

Developing and Validating a Resistance to Learning English Inventory for Iranian Non-English Major Ph.D. Candidates: An Ecological Perspective

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Abstract

Resistance to learning English among non-English major Ph.D. candidates represents a crucial challenge in higher education, particularly in non-native English contexts. This study aimed to develop an ecological model explaining the causes and remedies of Iranian Ph.D. candidates' resistance to learning English through a sequential exploratory mixed methods design. In the qualitative phase, semi-structured interviews were conducted with 20 key informants (10 English as a Foreign Language (EFL) instructors and 10 non-English major Ph.D. candidates) to identify the psychological and socioeconomic components influencing learning resistance. Thematic analysis was applied to extract the main constructs shaping a preliminary conceptual model. Based on these findings, a Resistance to Learning English (RTLE) inventory was developed and administered to 200 randomly selected Ph.D. candidates from different universities to ensure its validity through Exploratory Factor Analysis (EFA). The results of data analysis estimated the model's construct validity and revealed three major resistance determinants (i.e., demotivation, lack of research mindset, and negative prior experiences) alongside three motivating solutions (i.e., realization of learning needs, future job notions, and personal growth factors). The findings can inform EFL instructors, policymakers, and curriculum designers in addressing resistance to English learning among advanced academic learners.

I. Introduction

English has long been recognized as the dominant international language in academia, technology, and global communication. As a result, learning English has become a mandatory component of educational programs in many non-English-speaking countries. Globalization and internationalization have further reinforced this trend, positioning English as a lingua franca that facilitates academic mobility and cross-border collaboration (Huang, 2018; Jenkins, 2013). However, despite the recognized value of English proficiency, many students demonstrate limited motivation and engagement, leading to increased dropout rates and underachievement in English courses (Burgess, 2020; Tolman & Kremling, 2023). This disengagement manifests as resistance to learning English, a phenomenon increasingly documented across diverse educational contexts (Dovchin & Wang, 2024; Peng et al., 2023; Steils, 2013).

Resistance to learning is a complex, multifaceted construct encompassing psychological, social, and contextual factors (Hollander & Einwohner, 2004). Within language education, it may emerge from instructional practices, learners' socioeconomic status, and individual personality traits that influence motivation and academic performance (Farah, 2009; Freeman, 2012; Khairallah et al., 2020). In the Iranian higher education context, resistance is especially visible among non-English major Ph.D. candidates who must pass national English proficiency tests (e.g., MSRT, TOLIMO, EPT) to complete their programs. Despite the crucial role of English in academic and professional success, many of these candidates postpone language study, reflecting a persistent reluctance to engage in English learning. Accordingly, this study aims to develop and validate a comprehensive scale to identify psychological, socioeconomic, and contextual factors contributing to this phenomenon. The research specifically addresses the factors which cause Iranian non-English major Ph.D. candidates' resistance to learning English, and how can they be measured through a validated scale.

The present study draws upon three complementary theoretical perspectives—reasoned action and planned behavior, social cognitive theory, and personality trait theory—to explain resistance to learning English among Iranian Ph.D. candidates. Rooted in Ajzen's (2020) and Yzer's (2017) propositions, the theory of reasoned action emphasizes that personal beliefs and attitudes strongly predict human behavior. Learners' perceptions of English learning and assessment, shaped by cultural, educational, and contextual influences, can therefore determine their motivation or resistance toward language study. Bandura's (1986, 1997, 2005) social cognitive theory complements this view by highlighting self-efficacy as a key regulator of learners' behaviors, motivation, and persistence. From this perspective,

individuals' socioeconomic status and educational experiences shape their self-efficacy and, consequently, their willingness to engage with English learning. Finally, Allport's (1937) personality trait theory and subsequent models (McCrae & Costa, 1995) provide insight into how stable individual characteristics—such as conscientiousness, openness, and neuroticism—affect learners' engagement and anxiety in L2 contexts. Collectively, these frameworks offer an integrated lens for examining the psychological and socioeconomic underpinnings of resistance to English learning and for guiding the development and validation of an ecological model addressing this phenomenon.

Despite growing theoretical and empirical interest, limited research has systematically examined resistance to learning English among advanced learners such as Ph.D. candidates, especially in contexts where English proficiency is both a gatekeeping mechanism and a prerequisite for academic participation. Furthermore, existing studies have rarely employed validated instruments to measure this construct comprehensively across psychological and socioeconomic dimensions. Accordingly, there is a pressing need to develop and validate a psychometrically sound scale that captures the multifaceted nature of resistance to learning English among Iranian non-English major Ph.D. candidates. The present study addresses this gap by constructing and validating the *Resistance to Learning English Inventory*, thereby contributing to a more nuanced understanding of learner resistance in higher education EFL contexts.

II. Literature Review

The expansion of English as a global lingua franca has intensified the role of English learning in academic, professional, and social mobility, particularly in higher education contexts. While extensive research has examined motivation, engagement, and learner psychology, resistance to English learning has emerged as a critical yet understudied dimension influencing learner outcomes. Resistance is understood as a multifaceted construct shaped by cognitive, emotional, sociocultural, and institutional forces that inhibit learners' willingness to participate in classroom activities or invest in language development (Dörnyei & Ushioda, 2021).

