAT-II)

In order to measure individuals' tolerance/intolerance for ambiguity, McLain [21] develops and validates Multiple Stimulus Types Ambiguity Tolerance Scale-II (MSTAT-II questionnaire). This questionnaire includes 13 items and each item should be responded in a 5-point Likert scale, in which choice 1 means strongly disagree and choice 5 means strongly agree. However, if some items are negatively worded, reverse scoring should be applied for them. Respondents' high scores indicate their interest in dealing with ambiguity, and their low scores show their aversion to ambiguity. This scale has a high degree of Cronbach's alpha reliability coefficient ($\alpha=0.82$) as reported by McLain [21]. In the current study, we also found out a high degree of Cronbach's alpha coefficient for this scale ($\alpha=0.91$).

4.2.3. Maslach Burnout Inventory (MBI)

Maslach and Jackson [26] develop and validate the Maslach Burnout Inventory (MBI), which is the most widely used instrument for gauging individuals' level of burnout. This scale includes 22 items which are to be answered along a Likert scale consisting of seven points, in which the answer 0 means "never" and answer 6 means "every day." So, respondents' overall score can be a number from 0 to 154. Respondents' higher scores signify that they are experiencing higher levels of burnout, while their low scores indicate that they are not experiencing job burnout. Items 1–7 measure emotional exhaustion; items 8–14 measure depersonalization, and items 15–22 measure reduced personal accomplishment. Maslach and Jackson [26] calculate the reliability of this inventory using Cronbach's alpha method and find out that $\alpha=0.83$. In the current study, we used a similar method to calculate the reliability of this questionnaire and found out that alpha was equal to 0.86.

4.3. Procedure

A total number of 154 Afghan EFL instructors who were teaching at different language centers were invited to take part in the study and to answer the items included in the three questionnaires—LTCI-S, MSTAT-II, and MBI. At the outset of data collection procedure, all participants agreed to take part in the study and they were informed that their responses as well as their identities would be kept confidential.

To analyze the data, initially, descriptive statistics for each of the variables were calculated using SPSS version 26. Then, to explore the relationship between teachers' attitudes to intelligence and their burnout, a Pearson product-moment correlation was performed. Subsequently, another correlation was conducted to investigate the relationship between respondents' ambiguity tolerance and their level of burnout. Finally, we performed path analysis using Amos (version 22) to examine if attitudes to intelligence and ambiguity tolerance were significant predictors of teachers' burnout. Path analysis, which is a special case of structural equation modeling (SEM), is run to explain the directed dependencies among a set of variables.

5. Results

5.1. The results of correlation analysis

The present study aimed to investigate the effects of teachers' attitudes toward intelligence and their ambiguity tolerance on their level of burnout. Table 1 presents the descriptive statistics calculated for independent and dependent variables.

Table 1
Descriptive statistics for the variables

Variable	Mean	SD
Modularity	10.86	2.53
Increasesability	18.20	3.86
Applied ELT	21.29	4.59
Ambiguity tolerance	48.28	8.38
Emotional exhaustion	7.26	2.16
Reduced personal accomplishment	15.42	6.01
Depersonalization	5.91	2.45

Table 2 provides the results of Pearson's correlations conducted to examine the relationships among the variables of the study.

Initially, the relationship between teachers' attitude to intelligence and their burnout was examined through correlation coefficients. Among the three subscales of teachers' conceptions of intelligence, modularity did not yield any significant relationship with any

subscales of teacher burnout. But increasability had significant and negative correlation with emotional exhaustion ($r = -0.35$, $P < 0.05$), reduced personal accomplishment ($r = -0.28$, $P < 0.05$), and depersonalization ($r = -0.23$, $P < 0.05$). Then, the relationship between ambiguity tolerance and teacher burnout was investigated. As statistics in Table 2 indicate, all subscales of teacher burnout had significant and negative relationship with ambiguity tolerance. Of the three subscales relevant to teacher burnout, the largest correlation coefficient was found to exist between ambiguity tolerance and reduced personal accomplishment ($r = -0.67$, $P < 0.05$).

