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**Research paper**

# Exploring the Link Between Iranian University EFL Teachers' Critical Thinking Tendencies and Academic Self-Efficacy: The Influence of Gender and Teaching Experience

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## Abstract

This study aimed to investigate the correlation between the critical thinking tendencies of university EFL teachers and their academic self-efficacy. The possible influences of gender and teaching experience in this context were also examined. The study was carried out utilizing a correlational research design. The sample consisted of 100 university EFL instructors (48 males and 52 females) who were engaged in teaching undergraduate students specializing in English in Isfahan and Ilam provinces. In this study, data collection was conducted utilizing a personal information form, the California Critical Thinking Disposition Inventory, and the Academic Self-Efficacy Scale. The relationship among the variables being studied was examined using the Pearson Product-Moment Correlation Coefficient, and a multiple regression analysis was executed to determine the degree to which academic self-efficacy, gender, and teaching experience of university EFL educators can significantly predict their tendencies towards critical thinking. A positive, albeit weak and non-significant correlation was identified between the academic self-efficacy of university EFL teachers and their critical thinking tendencies. Additionally, the analysis revealed no significant differences between male and female university EFL teachers. Moreover, the correlation coefficient for novice teachers demonstrated a weak, positive, and non-significant relationship, whereas the correlation coefficient for experienced teachers showed a moderate,

positive, and significant relationship. This research carries both theoretical and practical implications for EFL educators, practitioners, learners, and policymakers.

***Keywords:*** Academic Self-Efficacy, Critical thinking tendencies, Gender, Teaching experience, University EFL teachers

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## Introduction

Critical thinking (CT) encompasses the abilities and actions employed in evaluating and establishing the validity and precision of a problem through diverse criteria (Kazancı, 1989). Sternberg (1999) defined critical thinking (CT) as the cognitive processes, representations, and strategies that individuals utilize to address challenges. This process involves the collection of information, a degree of skepticism, and intellectual inquiry (Üstündağ, 2003). Furthermore, CT encompasses both emotional and cognitive dimensions, which include assessment, enhancement, and scientific reasoning informed by new criteria and contexts. It also entails the judicious and effective application of thinking processes that warrant scrutiny and examination during the acquisition of knowledge (Gojkov et al., 2015). Critical thinking is acknowledged as one of the most vital components for achieving success in the 21st century (Zhou et al., 2015). Language educators play a crucial role in promoting critical thinking (CT) skills among their students. They are tasked with introducing different facets of CT to learners and assisting them in cultivating these skills alongside their language acquisition (Shirkhani & Fahim, 2011). Second language instructors bear a greater responsibility than those teaching a first language in nurturing students' CT abilities (Davidson, 1998). Consequently, the development of these skills should be a fundamental component of every English as a Foreign Language (EFL) or English as a Second Language (ESL) curriculum, providing students with opportunities to articulate their views and evaluate the perspectives of their classmates.

Language plays a crucial role in enhancing thought processes, particularly in fostering critical thinking (Güneş, 2007). This is because individuals are able to articulate, comprehend, and convey their ideas more clearly after acquiring critical thinking skills through the medium of language (Karasakaloğlu et al., 2012). Critical thinking relies on particular methodologies and standards, including sound reasoning, skepticism, consistency, and clarity regarding any concept, situation, or topic. It reflects a combination of skills, attitudes, and cognitive processes, emphasizing the importance of conclusions and supporting evidence.

Critical thinking research has primarily concentrated on critical thinking tendency (CTT) and critical thinking skills (Geçit & Akarsu, 2017). CTT refers to an individual's intrinsic motivation to engage in critical thinking, while critical thinking skills pertain to the reasoning and decision-making capabilities employed to address problems (Genç, 2008).

The concept of self-efficacy is rooted in Bandura's (1997) Social Cognitive Theory (SCT), which is a framework for understanding the various factors that influence human behavior, motivation, and cognition. This theory pertains to individuals' beliefs regarding their capacity to effectively manage and execute tasks essential for addressing potential challenges (Pajares & Schunk, 2002).

Educators' self-efficacy, which reflects their beliefs regarding their professional competencies as teachers, is characterized by their perceptions of their capacity to attain desired outcomes (Tschannen-Moran & Woolfolk-Hoy, 1998). Academic self-efficacy pertains to an individual's confidence in their ability to fulfill academic tasks or achieve educational and instructional goals within a school setting (Bandura, 1997; Pajares, 2008). Consequently, self-efficacy and critical thinking are theoretically interconnected concepts.

## Literature Review

The primary obstacle for critical thinking (CT) in English as a Foreign Language (EFL) is the insufficient training of English teachers in this domain. There seems to be a lack of technical learning communities, educational institutions, or organizations dedicated to EFL that could facilitate this process. Additionally, the absence of critical thinking in the syllabus, lesson plans, or curriculum is often cited as a constraint, as it limits the time available to explore relevant topics and content. Furthermore, another challenge for implementing CT in EFL is the students' restricted proficiency in English, which hampers their ability to express their ideas effectively. Instructors have observed that students infrequently cultivate critical thinking skills in their native language, as educational policies tend to emphasize assessments and international examinations rather than fostering critical thinking. The majority of educators (Yuan et al., 2022; Yin et al., 2023) indicated that critical thinking is seldom incorporated into English as a Foreign Language (EFL) classes due to a limited comprehension of the concept.Educators have indicated that nurturing CT among EFL presents a significant challenge for FLT programs (Espey, 2018). To effectively cultivate CT in EFL, educators need to extend their focus beyond mere grammatical structures and vocabulary, emphasizing the development of critical thinking, creativity, self-assessment, independence, and decision-making skills (Yin et al., 2023; Todorovska, 2024).

