

# **Study Engagement as Mediator between Career Calling and Life Satisfaction**

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# Abstract

This study explores the relationship between career calling and life satisfaction, and examines the mediating role of study engagement in this context. A survey was conducted on 514 pre-service teachers, utilizing the career calling scale, life satisfaction scale, and study engagement scale. The results showed that career calling was significantly positively correlated with study engagement. Study engagement was significantly positively correlated with life satisfaction, and study engagement played a mediating role between career calling and life satisfaction among pre-service teachers.

# **Keywords**

Career Calling, Life Satisfaction, Study Engagement, Pre-Service Teacher

# **1. Introduction**

With the continuous advancement of positive psychology, the concept of career calling has garnered increasing research attention as a key theme within the field of positive psychology. Career calling refers to "a transcendent summons from within the self that goes beyond oneself, characterized by a sense of purpose or meaning and driven by other-oriented values and goals in the enactment of specific life roles" (Dik & Duffy, 2009; Chen et al., 2016). A series of studies conducted both domestically and internationally have indicated that individuals who possess a sense of career calling towards their current or future work tend to exhibit a steadfast recognition of the importance and significance of their profession, leading to active engagement in their work (Dobrow & Tosti-Kharas, 2011; Hirschi, 2012; Chen et al., 2016). In other words, career calling may influence individuals' career development, job satisfaction, and overall life satisfaction (Duffy et al., 2012; Duffy & Sedlacek, 2010). Furthermore, as a subjective

psychological experience, career calling contributes to enhancing individuals' satisfaction with both work and life (Lee et al., 2020; Yang & Liu, 2021). Research conducted by Zhang et al. (2013) revealed a significant positive relationship between career calling and academic satisfaction among pre-service teachers, highlighting the notion that career calling serves as a positive psychological resource that promotes the mental well-being of individuals pursuing a teaching career.

The predictive role of career calling on life satisfaction has been well-established among working professionals. However, for pre-service individuals, particularly prospective teachers who are supported by state funds in pursuing their teaching careers, further exploration is needed. Pre-service teachers in China differ from the typical university students in that they have a clear vocational direction as teacher trainee. Their coursework is closely related to education, and they are encouraged to return to their respective communities for teaching positions. Consequently, the career calling of pre-service teachers may influence their entire learning process during their university studies. If pre-service teachers experience difficulties in life satisfaction due to low levels of career calling, it can inevitably impact their learning state while in university, such as their learning interests and engagement, and even potentially affect their future teaching abilities. Therefore, in order to gain a clearer understanding of how career calling influences the life satisfaction of pre-service teachers and to answer the question of what mechanisms career calling employs to impact their life satisfaction, this study builds upon existing theoretical foundations and empirical investigations. It examines the relationship between career calling and life satisfaction among pre-service teachers and analyzes the transmission pathway of career calling, aiming to provide a basis for vocational education and the cultivation of career calling among pre-service teachers.

According to the Social Cognitive Career Theory, a sense of calling influences an individual's work state, with individuals possessing a high sense of calling being more actively engaged in corresponding activities (Elangovan et al., 2010). This is particularly evident in their levels of work engagement, which are significantly enhanced (Hirschi, 2012; Xie et al., 2016; Gu et al., 2018). Relevant research indicates a significant inherent connection between career calling and positive psychological variables such as occupational health, subjective well-being, and job satisfaction (Dik & Duffy, 2009; Hirschi, 2012; Pei & Zhao, 2015). Teachers with a strong sense of career calling are more likely to identify the significance within their work, leading to an enhancement in their professional commitment (Duffy et al., 2011). As prospective teachers, it has been found that the career calling of teacher trainees positively predicts their sense of life meaning, academic satisfaction, and life satisfaction (Zhang et al., 2013). In other words, if teacher trainees lack a sense of calling or possess only a low level of career calling towards the teaching profession, it may hinder them from discovering their own sense of life meaning or life value, thereby reducing their academic satisfaction and even life satisfaction.