Recent scholarship highlights how negative emotions, identity tensions, perceived irrelevance, and misalignment between pedagogical practices and learner expectations contribute to disengagement, avoidance behaviors, and diminished persistence (Huang, 2018; Wang & Pan, 2022). Emerging studies emphasize that resistance is not merely an individual trait but is embedded within classroom ecology, teacher–student interactions, and broader ideological structures surrounding English (Mercer & Ryan, 2016). These dynamics are particularly salient in EFL and English for Academic purposes (EAP) settings where students often experience high academic pressure, limited authentic exposure, and competing attitudes toward English as both a gateway and a barrier to academic success. Within EFL settings, previous studies have identified demotivation, lack of perceived relevance, test anxiety, and negative prior learning experiences as major determinants of resistance (Falout et al., 2009; Safdari & Maftoon, 2017). Similarly, Hollander and Einwohner (2004) conceptualized resistance as a socially constructed response to institutional or pedagogical demands, highlighting the interaction between learners' agency, beliefs, and contextual constraints.

In recent years, researchers have explored resistance through multiple lenses. From a psychological perspective, personality traits such as conscientiousness and neuroticism have been shown to influence persistence, effort, and anxiety in language learning (Furnham et al., 2009; Mammadov, 2022). Social cognitive frameworks, in turn, emphasize self-efficacy and socioeconomic background as powerful determinants of learner motivation and engagement (Bandura, 1997; Kormos & Kiddle, 2013). Moreover, sociocultural and institutional conditions—such as limited academic support, culturally mismatched pedagogies, and high-stakes testing—can reinforce learners' negative attitudes toward English study, particularly in non-English-speaking higher education systems (Canagarajah, 1999; Montes Garcés, 2022).

Research in Iranian higher education, for example, demonstrates that linguistic anxiety, institutional constraints, and culturally shaped beliefs about authority can reinforce defensive learning orientations, thereby reducing learners' openness to feedback and instructional support. Despite its significance, resistance remains insufficiently theorized and inadequately measured, leading to conceptual ambiguity and limited empirical insight. Existing instruments often fail to capture the multidimensional, context-sensitive nature of resistance or overlook the emotional and identity-based components that shape learners' responses to English learning demands (Afthanorhan et al., 2019).

Recent advancements underscore the need for robust, contextually grounded tools capable of assessing resistance with conceptual and psychometric precision. Attention has increasingly shifted toward more nuanced frameworks that integrate emotional resilience, learner agency, and sociocultural influences on engagement (Lee & Chen, 2024; Rahimi & Tavakoli, 2025). This research trajectory aligns with broader movements in applied linguistics emphasizing learner well-being, autonomy, and adaptive motivational processes in academic environments. Developing validated instruments that reflect these multidimensional dynamics is essential for enhancing pedagogical responsiveness and generating deeper insights into learners' resistance profiles. Such efforts support evidence-based curriculum design, teacher professional development, and future empirical investigations into how resistance interacts with motivation, affective variables, and academic achievement.

III. Method

3.1 Participants

To develop the interview items and construct the RTLE Inventory, 20 key informants comprising 10 non-English major Ph.D. candidates and 10 EFL instructors (i.e., university professors) from various universities in Iran (e.g., Allameh Tabataba'i, Alzahra, Amir Kabir, Isfahan, Islamic Azad, Kharazmi, Shiraz, and Tarbiat Modares universities as well as University of Tehran) were selected through convenience sampling. Then, 50 PhD students were randomly selected to write a three-part essay about the causes and solutions of resistance to learning English among Iranian Ph.D. students. Their insights generated the initial model of resistance and guided inventory construction. Additionally, five TEFL experts specializing in English for Academic Purposes (EAP) and proficiency exam preparation evaluated the inventory items via Expert Judgment Validity (EJV) using a Q-Matrix framework. In the piloting phase, 200 Ph.D. candidates from diverse universities were invited to complete the inventory; 180 valid responses were received. This phase ensured the reliability of the components and construct validity factors of the instrument.

3.2 Instrumentation

A semi-structured in-depth interview along with three-part essays written by 50 of the randomly selected PhD candidates taking part in the study were used to collect the qualitative data to develop a conceptual pattern and then construct the RTLE inventory. To explore the causes and solutions of resistance to learning English among Iranian Ph.D. students, semi-structured interviews were conducted following Creswell and Hirose's (2019) framework. An interview guide was developed by the researchers based on an extensive review of the literature and preliminary consultations with five EFL instructors teaching English to Ph.D. candidates. The use of an interview guide was considered essential to ensure focus and coherence while allowing flexibility to address emergent issues during data collection (Cheron et al., 2022). The interview guide consisted of two sections: demographic information and open-ended questions addressing resistance to learning English, its sources, coping experiences, and proposed strategies for minimizing resistance. The full interview protocol is provided in Appendix A.

The content validity and trustworthiness presented by credibility of the interview guide was established through expert judgment, as the items were reviewed by five EFL instructors to ensure appropriateness of content and

language (Creswell & Clark, 2017). The guide, initially comprising seven questions, was piloted with the same group of instructors, leading to the omission of two items and the addition of one new item, resulting in a final six-item guide. The finalized interview guide was administered to 10 Ph.D. candidates and 10 EFL instructors from universities in Tehran, Isfahan, and Shiraz. All interviews were audio-recorded, transcribed verbatim, and systematically coded and analyzed. Interviews, conducted in participants' preferred language (L1 or L2) to facilitate accurate and uninhibited expression of their views.

