

Investigating the influence of ambiguity tolerance and resilience on student engagement: A literature review

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ABSTRACT

The field of education has experienced a profound impact with the emergence of positive psychology (PP), leading to a heightened emphasis on engagement as a crucial construct. Simultaneously, individual differences, particularly ambiguity tolerance, have gained recognition for their pivotal role in the learning process and their influence on learners' engagement. In contrast, resilience has emerged as a potent tool for engaging English as a foreign language (EFL) learners, empowering them to adeptly navigate and overcome challenging circumstances and setbacks. However, despite the acknowledged significance of ambiguity tolerance and resilience in educational contexts, their roles within the domain of foreign language learning remain underexplored. This review sets out to investigate the influence of ambiguity tolerance and resilience on EFL learners' engagement. The study presents compelling evidence, underscoring the substantial roles that ambiguity tolerance and resilience play in fostering learners' engagement. The major finding of this research is the identification of ambiguity tolerance and resilience as crucial factors in enhancing EFL learners' engagement. Following that, building upon these findings, the paper offers practical implications and suggestions for effectively integrating these constructs into foreign language education. Finally, the ultimate goal is to enhance students' overall engagement and enrich their learning experiences.

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Article history:

Received: July 27, 2023

Revised: January 30, 2024

Accepted: February 05, 2024

Published: February 22, 2024

Citation: Kianinezhad, N. (2024).

Investigating the influence of

ambiguity tolerance and

resilience on student

engagement: A literature

review. *English Learning*

Innovation, 5(1), 142–150.

<https://doi.org/10.22219/englie.v5i1.28210>

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P-ISSN 2723-7400

E-ISSN 2723-7419

Keywords: Ambiguity Tolerance; Individual Differences; Positive Psychology; Resilience; Student Engagement.

INTRODUCTION

In the field of education, there has been a burgeoning interest in investigating how individual traits and characteristics impact student engagement. Among the traits that have captured considerable attention are ambiguity tolerance and resilience. In this respect, ambiguity tolerance refers to an individual's capacity to navigate uncertain or ambiguous situations with poise and adaptability. On the contrary, resilience encompasses an individual's ability to rebound from setbacks, sustaining a positive outlook even in the face of challenges. Notably, existing research has unveiled compelling correlations between elevated levels of ambiguity tolerance and resilience and heightened student engagement. This compelling evidence renders the exploration of their influence on student engagement an exceptionally promising and captivating avenue of inquiry.

The growing phenomenon of dropout rates among weak students is a concerning issue, highlighting the importance of learners' engagement in scholastic practices (Lippman & Rivers, 2008). Consequently, engagement, referring to learners' motivation and active participation in educational programs, plays a vital role in achieving desired educational outcomes (Mercer, 2019; Wang et al., 2021). Moreover, over the years, engagement has become a widespread aspect in learning systems, with various factors such as school, learner, or classroom contributing to its transformation (Fredricks & McColskey, 2012). This underscores the need to address and enhance engagement at multiple levels to mitigate dropout rates among weaker students.

In higher education, promoting active engagement among students allows them to utilize their

skills and educational opportunities effectively (Xie & Derakhshan, 2021; Kianinezhad, 2023). Actively participating in assignments and activities fosters scholastic engagement and is closely linked to better academic performance and reduced dropout rates (Thomas & Allen, 2021). Scholastic engagement is a multi-dimensional concept comprising behavior, emotions, and cognition, all interconnected to achieve overall academic success (Adeniji et al., 2020). In language education, emotions play a crucial role and can influence learners' engagement (Pishghadam et al., 2021). That is, understanding the key elements that contribute to learners' engagement is crucial for enhancing academic achievements and reducing negative outcomes like dropouts (Klem & Connell, 2004).

Educators across various fields, including language education, face the challenge of keeping learners engaged and focused. Learners who are more engaged in the classroom tend to display higher academic performance, utilize effective learning strategies, and establish positive social interactions (Zepeda et al., 2020). To address this issue, hence, positive psychology (PP) has emerged as a field that focuses on enhancing learners' engagement and wellbeing (Zakeri et al., 2010). Besides, resilience, a key element in PP, encompasses traits like self-confidence and hardiness, influencing learners' ability to tolerate ambiguity and promoting scholastic engagement.

Scholastic resilience involves learners' capacity to overcome challenges and obstacles in their academic pursuits, such as exam pressure, poor grades, and lack of motivation (Yu et al., 2019). Effective resilience interventions can improve students' aspirations, psychological health, and academic performance, helping them manage stress and depression (Shellman & Hill, 2017). In the process of learning English as a foreign language (EFL), learners often encounter ambiguous linguistic and cultural patterns, which can lead to confusion (Li & He, 2016). Specifically, ambiguity tolerance, i.e., the ability to manage uncertain situations without feeling overwhelmed, plays a crucial role in language acquisition (Brown, 2000).

