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# THE DEVELOPMENT AND VALIDATION OF AN ENGLISH LANGUAGE TEACHERS' COGNITIVE BIAS SCALE

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Decision-making is an important attribute that a teacher needs to possess to be effective; this is especially so for EFL teachers when faced with the complicated dynamics of classroom interaction. The best rational decisions get considerably vitiated because of cognitive biases, thereby, leading to less-than-optimal teaching performances. In the present study, authors develop and validate an English language teachers' cognitive bias scale, referred to as EFLT-CBS, which measures cognitive bias among EFL teachers. The study involved a sample of 252 EFL teachers, including 91 males and 160 females with diverse educational backgrounds and teaching experiences, recruited through convenience and snowball sampling. Items were developed based on Dwyer's (2018) classification of cognitive biases in an educational context. The Rasch rating scale model was employed to refine the scale, resulting in a validated 16-item EFLT-CBS with strong psychometric properties. Significant differences were found by gender, with males showing more cognitive bias than female teachers. Implications of the study for the treatment of cognitive bias among foreign language teachers are discussed.

Keywords: cognitive bias, decision making, EFL teachers, gender differences, Rasch model.

## 1. Introduction

Cognitive bias is a systematic error in thinking that affects the decisions and judgments people make. (Tversky & Kahneman, 1974; Kahneman et al., 1982). These biases result from the brain's attempt to simplify information processing, often relying on mental shortcuts, known as heuristics, to quickly make sense of the world. While these shortcuts can be helpful, they often lead to flawed or irrational conclusions. Cognitive biases can influence how we perceive information, interpret events, and make decisions, sometimes leading to errors in judgment that deviate from logical or objective reasoning. Examples of common cognitive biases include confirmation bias, where we favor information that aligns with our preexisting beliefs, and the Dunning-Kruger Effect, where people with low knowledge in an area overestimate their expertise (Haselton et al., 2005; Kahneman, 2011; Kahneman et al., 1982; Tversky & Kahneman, 1974).

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Teachers, at the heart of educational systems and in the constant process of decision-making, are not devoid of being affected by cognitive biases. In fact, during the teaching process, teachers make a huge number of decisions. Some researchers have estimated that during interactive teaching, teachers make 0.7 decisions per minute (Borko & Shavelson, 1990), so one of the key components of being an effective teacher is making the right decisions in the classroom. Cognitive biases of teachers can mislead them to make inappropriate and incorrect decisions in educational settings. If they are highly affected by their biases, a lot of failures and flaws will occur in the process of teaching and learning.

Cognitive biases can affect how teachers evaluate students. For instance, confirmation bias might lead a teacher to overlook a student's improvement if they have a preconceived notion that the student is a "poor performer." Awareness of this can help teachers give fair, objective assessments. Teachers may unconsciously apply stereotypes to students based on race, gender, socio-economic background, or other characteristics. This can impact how teachers interact with, challenge, and support different students. Being aware of biases can help teachers provide equal opportunities and high expectations for all students.

Cognitive biases can affect how teachers respond to student behavior. For instance, teachers may be more lenient toward students they perceive as "good" and stricter toward those they perceive as "troublemakers," even when the behaviors are similar. This inconsistency can affect classroom dynamics and students' sense of fairness. Teachers may unconsciously favor teaching methods that align with their own learning preferences or past experiences (anchoring bias). This could limit the diversity of approaches they use, potentially disadvantaging students with different learning styles. Understanding cognitive biases allows teachers to reflect on their own thinking patterns, improve decision-making, and continually develop more equitable and effective teaching practices.

Awareness of cognitive biases is crucial for teachers because these biases can influence how they perceive, evaluate, and interact with students. By recognizing and addressing their own biases, teachers can create a more inclusive, fair, and effective learning environment. This fosters better student outcomes and helps mitigate the negative effects that biases can have on both teaching and learning. *Biases* get in the way *of* clear and rational thinking but once *teachers* can spot them, they are easy to overcome and have better performance in their occupations. A review of the literature showed that there is no scale to measure the cognitive bias levels of EFL teachers. Therefore, this study aimed to develop and validate a scale to measure the degree of cognitive bias among EFL teachers. Using this scale helps EFL teachers to gain a better understanding of the probable levels of cognitive bias which affect their decision-making process in educational settings.