To ensure the dependability (i.e. reliability) of the interview, the interviewer relied on the measures of minimizing biases and limits that were likely to impact on her decision-making (as suggested by Dornyei, 2007). In this respect, the interview welcomed all the answers and views presented, did not push the interviewees toward her own beliefs and intentions, and instead provided them with the sense of speech freedom (Creswell & Plano Clark, 2017).

Fifty of the PhD students, who were different from those who helped in the piloting phase of the inventory, were randomly selected from among the Ph.D. students of different universities located in Tehran were asked to write an essay on their learning experiences concerning resistance to learning English. The first section of the essay dealt with the existence of learning resistance and its sources answering the question of "Have you ever consciously resisted learning English? Why? Use specific details to support your answer. The second section examined whether or not they had been able to overcome their resistance, and their experiences in coping with resistance to learn English answering the question of "Do you like learning English now? How have or haven't you recovered your interest in learning English?" The third section explored the Ph.D. students' perceptions on how best to minimize resistance to learning English through answering the question saying "In your opinion, what are some possible solutions to minimize resistance to learning English?". The data collected were analysed through thematic analysis and the results were used to develop the close-ended inventory named Resistance to Learning English.

3.3 Design, Data Collection, and Data Analysis

To develop and validate the RTLE inventory (which appears in Appendix B), the researchers employed a sequential exploratory mixed-methods approach that integrated both qualitative and quantitative phases. Given the absence of an existing scale measuring resistance to learning English, the instrument was specifically designed, developed, and validated within the Iranian higher education context. The process began with an extensive review of the related literature to identify relevant constructs and assess whether any comparable instruments existed. This phase employed both deductive and inductive approaches to item generation. The deductive approach involved formulating potential items based on theoretical propositions and prior empirical findings, while the inductive approach relied on insights emerging directly from participants' experiences and perceptions, as suggested by Cheng (2017).

Then, as the first qualitative phase of the study, following Creswell and Hirose (2019), semi-structured interviews were conducted with 10 Ph.D. candidates and 10 EFL instructor. The purpose of the interview was twofold: to specify the factors which could contribute to the resistance to learning English among Iranian Ph.D. students and to clarify the likely solutions which could be focused on to solve this problem. Both were followed to help triangulate the data collection and reach a more conclusive framework of resistance. Before conducting the interviews, the researcher-made interview guide was piloted with five TEFL instructors and refined to enhance its clarity and relevance.

The second qualitative procedure was the Critical Incident Technique used to collect retrospective data. According to Mackey and Gass (2016), *incident techniques* are the best techniques to gather data about past events. The students were asked to recall their most memorable positive and negative English learning experiences, think back across the whole learning process, and then write a three-paragraph essay about them. In the analysis phase, the researcher

relied on the thematic analysis of the preliminary interviews with the interviewees and the three-part essays of the Ph.D. candidates. The transcribed interviews and essays were analyzed thematically through open, axial, and selective coding, following Maxwell's (2022) framework. Frequency counts were used to identify salient patterns, allowing the researchers to categorize the main sources of resistance and potential strategies for mitigation. Moreover, in the quantitative phase of the analysis, the researchers relied on Q-matrix to assess its content validity, and KMO index, Bartlett's test, and Exploratory Factor Analysis (EFA) to assess its construct validity, and Cronbach's alpha reliability indices to assess its reliability.

IV. Results

4.1 Qualitative Results

This study aimed to develop and validate the RTLE inventory. To address this aim, the researchers, first, conducted a thematic analysis of qualitative data derived from interviews with informed experts, including Ph.D. students and EFL instructors, as well as from three-part essays written by the Ph.D. students. These data sources provided comprehensive insights into the underlying components of the RTLE inventory and the factors contributing to Iranian Ph.D. students' resistance to learning English.

All interviews with non-English Ph.D. candidates from various academic fields and with EAP instructors, as well as the significant points mentioned by the Ph.D. candidates' three-part essays were transcribed, summarized, categorized, and analyzed. This process allowed the identification of dominant patterns in participants' perceptions of English learning resistance. Following Maxwell's (2022) framework, the researcher applied open, axial, and selective coding during the thematic analysis. In the initial stage, each transcript was coded independently, with key words and phrases labeled to capture their essential meaning. This stage generated a large set of codes and their respective frequencies. Subsequently, the researcher consolidated and refined these initial codes into coherent categories through the constant comparative method, merging similar codes and distinguishing differing ones. The final and most demanding phase, selective coding, involved integrating these categories into overarching themes that represented the major dimensions of resistance to learning English. Only those codes that appeared with a frequency of 9–10 times (i.e., at least 45% of interviewees' responses) were retained as core elements, consistent with Maxwell's (2022) methodological criteria. The process required critical reflection beyond the data itself, incorporating existing theoretical frameworks and prior research to refine and conceptualize the emergent themes.

The qualitative analysis of the interviews and essays ultimately yielded six major themes, each encompassing five to six related factors, resulting in a total of 33 identified concepts (selective codes). The main themes of previous experiences, personal factors, demotivation, investment in future jobs, realizing needs for learning, and research mind-set are presented in the conceptual framework shown in Figure one 1 below.

