



# The impact of study engagement on the professional identity of college students majoring in English

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This study explored the impact of learning engagement on college students' professional identity, as well as the mediating role of self-efficacy in this relationship. We conducted a survey of 349 Chinese college students majoring in English. The results showed a significant positive correlation between learning engagement and professional identity, and self-efficacy mediated this relationship. These findings provide insight into the complex interplay among learning engagement, professional identity, and self-efficacy within the Chinese higher education landscape, particularly among college students majoring in English. Our findings have practical implications for educators seeking to enhance the professional identity of English-major college students and suggest avenues for future research in this area.

## Keywords

learning engagement, professional identity, self-efficacy, English majors, college students

## Article Highlights

- The learning engagement of Chinese college students majoring in English was found to be positively correlated with their professional identity.
- Learning engagement was positively correlated with self-efficacy.
- Self-efficacy mediated the relationship between learning engagement and professional identity.

In recent years the choice of major among university students has become a point of social concern. Faced with increasingly fierce job competition, students are paying greater attention to the alignment between personal interests and development potential with their chosen major (Wen, 2020). In addition, the rapid advancement of technologies in the modern digital era, such as translation software and artificial-intelligence language models, has provided students with more convenience but also introduced new challenges to professional identity, especially in the field of English studies (Gu & Zhang, 2020). Research has indicated that the phenomenon of low professional identity is widespread among Chinese college students majoring in English (Wu, 2020), encompassing doubts and uncertainties about professional identity when facing the impact of technological development on traditional linguistic skills. This low identification may be reflected in the lack of a sense of professional value, concerns about career prospects, and questioning one's own abilities when confronted with the challenges posed by technological developments.

Low professional identity can have significant consequences for students. For example, Chen et al. (2024) found that a low professional identity weakens students' academic motivation and may also lead to confusion in career planning and development. This psychological state may manifest as increased academic pressure or uncertainty about future careers,

and it can even affect an individual's psychological well-being and sense of happiness (S. Wang et al., 2019). Past research has found associations between low professional identity and issues such as decreased academic performance and reduced job satisfaction (Derakhshan et al., 2020). Therefore, it holds significant practical and theoretical value to understand the current status of professional identity among English-major college students and its influencing factors, to facilitate the development of intervention measures.

Learning engagement has gained increasing attention from psychologists and health experts in recent years (Bao et al., 2022). Previous research has primarily focused on the direct impact of learning engagement on professional identity, assessing factors such as mastery of subject knowledge, academic performance, and interest in the discipline as regulatory mechanisms (Tomlinson & Jackson, 2021). Cai et al. (2022) found that when individuals exhibit a proactive attitude and a high level of concentration during the learning process, effective learning engagement can deepen their understanding of the chosen field of study, enhance awareness of professional values, and consequently strengthen their sense of professional identity. In addition to these factors, learning engagement that includes active participation in subject-related practical activities can expand the boundaries of the discipline as well as promoting individuals' professional identity (Yu et al., 2021). These studies found a clear and positive correlation in which enhancing learning engagement cultivates a positive professional identity. However, despite the inherent importance of self-efficacy in professional identity (Chen et al., 2024), the impact of self-efficacy on the underlying cognitive processes in the relationship between learning engagement and professional identity remains unexplored. To address this gap, this study examined the connection between learning engagement and professional identity through the mediating mechanism of self-efficacy.

## Learning Engagement and Professional Identity

*Learning engagement* refers to the degree of cognitive, emotional, and behavioral effort an individual invests in academic activities (Dong et al., 2020). This involvement includes actively exploring subject knowledge, diligently completing learning tasks, pursuing academic goals, and actively participating in the learning process (Dewaele & Li, 2021). During the process of learning engagement, individuals may demonstrate a proactive pursuit of the subject area and a positive learning attitude, reflecting not only the fulfillment of course requirements but also a deeper understanding of the discipline.

*Professional identity* refers to an individual's identification with and sense of belonging to their chosen profession, encompassing an understanding of professional knowledge, values, and behavioral guidelines (Tang & Wu, 2021). It is manifested in the degree to which an individual integrates into communities related to their professional field (Fitzgerald, 2020). This sense of identity is reflected not only in the individual's pursuit of professional goals and development but also in their identification with the specific culture, norms, and professional responsibilities of their chosen field (Cruess et al., 2019).