5.2. Path analysis

For investigating whether teachers' attitudes to intelligence and their ambiguity tolerance can predict their burnout, a model was proposed through SEM. To evaluate the model fit, a number of fit indices were examined. Hu and Bentler [70] have stated that fitness indices should fall within specific ranges to be considered statistically acceptable. According to their recommendations, the value of chi-square should be statistically non-significant, the value of chi-square/df should not exceed 3, the cut values for Normed Fit Index and Good Fit Index should exceed 0.90, and the root mean error of approximation (RMSEA) should be less than 0.08. As the values in Table 3 indicate, except RMSEA, all other fit indices are within the acceptable thresholds. Therefore, it can be concluded that there is an acceptable fit between the proposed model and the empirical data collected for this research. Goodness of fit indices are present in Table 3.

In the next step, we examined the standardized estimates in the proposed model because we intended to assess the strength of the causal relationships that existed among the variables. As it can be seen in Figure 1, an estimate has been shown on each of the paths. This standardized coefficient, which is also called beta coefficient (β), is obtained by carrying out an analysis of the independent variables that have been standardized, and it describes to what extent the independent variables have enough power to predict the dependent variables. Moreover, it accounts for the effect sizes of the variables. The more the value approaches to 1.0, the correlation will be higher and the variable will have more power to predict other variables.

As it can be observed in Figure 1, two subscales of teachers' attitudes toward intelligence had significant negative relationship with teacher burnout. Applied ELT is a significant negative predictor of reduced personal accomplishment ($\beta = -0.16$, $P < 0.05$), and increasability is a significant negative predictor of emotional exhaustion ($\beta = -0.20$, $P < 0.05$). On the other hand, because all paths from modularity to the three subscales of teacher burnout were non-significant, they were excluded from the model. As stated before, the relationship between ambiguity tolerance and

Table 2
Pearson's product-moment correlation coefficients

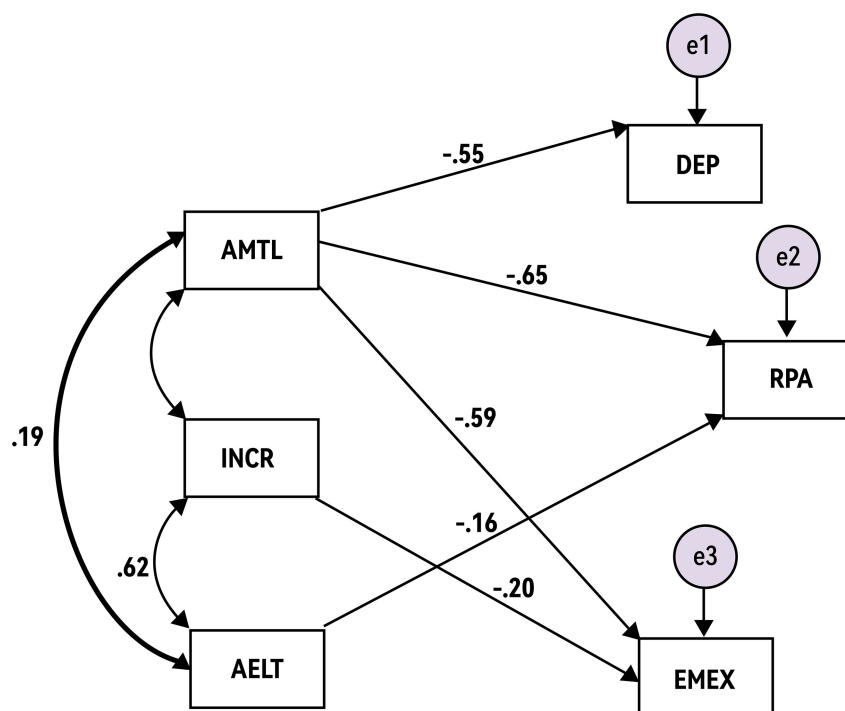
Variable	1	2	3	4	5	6	7
1. Modularity	1.00						
2. Increasesability	0.13	1.00					
3. Applied ELT	-0.04	0.61**	1.00				
4. Ambiguity tolerance	0.12	0.29**	0.18	1.00			
5. Emotional exhaustion	-0.04	-0.35**	-0.20**	-0.64**	1.00		
6. Reduced personal accomplishment	0.53	-0.28**	-0.26**	-0.67**	0.53**	1.00	
7. Depersonalization	-0.03	-0.23**	-0.08	-0.55**	0.83**	0.48**	1.00

Note: * $p < 0.05$, ** $p < 0.01$.