These findings formed the foundational structure of the RTLE inventory, as summarized in Table 1, which presents the main themes and codes derived from the thematic analysis of interviews and the three-part essays.

Table 1

Themes and Notions of Resistance to Learning English (RTLE) Inventory based on Interviews and the Three-part Essay

Themes	Notions (Selected codes)	Frequency
Previous Experiences	1. My English teachers in high school did not make me interested in English.	13
	2. I could learn English as a continuous activity throughout my education.	12
	3. I could not find the English classes informative and interesting.	12
	4. The English course books used in high school and university were not interesting.	13
	5. I found learning English a very difficult and time-consuming activity.	12
	6. I attended English classes very eagerly and could learn a lot at university	11
Personal factors	7. I am interested in using English in my job environment.	12
	8. I am fond of learning my content courses in English.	14
	9. I use the original textbooks written in English about my major.	10
	10. I read articles written in English in my own major.	13
	11. I take part in seminars and webinars held in English in my major.	12
Demotivation	12. I am not satisfied with the quality of English courses provided by my university.	14
	13. I am not satisfied with the way English is taught to the students in the EAP courses.	16
	14. I am not satisfied with the atmosphere of the English classroom provided by the university.	12
	15. I am not satisfied with the way English is taught to the students in the general English courses.	13
	16. I am not feeling well with the mechanical English provided by the institutions or the university.	12

	17. I will not recommend my friends to learn English as it is useful in my job.	11
Investment in Future Jobs	18. I think I can use English to find job opportunities in good companies in future.	9
	19. I think mastery over English will help me develop a high-quality dissertation.	10
	20. I think my English language ability will help me publish articles in English and become famous.	12
	21. I think in case I know English well I can find a teaching job in a good university overseas.	13
	22. I think learning English is life-long learning activity and provides me with a lot of social values.	12
	23. I need English to read new articles in my major and learn from them.	12
Realizing Needs for Learning	24. I need English to read the latest textbooks in my major.	11
	25. I need English to translate new findings in my major into Farsi.	15
	26. I need English to communicate with other people working on my major at the international level.	11
	27. I need English to watch films and clips about scientific issues.	10
	28. I use English to write articles and publish them in accredited journals.	10
Research Mind-set	29. I use English to take part in seminars and conferences held overseas.	12
	30. I use English in distance learning classes which are held virtually.	13
	31. I take part in joint venture research activities and projects with foreign students.	12
	32. I use English to exchange emails with international scientists.	11
	33. I use English to get connected with foreign companies and universities.	9

The concepts and themes derived from the analysis of interviews and three-part essays formed the foundation for constructing the RTLE inventory. The inventory consists of two major sections: a demographic section including the

respondents' gender, age, field of study, educational background, name of university and if they had ever experienced learning English in the private institutions, and the main section comprising six key components identified through a comprehensive literature review and qualitative data analysis involving Ph.D. students' essays and interviews. The three components of *demotivation*, *lack of research mindset*, and *previous experiences* measured the resistance causes, while, the three components of *personal factors*, *investment in future jobs*, and *realising needs for learning* focused on the solutions and the ways through which Ph.D. students could overcome their resistance to learning English. Consistent with the principles of questionnaire development outlined by Davidson et al. (2009), Dörnyei and Taguchi (2009), and Sonnentag and Fritz (2007), each construct was operationalized through several items representing distinct yet interrelated aspects of resistance to learning English.

4.2 Quantitative Results

4.2.1 Content Validity Based on Q-Matrix

In accordance with Berk's (1990) emphasis on expert judgment as a key source of content-related validity which is a central concern during instrument development, the RTLE inventory underwent expert review by five TEFL specialists working in Iranian higher education institutions. Each expert evaluated the clarity, relevance, and representativeness of every item using a validation form designed to assess the alignment between items and their intended constructs. The outcomes of this *Expert Judgment Validity (EJV)* process, summarized in Table 2, informed several revisions to the instrument. Based on the experts' consensus, four items were removed due to insufficient agreement, resulting in a final inventory of 29 validated items.

Table 2*Initial Q-matrix for the RTLE Inventory Constructs and Items*

Items	Constructs					
	Previous Experiences	Personal Factors	Demotivation	Investment in Future Jobs	Realizing Needs for Learning	Research Mind-set
1	1	0	0	0	0	0
2	1	0	0	0	0	0
3	1	0	0	0	0	0
4	1	0	0	0	0	0
5	1	0	0	0	0	0
**6	1	1	0	0	0	0
7	0	1	0	0	0	0
8	0	1	0	0	0	0
9	0	1	0	0	0	0
10	0	1	0	0	0	0
11	0	1	0	0	0	0
12	0	0	1	0	0	0
13	0	0	1	0	0	0
14	0	0	1	0	0	0
15	0	0	1	0	0	0
**16	0	1	1	0	0	0
17	0	0	1	0	0	0
18	0	0	0	1	0	0
19	0	0	0	1	0	0
20	0	0	0	1	0	0
21	0	0	0	1	0	0
22	0	0	0	1	0	0
23	0	0	0	0	1	0
24	0	0	0	0	1	0
25	0	0	0	0	1	0
26	0	0	0	0	1	0
**27	1	1	0	0	1	0
28	0	0	0	0	0	1

29	0	0	0	0	0	1
30	0	0	0	0	0	1
31	0	0	0	0	0	1
32	0	0	0	0	0	1
*33	1	1	0	0	0	1

*Note: Items 6, 16, 27, and 33 were left out as the experts did not agree upon their ability to check their respective constructs.