Research has shown that learning engagement plays a crucial role in shaping an individual's professional identity. College students lacking learning engagement often face challenges such as a superficial understanding of their chosen field of study or lack of interest, and they may even neglect their academic responsibilities and be confused about their professional goals (van der Wal et al., 2019).

The higher the level of learning engagement, the more likely professional identity is to be cultivated and strengthened (M. Zhang & Li, 2018). Thus, we conjectured that the level of learning engagement experienced by college students would significantly predict their degree of professional identity, and we proposed the following hypothesis:

**Hypothesis 1:** There will be a significant positive relationship between learning engagement and professional identity among English-major college students.



## **The Mediating Role of Self-Efficacy in the Relationship Between Learning Engagement and Professional Identity**

*Self-efficacy*, also known as self-confidence or self-ability, refers to an individual's confidence and belief in their ability to achieve specific tasks and goals, overcome challenges, and effectively cope with various obstacles (Barni et al., 2019). The concept originates from social cognitive theory, emphasizing subjective judgments of one's own capabilities rather than objective competence levels (Graham, 2022). This belief encompasses the assessment of skill levels as well as confidence and expectations for success in specific domains.

There are clear advantages for students who possess high self-efficacy. Researchers have shown that individuals with high self-efficacy tend to maintain a positive attitude when facing challenges, possess greater problem-solving abilities, and exhibit a stronger inclination toward self-directed learning and proactive issue resolution (Chen et al., 2024). Such positive self-assessment and confidence may motivate students to embrace new academic challenges and succeed in the academic domain (Doo & Bonk, 2020). In contrast, individuals with low self-efficacy lack confidence in their abilities, which makes them more prone to frustration. Low self-efficacy can lead to reduced engagement in the academic field and avoidance behaviors when confronted with academic challenges, influencing the formation and development of students' professional identity (Kong et al., 2021). Therefore, the potential link between self-efficacy and professional identity merits additional exploration.

Learning engagement is a crucial environmental variable that promotes the development of individual self-efficacy (Han et al., 2021). Students with high levels of learning engagement tend to demonstrate a deep understanding of subject knowledge, pursue academic goals, willingly invest time and effort in actively participating in academic activities within the discipline, and proactively explore practical experiences related to their profession (Y. Zhang, 2021). These behaviors facilitate a positive learning environment that encourages students to engage more deeply in the academic domain (Hu, 2022), cultivate stronger confidence when facing academic challenges, and enable improved coping with learning difficulties and problems (Sökmen, 2021).

While researchers have found a positive correlation between learning engagement and professional identity, the mediating mechanism is less clear. On the basis of the research outlined above, we predicted that self-efficacy would mediate the relationship between learning engagement and professional identity. Therefore, we proposed the following hypotheses:

**Hypothesis 2:** There will be a positive relationship between learning engagement and self-efficacy among English-major college students.

**Hypothesis 3:** There will be a positive relationship between self-efficacy and professional identity among English-major college students.

**Hypothesis 4:** Self-efficacy will play a mediating role in the relationship between learning engagement and professional identity among English-major college students.

## **Method**

### **Participants and Procedure**

We used class notifications to recruit 400 college students majoring in English from five universities in the cities of Chuzhou and Hefei, China. Data collection took place between November and December 2023. Before administering the survey, we explained the content and purpose of this study and instructed the students to carefully, individually, and anonymously complete all items within 15 to 20 minutes. The students provided written informed consent, completed the paper survey in their classrooms, and received a notebook as compensation for their participation. After excluding invalid questionnaires that had incomplete responses or overly systematic or consistently identical answers, 349 participants returned valid responses (effective rate of return = 87.25%). Among the respondents, 152 (43.5%) were men and 197 (56.5%) were women, with ages ranging between 18 and 23 years ( $M = 21.51$ ,  $SD = 2.42$ ). The research protocol was approved by the ethics committee of Chuzhou University.

## Measures

Items were rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). To ensure the effectiveness and reliability of our measurements, two graduate students majoring in English translated each item into Chinese and then back into English using a standard translation/back-translation procedure.