Although previous research has extensively examined the relationship between career calling and life satisfaction, there is still a limited understanding of how career calling specifically influences the life satisfaction of pre-service teachers. The concept of mediation can provide valuable insights into how career calling affects life satisfaction (Wen & Ye, 2014). Study engagement is often used to describe the phenomenon and state of students actively involving themselves in learning tasks (Wang & Wang, 2021). As an important indicator of positive psychological aspects of learning, study engagement reflects students' healthy psychological states and contributes to the stimulation of positive psychological qualities such as optimism, creativity, and a sense of meaning, thereby effectively promoting their maturity and development (Fang et al., 2008). Previous studies have found a significant positive correlation between career calling and study engagement among pre-service teachers, indicating that the higher their career calling, the greater their study engagement (Chen et al., 2016). Additionally, research suggests that higher levels of study engagement help reduce negative emotions in academic settings and enhance students' life satisfaction (Reschly & Christenson, 2012). Goal-promotion theories propose that individuals with a sense of calling are more likely to have clear goals and directions (Fitzsimons & Shah, 2008; Yang & Liu, 2021). In other words, if pre-service teachers have a higher sense of career calling, they are more likely to have clear goals and strive towards a defined direction, leading to a sense of value and life meaning during the pursuit process (Duffy et al., 2016; Duffy et al., 2017). Therefore, career calling may influence the life satisfaction of pre-service teachers through its impact on study engagement. Based on this, a research hypothesis is proposed that study engagement may mediate the relationship between career calling and life satisfaction among pre-service teacher.

# 2. Methods

#### 2.1. Participants

A total of 514 questionnaires were collected using convenient sampling. Among the participants, 21.2% were male and 78.8% were female. The overall average age was 19.46 years (SD = 1.77).

# 2.2. Research Instruments

#### 2.2.1. Career Calling Scale

The Career calling Scale, developed by Dobrow and Tosti-Kharas (2011), was used. It consists of 12 items rated on a 7-point scale, where higher scores indicate a stronger sense of calling toward a specific profession. The scale has demonstrated good reliability and validity within the Chinese cultural context (Zhang et al., 2013). In this study, the Cronbach's  $\alpha$  coefficient for the scale was 0.85.

#### 2.2.2. Life Satisfaction Scale

The Life Satisfaction Scale, adapted from Diener et al. (1985), comprised 5 items

(e.g., "I feel satisfied with my life") rated on a 7-point scale. Higher scores reflect higher levels of life satisfaction. The scale has shown a test-retest reliability greater than 0.80 in domestic investigations. In this study, the Cronbach's  $\alpha$  coefficient for the scale was 0.88.

#### 2.2.3. Study Engagement Scale

The Study engagement Scale based on Schaufeli et al. (2002) was utilized, encompassing three dimensions: vigor, absorption, and dedication. It comprised 17 items rated on a 7-point scale (1 = "never", 7 = "always"). Higher total scores indicate a higher level of study engagement. The scale has been revised by Fang et al. (2008) with a Cronbach's  $\alpha$  coefficient of 0.85. In this study, the Cronbach's  $\alpha$  coefficient for the scale was 0.86.

# 3. Results

#### 3.1. Test for Common Method Bias

To examine the potential common method bias, the Harman's single-factor test method (Zhou & Long, 2014) was employed. The analysis results revealed that there were four factors with eigenvalues greater than 1. The first factor accounted for 14.99% of the total variance, which did not exceed the critical threshold of 40%. This indicates the absence of significant common method bias.

#### 3.2. Descriptive Statistics and Correlation Analysis

As shown in **Table 1**, there were significant positive correlations among career calling, study engagement, and life satisfaction for pre-service teachers.

#### 3.3. Mediation Effect of Study Engagement

Using SPSS 23.0 and the PROCESS macro (Hayes, 2013) with 5000 bootstrapped resamples (Cole et al., 2008), the mediation effect of study engagement between career calling and life satisfaction among pre-service teachers was examined. The results revealed that career calling positively predicted study engagement ( $\beta$  = 0.35, *p* < 0.001). When both career calling and study engagement were included in the regression equation, both factors significantly and positively predicted life satisfaction. Specifically, career calling ( $\beta$  = 0.29, *p* < 0.001) and study engagement ( $\beta$  = 0.54, *p* < 0.001) were significant predictors of life satisfaction. Additionally, the bootstrap confidence interval for the mediation effect did not include zero, indicating a significant mediation effect of study engagement between

| Table 1. Descriptive statistics and | l correlation matrix for | r the study variables | (n = 514). |
|-------------------------------------|--------------------------|-----------------------|------------|
|-------------------------------------|--------------------------|-----------------------|------------|