4.2.2 Construct Validity

In the next step the construct validity of RTLE inventory was explored through EFA. Two sets of EFA’s were run on the questionnaire. The first set of EFA’s was run through Principal Axis Factoring (PAF) and varimax rotations, while the second round was run using PAF and varimax or promax rotations depending on the conditions required by these two rotation methods. The main objective of the first round was to identify the items which did not load under their factors. Once items that did not load under their respective factors were excluded, the second run of EFA’s was run to explore the questionnaires' construct validity.

As Table 3 shows, the KMO index of sampling adequacy, and Bartlett’s test of sphericity were considered. The KMO index of .780 was higher than the minimum required criterion of .60 (Field, 2024; Pallant, 2016). The significant results of the Bartlett’s test ($\chi^2 (406) = 2313.87, p < .05$) also indicated that the assumption of sphericity was retained. Hence, the correlation matrix was factorable. It should be noted that in order for EFA to render meaningful factors, items related to a factor should have high correlations; consequently, they should have low correlations with items loading under other factors.

Table 3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Bartlett's Test of Sphericity	Approx. Chi-Square	23.13.879
	Df	406
	Sig.	.000

The results of KMO for each item further supported the adequacy of sample for each item. All item level KMO indices (Table 4) were higher than .50 (Field, 2024).

Table 4*KMO Indices for Items*

Variable	KMO	Variable	KMO	Variable	KMO	Variable	KMO
Demot.1	.773	Needs 4	.717	Mind-set 3	.808	Personal1	.770
Demot.2	.839	Exp.1	.817	Mind-set 4	.726	Personal2	.782
Demot.3	.813	Exp.2	.810	Mind-set 5	.704	Personal3	.741
Demot.4	.752	Exp.3	.828	Invest.1	.747	Personal4	.810
Demot.5	.795	Exp.4	.824	Invest.2	.754	Personal5	.769
Needs1	.779	Exp.5	.827	Invest.3	.757		
Needs2	.695	Mind-set1	.682	Invest.4	.794		
Needs3	.793	Mind-set 2	.741	Invest.5	.769		

As shown in Table 5, the EFA extracted six factors which accounted for 58.57 percent of the total variance. That is to say; this six-factor solution accounted for 58.57 percent of variation in the inventory.

Table 5*Total Variance Explained*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.000	17.242	17.242	4.473	15.422	15.422	2.843	9.803	9.803
2	2.812	9.696	26.938	2.370	8.173	23.596	2.543	8.770	18.573
3	2.535	8.741	35.679	2.026	6.986	30.581	2.362	8.144	26.717
4	2.175	7.501	43.180	1.601	5.522	36.103	1.873	6.457	33.175
5	1.828	6.304	49.484	1.203	4.150	40.253	1.650	5.689	38.864
6	1.770	6.103	55.587	1.145	3.948	44.201	1.548	5.337	44.201
7	.991	3.418	59.005						
8	.966	3.332	62.338						
9	.873	3.010	65.348						
10	.858	2.958	68.306						
11	.802	2.764	71.070						
12	.772	2.661	73.732						
13	.694	2.392	76.124						
14	.616	2.125	78.249						
15	.599	2.064	80.313						
16	.594	2.050	82.363						
17	.560	1.931	84.295						
18	.518	1.786	86.080						
19	.485	1.672	87.752						
20	.472	1.626	89.378						
21	.436	1.502	90.880						
22	.419	1.446	92.326						
23	.392	1.353	93.679						
24	.369	1.273	94.952						
25	.337	1.160	96.113						
26	.314	1.082	97.195						
27	.298	1.027	98.222						
28	.290	1.000	99.222						

29	.225	.778	100.000
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Extraction Method: Principal Axis Factoring.

Table 6 displays the factor loadings of the 29 items of the RTLE inventory under the six extracted factors. The results showed that all items loaded under their respective factors. All items had large contributions to their factors ($\geq .50$).

Table 6*Rotated Factor Matrix*

	Factors					
	1	2	3	4	5	6
Exp.5	.794					
Exp.2	.768					
Exp.3	.744					
Exp.4	.700					
Exp.1	.699					
Personal2		.744				
Personal 3		.740				
Personal 4		.688				
Personal 5		.683				
Personal 1		.599				
Demotivation.3			.721			
Demotivation.4			.682			
Demotivation.5			.669			
Demotivation.2			.653			
Demotivation.1			.565			
Investment 5				.630		
Investment 2				.593		
Investment 3				.570		
Investment 1				.564		
Investment 4				.548		
Needs 4					.684	
Needs 2					.585	
Needs 1					.576	
Needs 3					.539	
Mindset 2						.587
Mindset 5						.580
Mindset 1						.573
Mindset 4						.417
Mindset 3						.414

4.2.3 Reliability of RTLE Inventory

Table 7 shows the Cronbach's alpha reliability indices for RTLE inventory and its components. All reliability indices were higher than .70 indicating that RTLE inventory and its components enjoyed "acceptable" reliability indices. Based on the criteria suggested by research scholars (e.g. Dörnyei & Taguchi, 2009; Fryer et al., 2018; George & Mallery, 2020; Harrison et al., 2021; Tseng et al., 2006) all the reliability indices shown in Table 7 can be considered as "acceptable"; i.e., $\geq .70$.