Basereh and Pishkar (2016) aimed to explore the connections between self-efficacy beliefs, self-directed learning, and critical thinking among advanced EFL learners at a private language institute in Bandar Abbas, Iran. A total of sixty Iranian EFL students were selected based on their performance in the TOEFL PBT from a pool of eighty learners to participate in the study. The participants completed a validated version of Honey's (2004) critical thinking questionnaire, the Self-Directed Learning Readiness Scale (SDLRS) developed by Guglielmino (1977), and the

General Self-Efficacy Scale (GSE) validated by Schwarzer and Jerusalem (1995). The study's findings indicated a significant relationship between self-directed learning and self-efficacy beliefs among Iranian EFL learners. Additionally, it was found that critical thinking was significantly related to self-efficacy beliefs, and there was also a significant relationship between critical thinking and self-directed learning.

The crucial role of self-efficacy in the application of knowledge, as well as scientific and professional skills was highlighted by Orujlu and Hemmati-Maslakpak (2017). The correlation between critical thinking and self-efficacy among nursing students was investigated. The study involved all senior nursing students (N=50) in 2013. The instruments utilized for the study included demographic surveys, the California Critical Thinking Skills Test, and the Sherer General Self-Efficacy Scale. Data analysis was conducted using SPSS software version 16, employing descriptive statistics and both Spearman and Pearson correlation coefficient tests. The analysis indicated a positive and significant correlation between critical thinking and self-efficacy among nursing students.

Moslemi and Habibi (2019) investigated the connections between professional identity, self-efficacy, and critical thinking skills within the context of Iranian EFL teachers' instructional practices. The study involved 75 EFL teachers from private language institutes in Iran, selected through availability sampling to fulfill the research objectives. Data collection was conducted using the Watson-Glaser Critical Thinking Appraisal test, the Professional Identity questionnaire, and the Teachers' Efficacy Beliefs System-Self (TEBS-Self) form. Findings indicated a positive correlation among the self-efficacy, critical thinking skills, and professional identity of EFL teachers. Furthermore, the ANOVA (analysis of variance) test demonstrated that the professional

identity of EFL teachers serves as a significant predictor of their self-efficacy and critical thinking capabilities.

The investigation into the structural connections among metacognitive thinking skills, critical thinking standards, and the academic self-efficacy of teacher candidates was carried out by Karaoğlan-Yılmaz et al. (2019). This research employed a relational survey methodology, with data analysis performed through structural equation modeling. The study involved 244 pre-service teachers from various departments at a public university in Turkey, all of whom volunteered to take part in the research. The research gathered data through a personal information questionnaire, the Critical Thinking Standards Scale, the Metacognitive Thinking Scale, and the Academic Self-Efficacy Scale. A moderate positive correlation was identified between the critical thinking standards of teacher candidates and their metacognitive thinking abilities. Additionally, a low positive correlation was observed between critical thinking standards and academic self-efficacy. Furthermore, a moderately positive relationship was noted between metacognitive thinking skills and academic self-efficacy.

Doğan (2020) conducted an examination of the correlation between self-efficacy values and critical thinking tendencies among pre-service physical education teachers. The study encompassed a sample of 640 pre-service teachers, who were recruited from universities across eight provinces in Turkey. Data collection was facilitated through the use of the California Critical Thinking Disposition Inventory (CCTDI) and the Teacher Self-Efficacy Scale. The data collected for the study was analyzed using the SPSS (Statistical Package for Social Sciences) version 25 software. Additionally, the AMOS-25 package was employed to conduct structural equation modeling analyses on the data obtained from the participant groups. Consequently, by re-

evaluating physical education and sports programs in schools, students can be guided to develop these patterns through activities designed to enhance critical thinking skills and tendencies.

Yan and Chan (2020) investigated the perceptions of students regarding the infusion of thinking skills in a tertiary classroom environment. Preparing students to think critically and analytically is a fundamental goal of higher education and a quality that employers seek in university graduates. The nurturing of thinking skills is viewed as a significant variable in the student learning process. To cultivate these skills, the effective infusion of critical thinking skills may be the initial step to activate and encourage students' thinking skills within the classroom. This exploratory study aimed to assess student perceptions of the infusion of critical thinking skills by university instructors through an evaluation questionnaire. A sample of 132 undergraduate students participated in this survey. The findings indicated that students positively affirmed the efforts of university instructors in integrating thinking skills into their courses. However, this raises the question of how to optimally balance the infusion between Lower Order Thinking Skills (LOTS) and Higher Order Thinking Skills (HOTS) categories, ensuring that university students can benefit from critical skill training. This may necessitate a reevaluation of how to define more refined learning outcomes according to the skill categories in line with Bloom's taxonomy.

Khanshan and Yousefi (2020) examined the relationship between teachers' self-efficacy beliefs and their instructional methods. The study also explored the influence of teachers' professional characteristics, including their subject areas, as mediating factors. The research involved 70 university educators from both state and private institutions throughout Iran, comprising 10 each from physics, chemistry, mathematics, law, economics, psychology, and English language teaching. Among the participants, there were 37 males and 33 females. Participants were randomly selected from various universities based on their availability and their potential to contribute to the

study's aims. Only those educators with over ten years of experience, primarily holding Ph.D. degrees, were included, while the remaining participants possessed M.A. degrees. This study employed a mixed-methods approach, utilizing questionnaires, observations, and semi-structured interviews to assess the effectiveness of teaching practices. The Pearson Correlation Coefficients indicated a significant correlation between the self-efficacy of both soft and hard science teachers and their teaching experience; however, the relationship between efficacy and teaching for English language teaching educators did not demonstrate statistical significance. Observations and interviews further illuminated the teachers' practices and the challenges they faced in the classroom. Amirian et al. (2022) investigated the interplay and potential impact of critical thinking, self-efficacy beliefs, and teaching style preferences among university professors teaching English as a Foreign Language (EFL) in higher education. To achieve this, they administered the Watson–Glaser Critical Thinking Appraisal-Form A, the Teacher Sense of Efficacy Scale (TSES), and Grasha's Teaching Style Inventory (TSI) to a sample of 320 Iranian EFL university professors. The data were analyzed using path analysis, revealing that the professors' critical thinking abilities and self-efficacy beliefs had a significant effect on their preferred teaching styles. Furthermore, the study concluded that the critical thinking skills of Iranian EFL university professors positively influence their self-efficacy beliefs.