For instance, learners with higher ambiguity tolerance are more likely to engage actively in classroom activities, while those with low tolerance tend to avoid challenging tasks (Zarfsaz & Takkac, 2014). Truly, this highlights the significance of fostering ambiguity tolerance in EFL learners to enhance their overall language learning experience.

Therefore, the current study aims to explore the relationship between resilience, ambiguity tolerance, and language learners' engagement. That is, by understanding the roles of these constructs in language education, educators can gain valuable insights to enhance students' language learning experiences, motivation, and overall academic success. This research seeks to identify the specific ways in which resilience and ambiguity tolerance impact language learners' engagement, and how this engagement, in turn, influences their language learning outcomes. By uncovering these relationships, educators can develop targeted interventions and strategies to foster resilience, improve ambiguity tolerance, and promote active engagement among language learners. Finally, this can lead to more effective language education practices and better support for students' language learning journey.

LITERATURE REVIEW

Learner Engagement

Learner engagement is a critical aspect of education, referring to the extent to which students actively participate and invest their time, effort, and energy in learning activities (Chang et al., 2016). In fact, Thomas and Allen (2021), define engagement as the combination of students' commitment, resources, and abilities employed in completing both in-class and out-of-class assignments, along with the strategies used by teachers to motivate their students.

This multi-dimensional construct of engagement can be categorized into various types: behavioral, emotional, cognitive, and social (Rangvid, 2018). Behavioral engagement involves students' active involvement and participation in learning activities (Hiver et al., 2021; Wang & Derakhshan, 2021). Emotional engagement is characterized by learners' feelings and perceptions related to the learning environment, tasks, people, and their overall engagement in the learning process (Henry & Thorsen, 2020).

Moreover, cognitive or intellectual engagement focuses on learners' motivation and dedication to understanding and mastering complex concepts and challenging academic skills (Maroco et al., 2016). That is, emotional engagement, on the other hand, encompasses learners' positive or negative responses to various aspects of the educational environment, including their relationships with peers, teachers, school belonging, and their beliefs about the value of

education (Reeve, 2012).

Social engagement takes into account the social interactions and contributions within the educational community, such as students' relationships with their peers and teachers (Mercer, 2019; Han, 2021). Overall, behavioral engagement refers to students' active participation and commitment to school tasks and activities (Shappie & Debb, 2019).

In conclusion, learner engagement is a multi-dimensional concept involving behavioral, emotional, cognitive, and social aspects, all of which contribute to students' active involvement and investment in the learning process. Understanding and promoting these different dimensions of engagement are essential for creating a positive and effective learning environment.

Resilience

Resilience refers to the internal and external factors influencing an individual's ability to adapt to changes and navigate through traumatic experiences, leading to a restoration of equilibrium (Brewer et al., 2019). International students are often encouraged to develop resilience to effectively manage and adjust to the challenges of new environments. Resilient students demonstrate the capacity to cope with and rebound from difficult circumstances (Portnoy et al., 2018).

In the context of learning English, resilience is characterized as the inner ability to overcome hardships and challenges in unfavorable educational situations (Shin & Kim, 2017). Scholastic resilience plays a significant role in language learning, as it enhances learners' motivation to study English (Martin & Marsh, 2006). Studies have shown that highly resilient and moderately resilient language learners tend to be more competitive in the classroom compared to their non-resilient counterparts (Martin & Marsh, 2006).

In addition, resilience is a developmental concept that describes an individual's capacity to recover from setbacks and stress, aiding in the management of academic demands, promoting academic success, and fostering effective coping with educational pressures (Brewer et al., 2019). Resilient learners are believed to outperform non-resilient individuals, demonstrating the impact of resilience on education and overall personal growth across various disciplines (Kim et al., 2019).

The three fundamental aspects of resilience include the ability to adapt and adjust as needed, the capacity to bounce back quickly from challenges and setbacks, and the ability to maintain confidence and strength amidst changes (Schelvis et al., 2014; Xue, 2021). In fact, these aspects contribute to an individual's ability to thrive despite adversity and contribute positively to their educational journey.

Tolerance of Ambiguity

Tolerance for ambiguity is a psychological characteristic that reflects an individual's capacity to handle uncertain and ambiguous situations without succumbing to frustration or immediately seeking guidance from authorities (Ehrman et al., 2003). Scholars have proposed diverse definitions for this concept, which essentially pertains to how a person responds to unclear stimuli or events. In the context of language learning, ambiguity arises when the appropriate context for cues or incentives cannot be determined, often occurring in novel, intricate, or contradictory circumstances (Nezhad et al., 2013; Han, 2021b).