## 2. Theoretical Framework

Although there are many categories of cognitive biases presented by different scholars, a partly new categorization of cognitive biases by Dwyer (2018) with 12 dimensions that influence the way people make regular decisions is the framework of this study. This definition has been selected from a variety of definitions since it has more proximity to educational issues. What follows includes the 12 dimensions of cognitive bias based on Dwyer (2018).

Dwyer (2018) discusses the Dunning-Kruger Effect and other cognitive biases that influence everyday decision-making. The Dunning-Kruger Effect refers to the tendency of people with low knowledge of a subject to overestimate their competence, while experts may

underestimate their knowledge due to intellectual humility. Dwyer (2018) notes the frequent mention of this bias in social media and links it to the quick processing of information in the digital age. This inspired Dwyer (2018) to create a list of 12 common cognitive biases, including:

1. Dunning-Kruger Effect– Overestimating one's knowledge when underinformed.
2. Confirmation Bias – Favoring information that supports pre-existing beliefs.
3. Self-Serving Bias – Attributing successes to oneself but blaming external factors for failures.
4. Curse of Knowledge/Hindsight Bias – Forgetting what it's like not to know something and assuming it was always obvious.
5. Optimism/Pessimism Bias – Overestimating positive or negative outcomes based on mood.
6. Sunk Cost Fallacy – Clinging to lost investments rather than cutting losses.
7. Negativity Bias – Focusing more on potential negative outcomes than positive ones.
8. Decline Bias – Favoring the past and resisting change.
9. Backfire Effect – Strengthening a belief even after it's been challenged.
10. Fundamental Attribution Error – Attributing others' actions to their character while excusing one's own behavior based on circumstances.
11. In-Group Bias – Favoring people from one's own group.
12. Forer (Barnum) Effect – Accepting vague, general information as personally meaningful.

These biases can distort thinking and decision-making, and the author encourages reflective judgment and critical thinking to avoid them.

## 3. Methodology

### *3.1 Participants and Setting*

Participants of this study comprised two groups of EFL teachers. In the first phase of the study, five experienced EFL teachers commented on the designed items for their face and content validity. In the second phase, 252 EFL teachers (91 males and 160 females) completed the designed EFL teachers' cognitive bias scale. The sampling method was based on a mixture of convenience and snowball sampling. First, the researchers shared the questionnaire on social media such as Telegram groups, then they requested others who could find more EFL teachers to send the questionnaire to be completed.

### *3.2 Scale Development*

Drawing on the framework presented by Dewyer (2018), the 12 dimensions of cognitive bias that affect individuals' (teachers') decision-making were considered as the basis for the development of the EFL Teacher's Cognitive Bias Scale (EFLT-CBS). Twenty-five items were initially constructed for the scale. All the designed items were confirmed by five experts to ensure face and content validity. The procedures for designing and confirming each item using the theoretical and operational definitions are presented below.

***Dunning-Kruger Effect:*** This is when people believe that they are smarter and more capable than they are, i.e. when they cannot recognize their incompetence. In this sense, the more the individual knows, the less confident he is likely to be – not out of lacking knowledge,

but due to caution. (Dunning & Kruger, 1999; Dwyer, 2018). Analyzing this definition in relation to the educational domain, the following items were extracted:

*-As an EFL teacher, when a student asks a question that I do not know, I prefer to answer even if it is not correct.*
*-When I do not know the answer to my students' questions, I postpone the answer to the next session to search about.*
*- When I teach an English subject matter, I think I know everything about it.*
*- If a student points to my mistake (like mispronunciation), I get angry and pretend that I am right.*
*- I am always aware of the weaknesses in my knowledge.*

***Confirmation Bias:*** Confirmation bias is a willingness to identify, perceive, support, and recall information in a manner that supports one's previous beliefs or hypotheses; it is a systematic error of inductive reasoning (Dwyer, 2018). The following items were developed based on the above definition:

*-As an EFL teacher, I accept my students' and my colleagues' ideas if I find a logic behind them even if they contradict mine.*
*-As an EFL teacher, I involved my personal feelings and beliefs in analyzing a situation in my class.*

***Self-serving Bias***: In ambiguous situations, to maintain higher self-esteem and perspective, people make attributions based on their own needs, this trend has become what people know as the self-serving tendency (Dwyer, 2018; Heider,1958). Considering the definition in the educational context of ELT, the following items were developed for EFLT-CBS:

*- I attribute all my success in teaching to my own attempt.*
*-I attribute any failure in my classes to my attempt.*
*- As an English teacher, I always blame myself for my failures.*
*- I attribute my failure to the conditions, environment, and other people around*

***The Curse of Knowledge and Hindsight Bias:*** The curse of knowledge occurs when an individual, communicating with other individuals, unknowingly assumes that others have the background to understand him/her. This means that people who are more knowledgeable than others in some domains will generally struggle or fail to act in a way that properly takes this difference in knowledge into account (Dwyer, 2018). Accordingly, the following item was made:

*- I consider my students' background knowledge before starting to teach an English subject matter.*

***Optimism/Pessimism Bias:*** Optimism bias makes individuals think they are less likely to experience a negative event. It is also known as premature optimism. Pessimism bias is a phenomenon in which people exaggerate the probability that they will encounter negative things (Dwyer, 2018). The items developed from this definition are as follows:

*- As an EFL teacher, I believe that I may never experience a bad event in my classes; bad*

*events occur for others.*
*- As a teacher, I act differently from my colleagues in an unexpected situation in the class.*
*- As a teacher, I exaggerate the negative events that occur in my class.*

***The Sunk Cost Fallacy:*** Individuals make the sunk cost error if they continue an action or attempt because of capital previously invested (Dwyer,2018; Arkes & Hutzel, 2000). The item constructed from this definition is as follows:

*- As an EFL teacher, if my reaction does not work in a situation, I continue the same behavior until I reach my expectations.*

***Negativity Bias:*** It is defined as individuals' tendency to be impacted more by negative events than by positive ones. This negativity bias can influence how individuals feel, think, and act, and can have some undesirable effects on their psychological state (Dwyer, 2018).

This concept led to the construction of the following two items in the context of EFL education.

*-As an English teacher, I am influenced by any misbehavior in my class.*
*- As an English teacher, negative events in my class affect my evaluation and decision making.*

***The Decline Bias:*** Since humans are cognitively lazy, they try their best to avoid changing their thought processes (Dwyer, 2018; Kahneman, 2011; Simon,1957). This theoretical definition was operationalized through the following two items:

*- Even if I feel students' dissatisfaction in my class, I resist change in my teaching style*
*- I easily change the inappropriate teaching style if students ask for a change.*

**The Backfire Effect:** The backfire effect refers to the situation where people, given evidence against their beliefs, reject the evidence and believe even more strongly in what they believe in. The phrase was first coined by (Dwyer, 2018; Nyhan & Reifler, 2012). The operational form of this definition led to the following items:

*- I acknowledge facts /events in my class which contradict my beliefs.*
*- As an English teacher I reject any idea that is contrary to mine.*

***The Fundamental Attribution Error:*** The fundamental error of attribution forms the conceptual basis for social psychology (Ross, 1977; Ross & Nisbett, 1991). People have a cognitive bias in concluding that the actions of individuals depend on what kind of person they are and not on the social and environmental factors that affect them (Dwyer, 2018). Considering the definition and the relation to educational domains, the following items were suggested for the questionnaire:

*-As an English teacher, I think my teaching style is closely related to my personality.*
*-I attribute my success and failure in teaching to my personality.*

***In-Group Bias:*** It is a trend that favors in-group members over out-group members. This can be reflected in others ' evaluation, resource allocation, and in many other ways. Human beings are creatures that, due to their nature, join in groups (Dwyer, 2018; Sumner, 1906). The following item was extracted from this definition:

- *When a student of mine with a student of another colleague come to me simultaneously to help them, I prefer to answer my own student.*

Since Forer Effect overlaps with several other biases dealt with herein, such as confirmation bias, self-serving bias, and the fundamental attribution error, no item was developed for this bias. The initial questionnaire contained 25 items.