Table 7

Cronbach's Alpha Reliability Statistics for RTLE Inventory

	Cronbach's Alpha	N of Items
Previous Experiences	.864	5
Personal Interests	.829	5
Demotivation	.805	5
Investment in Future Jobs	.733	5
Realising Needs for Learning	.712	4
Research Mindset	.656	5
Total	.766	29

V. Discussion

To develop the RTLE inventory, the researcher conducted a thematic analysis of data obtained from interviews with Ph.D. students and EFL instructors, as well as essays written by the Ph.D. candidates. This analysis provided a foundation for identifying the underlying components of resistance to learning English among Iranian doctoral students. The findings revealed that *previous learning experiences, demotivation, and lack of a research mindset in English* emerged as major sources of resistance, whereas *personal factors and interests, investment in future employment opportunities, and awareness of learning needs* served as enabling factors that help mitigate resistance to English learning.

These results are consistent with prior research in different educational contexts. Studies such as those by Al-Takhayneh et al. (2022) in Jordan, Wang and Pan (2022) in China, and Huang (2018) in Taiwan have similarly reported that inadequate English proficiency among doctoral students or academic professionals can hinder national academic and scientific progress. Wang and Pan (2022) further argued that insufficient mastery of English contributes to resistance to innovation, limits intercultural communication, and reduces students' motivation to learn and engage with their academic disciplines. Similarly, Maftoon and Amiri (2012) emphasized that poor English language competence may lead to academic and professional desocialization within the global scholarly community.

Among the major factors contributing to resistance to English learning, *demotivation* plays a central role. As Wang and Pan (2022) noted, demotivation mediates the relationship between students' resistance to innovation, their lack of intercultural communication, low interest levels, and systemic shortcomings in English education. In line with Afthanorhan et al. (2019), when learners are dissatisfied with institutional support, learning environments, or future career prospects, their intrinsic motivation to pursue English learning diminishes significantly.

Another critical factor identified was *previous negative learning experiences*, which can have lasting effects on learners' engagement with English. This finding aligns with Ghafournia and Farhadian's (2018) research, which showed that unsuccessful English learning experiences leave enduring negative impacts on Iranian EFL learners' motivation and academic performance, even at advanced educational levels.

A further source of resistance was the *absence of a well-developed research mindset*. Doctoral students with limited English proficiency often struggle to broaden their academic horizons, publish in reputable journals, or participate in international conferences and research collaborations. This limitation restricts their academic growth and global engagement. Teng (2019) emphasized that students lacking a research-oriented identity and global investment in EFL learning fail to fully utilize their expertise, leading to academic isolation and wasted institutional resources. Similarly, Zhoc et al. (2019) found that low interest in second language development fosters disengagement, reducing collaboration among peers and limiting opportunities for international communication and academic networking.

Regarding strategies to address resistance, the study identified *personal interest*, *career-oriented investment*, and *recognition of learning needs* as key factors facilitating positive attitudes toward English learning. These findings correspond with Huang's (2018) investigation of learner resistance to English-medium instruction in Taiwan, which highlighted the importance of aligning instruction with learners' real-world needs and motivations. Curriculum revisions, needs-based language instruction, and the integration of professional English training into doctoral programs were suggested as effective means to reduce resistance. Furthermore, encouraging Ph.D. students to participate in English-language academic conferences, engage with scholarly texts, and view English as an investment in their professional future may enhance their motivation and reduce resistance to English, learning.

Overall, the discussion underscores that addressing both the affective and pragmatic dimensions of resistance—through supportive pedagogy, relevant curriculum design, and career-focused motivation—can substantially enhance doctoral students' engagement with English learning in the Iranian academic context.

VI. Conclusion

The phenomenon of resistance to learning has been widely explored in various educational contexts, including general education (Brookfield, 2006), psychology (Dweck, 2000), and motivation studies (Ushioda, 2013). However, resistance to learning English as a foreign language (EFL) has remained an underexplored yet crucial construct in language education. The present study addressed this gap by developing and validating the RTLE inventory, a psychometrically sound tool designed to assess learners' attitudinal, emotional, and behavioral resistance to English learning. The findings revealed that demotivation, unfavorable previous experiences, and lack of a research mindset constitute major sources of resistance, whereas personal factors, investment in future careers, and realization of learning needs serve as potential enablers to overcome it. Given the crucial role of English proficiency in academic success and international communication, the RTLE inventory provides a systematic framework for identifying, understanding, and addressing resistance among Ph.D. learners.

Moreover, the present study contributes to the expanding literature on learner psychology in EFL contexts by introducing and validating a comprehensive measure of resistance to learning English. Future research should continue examining the predictive validity of the RTLE inventory across diverse sociocultural and proficiency contexts and explore its relationship with constructs such as motivation, self-regulation, and learner identity. By doing so, scholars and practitioners can deepen their understanding of how resistance operates within EFL classrooms and how it can be transformed into productive engagement, ultimately leading to more effective and equitable language learning experiences.

