How Iranian High School Students Fulfill Psychological Requirements, Capacity for Resilience, Self-Confidence, and Willingness to Communicate in the English Language

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Abstract

In recent years, educational policies have placed a greater emphasis on promoting bilingualism in academic institutions. This shift in paradigm presents new challenges related to strengthening communicative practices and improving English language proficiency for learners. As a result, the aim of this study is to analyze how the satisfaction of psychological requirements influences students' resilience and self-confidence in achieving communicative goals. The research sample consisted of 122 high school students from Iran, including 31 male participants and 91 female participants. The analytical techniques utilized in this study encompassed reliability analyses, descriptive statistics (mean, standard deviation, and bivariate correlations), as well as structural equation modeling. The results demonstrated a favorable relationship between the satisfaction of psychological requirements and both resilience and self-assurance. Furthermore, resilience demonstrated a favorable correlation with the willingness to communicate in English. These results could aid in the creation of teaching strategies and the design of educational programs focused on improving students' competencies, skills, and self-efficacy for the effective application of the English language both in the classroom and in a variety of other settings.

Keywords: Psychological Requirement; Resilience; Self-confidence; Willingness to Communicate

1. Introduction

The educational reforms implemented by public administrations, possessing authority in the domain of Education, were designed to enhance the multilingual capabilities of Iranian students; however, these

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initiatives have not resulted in an improvement in the proficiency and communicative abilities of young individuals in relation to the English language (Barbadi et al., 2024). Several factors contributing to students' difficulties in acquiring proficiency in English include their apparent disinterest in the subject matter, the restricted opportunities to utilize the language beyond the classroom setting, and the absence of self-confidence to actively participate during instructional sessions (De Wilde et al., 2020). Consequently, the educational milieu ought to facilitate the acquisition and utilization of the foreign language, creating opportunities wherein learners can engage in autonomous communication devoid of any impediments to their willingness to communicate in any foreign language, while also supplying the essential resources for their active participation (Balouchi & Samad, 2021; Kruk, 2022). Accordingly, the objective of this manuscript is to examine the impact of the fulfillment of psychological requirements on learners' resilience and self-confidence in demonstrating their willingness to communicate. In this context, the educational community can formulate educational strategies and interventions aimed at fostering the utilization of the English language.

Self-Determination Theory (SDT) constitutes a comprehensive theoretical framework that posits the existence of a specific set of psychological requirements that are intrinsic to all individuals. These psychological requirements are essential for the optimal holistic development of human beings across physical, psychological, and emotional dimensions (Ryan & Deci, 2020; Vansteenkiste et al., 2020). The aforementioned psychological requirements can be categorized into three distinct types: relatedness, autonomy, and competence. Relatedness pertains to the sense of belonging and integration within a social group; autonomy pertains to those actions undertaken for intrinsic motivations, devoid of external compulsion; competence pertains to the individual's capacity to effectively execute actions (Ryan & Deci, 2020). A number of empirical studies have advocated for the inclusion of an additional psychological need identified as novelty (Benlahcene et al., 2021; Martin et al., 2013; Trigueros, Aguilar-Parra, Cangas, & Alvarez, 2019; Trigueros, Aguilar-Parra, Gonz´alez-Santos, & Cangas, 2019; Trigueros, Mínguez, Gonz´alez-Bernal, et al., 2019). This requirement pertains to the innate human inclination to pursue novel experiences that extend beyond the routine, thereby fostering personal growth and overall well-being. Considering these four psychological requirements, students who enjoy a higher degree of autonomy in decision-making, who recognize that their activities are unconventional, who feel capable in their endeavors, and who experience a sense of social belonging are likely to fulfill their

psychological requirements. The fulfillment of these needs is associated with increased engagement in learning, active participation in classes, and the acquisition of new skills and competencies (Jeno et al., 2019).