## 4. Analysis and Results

Validity evidence for the cognitive bias scale was provided using the Rasch model (Rasch, 1960/1980). Rasch rating scale model (RSM) (Andrich, 1978) was fitted to the EFL teachers' Cognitive Bias Scale using the WINSTEPS Rasch measurement program (Linacre, 2017a). The fit of data to the Rasch model is evidence that the covariations among the items are caused by a latent trait and there is a causal relationship between the variations in the construct and the test scores (Baghaei & Shoahosseini, 2019; Baghaei & Tabatabaei, 2016; Borsboom et al., 2004). Many studies in the field of applied linguistics have used the family of Rasch model to provide validity evidence for scales (Afsharrad, 2023; Askari & Tabatabaee-Yazdi, 2023; Effatpanah & Baghaei, 2024). The EFLT-CBS analyzed in this study included 25 items on a 5-point ordered response rating scale (1 = "strongly disagree, " 2 = "disagree," 3 = "neutral," 4 = "agree," and 5 = "strongly agree").

### *Rating scale diagnostics*

The quality of the 5-point rating scale was evaluated using threshold values. Thresholds are the points on the rating scale where the probability of marking either of the two adjacent categories is equal. Threshold estimates show how difficult it is to observe each category. The order of the thresholds for items is examined in evaluating rating scales. Generally, advancement of threshold estimates with increasing category values and ordered thresholds is expected, because disordered thresholds point out that the category is poorly defined for respondents, and maybe participants were not able to distinguish between the categories (Linacre, 1999). The rating scale diagnostics revealed that the threshold parameters were disordered with the initial scoring of 12345, so the categories are not clearly distinguishable for the respondents. Threshold estimates of EFLT-CBS indicated categories 3 and 4 (thresholds 2 and 3) were disordered; their values of Andrich threshold were -1.74, .31, -.25, and 1.69, respectively. Therefore, the categories were collapsed, and two new scoring systems were tried. We collapsed the scores as 12234 and 12334. In the first scoring (12234) the thresholds become ordered but the distances between them were small (-2.41, .64, 1.77). The thresholds in the second scoring system were ordered too and the distances between them were more appropriate according to the guidelines provided by Linacre (1999) that thresholds should advance by at least 1.40. Hence, the second scoring system led to a better functioning rating scale with threshold values of -2.04, -.38, and 2.42, and all the subsequent analyses were based on the 12334 scoring. This finding reveals that the middle category of 'neutral' is not very clear and the scale functions better when it is combined with the 'agree' category.

### *Item fit*

Table 1 shows the statistics for the 25 items of the EFLT-CBS based on 12334 scoring. “Measure” indicates the items' difficulty. The higher the values of “Measure” the harder the item is to agree with; “SE” is the standard error associated with each item estimate. The smaller the SEs, the more accurate the estimation of item difficulties. Based on item analysis, item difficulty ranged from -2.04 to 1.37 logits. Item 3 in the scale is the easiest item and item 18 is the most difficult to endorse. The content of the easiest and the most difficult items are as below:

*3. If a student points to my mistake (like mispronunciation), I get angry and pretend that I am right.*
*18. As an English teacher, I think my teaching style is closely related to my personality.*

The easiness of item 3 indicates that the behavior included in this item is very prevalent among teachers, but item 18 is rarely endorsed.

Table 1
Item Measure and Fit Statistics for the EFL Teacher’s Cognitive Bias Scale