The role of gamification in enhancing the self-efficacy of Iranian EFL learners was analyzed by Babakhani et al. (2023). This study aimed to investigate the existing evidence regarding the influence of educational gamification on the self-efficacy of EFL learners, with the intention of evaluating the advantages of its application in English language classrooms. For this purpose, 40 Iranian female intermediate EFL learners were chosen through convenience sampling and assigned to two groups: an experimental group and a control group. Both groups were instructed to complete

a questionnaire as a pretest and posttest. The experimental group utilized Flippity and Wordwall websites as their treatment, while the control group employed traditional teaching methods. The findings indicated that gamification was an effective treatment for the experimental group in the post-test, and the incorporation of gamified activities significantly affected the learners' self-efficacy. However, there was no significant difference in the pretest results between the two groups.

Fatehi Rad et al. (2024) conducted a study aimed at examining the relationship between resilience, critical thinking, and classroom management skills of Iranian EFL teachers. The researchers adopted a quantitative approach, selecting a total of 200 Iranian EFL teachers (100 males and 100 females) through convenience sampling from private language institutions located in Kerman, Iran. Data was collected using the Persian version of the Resilience Questionnaire, the English version of the Critical Thinking Questionnaire, and the Persian version of the Classroom Management Questionnaire. The results revealed a significant positive relationship between the resilience of EFL teachers and their critical thinking abilities. Moreover, a notable positive correlation was found between the resilience of teachers and their classroom management skills.

Alinejad et al. (2024) conducted a mixed-methods study with two primary objectives: first, to investigate how critical thinking dispositions (CTDs) are recognized and integrated into reflective teaching (RT) among English as a Foreign Language (EFL) educators, and second, to examine the relationship between EFL teachers' CTDs and their RT practices. The study involved 303 Iranian EFL teachers, utilizing two questionnaires—one focused on CT dispositions and the other on RT—as well as a semi-structured interview for data collection. The quantitative data were analyzed using Pearson correlations and Structural Equation Modeling (SEM) with AMOS 20, while qualitative data were examined through descriptive qualitative content analysis. The quantitative

results revealed that integrity was the most significant factor influencing the relationship between CTDs and RT, accounting for 13 percent of the variance in RT scores based on Regression Weights. Following integrity, perseverance was identified as the second most significant variable, explaining six percent of the variance, while courage and humility each accounted for one percent. Additionally, qualitative findings underscored the important role of CTDs in shaping the RT practices of Iranian EFL teachers.

Ma et al. (2025) explored the connection between critical thinking (CT) dispositions and willingness to communicate (WTC) among foreign language (FL) learners. The study also investigated the role of teacher enthusiasm as a moderating factor in this relationship, drawing on principles from social cognitive theory, and examined potential gender differences in this context using gender schema theory. The research involved 4,847 secondary school English learners from China, comprising 46.1% males and 53.9% females. Data were gathered through self-reported scales assessing perceived teacher enthusiasm, CT dispositions, and WTC. The results indicated a positive correlation between CT dispositions and WTC, highlighting systematicity, self-confidence in reasoning, inquisitiveness, and cognitive maturity as key predictors of WTC. Furthermore, teacher enthusiasm was shown to positively influence the relationship between CT dispositions and WTC. Notably, higher levels of teacher enthusiasm significantly enhanced WTC, particularly among students with strong CT dispositions, with this effect being more pronounced for female students compared to their male counterparts.

Despite the extensive body of literature emphasizing the significance of critical thinking and academic self-efficacy in educational settings, there remains a notable paucity of research investigating these constructs among university-level EFL instructors in Iran. Prior studies have predominantly concentrated on student populations, thereby overlooking the pivotal role that

teachers' critical thinking tendencies and self-efficacy beliefs may play in shaping educational outcomes (Basereh & Pishkar, 2016; Orujlu & Hemmati-Maslakpak, 2017).Moreover, although demographic factors such as gender and teaching experience have been acknowledged as influential in educational psychology, empirical inquiries into their specific impact on EFL instructors' critical thinking and self-efficacy are conspicuously limited. Accordingly, this study seeks to address these gaps by examining the interrelationship between critical thinking tendencies and academic self-efficacy among Iranian university EFL teachers, as well as the potential moderating effects of gender and teaching experience. To this end, the following research questions are proposed:

RQ1: Is there any significant relationship between academic self-efficacy and critical thinking tendencies of university EFL teachers?

RQ2: Do male and female university EFL instructors exhibit significant differences in their academic self-efficacy and critical thinking tendencies?

RQ3: Are there significant differences in academic self-efficacy and critical thinking tendencies between novice and experienced university EFL instructors?

## Methodology

A quantitative research design employing a descriptive-analytical approach was chosen for this study. The objective was to assess the presence and extent of relationships among two or more variables, rather than establishing causal links (Karasar, 2013). Given that the focus of the current research was to explore the relationship between academic self-efficacy and critical thinking tendencies, a correlational design was deemed appropriate. Subsequent sections will provide

comprehensive details regarding the participants, instruments utilized, data collection methods, and data analysis procedures.

