

Need Satisfaction as the Mediator in the Relationship between Psychological Capital and Foreign Language Anxiety among Senior High School Students in Guizhou, China

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Abstract

This study explores the relationship between psychological capital (PsyCap) and foreign language anxiety in academic settings, with need satisfaction as the mediator in this relationship. Since the emergence of the concept of PsyCap, a wealth of research has focused on the workplace domain, demonstrating its positive impact on work outcomes. However, its effectiveness in language learning and the potential benefits it might offer in alleviating foreign language anxiety, especially in non-Western contexts, have yet to be thoroughly investigated. Therefore, the study aims to fill the academic gap regarding PsyCap, exploring the pathways and relationships between PsyCap and foreign language anxiety, and based on the Self-Determination Theory, selecting need satisfaction as a mediator to help explain this relationship. In this study, the relationship will be investigated using the explanatory sequential design method. A quantitative study will be conducted first to collect data on high school students' psychological capital, foreign language anxiety, and need satisfaction levels. Then, a qualitative study will be undertaken to analyze the relationship in depth after verifying the hypothesis that there is a correlation between the three.

Keywords: Academic Psychological Capital, Foreign Language Anxiety, Need Satisfaction, Explanatory Sequential Methodology, Qualitative

Introduction

Psychological Capital is composed by hope, resilience, optimism and self-efficacy, which is derived from Positive Psychology and Positive Organizational Behavior, and is widely used in the workplace to improve employee's engagement, attitude and performance, etc. As the theory continues to evolve, scholars have introduced it into the field of education to explore its impact on students or teachers. For example, the inferential studies from Remya & Revathy (2022) demonstrate a significant negative correlation between psychological capital and anxiety. However, its efficacy within an language learning setting and the potential

advantages it may yield in terms of language learning anxiety, particularly in non-Western contexts, remain largely unexplored.

Foreign language anxiety is a situation-specific anxiety (Gardner, 1985), personal and interpersonal factors are frequently highlighted and extensively discussed as the primary sources of language anxiety in numerous studies (Young, 1991). For that reason, it is necessary to explore the relationship between PsyCap and foreign language anxiety. Furthermore, Ortega-Maldonado and Salanova (2018) demonstrated an unexpected association in their research, indicating a direct link between PsyCap and satisfaction, emphasizing the significance of this factor within academic environments. Simultaneously, according to Self-Determination Theory (SDT), failure to fulfill three fundamental psychological needs may lead individuals to experience feelings of anxiety. Therefore, this study selects need satisfaction as a mediating variable to make the pathway of PsyCap's influence on foreign language anxiety clearer. Based on the reasons above, the present study aims to contribute to fill the gap in the academic PsyCap, exploring the paths and relationships between PsyCap, need satisfaction and foreign language anxiety.

Background

Psychological Capital (or PsyCap) is the high-order factor, which is comprised by four individual components: hope, resilience, optimism and self-efficacy (Luthans, Avolio, Avey, & Norman, 2007). Since the concept of psychological capital emerged, a large and growing body of research has demonstrated that PsyCap is positively related to behavioural, attitudinal, and performance outcomes in the workplace (Paterson, Luthans, & Jeung, 2014; Luthans & Youssef-Morgan, 2017). The key distinction between PsyCap and other popular positive emotions, such as happiness, lies in its state-like nature, meaning it is a malleable and developmental core construct. Based on this, a considerable amount of research has begun to explore the impact of interventions on PsyCap levels. Furthermore, studies have confirmed that both short web-based training interventions (Luthans, 2008) and face-to-face interventions (Rew et al., 2016) can promote the development of employees' Psychological Capital, thereby contributing to leadership and human resource development.

However, its effectiveness in an educational environment and the possible benefits it could offer in terms of educational results, especially in non-Western educational environments, have yet to be thoroughly investigated. Several studies have shown the positive impact of PsyCap on students' academic performance (Luthans et al., 2012 ; Swayze, 2019), engagement (Luthans et al., 2016; Datu & Valdez, 2016; Carmona-Halty et al., 2021), and well-being (BC Luthans, KW Luthans, 2015), there is no evidence on the relationship between students' PsyCap and foreign language learning anxiety. PsyCap is seen as a positive psychological resource that can help students overcome barriers to academic achievement, and can also be implemented widely or specifically for at-risk students.(Luthans et al., 2012). Meanwhile, Yang, & Yang (2022), found that positive psychological capital can effectively reduce the anxiety caused by academic stress. Gordani, Y., & Sadeghzadeh, M. (2023) further investigated foreign language learning anxiety and found that two components of psychological capital, namely self-efficacy and resilience, mediate the relationship between mindfulness components and EFL classroom anxiety. Therefore, our study hypothesis was that students' PsyCap would be related to their foreign language anxiety.