| Item | Measure | SE | Infit MNSQ | Outfit MNSQ |
|---|---|---|---|---|
| **3** | 1.37 | .10 | 1.01 | .98 |
| **5** | 1.32 | .10 | .83 | .83 |
| **9** | 1.27 | .10 | 1.02 | 1.06 |
| **25** | 1.11 | .10 | .97 | 1.00 |
| **10** | 1.04 | .10 | 1.01 | 1.00 |
| **21** | .98 | .09 | .80 | .83 |
| **1** | .85 | .09 | 1.36 | 1.33 |
| **13** | .62 | .09 | .68 | .69 |
| **20** | .46 | .09 | 1.08 | 1.09 |
| **12** | .42 | .09 | .79 | .80 |
| **4** | .41 | .09 | 1.17 | 1.20 |
| **23** | .19 | .09 | 1.00 | 1.02 |
| **16** | .09 | .09 | 1.51 | 1.51 |
| **22** | -.02 | .09 | .84 | .84 |
| **17** | -.17 | .09 | .94 | .96 |
| **15** | -.28 | .09 | .94 | .95 |
| **14** | -.44 | .09 | .83 | .83 |
| **8** | -.52 | .10 | 1.01 | 1.03 |
| **2** | -.79 | .10 | 1.20 | 1.20 |
| **24** | -.80 | .10 | 1.16 | 1.16 |
| **6** | -.97 | .10 | 1.11 | 1.11 |
| **19** | -1.17 | .10 | .74 | .72 |
| **11** | -1.43 | .10 | .70 | .70 |
| **7** | -1.50 | .10 | 1.03 | 1.01 |
| **18** | -2.04 | .11 | 1.00 | 1.00 |

Person estimates ranged from -2.16 to 1.23, higher values indicating more cognitively biased persons. Infit and outfit mean-square values are two values which are important to show how well the items represent the construct intended to be measured. Misfitting items can be a threat to validity. The acceptable range for infit and outfit mean squares is .60 to 1.40 (Wright & Linacre, 1994), but the ideal value for infit and outfit mean-square statistics is one (Bond et

al., 2021). Misfitting items do not belong to the construct being measured by other items and should be deleted. In fact, they introduce construct-irrelevant variance to the data (Baghaei, 2008). Table 1 indicates that Item 16 has an infit and outfit values above the acceptable range. Therefore, Item 16 does not fit the Rasch model, and it is suggested to be omitted from the scale. None of the infit and outfit values is below 0.60.

*Dimensionality*

Principal components analysis of standardized residuals (PCASR) was run to examine the unidimensionality of the scale. PCA of standardized residuals for these data showed that the eigenvalue of the first contrast was 2.8 which is above the maximum value of 2, indicating that the scale is not unidimensional (Linacre, 2017b). A closer look at the items loading on the first contrast showed that the reversed scored items all loaded on this contrast. We deleted the reverse-scored items and ran the PCA of residuals again; the eigenvalue of the first contrast for the 16 remaining items was 2, indicating unidimensionality. We concluded that there are no real problematic items and the reason for multidimensionality is an artifact of the scale wording. When the reverses scored items were deleted from the scale (4, 5, 8, 9, 17, 23, 24, 25), Cronbach's alpha improved from .72 to .77 although the scale become a lot shorter

*Targeting*

Figure 1 is a Wright map of the distribution of persons and the 16 item thresholds on the cognitive bias variable. It shows the relative difficulty of the item estimates (on the right) and the distribution of the persons (on the left). Items on top of the scale are hard to agree with and those at the bottom are easier to agree with. Persons at the top are those with higher cognitive bias levels and those at the bottom with lower cognitive bias levels. The map shows that the bulk of persons and items are opposite each other. That is, the item difficulties properly match person locations, indicating that the test targets the sample very well. The higher categories of the rating scale a cover a wide range of the variable.

*External validation*

In order to provide further validity evidence for the scale, the relationship between EFL teachers' cognitive bias and their gender was also examined. An independent samples t-test was run to compare the mean scores of males and females on the EFLT-CBS scores. The t-test showed that male teachers had significantly higher cognitive bias scores (M=64.33, SD=8.27) than female teachers (M=62.10, SD=8.19), $t$ (250) =2.07, $p$=.03, eta squared=.01. The effect size eta squared was .01, therefore the magnitude of the differences in the means was small.

## 5. Discussion

In this study, a scale was developed and validated to measure cognitive bias among EFL teachers. Twenty-five items were constructed based on the categorization presented by Dwyer (2018). The Rasch analysis provided validity evidence for the EFLT-CBS. The restructuring of the rating scale, from a 5-point to a 4-point scale, improved the scale's functioning as revealed by threshold estimates. This suggests that collapsing certain categories clarified the distinction between levels of cognitive bias among respondents. The disordered thresholds in the initial rating system indicated that respondents struggled to differentiate between some of

the middle categories (neutral and agree), underscoring the challenge of measuring subtle variations in cognitive biases.