Table 3
Goodness of fit indices

	χ^2	df	χ^2/df	Good Fit Index	Comparative Fit Index	Root mean error of approximation
Acceptable fit			<3	>0.90	>0.90	<0.08
Model	14.26	7	2.14	0.923	0.913	0.091

Figure 1
Corrected model depicting the relationships among attitude to intelligence, ambiguity tolerance, and burnout



Note: AELT: Applied ELT, DEP: Depersonalization, RPA: Reduced Personal Accomplishment, INCR: Increasibility, EMEX: Emotional Exhaustion, AMTL: Ambiguity Tolerance, RPA: Reduced Personal Accomplishmen

burnout was also examined by the model. The results of path analysis revealed that ambiguity tolerance had significant negative relationships with reduced personal accomplishment ($\beta = -0.65$, $P < 0.05$), emotional exhaustion ($\beta = -0.59$, $P < 0.05$), and depersonalization ($\beta = -0.55$, $P < 0.05$).

6. Discussion and Conclusion

The current study was conducted to achieve two objectives. The first objective was to investigate the relationship between teachers' attitudes to intelligence and their burnout. The second objective was to explore the relationship between teachers' ambiguity tolerance and their burnout. Statistical analysis done to attain the first objective showed that teachers' attitudes to intelligence, as measured by teachers' conception of intelligence scale, could act as a significant predictor of burnout. Specifically speaking, two dimensions of conceptions of intelligence were significant predictors of teacher burnout. Increasibility was discovered to have significant negative relationship with emotional exhaustion. This finding is consistent with that reported by Burnette et al. [53] who argue that teachers who regard intelligence as a stable and unalterable trait experience feelings of emotional pressure and exhaustion more than their colleagues who believe that intelligence is an alterable trait. In fact, if teachers consider intelligence as a

fixed trait, they come to conclude that any efforts to enhance their learners' mental capacities will be a futile endeavor and this belief ultimately leads them to feel overextended and exhausted. In contrast, if teachers believe that intelligence can be increased, they focus their efforts on expanding their learners' mental capacities. Consequently, they consider their jobs as valuable and become more involved in what they do in their jobs.

As previously stated, applied ELT was discovered to be a significant negative predictor of reduced personal accomplishment. This finding appears rational because we can conclude that teachers who believe students' learning a second/foreign language will improve their intelligence will consider their job as an invaluable one. When teachers believe that their instruction will lead to an augment in their learners' intellectual capacities, they will gain feelings of professional capability and accomplishment in their careers [71]. Applied ELT theory assumes a new role for language teachers and invites them to be educational language teachers. Hence, if EFL teachers accept this new role, this may affect their perceptions about their productivity in educational settings and enhance their feelings about their accomplishments in the teaching profession. As Pishghadam [71] argues educational language teachers have a facilitating function and should assist their students to enhance their mental abilities in EFL classes. Therefore, if teachers adopt this view to their jobs, they encourage the learners to

develop both their language abilities and their knowledge in other areas as well. In this condition, teachers attach more significance to their jobs and feel more achieved as individuals.

The findings of this study regarding the second objective demonstrated that ambiguity tolerance could predict teachers' burnout. These results confirm those of Cooke et al. [68]. Specifically speaking, ambiguity tolerance was a negative significant predictor of emotional exhaustion, and this result is in line with that reported by Kuhn et al. [69]. The negative relationship between ambiguity tolerance and burnout can be justified by the fact that individuals who cannot tolerate ambiguous and uncertain situations tend to overestimate the occurrences of their life in a very straightforward way [58], so when such people want to react to ambiguous circumstances, they may experience stress and anxiety [64], and as a consequence, it becomes more likely for them to undergo emotional exhaustion that is a key element of burnout [69].

Furthermore, it was found that ambiguity tolerance was a significant negative predictor of depersonalization. This relationship means that teachers who believe ambiguous circumstances are threatening [58] are more likely to be emotionally detached from their students and their careers [1]. The reason is that they reduce their contact with other individuals because they want to stay away from confronting novel and complicated conditions, which are sources of threat for them. Apart from that, ambiguity tolerance was detected to be a negative and significant predictor of reduced personal accomplishment. If we consider the fact that managing ambiguous circumstances is a vital skill for professional advancement [63], we understand that this finding of the study seems plausible. McLain et al. [58] state that some individuals have a polarized attitude toward the matters of life; therefore, they look for absolute and all-or-nothing judgments and assign life events into fixed and unchangeable categories. If they encounter new and complex conditions, they are incapable of dealing with them and experience feelings of insufficiency and lowered effectiveness in their professions [1]. In general, it can be stated that individuals with low levels of ambiguity tolerance cannot manage circumstances in which the interpretation of all stimuli is not clear [22].