|                      | $M \pm SD$      | 1      | 2      |
|----------------------|-----------------|--------|--------|
| 1) Career calling    | $4.39\pm0.90$   | -      |        |
| 2) Study engagement  | $4.20\pm0.71$   | 0.43** | -      |
| 3) Life satisfaction | $4.16 \pm 1.00$ | 0.42** | 0.50** |

|                     |                       | Overall fit index |            | Significance of the regression system |      |          |
|---------------------|-----------------------|-------------------|------------|---------------------------------------|------|----------|
| Outcome<br>variable | Predictor<br>variable | R                 | <i>R</i> 2 | F                                     | β    | t        |
| Life satisfaction   | Career calling        | 0.43              | 0.19       | 141.16***                             | 0.48 | 11.88*** |
| Study<br>engagement | Career calling        | 0.44              | 0.19       | 144.11***                             | 0.35 | 12.00*** |
| Life satisfaction   | Study<br>engagement   | 0.56              | 0.31       | ).31 139.44***                        | 0.54 | 10.59*** |
|                     | Career calling        |                   |            |                                       | 0.29 | 7.00***  |

#### Table 2. Mediation effect of study engagement.

Tips: \*\*\**p* < 0.001.

Table 3. Decomposition of total effect, direct effect, and mediation effect.

|                 | Effect | BootSE | ootSE Relative Effect | 95% Confidence<br>Interval |          |
|-----------------|--------|--------|-----------------------|----------------------------|----------|
|                 |        |        |                       | BootLLCI                   | BootULCI |
| Direct effect   | 0.29   | 0.04   | 60.41%                | 0.21                       | 0.37     |
| Indirect effect | 0.19   | 0.03   | 39.58%                | 0.13                       | 0.26     |
| Total effect    | 0.48   | 0.04   |                       | 0.40                       | 0.56     |

Abbreviations: LLCI, lower limit confidence interval; SE, standard error; ULCI, upper limit confidence interval.

career calling and life satisfaction among pre-service teachers. The proportion of the total effect accounted for by the mediation effect was 39.58%. Please refer to **Table 2** and **Table 3** for detailed results.

# 4. Discussion

The findings of this study indicate that career calling positively predicts the life satisfaction of pre-service teachers, which is consistent with previous research (Zhang et al., 2013). One possible reason for this relationship is that as aspiring teachers, pre-service teachers with a stronger sense of career calling tend to experience higher levels of life satisfaction. According to existentialist perspectives, individuals continuously seek a sense of certainty in life (Van den Bos, 2009). For pre-service teachers, career calling represents a sense of certainty they strive for, providing them with clear goals and directions. This sense of certainty helps them face challenges and setbacks in learning and life more positively, ultimately contributing to their experience of life's meaning (Zhang et al., 2013) and thereby enhancing their life satisfaction. From a practical standpoint, cultivating career calling in pre-service teachers becomes an important avenue to enhance life satisfaction. It is essential to foster a heightened sense of career calling among pre-service teachers, encouraging them to develop a stronger sense of mission

towards the teaching profession. This, in turn, can elevate their life satisfaction.

This study also found that study engagement mediates the relationship between career calling and life satisfaction among pre-service teachers. The influence of career calling on study engagement is in line with previous research (Chen et al., 2016), and the impact of study engagement on life satisfaction is consistent with prior findings (Huang & Zhuang, 2016). In summary, career calling can directly enhance the life satisfaction of pre-service teachers and also indirectly improve it through study engagement. This can be attributed to the fact that higher career calling in pre-service teachers is associated with increased study engagement (Chen et al., 2016). Study engagement, in turn, promotes students' development and maturity (Fang et al., 2008), leading to enhanced life satisfaction. On the contrary, a lack of career calling or identification with the teaching profession among pre-service teachers may result in reduced study engagement and even existential crises, ultimately lowering life satisfaction.

This study reveals the mediating effect of study engagement in the relationship between career calling and life satisfaction among pre-service teachers. However, there are still limitations to consider. Firstly, this study employed a questionnaire survey, which, although controlling for common method biases through source attribution and response format, cannot completely eliminate self-report biases and social desirability biases. Future research could utilize implicit measures to investigate the relationship between implicit career calling and life satisfaction in pre-service teachers. Secondly, this study mainly employed a crosssectional design, which cannot establish causal relationships between different variables. Future longitudinal studies are needed to further validate the relationships between the variables involved.

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# **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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