Although the positive impact of PsyCap on anxiety symptoms has already been examined (Liu et al., 2013), the mechanisms underlying the association between PsyCap and anxiety have yet to be elucidated, and their focus was not on academic aspects. The foreign language anxiety is situation-specific, and the mechanism between it and psychological capital appears more ambiguous, therefore, it is of practical and theoretical significance to study the relationship between psychological capital and foreign language anxiety. The results of this study could provide some evidence on the adaptive role of PsyCap in non-Western socio-cultural society and academic context.

The concept of need satisfaction comes from Self-Determination Theory (SDT), which believes that people have three basic psychological needs: autonomy, competence and relatedness. Abdullah (2022), has proven that satisfaction of autonomy (among the basic needs variables) directly predicts a decrease in language anxiety; therefore, it can be said that there is a certain correlation between meeting students' basic psychological needs and reducing foreign language anxiety. Also, there is a correlation between students' need satisfaction and their psychological capital. The findings of Elbers et al. (2023), showed that employees' psychological capital was positively correlated with their basic need satisfaction. Therefore, in the current study, we hypothesize that need satisfaction might be the potential mediating variable between PsyCap and foreign language anxiety.

Based on reasons above, the present study hypothesized:

H1: Academic PsyCap negatively correlates with foreign language anxiety.

H2: Academic PsyCap positively correlates with need satisfaction.

H3: Need satisfaction negatively correlates with foreign language anxiety.

H4: Need satisfaction mediates between academic PsyCap and foreign language anxiety.

Research Significance

The importance of English as one of the main subjects at the high school in China can be seen from the fact that it accounts for 20 per cent of the total score of the college entrance examination (750 points in total). Students at the high school level face not only the pressure of the college entrance examination, but also have to adapt to the difficulty of listening, speaking, reading and writing in the English subject. Academic anxiety was regarded as one of the most significant affective factors in the process of EFL learning (Zhao, 2007), which would generate pervasive effects on EFL learning and English performance. As a result, a number of researchers have begun to focus on the field of second language acquisition to explore the causes and ways to alleviate foreign language anxiety. In the past decades, the measurement of foreign language anxiety, the antecedents and consequences of foreign language anxiety, and related intervention studies have been extensively explored by scholars. However, previous studies mainly explored the external factors that may trigger the foreign anxiety, and seldom examined the internal factors of foreign language anxiety. Chinese students' FLCA was mostly predicted by learner-internal variables (Jiang & Dewaele, 2019). Therefore, this study explored the relationship between students' psychological capital and FLA from the perspective of positive psychology, aiming to provide theoretical support for the effective prevention of foreign language anxiety.

In addition, the mechanisms underlying the association between PsyCap and anxiety has yet to be elucidated. The foreign language anxiety is situation-specific, and the mechanism

between it and psychological capital appears more ambiguous. Therefore, it is of practical and theoretical significance to study the relationship between psychological capital and foreign language anxiety. Besides, based on the self-determination theory, this study chooses need satisfaction as a mediating variable to make the pathway of PsyCap's influence on foreign language anxiety clearer, so that the mechanism of action between PsyCap and FLA can be better explained.

Theory alone is not enough. Theory can only be important if it is put into practice and helps to improve instruction. Exploring the relationship between PsyCap, need satisfaction and foreign language anxiety has practical implications for both education policy makers and foreign language teachers. Firstly, the study can help educational policy makers to effectively formulate educational policies and practice guidelines, and foreign language teachers to enhance their professional competence in psychological support as well as to adjust their teaching strategies to better meet students' psychological needs. Secondly, this study can help foreign language teachers provide more targeted mental health education and training to help students better cope with academic stress and anxiety.

Literature Review

Psychological Capital

The concept of psychological capital is derived from positive psychology and positive organizational behaviour. It differs from traditional economic, human and social capital by emphasizing "who you are" and "what you can become". PsyCap refers to the positive mindset that an individual possesses in the face of challenges and stress. PsyCap can be defined as "an individual's positive psychological state of development characterized by (1) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward the goals, and when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" (Luthans, Youssef, & Avolio, 2007, p. 3). The four positive constructs has been shown to have conceptual independence and empirically based discriminant validity (Luthans, Avolio, Avey, & Norman, 2007). They also have the shared underlying link to comprise the higher-order factor, representing one's positive appraisal of circumstances and probability for success based on motivational effort and perseverance (Luthans et al., 2007). Hence, we can say that PsyCap consisting of four constructs is reasonable and more broader and impactful than individual constructs (Luthans et al., 2007). Together, these four constitute a positive state of mind that helps individuals to better cope with challenges, improve performance, and promote personal growth.