This study can have several important implications. The findings of the study emphasized the relationship between teachers' ambiguity tolerance and their burnout. Accordingly, it is recommended that private and public schools should consider and assess this individual characteristic when they are hiring EFL teachers. If they recruit instructors who possess this individual trait, this characteristic might impact their mental and physical health and encourage them to exhibit more suitable behaviors when they face ambiguous situations. Feelings of stress and anxiety that are produced as a result of ambiguity can have negative physical and psychological outcomes for the teachers, and this issue should be addressed in teacher education courses. We recommend that in those courses, teachers try to know more about their responses to contextual uncertainties because when they become conscious about how they react to ambiguous conditions, they can monitor their unfavorable reactions to ambiguity and alter them into more positive and constructive responses.

Furthermore, the findings of the study underscore the fact that teachers' attitude to intelligence may have negative effects on their professional functions and lead them to job burnout. Accordingly, if teachers as well as school/institute officials would like to prevent teacher burnout, they should pay particular attention to teacher cognition in general and teachers' conceptions of intelligence in particular. Because according to Koc [72], pre-service education has a special role in shaping teachers' beliefs and perspectives, teacher

educators should remind student teachers how the implicit ideas they hold about intelligence can influence their relationships with students and determine how they judge their achievements in their jobs. Additionally, teacher educators should modify student teachers' conceptions toward students' intellectual capabilities because a new perspective about intelligence leads teachers to acquire more effective instructional practices. To attain this purpose, teacher educators should encourage student teachers to forgo the belief that intelligence level is fixed and to replace it with the idea that they, as EFL teachers, are facilitators who can assist learners in improving their intelligence through learning a new language. Moreover, teacher educators should inform student teachers that they can become educational language teachers who are capable of enhancing learners' mental abilities through teaching them a new language.

When interpreting the findings of the current study, readers should consider the limitations that might limit its generalizability. The first limitation is that convenience sampling was employed to select the participants and the sample size was not large enough. Hence, scholars should exercise caution if they want to generalize their findings to other language teaching and learning contexts. Second, the participants of the study were EFL teachers at private language institutes, and the results of the study cannot be generalized to the language teachers who work in governmental/public schools or high schools. Scholars who wish to replicate this research should bear in mind that teachers in the two contexts—language institutes and public schools—face different conditions in their workplaces and experience different levels of burnout. Thus, a separate study might be conducted to examine the relationship among variables in public schools and high schools. Third, the data were collected using self-report questionnaires, and answers given to the items might have been affected by respondents' personal biases. It is suggested that future investigations on this topic collect data using other methods such as interviews, think-aloud protocols, and observations. The current study highlighted the role of teachers' attitudes to intelligence and ambiguity tolerance on their burnout. It is recommended that more studies be conducted to examine the effect of other individual characteristics on EFL teachers' job burnout.

Recommendations

The finding revealed that the lack of training for both teachers and students was the main factor that prevented them from using educational technology tools in teaching and learning Ecology. Therefore, training on educational technology for both teachers and students is recommended. Since educational technology tools have arisen excitement and curiosity amongst students, they recommended other module tutors to use educational technology tools as well. Educational technology tools integrated in the module will be further replicated by student's teacher during teaching practice or as a full-fledged teacher. Therefore, tutors were recommended to use the variety of educational technology tools in learning, teaching, and an assessment.

Acknowledgements

We acknowledge all the students who accepted to take part in the study.

Ethical Statement

This study does not contain any studies with human or animal subjects performed by the author.

Conflicts of Interest

The author declares that he has no conflicts of interest to this work.

Data Availability Statement

The data that support this work are available upon reasonable request to the corresponding author.

Author Contribution Statement

Mohammad Bagheri: Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft, Writing – review & editing.