Researchers have further identified tolerance for ambiguity as a fundamental aspect influencing an individual's personality (Li & He, 2016). This trait empowers individuals to embrace complex situations without becoming overwhelmed. Ambiguous situations, characterized by a lack of sufficient information, are managed through ambiguity tolerance, which involves impartially and openly acknowledging and accepting uncertainty. Individuals with this trait can explore creative possibilities without being intellectually or emotionally hindered by ambiguity or unpredictability (Ahmadjavaheri & Baghaei, 2020).

In language education, encountering a high volume of new information or conflicting language elements can lead to strong negative emotional responses, such as stress. Tolerance for ambiguity extends to various aspects of an individual's emotional and intellectual functioning, influencing their cognitive frameworks, interpersonal and social functions, beliefs, and problem-solving approaches (Furnham & Marks, 2013; Kianinezhad, 2023, 2024).

To put it briefly, tolerance for ambiguity holds significant importance in language learning and beyond, as it equips individuals to navigate intricate and uncertain situations with composure and adaptability. For this reason, understanding and nurturing this trait can positively impact

various aspects of an individual's cognitive and emotional functioning.

METHODS

In the first stage, the review process for this article involved a comprehensive examination of existing literature related to learner engagement, resilience, and tolerance for ambiguity in the context of language education. An extensive search across academic databases was conducted, utilizing keywords such as "*learner engagement*," "*resilience*," "*ambiguity tolerance*," and "*language education*." Relevant articles, reviews, and research studies were meticulously selected based on their alignment with the research focus (Okoli & Schabram, 2015). In the next stage, as a foundational step, the gathered information from the selected articles formed the basis for the literature review (Okoli & Schabram, 2015). The collected data provided valuable insights into the multi-dimensional aspects of learner engagement, the role of resilience in language learning, and the significance of ambiguity tolerance. Notably, in the final stage, special attention was given to studies that specifically examined the impact of resilience and ambiguity tolerance on language learners' engagement.

RESULTS AND DISCUSSION

Since the inception of educational interest, the exploration of the correlation between individual traits and student engagement has remained a central focus. Notably, two traits, i.e., ambiguity tolerance and resilience, have garnered significant attention for their associations with heightened student engagement (Adeniji et al., 2020; Shellman & Hill, 2017). This review seeks to delve into the intricate relationship between these constructs and language learners' engagement, providing valuable insights for educators to enhance language learning experiences.

Furthermore, the examination of learner engagement revealed its multi-faceted nature, encompassing various dimensions, i.e., behavioral, emotional, cognitive, and social aspects (Chang et al., 2016; Rangvid, 2018). These diverse dimensions collectively contribute to students' active participation in the learning process, underscoring the importance of comprehensively understanding and fostering each facet of engagement to create an effective learning environment.

Moreover, resilience emerged as a pivotal factor in language learning, exerting influence on motivation and competitiveness in the classroom (Martin & Marsh, 2006). The study highlighted resilience's developmental aspects, i.e., adaptability, quick recovery from challenges, and maintaining confidence amidst changes (Schelvis et al., 2014). Resilience was thereby recognized as a crucial element in navigating the stresses of academic demands, ultimately contributing positively to personal growth.

Similarly, tolerance for ambiguity was portrayed as a psychological characteristic that empowers individuals to navigate uncertain situations calmly (Ehrman et al., 2003). In the context of language education, where ambiguity is prevalent, this trait was identified as particularly influential in managing stress and fostering adaptability (Kianinezhad, 2023). Tolerance for ambiguity, acting as a critical factor in both cognitive and emotional functioning, significantly impacted problem-solving approaches and interpersonal interactions.

The dynamic interplay between resilience, i.e., the ability to rebound from setbacks, ambiguity tolerance, i.e., the capacity to navigate uncertain situations, and learner engagement in language education underscores the imperative need for targeted interventions (Ehrman et al., 2003). Understanding how these constructs intricately contribute to engagement enables educators to devise strategies that nurture resilience and enhance ambiguity tolerance; as a result, encouraging active participation among language learners.

Overall, this review systematically examined the multifaceted aspects of learner engagement, resilience, and tolerance for ambiguity in language education. The findings underscore the critical importance of considering these constructs in educational practices, with potential

implications for developing interventions aimed at improving language learners' overall academic success.