In the field of education, it is proposed that there exists a connection between fundamental psychological requirements and the behavioral, cognitive, and emotional well-being of students, which fosters their optimal and adaptive growth within academic environments. This relationship may influence students' capacity to handle challenges and navigate adverse situations, particularly if their behaviors and adaptability are not fully developed. Resilience, in this context, is associated with the presence of both protective and vulnerability factors, both internal and external to the individual, which aid in effectively responding to risks (Denckla et al., 2020; Vella & Pai, 2019). Consequently, resilience is tied to a range of personal competencies that enable individuals to surmount unfavorable and stressful circumstances, while also promoting their positive development as they meet personal and academic challenges (Brewer et al., 2019). Drawing from Self-Determination Theory (SDT), resilience can be shaped by psychological requirements, as these needs are influenced by an individual's ability to manage their skills and respond to the demands and changes presented by the external environment (Ryan, 2012; Trigueros, Minguez et al., 2020).
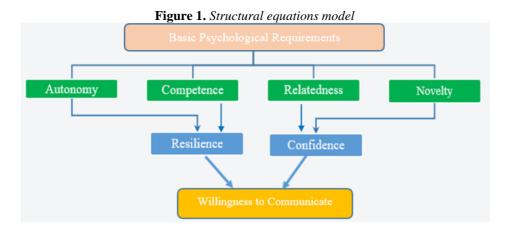
Beyond the link between fundamental psychological requirements and resilience, the latter also influences self-confidence. In this context, basic psychological requirements facilitate self-regulation of behavior, as individuals are inclined to pursue actions that lead to feelings of success and effectiveness, foster relationships, encounter new experiences, and enjoy a sense of freedom (Guay, 2022; Ryan et al., 2021). Consequently, confidence can be defined as an individual's belief in their ability to respond appropriately in specific situations (Collado-Soler et al., 2023). Thus, confidence may be strengthened or diminished based on the outcomes of previous experiences (Yu et al., 2021). This understanding suggests the cultivation of personal competencies that enhance an individual's capacity to perform tasks effectively, ultimately leading to increased self-confidence. This boost in confidence may encourage individuals to seek out similar experiences, even beyond the confines of the school environment (Pelikan et al., 2021).

2. Literature Review

Willingness to communicate is characterized as the act of conveying a message with the intention of eliciting a response from the recipient. For the message to be effective, it must be interpreted in a particular manner,

prompting the recipient to respond in a designated way after receiving the information (Tai & Chen, 2023). The choice of communication channel—whether written or spoken—may vary based on the sender's goals, as well as the specific language and intonation used, which should highlight key elements to fulfill the intended purpose of the message (Thompson, 2003). To foster a consistent eagerness among learners to engage communicatively in English, it is essential to create positive classroom experiences that enhance their motivation. This approach will help learners become acquainted with the communicative process through the application of effective communication strategies, which can only be cultivated through education. Such strategies are developed through experiences that involve overcoming challenges and obstacles within educational settings. In these contexts, resilience is strengthened, as it embodies the capacity to adapt and respond effectively to crises or stressful situations, thereby promoting recovery and personal growth in the face of significant adversity.

Resilience is a personality trait that enables students to navigate negative circumstances and risk-related messages effectively. In this context, the development of adaptive skills in students can lead to various spontaneous behavioral responses and influence their willingness to communicate. To date, only one study has explored the relationship between resilience and communicative willingness (Oveisi & Nosratinia, 2019). However, this research relied on interviews, which limits the ability to establish a direct correlation between the two variables (Opdenakker, 2006). Additionally, building on the findings of Trigueros et al. (2019), it is essential to consider the impact of basic psychological requirements on both behavior (Trigueros et al., 2023) and cognition (Liu & Huang, 2021) when studying resilience. Moreover, research by De la Fuente et al. (2013) and Stankov et al. (2013) suggests that confidence plays a crucial role in developing key competencies in students, which in turn enhances their self-efficacy and promotes learning (Wijaya & Embato, 2020). Therefore, the objective of the current study is to examine how the satisfaction of basic psychological requirements affects resilience, confidence, and willingness to communicate in English. To achieve this aim, a structural equation model will be employed to analyze the relationships among the variables in question. The following hypothesized model, according to the literature review, is shown in Figure 1.

Figure 1. *Structural equations model*

3. Method
3.1. Participants
A total of 122 students enrolled in high school participated in the study. Among these participants, 31 were male and 91 were female; these participants were selected based on convenience sampling. Their ages varied from 18 to 23 years, with a mean age of 19.68 years and a standard deviation of 0.85. English classes were conducted for 3 hours each week, with class sizes varying between 29 and 37 students.