References

- [1] Leiter, M. P., & Maslach, C. (2000). Burnout and health. In A. S. Baum, T. A. Revenson, & J. E. Singer (Eds.), *Handbook of health psychology* (pp. 415–426). Psychology Press. <https://doi.org/10.4324/9781410600073>
- [2] Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>
- [3] Collie, R., & Mansfield, C. (2022). Teacher and school stress profiles: A multilevel examination and associations with work-related outcomes. *Teaching and Teacher Education*, 116, 103759. <https://doi.org/10.1016/j.tate.2022.103759>
- [4] Capone, V., & Petrillo, G. (2020). Mental health in teachers: Relationships with job satisfaction, efficacy beliefs, burnout and depression. *Current Psychology*, 39(5), 1757–1766. <https://psycnet.apa.org/doi/10.1007/s12144-018-9878-7>
- [5] Hogan, J. P., & White, P. J. (2021). A self-study exploration of early career teacher burnout and the adaptive strategies of experienced teachers. *Australian Journal of Teacher Education*, 46(5), 18–39. <https://doi.org/10.14221/ajte.2021v46n5.2>
- [6] Vidić, T., Đuranović, M., & Klasnić, I. (2021). Student misbehaviour, teacher self-efficacy, burnout and job satisfaction: Evidence from Croatia. *Problems of Education in the 21st Century*, 79(4), 657–673.
- [7] Bottiani, J. H., Duran, C. A. K., Pas, E. T., & Bradshaw, C. P. (2019). Teacher stress and burnout in urban middle schools: Associations with job demands, resources, and effective classroom practices. *Journal of School Psychology*, 77, 36–51. <https://doi.org/10.1016/j.jsp.2019.10.002>
- [8] Peng, Y., Wu, H., & Guo, C. (2022). The relationship between teacher autonomy and mental health in primary and secondary school teachers: The chain-mediating role of teaching efficacy and job satisfaction. *International Journal of Environmental Research and Public Health*, 19(22), 15021. <https://doi.org/10.3390/ijerph192215021>
- [9] Rezai, A. (2024). The role of teacher assessment literacy in job stress and job burnout in EFL contexts: A mixed-methods investigation. *Asian-Pacific Journal of Second and Foreign Language Education*, 9(1), 3. <https://doi.org/10.1186/s40862-023-00225-1>
- [10] Liu, Z., Li, Y., Zhu, W., He, Y., & Li, D. (2022). A meta-analysis of teachers' job burnout and big five personality traits. *Frontiers in Education*, 7, 822659. <https://doi.org/10.3389/educ.2022.822659>
- [11] Erden, A., Erden, H., & Aytac, T. (2023). Teachers' well-being levels by gender and marital status: A meta-analysis study. *Asian Journal of Instruction*, 11, 38–60. <https://doi.org/10.47215/aji.1304646>
- [12] Răducu, C. M., & Stănculescu, E. (2022). Personality and socio-demographic variables in teacher burnout during the COVID-19 pandemic: A latent profile analysis. *Scientific Reports*, 12(1), 14272. <https://doi.org/10.1038/s41598-022-18581-2>
- [13] Aragón, O. R., Eddy, S. L., & Graham, M. J. (2018). Faculty beliefs about intelligence are related to the adoption of active-learning practices. *CBE—Life Sciences Education*, 17(3), ar47. <https://doi.org/10.1187/cbe.17-05-0084>
- [14] Cutler, C. R., Mallaburn, A., Putwain, D. W., & Daly, A. (2019). Teachers' theories of intelligence and instruction in English secondary education. *Teacher Education Advancement Network Journal*, 11(2), 59–70.
- [15] Catalano, M. G., Vecchio, G. M., & Perucchini, P. (2022). The role of teachers' intelligence conceptions, teaching beliefs and self-efficacy on classroom management practices. *Ricerche di Psicologia*, 45, 1–19.
- [16] Reis-Jorge, J., Ferreira, M., Olcina-Sempere, G., & Marques, B. (2021). Perceptions of giftedness and classroom practice with gifted children—An exploratory study of primary school teachers. *Qualitative Research in Education*, 10(3), 291–315. <https://doi.org/10.17583/qre.8097>
- [17] Guzzardo, M. T., Khosla, N., Adams, A. L., Bussmann, J. D., Engelman, A., Ingraham, N., . . . , & Taylor, S. (2021). “The ones that care make all the difference”: Perspectives on student-faculty relationships. *Innovative Higher Education*, 46, 41–58. <https://doi.org/10.1007/s10755-020-09522-w>
- [18] Wink, M. N., LaRusso, M. D., & Smith, R. L. (2021). Teacher empathy and students with problem behaviors: Examining teachers' perceptions, responses, relationships, and burnout. *Psychology in the Schools*, 58(8), 1575–1596. <https://doi.org/10.1002/pits.22516>
- [19] Vives, M. L., & FeldmanHall, O. (2018). Tolerance to ambiguous uncertainty predicts prosocial behavior. *Nature Communications*, 9(1), 2156. <https://doi.org/10.1038/s41467-018-04631-9>
- [20] Elembilassery, V., Jain, N. K., & Aggarwal, D. (2024). What influences individuals' tolerance for ambiguity? Exploring the role of social comparison orientation, tendency to maximize and feel regret. *Personality and Individual Differences*, 217, 112436. <https://doi.org/10.1016/j.paid.2023.112436>
- [21] McLain, D. L. (2009). Evidence of the properties of an ambiguity tolerance measure: The multiple stimulus types ambiguity tolerance scale—II (MSTAT—II). *Psychological Reports*, 105(3), 975–988. <https://psycnet.apa.org/doi/10.2466/pr0.105.3.975-988>
- [22] Spinelli, C., Ibrahim, M., & Khoury, B. (2023). Cultivating ambiguity tolerance through mindfulness: An induction randomized controlled trial. *Current Psychology*, 42(15), 12929–12947. <https://doi.org/10.1007/s12144-021-02597-4>
- [23] Geller, G., Grbic, D., Andolsek, K., Caulfield, K. M., & Roskovensky, M. (2021). Tolerance for ambiguity among medical students: Patterns of change during medical school and their implications for professional development. *Academic Medicine*, 96(7), 1036–1042. <https://doi.org/10.1097/ACM.0000000000003820>
- [24] Caspari-Gnann, I., & Sevan, H. (2022). Teacher dilemmas as sources of change and development. *Teaching and Teacher Education*, 112, 103629. <https://doi.org/10.1016/j.tate.2021.103629>
- [25] Freudenberger, H. J. (1974). Staff burnout. *Journal of Social Issues*, 30(1), 159–165. <https://doi.org/10.1111/j.1540-4560.1974.tb00706.x>