Although PsyCap as a core construct predicts workplace attitudes and performance has been full explored (Paterson, Luthans, & Jeung, 2014; Luthans & Youssef-Morgan, 2017), studies about this high-order construct in the academic realm are still in early stage. Results from the BC Luthans, KW Luthans, & Jensen (2012) were the first to demonstrate a significant relationship between the PsyCap of college business students and their academic performance, as measured by their GPA. Following this, a significant amount of research has begun to focus on academic PsyCap. Findings from these studies suggest that PsyCap is associated with positive outcomes and is negatively correlated with pathology and negative

variables (such as stress and burnout). The research subjects are also predominantly college students (Burhanuddin et al., 2019).

In summary, while existing research has demonstrated a correlation between psychological capital and anxiety, the specific mechanisms underlying this relationship remain unclear, and there is a lack of studies focusing on high school students. Therefore, to enrich the academic psychological capital and gain a deeper understanding of its relationship with foreign language anxiety, this study aims to explore the mechanisms underlying the impact of psychological capital on foreign language anxiety.

Foreign Language Anxiety

The literature on anxiety often divides it into three categories: trait, situation-specific, and state anxiety. Over the past few decades, researchers have come to agree that language anxiety is a type of situation-specific anxiety (Gardner, 1985), which is a multifaceted and complex phenomenon (Young, 1991). It can be defined as “the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning” (MacIntyre & Gardner, 1994, p. 284).

Research on reducing foreign language anxiety mostly focuses on a variety of foreign language factors, including in-class practices and activities to instructor behavior. There is relatively less research focusing on the learners themselves. Psychological capital as a personal resource plays an important role in foreign language learning anxiety. Foreign language learners with high psychological capital are likely to motivate themselves to learn. Therefore, they may perform excellently in their academic pursuits and continue to pursue greater success in foreign language learning. Aliyev (2015), conducted a study involving 745 high school students, and the results showed that students’ psychological capital could reduce their propensity for violence by alleviating negative emotions such as anxiety, stress, and burnout. Xie (2019), who explored the correlation between junior school students’ psychological capital, test anxiety, and English academic performance, it was found that junior school students’ psychological capital correlated with their text anxiety. These findings support the idea that psychological capital has the ability to suppress negative emotions.

As an important resource for foreign language learners to effectively cope with various challenges and promote their own development, the concept of psychological capital has been introduced into the field of second language acquisition, but it has not been given enough attention, and there are not many research results on the correlation between positive affective factors and negative affective factors of foreign language learners. For these reasons, this study will explore the relationship between PsyCap and foreign language anxiety.

Need Satisfaction

The concept of need satisfaction is derived from Self-Determination Theory (SDT), which suggests that people have three basic psychological needs: autonomy, competence and relatedness. Autonomy is one of the three cornerstone basic psychological needs responsible for true intrinsic motivation and well-being of the individual (Ryan & Deci, 2017). Competence is the need to be effective in dealing with the environment. Individuals need to build their competence and develop mastery of tasks and subjects. Finally, relatedness is the need for

close, meaningful relationships with others. To experience well-being, humans must feel a sense of belonging with others (Deci & Ryan, 1985).

Studies have shown that frustration of needs can lead to anxiety, depression, internal conflicts and so on (Vansteenkiste & Ryan, 2013). Bolliger and Halupa (2012), observed an adverse connection between students' anxiety levels and their satisfaction with online learning. Abdullah (2022), proved that satisfaction of autonomy (among the basic needs variables) directly predicted a decrease in language anxiety. Therefore, it can be said that there is a certain correlation between meeting students' basic psychological needs and reducing foreign language learning anxiety. When students feel that they have gained sufficient autonomy, a sense of competence, and interpersonal relationships in a foreign language learning environment, they may be more inclined to face learning more actively and autonomously, thereby reducing their anxiety.