The main objective of this research is to highlight the importance of nurturing and fostering learners' active participation in educational and instructional processes. Learner engagement holds a central position that demands prioritization in educational environments due to its significant impact on academic achievement and holistic development (Reeve, 2012). The study's findings underscore the value of encouraging students' active involvement throughout their learning journey. To establish an effective learning framework and elevate students' performance, it becomes imperative to cultivate both tolerance for ambiguity and resilience within the context of language education.

Certainly, without a doubt, the absence of tolerance for ambiguity and resilience in learners can noticeably impact educational systems. After conducting a comprehensive analysis of relevant literature, numerous noteworthy pedagogical implications can be proposed. In this regard, teachers can integrate activities and inquiries that specifically address resilience and ambiguity tolerance within their classrooms. Such initiatives will serve to encourage students to become actively involved in the learning process. Besides, EFL educators hold a pivotal responsibility in establishing a more humanistic and less stressful classroom environment that nurtures student engagement. It is highly recommended for educators to consider learners' tolerance for ambiguity and resilience when designing a student-friendly educational setting that fosters and motivates active participation during class sessions.

In fact, recognizing the significant influence of tolerance for ambiguity in foreign language education is of great value and should prompt educators to reshape and conduct their courses in a manner that aids students in effectively overcoming mental barriers. By doing so, students are likely to experience a greater sense of ease, confidence, motivation, and enthusiasm within the language class. More importantly, these positive outcomes can be achieved when students are well-informed about the learning process (Domyei & Ryan, 2015).

Furthermore, the outcomes of this research carry significant implications for EFL students, as fostering tolerance and resilience empowers them to approach language learning with greater focus and effectiveness. Learners who exhibit tolerance for ambiguity demonstrate enhanced flexibility in dealing with intellectual complexities (Edison & Geissler, 2003) and are more willing to embrace the challenges and uncertainties inherent in the language learning process. Thus, this adaptability enables them to proficiently handle intricate, conflicting, and ambiguous language elements, leading to improved performance and a broader perspective on language education.

Conversely, individuals with low tolerance for ambiguity may experience elevated stress levels and a tendency to avoid ambiguous situations, thereby impeding their language learning progress (Reeve, 2012). So, resilient learners maintain strong motivation for success and achievement, even when faced with anxiety-inducing circumstances, resulting in enhanced academic performance and a reduced likelihood of dropouts (Kim et al., 2019).

In the realm of language education, tolerance for ambiguity, i.e., an individual's capacity to handle new and unclear stimuli without succumbing to anxiety or frustration, plays a crucial role. Possessing a high tolerance for ambiguity offers several advantages, i.e., it empowers learners to develop greater confidence in their social interactions. Highly tolerant individuals can participate in discussions with assurance, even when encountering unfamiliar or incomprehensible words (Kurniasari & Indriani, 2021). For instance, learners with high ambiguity tolerance are adept at navigating situations where they encounter incomprehensible input. Alternatively, a low level of ambiguity tolerance can have negative repercussions, causing students to be hesitant in expressing their thoughts and ideas in the classroom. Ambiguity tolerance is also crucial in problem-solving and decision-making processes, enabling students to excel in complex scenarios. Learners who embrace ambiguity demonstrate greater decisiveness, superior performance, and a focus on positive outcomes (Arquero et al.,

2017).

CONCLUSION

Given the assumptions derived from this study, it is advisable to promote and enhance tolerance for ambiguity during foreign language learning, equipping EFL students with skills and approaches that foster effective engagement in foreign languages. Developers of English as a foreign language materials are strongly encouraged to include content that fosters and reinforces students' resilience and tolerance for ambiguity. Next, the findings suggest that decision-makers in language learning should promote more compassionate approaches in syllabus design and educational settings, aiming to create an environment that reduces anxiety in reading materials and alleviates stress for EFL students. Such measures would enhance ambiguity tolerance and resilience in the language learning process, ultimately leading to increased student engagement. While the present study exclusively focused on English language university scholars, there remains a dearth of research in other domains. Further investigations are necessary to explore the relationship between various factors influencing learning across different stages of EFL education, both in private institutions and among English teachers. For future research, it is suggested to examine the direct and indirect relationships between the variables studied in this paper and their impact on language achievement. Finally, employing mixed-methods approaches, combining quantitative data on ambiguity tolerance, resilience, and engagement with qualitative data collection techniques, would provide a comprehensive and unbiased perspective on the subject.

CONFLICTS OF INTEREST

The author declares that there is no conflict of interest regarding the publication of this paper.

AUTHOR CONTRIBUTIONS

Kianinezhad, N.: Conceptualization (lead), methodology (lead), writing – original draft (lead), review (supporting) writing – original draft (supporting), review (lead), editing (lead)

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