- [26] Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99–113. <https://doi.org/10.1002/job.4030020205>
- [27] Chen, B., Wang, L., Li, B., & Liu, W. (2022). Work stress, mental health, and employee performance. *Frontiers in Psychology*, 13, 1006580. <https://doi.org/10.3389/fpsyg.2022.1006580>
- [28] Hasin, H., Johari, Y. C., Jamil, A., Nordin, E., & Hussein, W. S. (2023). The harmful impact of job stress on mental and physical health. *International Journal of Academic Research in Business and Social Sciences*, 13(4), 905–918. <http://doi.org/10.6007/IJARBS/v13-i4/16655>
- [29] Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- [30] Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499–534. <https://doi.org/10.3102/00028312038003499>
- [31] Travers, C. (2017). Current knowledge on the nature, prevalence, sources and potential impact of teacher stress. In T. M. McIntyre, S. E. McIntyre, & D. J. Francis (Eds.), *Educator stress: An occupational health perspective* (pp. 23–54). Springer International Publishing. https://doi.org/10.1007/978-3-319-53053-6_2
- [32] Savas, A. C., Bozgeyik, Y., & Eser, İ. (2014). A study on the relationship between teacher self efficacy and burnout. *European Journal of Educational Research*, 3(4), 159–166. <https://doi.org/10.12973/eu-jer.3.4.159>
- [33] Fathi, J., Greenier, V., & Derakhshan, A. (2021). Self-efficacy, reflection, and burnout among Iranian EFL teachers: The mediating role of emotion regulation. *Iranian Journal of Language Teaching Research*, 9(2), 13–37. <https://doi.org/10.30466/ijltr.2021.121043>
- [34] Daniilidou, A., Platsidou, M., & Gonida, E. (2020). Primary school teachers' resilience: Association with teacher self-efficacy, burnout and stress. *Electronic Journal of Research in Education Psychology*, 18(52), 549–582. <https://doi.org/10.25115/ejrep.v18i52.3487>
- [35] Sideridis, G., & Alghamdi, M. H. (2023). Teacher burnout in Saudi Arabia: The catastrophic role of parental disengagement. *Behavioral Sciences*, 13(5), 367. <https://doi.org/10.3390/bs13050367>
- [36] Carroll, A., Forrest, K., Sanders-O'Connor, E., Flynn, L., Bower, J. M., Fynes-Clinton, S., . . . , & Ziaei, M. (2022). Teacher stress and burnout in Australia: Examining the role of intrapersonal and environmental factors. *Social Psychology of Education*, 25(2), 441–469. <https://doi.org/10.1007/s11218-022-09686-7>
- [37] Meredith, C., Schaufeli, W., Struyve, C., Vandecandelaere, M., Gielen, S., & Kyndt, E. (2020). Burnout contagion among teachers: A social network approach. *Journal of Occupational and Organizational Psychology*, 93(2), 328–352. <https://doi.org/10.1111/joop.12296>
- [38] Bardach, L., Hübner, N., Nagengast, B., Trautwein, U., & von Stumm, S. (2023). Personality, intelligence, and academic achievement: Charting their developmental interplay. *Journal of Personality*, 91(6), 1326–1343. <https://doi.org/10.1111/jopy.12810>
- [39] Yavich, R., & Rotnitsky, I. (2020). Multiple intelligences and success in school studies. *International Journal of Higher Education*, 9(6), 107–117. <https://doi.org/10.5430/ijhe.v9n6p107>
- [40] Lozano-Blasco, R., Quílez-Robres, A., Usán, P., Salavera, C., & Casanovas-López, R. (2022). Types of intelligence and academic performance: A systematic review and meta-analysis. *Journal of Intelligence*, 10(4), 123. <https://doi.org/10.3390/jintelligence10040123>