The relationship between psychological capital and need satisfaction is a crucial area of study in organizational psychology and management. Luthans et al. (2008), found that employees' psychological capital is positively related to their performance, satisfaction, and commitment, while a supportive organizational climate is related to employees' satisfaction and commitment. Elbers et al. (2023), examined the impact of psychological capital on the relationship between dark leadership traits and employees' basic need satisfaction in the workplace. The findings indicated that psychological capital can act as a buffer against the negative effects of dark leadership, highlighting the importance of positive psychological resources in promoting employees' basic need satisfaction. This concept has also been introduced into the academic setting. Ortega-Maldonado et al. (2018), highlighted the predictive relationships between psychological capital, meaning-focused coping, satisfaction, and performance among undergraduate students. Additionally, González-Cutre et al. (2018), emphasized the importance of novelty satisfaction as a potential basic psychological need in physical education. Based on the aforementioned research, this study hypothesizes that need satisfaction may serve as a mediator between PsyCap and foreign language anxiety.

Research Objectives

This study is an explanatory sequential design method, which focuses on exploring and analyzing the relationship between academic psychological capital and foreign language anxiety, with the mediation effect of students' need satisfaction on the influential relationship between PsyCap and FLA. The purpose of this study is to :

Main objectives

Understand the current psychological capital, need satisfaction and foreign language anxiety level among senior high school students in Guizhou, China.

Explore the mechanism underlying the relationship between psychological capital and foreign language anxiety among senior high school students.

Sub-objectives

Examine relationship between psychological capital, foreign language anxiety.

Examine the mediating effect of need satisfaction on the relationship between psychological capital and foreign language anxiety.

Explore the impact of four components of PsyCap - hope, resilience, optimism, and self-efficacy - on foreign language anxiety respectively.

Give practical suggestion to prevent and alleviate foreign language anxiety among Chinese senior high school students from a positive psychology perspective.

Research Questions and Hypothesis

Q1: What is the current psychological capital, need satisfaction and foreign language anxiety level among senior high school students in Guizhou, China ?

Q2: How does individual' s psychological capital help to alleviate his foreign language anxiety?

Q3: What are the correlations between psychological capital and foreign language anxiety?

Q4: Whether and to what extent does need satisfaction mediate the relationship between psychological capital and foreign language anxiety?

Q5: How does students' need satisfaction mediate the relationship between PsyCap and foreign language anxiety?

Q6: How do hope, resilience, optimism, and self-efficacy respectively help alleviate foreign language anxiety?

H1: Academic PsyCap negatively correlates with foreign language anxiety.

H2: Academic PsyCap positively correlates with need satisfaction.

H3: Need satisfaction negatively correlates with foreign language anxiety.

H4: Need satisfaction mediates between academic PsyCap and foreign language anxiety.

Proposed Methodology

In this study, the explanatory sequential design method will be used to investigate the relationship between psychological capital, need satisfaction and foreign language anxiety. Mixed methods research allows for gathering both qualitative and quantitative data in a single study (Tashakkori et al., 2020). The integration of both types of data analysis allows for a deeper understanding than either could provide alone (Creswell & Creswell, 2018).

Firstly, a quantitative study was conducted to collect data on subjects' psychological capital, foreign language anxiety and need satisfaction level. The data required for this section will be collected in the form of questionnaire and the data obtained will be used to answer research questions 1,3,4. Correlation and regression analyses will be carried out through SPSS software so as to find out the correlation between psychological capital and FLA and whether need satisfaction plays a mediating role between the two variables.

Secondly, a qualitative study is then taken to analyse the relationship in depth after the hypothesis that there is a correlation between the three is verified. This section will use interviews and focus groups to gather qualitative data. By employing these tools, a deeper understanding of students' psychological capital and its four dimensions (hope, resilience, optimism, self-efficacy) can be gained, particularly in how they influence need satisfaction and subsequently alleviate foreign language learning anxiety. Qualitative data will aid in better understanding the specific manifestations exhibited by high school students with varying levels of psychological capital, thus shedding light on the pathways through which psychological capital influences anxiety in foreign language learning.

In conclusion, quantitative research was first used to collect and analyze data to verify the correlation between psychological capital and foreign language anxiety, and to explore the mediating role of need satisfaction between the two variables. Qualitative research is then used to deeply explore how psychological capital help to meet need satisfaction and alleviate foreign language anxiety.

Conclusion

High school students, as the future backbone of the nation, are expected to develop strong English communication skills to prepare for their careers and lives. English is also a critical component of the college entrance examination. However, as students transition into high school, heightened academic pressures, coupled with uncertainty about future plans, often become internal challenges to foreign language learning. Anxiety, a common emotional response, frequently accompanies the process of foreign language acquisition. Research has shown that Chinese students' foreign language classroom anxiety is largely influenced by internal learner variables (Jiang & Dewaele, 2019). Therefore, understanding the internal factors contributing to foreign language anxiety among Chinese high school students is essential.