## Participants

The participants in this study were 100 university EFL teachers teaching undergraduate students majoring in English. During the academic year of 2022-2023, 100 university EFL teachers (48 males and 52 females) from the English departments of Azad and Payame Noor universities in Isfahan and Ilam provinces were invited to participate in the study. Convenience sampling, one of the non-probability sampling techniques, was used to determine the sample. All participants were actively involved in teaching undergraduate programs. Doctoral degrees in English Language Teaching, English Translation, or English Literature were all held by them. Their ages ranged from 35 to 50. They had 3 to 10 years of teaching experience. The gender and teaching experiences of university EFL teachers were also taken into account. Four branches of Islamic Azad universities, including Najafabad, Shahreza, Khorasgan, and Ilam, and two branches of Payame Noor universities in Isfahan and Ilam provinces, were surveyed for EFL teachers.

## Instruments

In this study, three instruments were employed for data collection. Details regarding these instruments are provided below.

### *Participant Information Form*

Researchers developed this instrument to gather information regarding the socio-demographic attributes of participants, including age, gender, educational level, and area of study.

***California Critical Thinking Disposition Inventory (CCTDI)***

The instrument was initially created by Facione and Facione in 1998 to assess the critical thinking tendencies of teacher candidates and to investigate their perceptions regarding the importance of critical thinking, as well as its role and value in language instruction. The affective and attitudinal aspects of critical thinkers are evaluated through a six-point Likert scale, which ranges from 1 (strongly disagree) to 6 (strongly agree). The original inventory comprises seven subscales: analyticity, open-mindedness, inquisitiveness, self-confidence, truth-seeking, systematicity, and cognitive maturity, totaling 75 items. The overall reliability of the test was found to be 0.90 (Cronbach's alpha), with subscale scores varying between 0.71 and 0.80. The instrument and its subscales have consistently demonstrated accuracy in studies utilizing the CCTDI (Facione & Facione, 1996).

***Academic Self-Efficacy Scale***

Owen and Froman (1988) developed this scale to measure teachers' academic self-efficacy. It is a one-dimensional inventory having 24 items. It has a five-point Likert scale that ranges from 1 (not at all) to 5 (a great deal). The reliability value of the scale (Cronbach alpha) was calculated to be 0.93. This value shows that the inventory is a valid and reliable measurement tool.

**Data Collection Procedures**

Data were gathered from university EFL instructors who were teaching undergraduate students specializing in English. About 100 EFL instructors from Azad and Payame Noor universities of Isfahan and Ilam provinces were invited to take part in the research. Initially, formal consultations were held with the deans of the education faculties. Data were collected using two inventories. Prior to the analysis, the instruments underwent a pilot test to confirm their reliability for the

study's objectives. Online surveys were developed using Google Forms and subsequently distributed to the participants via their email addresses. The researcher supplied general information and instructions regarding the use of the scales, ensuring that all scales were administered to the teachers at the same time. Anonymity for the respondents was preserved, and they were instructed to complete the questionnaires by selecting one of the provided options. The data collection phase spanned approximately four weeks. Ultimately, statistical analyses, including bivariate correlation, independent samples t-test, and two-way ANOVA, were conducted following a normality test to assess the inventories. Descriptive analysis of the closed-ended items in the questionnaires was performed using SPSS (Statistical Package for Social Sciences) version 24.0, with the significance of the data evaluated at a 0.05 level.

**Data Analysis**

This research employed a correlational design to examine the responses of university EFL teachers to two distinct scales. The Pearson Product-Moment Correlation Coefficient (r) was applied to explore the relationship between the critical thinking tendencies of university EFL teachers and their academic self-efficacy. Furthermore, multiple regression analysis was conducted to assess whether academic self-efficacy, gender, and teaching experience of university EFL teachers could account for their critical thinking tendencies. The data analysis was carried out in two phases. The initial phase involved the use of descriptive statistics to characterize the demographic responses of each participant. The second phase of the analysis was conducted to assess whether there were significant differences in responses based on gender and teaching experience. Participants rated their level of agreement or disagreement with various statements presented in the surveys. Prior to the analysis, the assumptions necessary for multiple regression analysis, including multivariate

normality, linearity, and multi-collinearity, were evaluated. The data were processed using SPSS version 24.0 software. Scores for sub-dimensions were calculated in accordance with the study's objectives, and independent samples t-tests were performed to determine if significant differences existed between the groups. In this study, the significance level was established at 0.05.

## Results

In alignment with the study's objectives, the subsequent research hypotheses were formulated for testing:

H01: There is no significant relationship between academic self-efficacy and critical thinking tendencies of university EFL teachers.

H02: There are no significant differences between male and female university EFL teachers' academic self-efficacy and their critical thinking tendencies.

H03: There are no significant differences between novice and experienced university EFL teachers' academic self-efficacy and their critical thinking tendencies.

### Testing Research Null Hypothesis One

To inspect the first research null hypothesis of this study concerning the significant relationship between academic self-efficacy and critical thinking tendencies of Iranian university EFL teachers, Pearson product-moment correlation was utilized. The application of this correlation method necessitates the fulfillment of four assumptions: interval data, normality, linearity, and homoscedasticity. The first assumption is satisfied as the data collected are measured on an interval scale. The second assumption pertains to the normality of the data, which is evaluated through

skewness and kurtosis. Prior to presenting the results of the Pearson product-moment correlation, descriptive statistics for academic self-efficacy and critical thinking tendencies scores were calculated (see Table 1). Table 1 illustrates the mean and standard deviation for academic self-efficacy (M = 78.67, SD = 13.70) and critical thinking tendencies (M = 260.73, SD = 27.19).