- [41] Pishghadam, R., Naji Meidani, E., & Khajavy, G. (2015). Language teachers' conceptions of intelligence and their roles in teacher care and teacher feedback. *Australian Journal of Teacher Education*, 40(1), 60–82. <https://doi.org/10.14221/ajte.2015v40n1.4>
- [42] Ganschow, L., & Sparks, R. (2001). Learning difficulties and foreign language learning: A review of research and instruction. *Language Teaching*, 34(2), 79–98. <https://doi.org/10.1017/S0261444800015895>
- [43] Sparks, R., & Artzer, M. (2000). Foreign language learning, hyperlexia, and early word recognition. *Annals of Dyslexia*, 50, 189–211. <https://doi.org/10.1007/s11881-000-0022-6>
- [44] Pishghadam, R., Zabihi, R., & Norouz Kermanshahi, P. (2012). Educational language teaching: A new movement beyond reflective/critical teaching. *Life Science Journal*, 9(1), 892–899.
- [45] Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. USA: Cambridge University Press.
- [46] Thomas, A. J., & Sarnecka, B. W. (2015). Exploring the relation between people's theories of intelligence and beliefs about brain development. *Frontiers in Psychology*, 6, 921. <https://doi.org/10.3389/fpsyg.2015.00921>
- [47] Tao, V. Y., Li, Y., & Wu, A. M. (2022). Incremental intelligence mindset, fear of failure, and academic coping. *Journal of Pacific Rim Psychology*, 16, 18344909221144703. <https://doi.org/10.1177/18344909221144703>
- [48] Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. UK: Psychology Press.
- [49] Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256–273.
- [50] Dweck, C. S., & Yeager, D. S. (2021). A growth mindset about intelligence. In G. M. Walton, & A. J. Crum (Eds.), *Handbook of wise interventions: How social psychology can help people change* (pp. 9–35). The Guilford Press.
- [51] Furnham, A. (2014). Increasing your intelligence: Entity and incremental beliefs about the multiple “intelligences”. *Learning and Individual Differences*, 32, 163–167. <https://doi.org/10.1016/j.lindif.2014.03.001>
- [52] Laine, S., & Tirri, K. (2023). Literature review on teachers' mindsets, growth-oriented practices and why they matter. *Frontiers in Education*, 8, 1275126. <https://doi.org/10.3389/feduc.2023.1275126>
- [53] Burnette, J. L., O'Boyle, E. H., VanEpps, E. M., Pollack, J. M., & Finkel, E. J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139(3), 655–701. <https://doi.org/10.1037/a0029531>
- [54] García-Cepero, M. C., & McCoach, D. B. (2009). Educators' implicit theories of intelligence and beliefs about the identification of gifted students. *Universitas Psychologica*, 8(2), 295–310.
- [55] Jonsson, A. C., Beach, D., Korp, H., & Erlandson, P. (2012). Teachers' implicit theories of intelligence: Influences from different disciplines and scientific theories. *European Journal of Teacher Education*, 35(4), 387–400. <https://doi.org/10.1080/02619768.2012.662636>
- [56] Frenkel-Brunswick, E. (1949). Intolerance of ambiguity as an emotional and perceptual personality variable. *Journal of Personality*, 18(1), 108–143. <https://doi.org/10.1111/j.1467-6494.1949.tb01236.x>
- [57] Kurniasari, F. A., & Indriani, L. (2021). A study of EFL students' perspective on ambiguity tolerance. *English*