Existing research has demonstrated a correlation between psychological capital and anxiety (Wang et al., 2023), but the mechanism between PsyCap and anxiety have yet to be elucidated. Not to mention the mechanism between academic psychological capital and foreign language anxiety in the field of education. As an important resource for foreign language learners to effectively cope with various challenges and promote their own development, the concept of psychological capital has been introduced into the field of second language acquisition, but it has not been given enough attention, and there are not many research results on the correlation between positive affective factors and negative affective factors of foreign language learners. Therefore, studying the relationship between psychological capital and foreign language anxiety holds both practical and theoretical importance. Grounded in self-determination theory, this study incorporates need satisfaction as a mediating variable to clarify the pathway through which PsyCap influences foreign language anxiety. This study provides a deeper understanding of the mechanism linking PsyCap to FLA.

This study illustrates the critical role of psychological capital in alleviating foreign language anxiety among high school students, highlighting need satisfaction as a key mediator in this relationship. By expanding the application of PsyCap from the workplace to academic settings, particularly in non-Western contexts, this study fills an important gap in the existing literature. In addition, this study will use the explanatory sequential design method, which combines quantitative and qualitative methods, to investigate in-depth the correlation between PsyCap, foreign language anxiety, and need satisfaction. The results of the study are expected to show that by revealing how PsyCap reduces foreign language anxiety through need satisfaction, it provides educators with specific intervention paths and strategies that can help design more effective teaching methods and support mechanisms.

From a practical standpoint, investigating the relationship between PsyCap, need satisfaction, and foreign language anxiety offers valuable insights for both educational policymakers and foreign language teachers. First, the findings can guide policymakers in developing effective

educational policies and practice frameworks, while assisting teachers in enhancing their teaching strategies and their skills in providing psychological support to address students' psychological needs. Additionally, this study equips foreign language teachers to deliver more targeted mental health education and training, enabling students to manage academic anxiety more effectively.

References

- Alamer, A. (2022). Basic psychological need satisfaction and continued language learning during a pandemic: A structural equation modelling approach. *Journal for the Psychology of Language Learning*, 4(1), e414322. <https://orcid.org/0000-0003-4450-0931>
- Aliyev, R., & Karakus, M. (2015). The Effects of Positive Psychological Capital and Negative Feelings on Students' Violence Tendency. *Procedia - Social and Behavioral Sciences*, 190, 69–76. <https://doi.org/10.1016/j.sbspro.2015.04.918>
- Bolliger, D. U., & Halupa, C. (2012). Student perceptions of satisfaction and anxiety in an online doctoral program. *Distance Education*, 33(1), 81–98. <https://doi.org/10.1080/01587919.2012.667961>
- Burhanuddin, N. A. N., Ahmad, N. A., Said, R. R., & Asimiran, S. (2019). A systematic review of the psychological capital (PsyCap) research development: Implementation and gaps. *International Journal of Academic Research in Progressive Education and Development*, 8(3), Pages 133-150. <https://doi.org/10.6007/IJARPED/v8-i3/6304>
- Carmona-Halty, M., Salanova, M., Llorens, S., & Schaufeli, W. B. (2021). Linking positive emotions and academic performance: The mediated role of academic psychological capital and academic engagement. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 40(6), 2938–2947. <https://doi.org/10.1007/s12144-019-00227-8>
- Datu, J. A. D., & Valdez, J. P. M. (2016). Psychological capital predicts academic engagement and well-being in filipino high school students. *The Asia-Pacific Education Researcher*, 25(3), 399–405. <https://doi.org/10.1007/s40299-015-0254-1>
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109–134. [https://doi.org/10.1016/0092-6566\(85\)90023-6](https://doi.org/10.1016/0092-6566(85)90023-6)
- Elbers, A., Kolominski, S., & Blesa Aledo, P. S. (2023). Coping with Dark Leadership: Examination of the Impact of Psychological Capital on the Relationship between Dark Leaders and Employees' Basic Need Satisfaction in the Workplace. *Administrative Sciences*, 13(4), 96. <https://doi.org/10.3390/admsci13040096>
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.
- González-Cutre, D., & Sicilia, Á. (2018). The importance of novelty satisfaction for multiple positive outcomes in physical education. *European Physical Education Review*, 25(3), 859 - 875. <https://doi.org/10.1177/1356336X18783980>
- Gordani, Y., & Sadeghzadeh, M. (2023). Mindfulness and the mediating role of psychological Capital in Predicting the foreign language anxiety. *Journal of Psycholinguistic Research*, 52(5), 1785-1797.
- Jiang, Y., & Dewaele, J.-M. (2019). How unique is the foreign language classroom enjoyment and anxiety of Chinese EFL learners? *System*, 82, 13–25. <https://doi.org/10.1016/j.system.2019.02.017>