3.2. Instrument
3.2.1. Satisfaction of Basic Psychological Requirements in English

The Satisfaction of Psychological Requirements Scale was employed, which includes the concept of novelty (Trigueros, Aguilar-Parra, Cangas, & Álvarez, 2019; Trigueros, Aguilar-Parra, González-Santos, & Cangas, 2019; Trigueros, Mínguez, González-Bernal, et al., 2019). This scale consists of four dimensions: autonomy (four items), competence (four items), relatedness (four items), and novelty (six items). Students responded to each item using a Likert-type scale that ranges from 1 (not true at all) to 7 (completely true). This scale has been effectively utilized in English academic research (Trigueros, Aguilar-Parra, et al., 2020).

3.2.2. Confidence

For this investigation, the Emotional State Questionnaire developed by Trigueros, Aguilar-Parra, Cangas, and Álvarez (2019) was utilized. This instrument assesses students' emotions within academic environments and consists of eight factors and 32 items. However, this study focused solely on the confidence factor, which includes four items. Students rated each item on a Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). This scale has also been successfully applied in English academic

contexts (Méndez-Aguado et al., 2020; Trigueros, Aguilar-Parra, et al., 2020a).

3.2.3. Academic Resilience

The Academic Resilience Scale, developed by Cassidy in 2016, was utilized, with its validation in the Spanish context conducted by Trigueros, Magaz-González, and colleagues. This scale comprises three dimensions and a total of 30 items: Perseverance (14 items), Reflection and Adaptation in Seeking Help (9 items), and Emotional Response (7 items). Preceding the items is an introductory paragraph that states: "You have recently received a disappointing grade. The scores on your last two assignments were not as high as you had hoped, as you are striving for a good grade in English and wish to avoid disappointing your family. The feedback from your tutor on these assignments was notably critical, mentioning 'lack of understanding' and 'poor writing and expression,' while also providing suggestions for improvement." Students were instructed to respond to each item using a Likert-type scale ranging from 1 (Likely) to 5 (Unlikely).

In alignment with the original scale, the item scores were reversed to ensure that a higher score reflects increased academic resilience. This scale has been effectively utilized in studies within the English academic context (Liu & Han, 2022). Regarding English Communicative Willingness, the scale developed by Peng (2019) and subsequently validated in the Spanish context by Barrios and Acosta-Manzano (2021) was employed. Responses were recorded on a 10-point scale, where 1 signifies 'never or not at all' and 10 indicates 'always or all the time.' Students were prompted to express their willingness to communicate in three distinct scenarios: when they felt motivated to speak (e.g., 'the topic is interesting'), when they were adequately prepared (e.g., 'they know the right answer'), and when they felt a sense of obligation to speak (e.g., 'they are sitting at the front of the classroom'). Peng (2019) categorized these three aspects as contextual stimulation, communicative readiness, and communicative responsibility, respectively. This scale has also been successfully applied in studies within the English academic context (Acosta-Manzano et al., 2023).

3.3. Procedure

At the beginning of the study, several classes at 5 high schools in Tabriz and Urmiah were approached to secure permission for the distribution of questionnaires to the students. Before the questionnaires were distributed, the study's objectives were communicated to both groups

the students. Additionally, students were required to present informed consent forms signed by them. On the day of the questionnaire administration, students were assured that their responses would remain confidential and anonymous. The process was overseen by a qualified interviewer from the research team, who provided clarifications and addressed any questions that arose during the completion of the questionnaires. The estimated time for students to complete the questionnaires was around 25 minutes.

3.4. Data Analysis

The research employed descriptive statistical analysis, including mean, bivariate correlations, and standard deviation, alongside reliability analysis utilizing Cronbach's alpha and the omega index. To assess the proposed model, a structural equation model (SEM) was implemented using the maximum likelihood method, which is particularly suitable for Likert-type questionnaires and accounts for data non-normality (Beauducel & Herzberg, 2006). In this study, AMOS was utilized to analyze the model. This approach enables researchers to estimate model parameters in a manner that maximizes the likelihood of the observed data, ensuring that the model accurately captures the complexities of the sample set. Additionally, in the SEM framework, 95% bias-corrected confidence intervals (95% CIBC) were computed for each proposed pathway, utilizing 6000 bootstrap samples (Hayes & Scharkow, 2013). The fit indicators evaluated for the SEM included the $\chi2$ statistic, the chi-square to degrees of freedom ratio ($\chi2/df$), the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), the Root Mean Square Error of Approximation (RMSEA) along with its 90% confidence interval, and the Standardized Root Mean Square Residual (SRMR). Generally, $\chi2/df$ values ranging from 2 to 3 (Bentler, 1990), CFI and IFI values of 0.95 or higher, RMSEA values below 0.08, and SRMR values under 0.06 are deemed acceptable (Hu & Bentler, 1999).