- Learning Innovation*, 2(1), 10–16. <https://doi.org/10.22219/englie.v2i1.14858>
- [58] McLain, D. L., Kefallonitis, E., & Armani, K. (2015). Ambiguity tolerance in organizations: Definitional clarification and perspectives on future research. *Frontiers in Psychology*, 6, 344.
- [59] Budner, N. Y. S. (1962). Intolerance of ambiguity as a personality variable. *Journal of Personality*, 30(1), 29–50. <https://psycnet.apa.org/doi/10.1111/j.1467-6494.1962.tb02303.x>
- [60] McLain, D. L. (1993). The MSTAT-I: A new measure of an individual's tolerance for ambiguity. *Educational and Psychological Measurement*, 53(1), 183–189. <https://psycnet.apa.org/doi/10.1177/0013164493053001020>
- [61] Jacoby, R. J. (2020). Intolerance of uncertainty. In J. S. Abramowitz, & S. M. Blakey (Eds.), *Clinical handbook of fear and anxiety: Maintenance processes and treatment mechanisms* (pp. 45–63). American Psychological Association. <https://doi.org/10.1037/0000150-003>
- [62] Morris, J., Goh, K., Hirsch, C. R., & Dodd, H. F. (2023). Intolerance of uncertainty heightens negative emotional states and dampens positive emotional states. *Frontiers in Psychiatry*, 14, 1147970. <https://doi.org/10.3389/fpsyt.2023.1147970>
- [63] Hammond, J. D., Hancock, J., Martin, M. S., Jamieson, S., & Mellor, D. J. (2017). Development of a new scale to measure ambiguity tolerance in veterinary students. *Journal of Veterinary Medical Education*, 44(1), 38–49. <https://doi.org/10.3138/jvme.0216-040r>
- [64] Iannello, P., Mottini, A., Tirelli, S., Riva, S., & Antonietti, A. (2017). Ambiguity and uncertainty tolerance, need for cognition, and their association with stress. A study among Italian practicing physicians. *Medical Education Online*, 22(1), 1270009. <https://doi.org/10.1080/10872981.2016.1270009>
- [65] Zuo, T. (2023). From tolerance for ambiguity to stress and anxiety: The mediating role of need for cognitive closure among Chinese university students. *Psychological Reports*. Advance online publication. <https://doi.org/10.1177/00332941231212833>
- [66] Bardi, A., Guerra, V. M., & Ramdeny, G. S. D. (2009). Openness and ambiguity intolerance: Their differential relations to well-being in the context of an academic life transition. *Personality and Individual Differences*, 47(3), 219–223. <https://doi.org/10.1016/j.paid.2009.03.003>
- [67] Frone, M. R. (1990). Intolerance of ambiguity as a moderator of the occupational role stress–strain relationship: A meta-analysis. *Journal of Organizational Behavior*, 11(4), 309–320. <https://psycnet.apa.org/doi/10.1002/job.4030110406>
- [68] Cooke, G. P., Doust, J. A., & Steele, M. C. (2013). A survey of resilience, burnout, and tolerance of uncertainty in Australian general practice registrars. *BMC Medical Education*, 13, 2. <https://doi.org/10.1186/1472-6920-13-2>
- [69] Kuhn, G., Goldberg, R., & Compton, S. (2009). Tolerance for uncertainty, burnout, and satisfaction with the career of emergency medicine. *Annals of Emergency Medicine*, 54(1), 106–113. <https://doi.org/10.1016/j.annemergmed.2008.12.019>
- [70] Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- [71] Pishghadam, R. (2011). Introducing applied ELT as a new approach in second/foreign language studies. *Iranian EFL Journal*, 7(2), 8–14.
- [72] Koc, M. (2013). Student teachers' conceptions of technology: A metaphor analysis. *Computers & Education*, 68, 1–8. <https://doi.org/10.1016/j.compedu.2013.04.024>

How to Cite: Bagheri, M. (2024). The Interplay Between Attitude Toward Intelligence, Ambiguity Tolerance, and Job Burnout: The Case of Afghan English as a Foreign Language Teachers. *International Journal of Changes in Education*. <https://doi.org/10.47852/bonviewIJCE42022958>