**Table 1**

*Descriptive Statistics for Academic Self-Efficacy and Critical Thinking Tendencies Scores (N = 100)*

| Variable | Mean | SD | Skewness | Std. Error | Skewness Ratio | Kurtosis | Std. Error | Kurtosis Ratio |
|---|---|---|---|---|---|---|---|---|
| Academic Self-Efficacy | 78.67 | 13.70 | -.001 | .241 | -.004 | -.956 | .478 | -1.943 |
| Critical Thinking Tendencies | 260.73 | 27.19 | -.106 | .241 | -.439 | -.754 | .478 | -1.576 |

The data distribution for academic self-efficacy and critical thinking tendencies, as presented in Table 1, was determined to be normal. This conclusion is based on the skewness ratios of -0.004 for academic self-efficacy and -0.439 for critical thinking tendencies, as well as the kurtosis ratios of -1.943 for academic self-efficacy and -1.576 for critical thinking tendencies, all of which are within the acceptable range of -1.96 to +1.96. Consequently, the assumption of normality was met.

Besides, to check the linearity of the relation, the scatter plot for the correlation between academic self-efficacy and critical thinking tendencies scores was provided (Figure 1). As it is crystal clear from the scatter plot in Figure 1, the straight line drawn through the main cluster of the points reflects a linear relationship; so, the linearity assumption of the two pairs is not violated for conducting Pearson product-moment correlation. In addition, in the scatter plot displayed in Figure 1, the direction of the line that is drawn through the points, trends from left to right upward in the scatter plot. This left to right upward trend signifies a positive relationship; high scores on X, academic self-efficacy connects with high scores on Y, critical thinking tendencies.

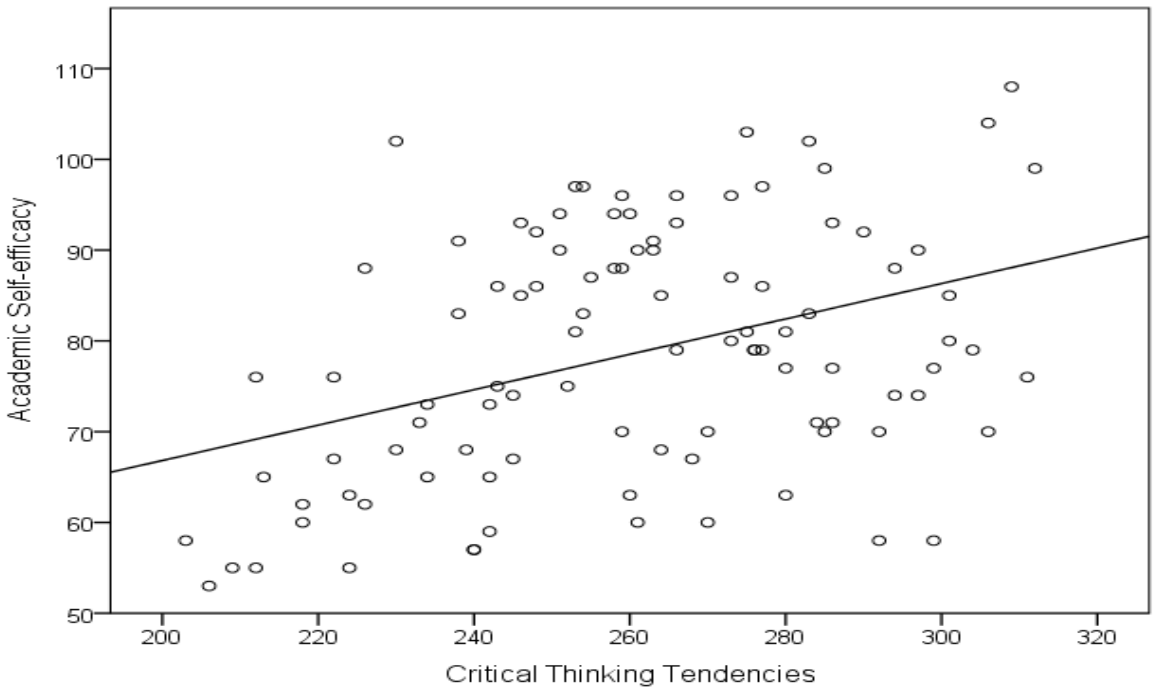


**Figure 1.** Plot of Relationship between Academic Self-Efficacy and Critical Thinking Tendencies

Furthermore, to adequately justify the use of the parametric technique, it was essential to satisfy the homoscedasticity assumption. This was achieved by analyzing the residual plots (Figure 2). As illustrated in Figure 2, the data points are randomly dispersed throughout each plot. This indicates that the variance remains consistent across all variables, confirming that the homoscedasticity assumption has been upheld.