4. Results
4.1. Descriptive Analysis

Table 1 presents the mean, standard deviation, and reliability analyses as determined by Cronbach's alpha and the omega index. All factors achieved scores exceeding 0.70. Furthermore, Table 1 illustrates the Pearson correlations among the study's factors, indicating positive relationships between the factors related to the satisfaction of basic psychological needs, resilience, confidence, and willingness to

communicate. Finally, the normality of the data was found through he Kolmogorov–Smirnov test.

The findings indicate that the fulfillment of each of the fundamental psychological requirements—autonomy, competence, social relationships, and novelty—has a positive correlation with resilience and self-confidence. These results demonstrate that satisfying psychological requirements enhances the cognitive, emotional, and behavioral regulation of students, promoting the development of adaptive behaviors in response to challenges and facilitating opportunities for personal growth and learning.

Table 1. *Descriptive statistics and correlation between the variables*

Factors	M	SD	α	Ω	1	2	3	4	5	6	7
1. Satisfaction of novelty	5.29	0.89	0.79	0.82	-	0.38	0.61	0.33	0.41	0.52	0.37
2. Satisfaction of competence	5.39	0.85	0.78	0.79		-	0.57	0.25	0.43	0.34	0.43
3. Satisfaction of autonomy	4.99	0.71	0.75	0.77			-	0.27	0.29	0.23	0.34
4. Satisfaction of relatedness	3.98	1.21	0.79	0.81				-	0.47	0.17	0.25
5. Resilience	4.10	0.79	0.75	0.79					-	0.71	0.44
6. Confidence	4.78	1.19	0.85	0.86						-	0.29
7. Willingness to communicate	4.02	2.65	0.81	0.83							-

4.2. Structural Equation Modeling

The hypothesized model was analyzed through an SEM, reflecting acceptable fit indices: $\chi2$ (282, N =122) =821.22, p <.001; $\chi2/df$ =2.74; TLI =0.96; CFI =0.96; IFI =0.96; RMSEA =0.052 (90 % CI =0.043–0.061); SMR =0.041. Figure 1 shows the relationships established between the factors through the standardized regression weights.

5. Discussion

This study seeks to examine the relationship between the satisfaction of psychological requirements and its impact on resilience and confidence in high school students' willingness to communicate in English. It focuses

on the psychological and emotional factors that influence students' coping mechanisms and skills, which facilitate their ability to engage in English communication with peers and teachers. When students participate in English conversations with their classmates, they foster an environment conducive to active learning, which enhances their motivation and connection to the language (Razak et al., 2013). Nonetheless, there are instances when such communicative interactions may be obstructed, potentially impeding the learning process (Bsharat & Barahmeh, 2020). Consequently, when learners exhibit confidence and possess adaptive skills, they are better equipped to manage stress and challenges, thereby enriching their educational experience (Dewaele et al., 2018) and reinforcing their belief in their capacity to meet academic objectives (Chen, 2018; Karam et al., 2020), which in turn fosters positive expectations in their English language learning journey.

Numerous educational studies have indicated that a classroom environment that supports the fulfillment of students' psychological requirements contributes to enhanced personal well-being and resilience (Neufeld & Malin, 2019; Wiedenman et al., 2023). It is essential to recognize that a high degree of satisfaction with fundamental psychological requirements may serve as an indicator of psychological well-being. For instance, research within the realm of English language education has demonstrated a correlation between psychological well-being and elevated levels of resilience and enjoyment (Ergün & Dewaele, 2021). When students are socially integrated, it fosters synergies that facilitate the exchange of information and experiences, ultimately enhancing their adaptability in the face of challenges. Similarly, encountering new and diverse situations can push students out of their comfort zones, prompting them to refine their skills and abilities. Regarding autonomy and competence, students are likely to enhance their adaptive capacity when confronted with challenging tasks that allow them to make independent decisions, thereby gaining insight into the outcomes of their actions.