### Learning Engagement

To measure learning engagement we used four items from the Learning Engagement Scale (Deng et al., 2020): “I often proactively seek additional subject materials and information in the learning process to gain a more comprehensive understanding of the knowledge,” “I am frequently highly interested in new discoveries and theories in the field of my major,” “I am willing to dedicate extra time and effort to participate in academic activities, such as seminars and subject discussions,” and “I often demonstrate a strong curiosity and eagerness for exploration and learning in the field of my major.”

### Self-Efficacy

To measure self-efficacy we used four items from the Self-Efficacy Scale (Sun & Rogers, 2021): “I believe I have the ability to overcome difficulties in learning and achieve good grades,” “I feel I have sufficient capability to deal with various challenges in my studies,” “I believe I can effectively master the knowledge and skills taught in my major,” and “I feel confident in my performance in learning and believe I can handle relevant academic tasks competently.”

### Professional Identity

To measure professional identity we used four items from the Professional Identity Scale (Matthews et al., 2019): “I feel very proud and certain about choosing this major,” “I believe I am highly aligned with the values and principles of this major,” “I consider choosing this major as a crucial step in my ideal career path, essential for my professional development,” and “I have a high interest in the subject knowledge and skills of this major and am willing to invest more time and effort in it.”

## Data Analysis

This study utilized SPSS 26.0 for data organization and statistical analysis, and we employed Model 4 of the PROCESS macro to test for mediation effects (Hayes, 2018).

## Results

### Reliability

Table 1 shows that the Cronbach’s alpha coefficients for each scale surpassed the accepted threshold ( $> .70$ ), indicating robust internal consistency reliability.

Table 1. *Descriptive Statistics, Correlations, and Reliabilities for Study Variables*

	$\alpha$	$M$	$SD$	1	2	3
1. Learning engagement	.90	3.47	1.33	—		
2. Self-efficacy	.90	3.83	1.22	.37**	—	
3. Professional identity	.88	4.30	1.20	.46**	.37**	—

Note.  $N = 349$ .

\*\*  $p < .01$ .

### Common Method Variance Test

We conducted a confirmatory factor analysis to examine the reliability of the measurement instruments and test their discriminant validity (see Table 2). The three-factor model (learning engagement, self-efficacy, and professional identity) showed a good fit to the data and demonstrated a superior fit compared to the single-factor model (learning engagement + self-efficacy + professional identity). These results show satisfactory levels of discriminant validity (see Table 3), indicating no significant concern regarding common method variance.

**Table 2. Confirmatory Factor Analysis Results**

Model	$\chi^2$	df	$\chi^2/df$	CFI	TLI	RMSEA
A: Single-factor model <sup>a</sup>	1305.30	54.00	24.17	.54	.43	.25
B: Two-factor model <sup>b</sup>	820.13	53.00	15.47	.71	.64	.20
C: Three-factor model <sup>c</sup>	87.10	51.00	1.70	.98	.98	.04

Note. CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation.

<sup>a</sup> Learning engagement + Self-efficacy + Professional identity; <sup>b</sup> Learning engagement + Self-efficacy, Professional identity; <sup>c</sup> Learning engagement, Self-efficacy, Professional identity.

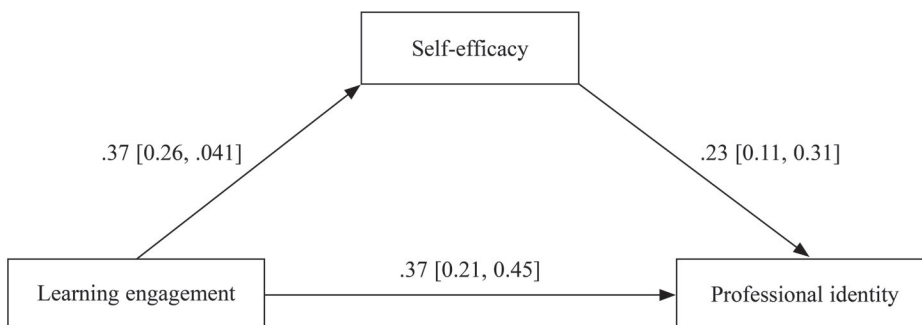
**Table 3. Average Variance Extracted and Composite Reliability Values for the Three-Factor Model**

Factor	AVE	CR	Square root of AVE
Learning engagement	.70	.90	.84
Self-efficacy	.70	.90	.83
Professional identity	.66	.88	.81

Note. AVE = average variance extracted; CR = composite reliability.