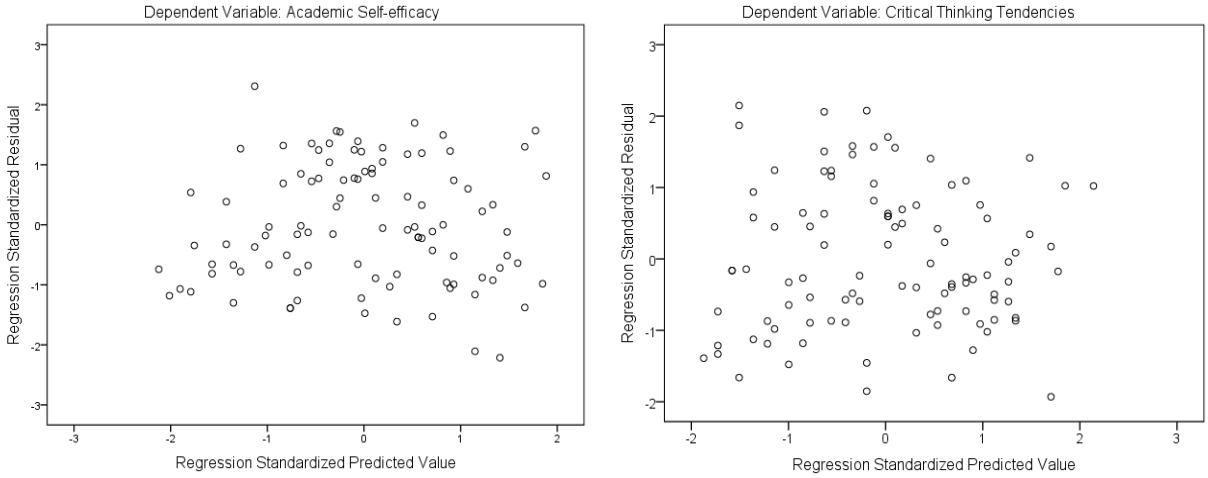


**Figure 2.** Plot of Standardized Residuals for Academic Self-Efficacy and Critical Thinking Tendencies

Given that the assumptions of interval data, including normality, linear correlation, and homoscedasticity, were satisfied for academic self-efficacy and critical thinking tendencies, the researcher was able to utilize Pearson's product-moment formula to determine the strength of the relationship between these two variables. The findings of this analysis are presented in Table 2.

**Table 2**
*Pearson Correlation between Academic Self-Efficacy and Critical Thinking Tendencies*

| | | Critical Thinking Tendencies |
|---|---|---|
| Academic Self-Efficacy | Pearson Correlation | .384* |
| | Sig. (2-tailed) | .000 |
| | N | 100 |

*Correlation is significant at the .05 level (2-tailed).

Pearson correlation, as laid out in Table 2, detected a moderate positive relationship between university EFL teachers' academic self-efficacy and critical thinking tendencies scores, r (100) = .38, n = 100, at the significance level of .000 < .05, with high levels of academic self-efficacy correlated with high levels of critical thinking tendencies. Essentially, the correlation coefficient (r =.38) exceeded the critical values of Pearson correlation (r = .16, n = 100). Accordingly, the first

null hypothesis of the current study as "There is no significant relationship between academic self-efficacy and critical thinking tendencies of university EFL teachers" is rejected. Then, the first research question is answered positively and can be claimed that academic self-efficacy and critical thinking tendencies of university EFL teachers are positively correlated.

**Testing Research Null Hypothesis Two**

The objective of the second research null hypothesis in this study was to evaluate whether a significant relationship exists between the academic self-efficacy of university EFL teachers and their critical thinking tendencies concerning gender. A Pearson product-moment correlation analysis was performed for both male and female educators.

**Table 3**
*Pearson Correlation between Academic Self-Efficacy and Critical Thinking Tendencies of Male and Female Teachers*

| | | Critical Thinking Tendencies (Males) | Critical Thinking Tendencies (Females) |
|---|---|---|---|
| Academic self-Efficacy | Pearson Correlation | .383** | .407** |
| | Sig. (2-tailed) | .007 | .003 |
| | N | 48 | 52 |

**Correlation is significant at the 0.01 level (2-tailed).

Table 3 indicates that the Pearson correlation analysis revealed a moderate positive association between the academic self-efficacy of university EFL teachers and their critical thinking tendencies, with male teachers showing a correlation of r (48) = .38 (n = 48, p = .007) and female teachers exhibiting a correlation of r (52) = .41 (n = 52, p = .003). This suggests that higher levels of academic self-efficacy are linked to greater critical thinking tendencies. Consequently, the second null hypothesis of this study, which posited that "There is no significant relationship between university EFL teachers' academic self-efficacy and their critical thinking tendencies in

terms of gender," can be rejected. The findings indicate that the response to the second research question is affirmative, confirming a positive correlation between the academic self-efficacy and critical thinking tendencies of university EFL teachers, applicable to both male and female educators in this field. The moderate positive correlations between the academic self-efficacy and critical thinking tendencies of both male and female educators are illustrated in Figure 3.