The Wright Map demonstrated that most item thresholds and respondents were appropriately matched, indicating that the scale was well-targeted to the sample. However, the detection of misfitting items, specifically Item 16, indicates that some items may not align perfectly with the overall construct. This highlights the need for continual refinement of the scale to ensure that all items consistently measure cognitive bias.

Moreover, the initial principal component analysis (PCA) revealed some multidimensionality, which was attributed to the reverse-scored items. This suggests that reverse-scoring may have introduced an unintended methodological artifact dimension, potentially confusing respondents. After removing these items, the scale showed improved dimensionality, reaffirming that cognitive biases, as conceptualized in this study, constitute a unidimensional construct when reverse scoring is controlled for. The removal of reverse-scored items also boosted the scale's reliability, which further reinforces the importance of item clarity and consistency in scale development.

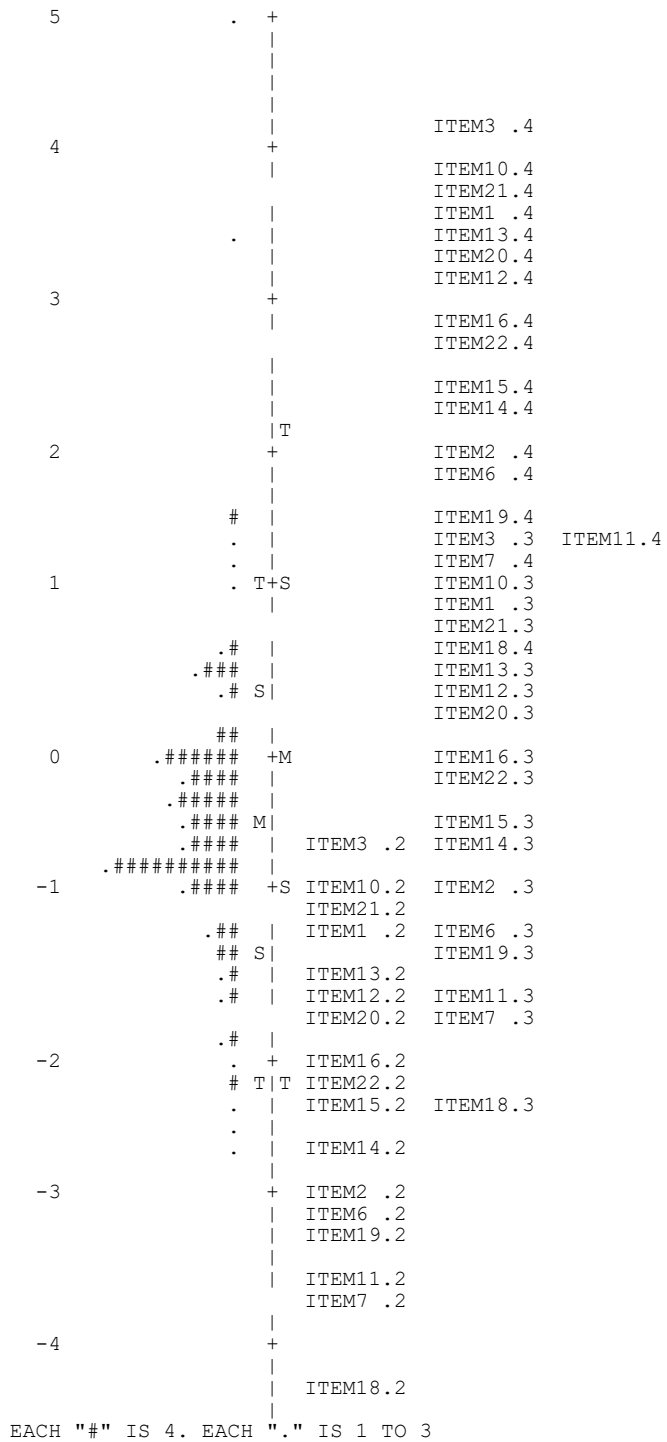
The finding that male teachers exhibited higher cognitive bias scores than female teachers was interpreted as further evidence for the validity of the scale as males are generally more prone to overestimate their abilities (Berthet, 2021; Hodges et al., 2022). However, this needs to be further investigated. While the effect size was small (eta squared= .01), this gender difference might be explained by underlying cultural, experiential, or psychological factors that influence how biases manifest in teaching contexts. It is possible that differences in teaching styles, professional development, or levels of self-reflection between male and female teachers may play a role, but further research is needed to substantiate these interpretations.