### Hypothesis Testing

We utilized structural equation modeling in Amos 22.0 to evaluate Hypotheses 1, 2, and 3. As depicted in Figure 1, we found positive associations between learning engagement and professional identity, as well as between self-efficacy and professional identity. In addition, we found a positive correlation between learning engagement and self-efficacy. Thus, all three hypotheses were supported.



**Figure 1. Path Coefficients of Structural Equation Modeling**

As can be seen in Table 4, there was a significant mediating effect, suggesting that self-efficacy served as a mediator of the relationship between learning engagement and professional identity. Hence, Hypothesis 4 was supported.

Table 4. *Test for Mediating Effects*

Item	Effect	Boot <i>SE</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Direct effect	0.33	0.04	0.24	0.42
Indirect effects	0.08	0.02	0.04	0.13
Total effect	0.41	0.04	0.33	0.50

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

## Discussion

This study explored the influence of self-efficacy on the relationship between learning engagement and professional identity. We found a positive correlation between learning engagement and professional identity among English-major college students, and self-efficacy partially mediated this relationship.

### Theoretical Significance

Our research contributes to understanding of the mechanism by which learning engagement influences professional identity. Researchers have shown that learning engagement can lead individuals to engage deeply in subject learning, explore knowledge in related areas more comprehensively, and cultivate stronger interest in the discipline and identification with the profession (Cai et al., 2022; Tomlinson & Jackson, 2021). As a result, those who demonstrate learning engagement tend to form a positive attitude regarding their professional identity (Liu et al., 2023; Tomlinson & Jackson, 2021). However, although researchers have explored the direct relationship between learning engagement and professional identity (Yu et al., 2021), to our knowledge no previous studies have investigated the mediating role of self-efficacy. In the process of cultivating and enhancing self-efficacy, individuals often build confidence in their abilities through positive learning experiences and a sense of academic achievement (L. Wang & Gao, 2021). Students with higher self-efficacy tend to overcome academic challenges and difficulties through effort and perseverance, thereby creating a positive identification with their chosen profession. By showing how self-efficacy acts as a bridge between learning engagement and professional identity, our findings extend previous research and strengthen understanding of the mechanisms underlying the formation of professional identity.

### Practical Implications

The findings of this study provide practical guidance for educational institutions seeking to promote the professional identity of English-major college students. We recommend that educators and educational institutions prioritize developing students' self-efficacy and implementing a series of targeted measures in these areas. This could include providing classroom facilities and educational resources that encourage positive learning experiences and create a supportive atmosphere for student exploration and learning, establishing mentorship programs, providing personalized academic counseling, and offering opportunities for professional practice. Through enhancing the self-efficacy of English-major college students, such initiatives could effectively cultivate and promote the development of their professional identity.

### Limitations and Directions for Future Research

Some limitations in this study warrant consideration. First, our reliance on cross-sectional data restricts our ability to establish causality. Future studies could employ longitudinal or experimental designs to elucidate cause-and-effect



relationships. Second, there is a need for diversification of the research methods. While we utilized surveys as the primary data-collection method, future researchers could enhance understanding by incorporating additional methodologies, such as conducting case studies, to provide a more comprehensive perspective on certain issues. Last, regarding the generalizability of our research findings, our discoveries may have varying impacts on students of different age groups and individuals living in diverse countries or cultural contexts. For instance, students across different age ranges may exhibit different patterns in self-efficacy and professional identity. Likewise, populations residing in varied cultural backgrounds may have differing needs regarding educational environments and academic support. Therefore, future research could explore how these groups perceive and respond to diverse educational interventions to validate and expand upon our findings.

## Conclusion

This study demonstrated the connection between learning engagement and professional identity levels among Chinese college students majoring in English, uncovering the mediating role of self-efficacy as a positive correlation mechanism. Through exploring the intrinsic connections among these factors, we have provided a theoretical basis and reference for cultivating the professional identity of college students in general and English majors in China in particular. The results underscore the significance of both learning engagement and self-efficacy, emphasizing the need for educators to closely monitor these factors to support the cultivation and advancement of students' professional identity.

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The data that support the findings of this study are available on request from the corresponding author.

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