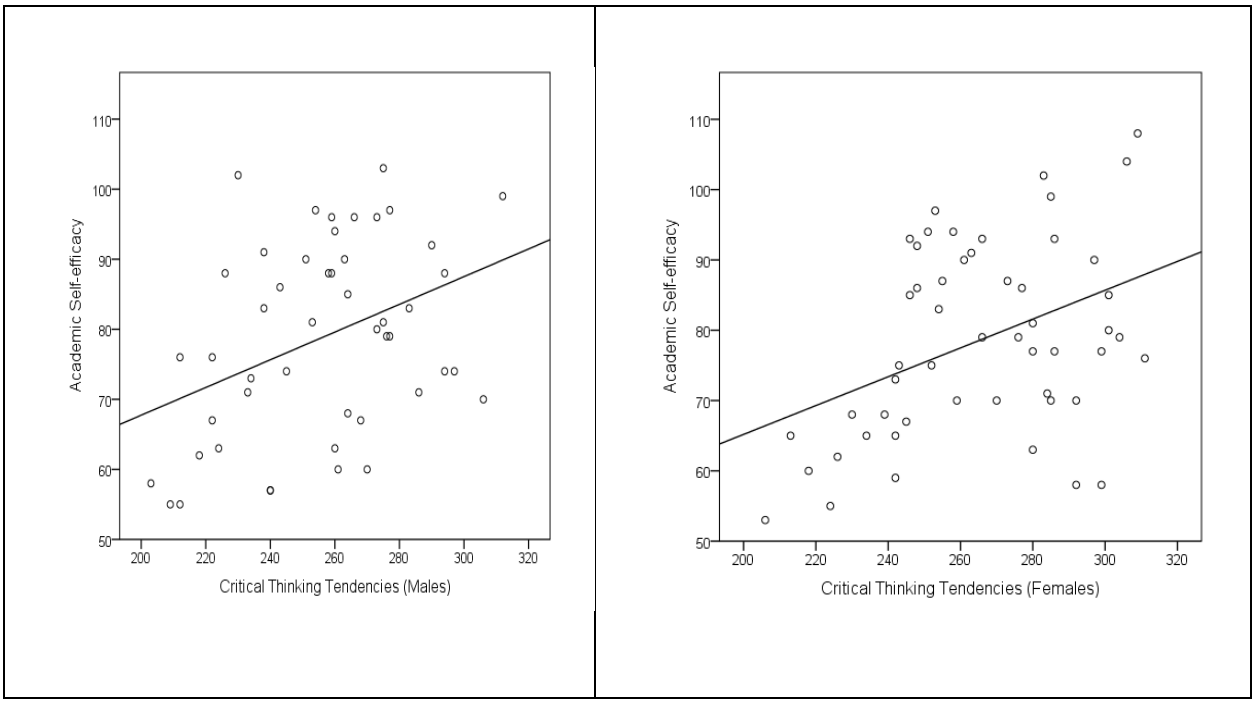


**Figure 3.** Plot of Relationship between Academic Self-Efficacy and Critical Thinking Tendencies of Male and Female Teachers

### Testing Research Null Hypothesis Three

The third research null hypothesis examined the potential significant relationship between the academic self-efficacy of university EFL teachers and their tendencies toward critical thinking, specifically in relation to their teaching experience. To evaluate this null hypothesis, the Pearson product-moment correlation was run for both novice and experienced educators. The findings for these two groups of teachers are presented in Table 4.

**Table 4**
*Pearson Correlation between Academic Self-Efficacy and Critical Thinking Tendencies of Novice and Experienced Teachers*

| | | Critical Thinking Tendencies (Novices) | Critical Thinking Tendencies (Experienced) |
|---|---|---|---|
| Academic self-Efficacy | Pearson Correlation | .234 | .464* |
| | Sig. (2-tailed) | .085 | .001 |
| | N | 55 | 45 |

** Correlation is significant at the.05 level (2-tailed).

The findings presented in Table 4 demonstrate that the Pearson correlation analysis showed no significant relationship between the academic self-efficacy and critical thinking tendencies scores of novice university EFL teachers (r (55) = .23, n = 55, p = .08). In contrast, a moderate positive correlation was identified among experienced teachers (r (45) = .46, n = 45, p = .001), indicating that higher levels of academic self-efficacy were linked to elevated critical thinking tendencies. Hence, the third null hypothesis of this study that reads "There is no significant relationship between university EFL teachers' academic self-efficacy and their critical thinking tendencies in terms of teaching experience" is retained. Therefore, the answer to the third research question is negative and can be declared that academic self-efficacy and critical thinking tendencies of university EFL teachers are not significantly correlated regarding teaching experience.

Figure 4 illustrates the relationships between academic self-efficacy and critical thinking tendencies of novice and experienced teachers.

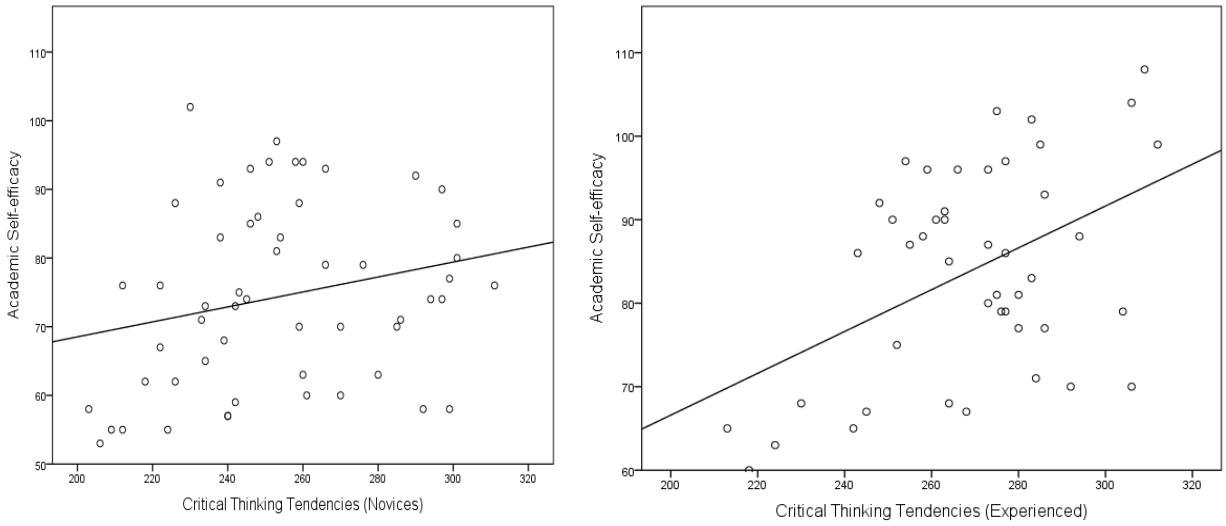


**Figure 4.** Plot of Relationship between Academic Self-Efficacy and Critical Thinking Tendencies of Novice and Experienced Teachers

## Discussion

The findings of this study provide important insights into the relationship between academic self-efficacy and critical thinking tendencies among Iranian university EFL instructors. The results revealed a positive, albeit weak, impact of academic self-efficacy on teachers' critical thinking tendencies. This outcome aligns with previous research (Basereh & Pishkar, 2016; Orujlu & Hemmati-Maslakpak, 2017), which emphasizes the crucial role of self-belief systems in fostering higher-order cognitive skills such as critical thinking. In summary, it can be concluded that teachers who possess confidence in their academic knowledge and skills tend to exhibit stronger critical thinking tendencies. This result is anticipated, as foundational knowledge and skills are essential for questioning and comparing ideas, making judgments, and drawing conclusions, all of which are integral to critical thinking. The consistency of these findings across different

educational contexts suggests that enhancing teachers' self-efficacy may contribute, even if modestly, to the development of more reflective and analytical teaching practices.