In sum, the study demonstrates that overcoming resistance to English learning requires more than linguistic competence; it demands institutional awareness, learner agency, and pedagogical innovation grounded in validated empirical evidence.

VII. Pedagogical Implications

The implications of the present research go well beyond instrument development. By uncovering the underlying causes and varied dimensions of learners' resistance, EFL instructors and curriculum designers can implement more responsive pedagogies that enhance engagement and diminish avoidance or demotivation. In addition, the RTEL Inventory functions as a diagnostic resource for teacher education programs, equipping instructors with a deeper awareness of resistance patterns and strategies for effectively addressing them within classroom contexts. Consequently, the RTEL supports overarching educational objectives aimed at fostering learner autonomy, emotional adaptability, and positive orientations toward language learning (Dörnyei, 2007; Mercer & Ryan, 2016).

Beyond its pedagogical applications, the findings of this study also hold significance for English for Academic Purposes (EAP) educators and policymakers in Iranian higher education and comparable EFL environments. Recognizing the multifaceted character of resistance to English learning enables stakeholders to design instructional and institutional initiatives that cultivate constructive learner engagement, increase investment in language study, and sustain academic achievement. Furthermore, the validated RTEL Inventory represents a novel, contextually grounded tool in applied linguistics, paving the way for future research into motivational, affective, and contextual barriers (Afthanorhan et al., 2019; Ross & Stuckler, 2025; Wang, 2025).

Declarations

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References

1. Afthanorhan, A., & Hamzah, M. I. (2019). & Abd Aziz, M. Factors affecting.

2. student motivation in higher education Implications for learning English. *International Journal of Education and Practice*, 7(2), 89–101. <https://doi.org/10.55529/jills.45.45.58>
3. Ajzen, I. (2020). *The theory of planned behavior*. Frequently asked questions.
4. *Human Behavior and Emerging Technologies*, 2(4), 314–324. <https://doi.org/10.1002/hbe2.195>
5. Allport, G. W. (1937). *Personality: A psychological interpretation*. Holt.
6. Bae, J., & Bachman, L. F. (2010). An investigation of the construct validity of self-assessment in second language testing. *Language Testing*, 27(3), 345–367. <https://doi.org/10.1177/0265532209349476>
7. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
8. Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
9. Bandura, A. (2005). Evolution of social cognitive theory. In K. G. Smith, & M. A. Hitt (Eds.), *Great minds in management* (pp. 9–35). Oxford University Press.
10. Berk, R. A. (1990). Importance of expert judgment in content-related validity evidence. *Applied Measurement in Education*, 3(3), 289–304. https://doi.org/10.1207/s15324818ame0303_5
11. Brookfield, S. (2006). *The skillful teacher: On technique, trust, and responsiveness in the classroom*. Jossey-Bass.
12. Burgess, A. (2020). *Language learning motivation in higher education: Bridging theory and practice*. Routledge.
13. Canagarajah, A. S. (1999). *Resisting linguistic imperialism in English teaching*. Oxford University Press.
14. Cheng, Y. (2017). Developing and validating measurement instruments in language education research. *Asian-Pacific Journal of Second and Foreign Language Education*, 2(5), 1–14. <https://doi.org/10.1186/s40862-017-0020-0>
15. Creswell, J. W., & Hirose, M. (2019). Mixed methods and survey research in family medicine and community health. *Family Medicine and Community Health*, 7(2), e000086. <https://doi.org/10.1136/fmch-2018-000086>
16. Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). SAGE.
17. Davidson, F., Fulcher, G., & Rea-Dickins, P. (2009). *The language testing handbook*.
18. Routledge.
19. Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford University Press.
20. Dörnyei, Z., & Taguchi, T. (2009). *Questionnaires in second language research: Construction, administration, and processing* (2nd ed.). Routledge.
21. Dörnyei, Z., & Ushioda, E. (2021). *Teaching and researching motivation* (3rd ed.). Routledge.
22. Dovchin, S., & Wang, X. (2024). Linguistic marginalization and emotional distress in transnational English learning. *Journal of Language Identity & Education*, 23(1), 24–39. <https://doi.org/10.1080/15348458.2023.2190567>
23. Dweck, C. S. (2000). Self-theories: *Their role in motivation, personality, and*.
24. *development*. Psychology Press.
25. Falout, J., Elwood, J., & Hood, M. (2009). Demotivation: Affective states and learning outcomes. *System*, 37(3), 403–417. <https://doi.org/10.1016/j.system.2009.03.004>
26. Farah, I. (2009). Socioeconomic factors affecting English learning motivation among students in developing contexts. *Language and Education*, 23(2), 123–135.
27. Field, A. (2024). *Discovering statistics using IBM SPSS statistics* (6th ed.). SAGE.
28. Freeman, D. (2012). The sociocultural foundations of teacher education. In J. Arnold, & T. Murphey (Eds.), *Meaningful action: Earl Stevick's influence on language teaching* (pp. 23–41). Cambridge University Press.