- Lathabhavan, R., & Lathabhavan, R. (2022). Psychological capital and anxiety: a study among Gen Z job seekers. *Journal of Social and Educational Research*, 1(1), 21-26. <https://orcid.org/0000-0002-4666-4748>
- Levitt, H. M., Bamberg, M., Creswell, J. W., Frost, D. M., Josselson, R., & Suárez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, 73(1), 26. <https://doi.org/10.1037/amp0000151>
- Liu, L., Pang, R., Sun, W., Wu, M., Qu, P., Lu, C., & Wang, L. (2013). Functional social support, psychological capital, and depressive and anxiety symptoms among people living with HIV/AIDS employed full-time. *BMC psychiatry*, 13, 1-10. <https://doi.org/10.1186/1471-244X-13-324>
- Luthans, B. C., & Luthans, K. W. (2015). The relationship between academic psychological capital and the well-being of business students. In *Forty Fourth Annual Meeting of the Western Decision Sciences Institute (WDSI), Maui, Hawaii. Diunduh Dari Http://Wdsinet.Org/Annual_Meetings/2015_Proceedings/Papers/Paper45.Pdf* (Vol. 2).
- Luthans, B. C., Luthans, K. W., & Jensen, S. M. (2012). The impact of business school students' psychological capital on academic performance. *Journal of Education for Business*, 87(5), 253–259. <https://doi.org/10.1080/08832323.2011.609844>
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 339–366. <https://doi.org/10.1146/annurev-orgpsych-032516-113324>
- Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning & Education*, 7(2), 209-221. <https://doi.org/10.5465/amle.2008.32712618>
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541–572. <https://doi.org/10.1111/j.1744-6570.2007.00083.x>
- MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language learning*, 44(2), 283-305. <https://doi.org/10.1111/j.1467-1770.1994.tb01103.x>
- Na, Z. (2007). A study of high school students' English learning anxiety. *The Asian EFL Journal*, 9(3), 22-34.
- Ortega-Maldonado, A., & Salanova, M. (2018). Psychological capital and performance among undergraduate students: the role of meaning-focused coping and satisfaction. *Teaching in Higher Education*, 23(3), 390-402. <https://doi.org/10.1080/13562517.2017.1391199>
- Paterson, T. A., Luthans, F., & Jeung, W. (2014). Thriving at work: Impact of psychological capital and supervisor support. *Journal of Organizational Behavior*, 35(3), 434-446. <https://doi.org/10.1002/job.1907>
- Rew, L., Powell, T., Brown, A., Becker, H., & Slesnick, N. (2017). An intervention to enhance psychological capital and health outcomes in homeless female youths. *Western journal of nursing research*, 39(3), 356-373. <https://doi.org/10.1177/0193945916658861>
- Ryan, R. M. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Swayze, S. (2019). The relationships between psychological capital and GPA: A study of one freshmen cohort. *Journal of Higher Education Theory and Practice*, 19(2), 129. <https://doi.org/10.33423/jhetp.v19i2.1448>

- Tashakkori, A., Johnson, R. B., & Teddlie, C. (2020). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Sage publications.
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration, 23*(3), 263–280. <https://doi.org/10.1037/a0032359>
- Wang, S., Li, H., Chen, X., Yan, N., & Wen, D. (2023). The mediating role of psychological capital in the association between life satisfaction and depressive and anxiety symptoms among Chinese medical students during the COVID-19 pandemic: a cross-sectional study. *BMC psychiatry, 23*(1), 398. <https://doi.org/10.1186/s12888-023-04894-7>
- Yang, Y., & Yang, P. (2022). Effect of college students' academic stress on anxiety under the background of the normalization of COVID-19 pandemic: the mediating and moderating effects of psychological capital. *Frontiers in psychology, 13*, 880179. <https://doi.org/10.3389/fpsyg.2022.880179>
- Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest?. *The modern language journal, 75*(4), 426-439. <https://doi.org/10.2307/329492>