Interestingly, the results indicated no significant relationship between academic self-efficacy and critical thinking tendencies when examined across different levels of teaching experience. This finding suggests that years of experience alone may not necessarily strengthen or weaken the interplay between these two constructs among university EFL instructors. It may point to the possibility that factors other than mere teaching tenure—such as professional development opportunities, institutional culture, or personal motivation—play a more pivotal role in shaping both critical thinking tendencies and self-efficacy beliefs over time. This aspect merits further exploration in future studies.

Regarding gender, the study found a moderate positive correlation between academic self-efficacy and critical thinking tendencies for both male and female educators. This result underscores that, irrespective of gender, university EFL instructors who possess higher levels of academic self-efficacy are more likely to exhibit stronger critical thinking tendencies. It also suggests that interventions aiming to bolster self-efficacy could be universally beneficial across gender lines within the context of EFL higher education in Iran.

Teachers can enhance the academic performance of underachieving students by implementing knowledge monitoring training. Active participation of students in the classroom is crucial for fostering their critical thinking skills (Bedir, 2013). Therefore, the educational system requires educators who possess critical thinking abilities, metacognitive awareness, and self-efficacy. Additionally, instructional materials provided by teachers in language classes should be designed to enable students to critically analyze, synthesize, and interpret their learning experiences. According to Bedir (2013), the application of appropriate teaching strategies and curriculum

resources by teachers can significantly bolster students' critical thinking capabilities. Teacher training programs must be enhanced to foster an understanding of critical thinking among English as a Foreign Language (EFL) educators, as highlighted by Şeker and Kömür (2008). Consequently, there is a pressing requirement for additional training for teachers aspiring to integrate critical thinking strategies into their teaching methodologies and to elevate their students' critical thinking skills. Well-trained and self-sufficient educators are thus positioned to encourage and exemplify critical thinking behaviors within the educational framework, ultimately benefiting learners' skill development (Shangarffam & Maminpour, 2011).

The current research holds significant value for educators as it sheds light on their thought processes and perceptions regarding critical thinking within the classroom environment. It is essential for teachers to design lessons that foster critical thinking skills among students. Achieving this requires educators to create numerous opportunities for students to apply their knowledge, coupled with prompt and constructive feedback on their academic achievements. Recent studies indicate that when teachers closely monitor students who are struggling, it can enhance their self-assessment abilities and enable them to more accurately gauge their performance through repeated practice opportunities.

Overall, these findings contribute to the existing body of knowledge by highlighting that while academic self-efficacy has a measurable influence on critical thinking tendencies, the magnitude of this relationship may be moderated by factors beyond gender and teaching experience. Future research may benefit from a more nuanced investigation into additional variables, such as institutional support, pedagogical training, or personal epistemological beliefs, to more fully understand the dynamics at play.

## Conclusion

The present study sought to explore the relationship between academic self-efficacy and critical thinking tendencies among Iranian university EFL instructors, considering the moderating effects of gender and teaching experience. The findings revealed that while academic self-efficacy exerts a positive, though modest, influence on critical thinking tendencies, teaching experience does not significantly alter this relationship. Moreover, the moderate positive association found across both male and female instructors highlights the universal importance of self-efficacy in fostering critical thinking capabilities among educators.

These findings hold meaningful implications for both teacher education and institutional policy. Professional development programs aimed at enhancing EFL instructors' critical thinking abilities may benefit from simultaneously addressing and strengthening their academic self-efficacy beliefs. Workshops and training initiatives that empower teachers, reinforce their instructional competencies, and promote reflective pedagogical practices could contribute to fostering a more critical and inquiry-driven educational environment. Furthermore, since teaching experience alone was not found to significantly impact the relationship between self-efficacy and critical thinking, it is advisable that such initiatives target both novice and experienced educators alike, emphasizing lifelong professional growth.

This study has several limitations. Firstly, it is limited in scope, involving only 100 university EFL teachers who are instructing undergraduate students majoring in English from two branches in two provinces. As a result, the findings are confined to two branches and provinces, necessitating caution when generalizing the results. Secondly, there are limitations concerning the data collection instruments, as some of these tools are not available in our context. Additionally, the present study did not explore the impact of all significant variables on the critical thinking

tendencies of university EFL instructors. Furthermore, longitudinal research could be conducted to examine the influence of academic self-efficacy on these critical thinking tendencies. While the participants in this research were exclusively university EFL teachers instructing undergraduate students majoring in English, it would be beneficial to assess the generalizability of the findings by performing similar studies with diverse samples, including students from various disciplines, adults, and educators from different fields. Consequently, it is advisable to undertake new research involving individuals and groups across various societal levels.

Future research is encouraged to examine additional mediating and moderating variables, including but not limited to institutional support structures, classroom environment, or individual cognitive styles. Longitudinal studies could also provide valuable insights into how academic self-efficacy and critical thinking tendencies co-evolve over the course of a teacher's career. Finally, cross-cultural comparative studies would enrich the understanding of these constructs by contextualizing them within broader educational and sociocultural frameworks.

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