29. Fryer, L. K., Ainley, M., & Thompson, A. (2018). Modelling the links between students' interest in a subject and their academic motivation. *Learning and Individual Differences*, 68(2), 95–105.
30. Furnham, A., Monsen, J., & Ahmetoglu, G. (2009). Typical intellectual engagement, Big Five personality traits, approaches to learning, and cognitive ability predictors of academic performance. *British Journal of Educational Psychology*, 79(4), 769–782. <https://doi.org/10.1348/978185409X412147>
31. George, D., & Mallery, P. (2020). *IBM SPSS statistics 26 step by step: A simple guide and reference* (16th ed.). Routledge.
32. Ghafournia, N., & Farhadian, M. (2018). Demotivating factors affecting Iranian EFL learners' reading proficiency across gender and educational fields. *International Journal of Instruction*, 11(3), 193–210. <https://doi.org/10.12973/iji.2018.11314a>
33. Harrison, M. A., Rainer, D., & Dörnyei, Z. (2021). Reliability in applied linguistics research: An updated overview. *Applied Linguistics Review*, 12(4), 725–749. <https://doi.org/10.1515/applirev-2019-0054>
34. Hollander, J. A., & Einwohner, R. L. (2004). Conceptualizing resistance. *Sociological Forum*, 19(4), 533–554. <https://doi.org/10.1007/s11206-004-0694-5>
35. Huang, Y. (2018). English as a lingua franca in higher education: Language choice and multilingual identities. *System*, 76(4), 127–138.
36. <https://doi.org/10.1016/j.system.2018.05.009>
37. Jenkins, J. (2013). *English as a lingua franca in the international university: The politics of academic English language policy*. Routledge.
38. Khairallah, A. (2020). Personality and motivation in L2 learning among Arab university students. *Language Learning Journal*, 48(2), 134–150.
39. Kormos, J., & Kiddle, T. (2013). The role of socio-economic factors in motivation to learn English as a foreign language: The case of Chile. *System*, 41(2), 399–412. <https://doi.org/10.1016/j.system.2013.03.006>
40. Maftoon, P., & Amiri, M. (2012). De-socialisation and demotivation among EFL learners: Causes and consequences. *Iranian EFL Journal*, 8(5), 30–47.
41. Mammadov, S. (2022). Personality predictors of academic achievement: The Big Five and beyond. *Frontiers in Psychology*, 13(3), 82–100. <https://doi.org/10.3389/fpsyg.2022.824310>
42. Maxwell, J. A. (2022). Interactive approaches to qualitative research design. In U. Flick (Ed.), *The Sage handbook of qualitative research design* (pp. 41–54). SAGE.
43. McCrae, R. R., & Costa, P. T. Jr. (1995). Personality trait structure as a human universal. *American Psychologist*, 52(5), 509–516. <https://doi.org/10.1037/0003-066X.52.5.509>
44. Montes Garcés, P. (2022). *English in the periphery: Globalization, inequality, and resistance in higher education*. Palgrave Macmillan.
45. Pallant, J. (2016). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS* (6th ed.). Open University.
46. Peng, J. E., Xie, X., & Wang, C. (2023). Understanding L2 learning anxiety and.
47. resistance in digital contexts *Language Teaching Research*, 27(4), 543–560. <https://doi.org/10.1177/13621688221119277>
48. Ross, B., & Stuckler, D. (2025). Barriers to learning English as a foreign language (EFL) for university students: A systematic review. *International Journal of Instruction*, 18(4), 395–420.
49. Safdari, S., & Maftoon, P. (2017). Demotivation among Iranian EFL learners: Causes and solutions. *Applied Research on English Language*, 6(4), 443–462. <https://doi.org/10.22108/are.2017.106450.1111>

50. Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology, 12*(3), 204–221. <https://doi.org/10.1037/1076-8998.12.3.204>
51. Steils, N. (2013). Resistance in language learning: Understanding learner agency. *Language Teaching Research, 17*(5), 601–619. <https://doi.org/10.1177/1362168813494124>
52. Teng, F. (2019). Learner identity and investment in EFL learning: A study of Chinese tertiary students. *System, 82*, 13–23. <https://doi.org/10.1016/j.system.2019.02.001>
53. Tolman, A. O., & Kremling, J. (2023). *Motivation and learning: A social cognitive perspective*. Routledge.
54. Tseng, W. T., Dörnyei, Z., & Schmitt, N. (2006). A new approach to assessing strategic learning: The self-regulating capacity in vocabulary learning scale. *Applied Linguistics, 27*(1), 78–102. <https://doi.org/10.1093/applin/ami046>
55. Wang, Y., & Pan, L. (2022). Resistance to innovation and English learning demotivation among Chinese university students. *Innovation in Language Learning and Teaching, 16*(4), 356–371. <https://doi.org/10.1080/17501229.2021.1953269>
56. Wang, Z. (2025). Does foreign-language learning influence EFL learners' cultural intelligence? *Journal of Multiculturalism and Education, 12*(2), 45–63.
57. Yzer, M. (2017). Theory of reasoned action and theory of planned behavior in health communication. In C. R. Berger, & M. E. Roloff (Eds.), *The international encyclopedia of interpersonal communication* (pp. 1–7). Wiley.
58. Zhoc, K. C. H., Chung, T. S. H., & King, R. B. (2019). Emotional intelligence (EI) and self-directed learning: Examining their relation and contribution to better student learning outcomes in higher education. *British Educational Research Journal, 45*(3), 644–662. <https://doi.org/10.1002/berj.3519>

Figures



Figure 1

Conceptual Framework

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