The findings from this study offer practical implications for EFL teachers and educational administrators. Cognitive biases, such as confirmation bias, the Dunning-Kruger effect, and self-serving bias, can significantly influence classroom dynamics and teaching effectiveness. Teachers who are unaware of their biases may make flawed decisions that affect student learning outcomes, such as overestimating their expertise or dismissing students' valid criticisms. Therefore, it is crucial to promote awareness of cognitive biases among teachers, as this awareness may lead to better decision-making and enhanced teaching practices.

Professional development programs for teachers should incorporate training on cognitive biases, helping educators identify and mitigate these biases in their day-to-day decision-making. By recognizing these tendencies, teachers can take steps to ensure more objective, student-centered approaches to teaching. Additionally, the scale can serve as a diagnostic tool to assess teachers' susceptibility to biases and offer tailored interventions to help them minimize these biases.

Although the EFLT-CBS offers a useful tool for measuring cognitive biases in EFL teachers, there are some limitations to this study. The reliance on self-report data means that social desirability bias may have influenced some respondents to underreport their cognitive biases. Moreover, the sample was drawn using convenience and snowball sampling methods, which may limit the generalizability of the findings to the broader population of EFL teachers. Future research should aim to replicate these findings in more diverse and representative samples to confirm the validity of the scale.

Figure 1
Wright Map of Distribution of Persons and Items (and their Thresholds)




The PCA of Rasch residuals indicated multidimensionality due to reverse-scored items. While deleting these items improved unidimensionality, the scale's length was substantially reduced, which could affect its comprehensiveness, representativeness, and validity. Exploring alternative approaches to address wording effects without omitting items might provide a more

balanced solution. A new study with the reverse-scored items worded negatively is required to examine the fit of these items and their contribution to model fit.

Longitudinal studies could also assess whether cognitive bias levels among teachers fluctuate over time and how they relate to teaching experience or professional development. Finally, future iterations of the scale may benefit from the inclusion of more nuanced other biases. A cross-cultural comparison of cognitive biases in teaching would also be a valuable addition to the literature.

## *Conclusion*

This study developed and validated a scale to measure the cognitive biases of EFL teachers, providing valuable insights into how biases influence decision-making in educational settings. The results highlight the importance of addressing cognitive biases to improve teaching practices and educational outcomes. While the EFLT-CBS offers a promising tool for assessing cognitive biases, further refinement and research are necessary to fully understand the role of these biases in teaching. By continuing to investigate this area, educators can gain a deeper understanding of how cognitive biases shape their professional judgments and work towards minimizing their impact on the learning process.

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**Conflict of Interest**

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**Data Availability Statements**

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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# APPENDIX A