Additionally, various educational studies have highlighted the beneficial impact of satisfying psychological requirements on students' confidence and enjoyment (Trigueros, Aguilar-Parra, González-Santos, & Cangas, 2019). Notwithstanding the findings of these studies, there is a lack of research in the domain of English language instruction that specifically examines the impact of psychological requirements on students' resilience and self-confidence.

This absence is notable given that the fulfillment of fundamental needs, supported by conducive social environments, promotes well-being and

cultivates internal resources that enhance adaptability in challenging situations (Tian et al., 2018).

Additionally, findings indicate that resilience and confidence are positively correlated with the willingness to communicate. Previous research on foreign language learners has partially examined this relationship. For instance, the study conducted by Wang et al. (2022) found that learners experiencing high levels of anxiety exhibited a detrimental impact on their willingness to communicate. The authors suggested that such anxiety leads to a decline in confidence, as it heightens the fear of judgment or making errors, resulting in feelings of insecurity and reluctance to articulate thoughts. Consequently, this can diminish both fluency and clarity in their communication. A study conducted by Trigueros-Ramos et al. (2019) indicated that when students experience a sense of autonomy in their performance, face challenges appropriate to their skill level, and possess self-determination, their self-efficacy is likely to improve. This, in turn, leads to increased confidence in their success and in executing various classroom tasks. However, it is important to note that the research by Trigueros-Ramos et al. (2019) was confined to the realm of Physical Education (PE). While there are similarities to the dynamics found in English classes, PE is inherently more complex due to its physical nature and the freedom associated with not being in a traditional classroom setting.

In contrast, the study by Wang et al. (2021) focused on university students, where the larger class sizes differ significantly from those in secondary education, resulting in fewer opportunities for student engagement. Additionally, the current study considers resilience as a psychological and behavioral factor that can bolster confidence and facilitate the development of skills necessary for achieving specific academic objectives (Pawlak et al., 2020). This aspect is particularly significant, as the interplay between resilience and confidence can foster proactive and positive experiences. If these elements are effectively integrated and processed, they can empower students academically, thereby aiding them in reaching the goals they have previously established (Donovan & Erskine-Shaw, 2020).

While the findings of the study are noteworthy, several limitations warrant attention. The research relies on self-reported measures provided by participants, which precludes the establishment of causal relationships, as other influencing variables may exist (Hershberger & Marcoulides, 2013). Additionally, the applicability of the results may be compromised due to the lack of representation of all social and ethnic groups within the study. Therefore, conducting longitudinal and experimental research

could yield more insights into potential causal links among the variables and incorporate additional factors, thereby minimizing methodological biases (Conway & Lance, 2010). For instance, future investigations could explore the impact of various educational programs and teaching strategies on enhancing students' skills and abilities, ultimately fostering greater adaptability in the face of challenges (Ahmadi et al., 2023). Moreover, longitudinal studies could provide a deeper understanding of students' adaptive capacities throughout their educational journey from an evolutionary standpoint, allowing for a better grasp of the rate of change.

6. Conclusion

This research investigates how the fulfillment of psychological requirements among high school students affects their academic performance in English language studies. Additionally, it examines the connections between the satisfaction of these psychological requirements, resilience, and confidence, as well as how these factors relate to students' willingness to engage in English communication. The findings of this study can inform the development of teaching strategies and educational programs aimed at enhancing students' competencies, skills, and self-confidence for practical use of the English language both in the classroom and in various other settings. The present research views resilience as a psychological and behavioral element that can enhance confidence and support the acquisition of skills essential for reaching particular academic goals. This dimension is especially important, as the relationship between resilience and confidence can promote proactive and constructive experiences. Furthermore, the generalizability of the findings may be limited by the insufficient representation of various social and ethnic groups in the study. Consequently, engaging in longitudinal and experimental research could provide deeper insights into possible causal relationships among the variables and include more factors, thus reducing methodological biases.

Conflicts of Interest: The authors declare no conflict of interest.

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