## Initially designed EFL Teachers' Cognitive Bias Questionnaire

| | | **Strongly Agree** | **Agree** | **Neutral** | **Disagree** | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| 1 | As an EFL teacher, when a student says something that I do not know, I prefer to answer even if it is not correct. | | | | | |
| 2 | When I teach an English subject matter, I think I know everything about it. | | | | | |
| 3 | If a student points to my mistake (like mispronunciation), I get angry and pretend that I am right. | | | | | |
| 4 | I am always aware of the weaknesses of my knowledge. | | | | | |
| 5 | As an EFL teacher, I accept my students' and my colleagues' ideas if I find the logic behind them even if they contradict mine. | | | | | |
| 6 | As an EFL teacher, I involved my personal feelings and beliefs in analyzing a situation in my class. | | | | | |
| 7 | I attribute all my success in teaching to my own attempt. | | | | | |
| 8 | I attribute any failure in my classes to my attempts. | | | | | |
| 9 | I consider my students' background knowledge before starting to teach an English subject matter. | | | | | |
| 10 | As an EFL teacher, I believe that I may never experience a bad event in my classes; bad events occur for others. | | | | | |
| 11 | As a teacher, I act differently from my colleagues in an unexpected situation in the class. | | | | | |
| 12 | As a teacher, I exaggerate the negative events that occur in my class. | | | | | |
| 13 | As an EFL teacher, if my reaction does not work in a situation, I continue the same behavior until I reach my expectations. | | | | | |
| 14 | As an English teacher, I am influenced by any misbehavior in my class. | | | | | |
| 15 | As an English teacher, negative events in my class affect my evaluation and decision making. | | | | | |
| 16 | Even if I feel students' dissatisfaction in my class, I resist change in my teaching style. | | | | | |
| 17 | I acknowledge facts /events in my class which contradict my beliefs. | | | | | |
| 18 | As an English teacher, I think my teaching style is closely related to my personality. | | | | | |

| | | |
|---|---|---|
| 19 | I attribute my success and failure in teaching to my personality. | |
| 20 | when a student of mine with a student of another colleague come to me simultaneously to help them, I prefer to answer my own student more. | |
| 21 | As an English teacher, I reject any idea that is contrary to mine. | |
| 22 | I attribute my failure to the conditions, environment, and other people around. | |
| 23 | I easily change the inappropriate teaching style if students ask for a change. | |
| 24 | As an English teacher, I always blame myself for my failures. | |
| 25 | When I do not know the answer to my students' questions, I postpone the answer to the next session to search for it. | |

# Appendix B

## The EFL Teachers' Cognitive Bias Questionnaire

Madam/Sir

You are requested to read the statement and answer truly about each statement in the following. Please tick against the selected answer. Further, I assure you that the response recorded by you will be kept and in no case will be used for any other purpose than research.

| | |
|---|---|
| **Gender** | Female |
| | Male |
| **Age** | 20-29 |
| | 30-39 |
| | 40-49 |
| | 50 and above |
| **Degree** | Diploma |
| | BA |
| | MA |
| | PHD |
| **Major** | TEFL |
| | Non-TEFL |
| **Years of Experience** | Less than 3 years |
| | Between 3 and 10 years |
| | Between 11 and 20 years |
| | More than 20 years |
| **Workplace** | School |
| | Institute |
| | University |
| **Nationality** | Iranian |
| | Other countries |

# EFL Teachers' Cognitive Bias Scale

Please choose an appropriate response based on your routine behavior in your class.

| | | **strongly agree** | **agree** | **disagree** | **Strongly disagree** |
|---|---|---|---|---|---|
| 1 | As an EFL teacher, when a student says something that I do not know, I prefer to answer even if it is not correct. | | | | |
| 2 | When I teach an English subject matter, I think I know everything about it. | | | | |
| 3 | If a student points to my mistake (like mispronunciation), I get angry and pretend that I am right. | | | | |
| 4 | As an EFL teacher, I involved my personal feelings and beliefs in analyzing a situation in my class. | | | | |
| 5 | I attribute all my success in teaching to my own attempt. | | | | |
| 6 | As an EFL teacher, I believe that I may never experience a bad event in my classes; bad events occur for others. | | | | |
| 7 | As a teacher, I act differently from my colleagues in an unexpected situation in the class. | | | | |
| 8 | As a teacher, I exaggerate the negative events that occur in my class. | | | | |
| 9 | As an EFL teacher, if my reaction does not work in a situation, I continue the same behavior until I reach my expectations. | | | | |
| 10 | As an English teacher, I am influenced by any misbehavior in my class. | | | | |
| 11 | As an English teacher, negative events in my class affect my evaluation and decision making. | | | | |
| 12 | As an English teacher, I think my teaching style is closely related to my personality. | | | | |
| 13 | I attribute my success and failure in teaching to my personality. | | | | |
| 14 | when a student of mine with a student of another colleague come to me simultaneously to help them, I prefer to answer my own student more. | | | | |
| 15 | As an English teacher, I reject any idea that is contrary to mine. | | | | |
| 16 | I attribute my failure to the conditions, environment, and other people around. | | | | |