

## Article

# Academic Satisfaction and Meaning in Life: The Mediating Roles of Personal Growth Initiative and Career Adaptability

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**Abstract:** The present study examined the relationship between academic satisfaction and meaning in life. To further explain the relationship between these factors, we examined personal growth initiative and career adaptability as mediator variables. A total of 691 undergraduate students were invited as participants. They completed the following four inventories: the Meaning in Life Scale, the Academic Satisfaction Scale, the Career Adaptability Scale, and the Personal Growth Initiative Scale. The results indicated the following: (a) Chinese undergraduate students' academic satisfaction could positively predict their presence of meaning in life and search for meaning in life. (b) The relationship between academic satisfaction and presence of meaning in life among Chinese undergraduate students was mediated by personal growth initiative and career adaptability, but the relationship between academic satisfaction and searching for meaning in life among Chinese undergraduate students was only mediated by personal growth initiative. This study demonstrated that academic satisfaction promoted meaning in life not only directly but also indirectly through the mediating effect of personal growth initiative and career adaptability.

**Keywords:** academic satisfaction; meaning in life; personal growth initiative; career adaptability



**Citation:** Li, T.; Tien, H.-L.S.; Wang, J. Academic Satisfaction and Meaning in Life: The Mediating Roles of Personal Growth Initiative and Career Adaptability. *Educ. Sci.* **2024**, *14*, 436. <https://doi.org/10.3390/educsci14040436>

Academic Editor: Andrew Holliman

Received: 28 February 2024

Revised: 30 March 2024

Accepted: 1 April 2024

Published: 22 April 2024



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## 1. Introduction

Along with the rapid development of economy and society and the advancement of higher education in China, the ages of first marriage and first employment of undergraduate students in China have been postponed. During this considerably long period after reaching 18, the age of majority in China, undergraduate students are still faced with explorations related to marriage, career, and future life path. This stage of life is so called “Emerging Adult”. This concept was first put forward by Arnett in 2000, and it refers to the period from late adolescence to an individual’s 20s, mainly referring to the period from 18 to 25 years old [1]. During the period of emerging adulthood, most undergraduate students leave their families of origin for dorm life, which means that they need to make independent decisions about most things in their own daily lives; meanwhile, they have not been exposed to employment, marriage, reproduction, or other adult-related matters yet, so they can explore the possibilities of their own life [2]. However, the emerging adulthood period may cause confrontations about marriage, employment, or other life events between Chinese undergraduate students and their families, which may become an unstable factor to the development of society. In addition, different from the clear learning goals in senior high school, undergraduate students in China usually experience a feeling of uncertainty, wherein “past goals have been achieved, and new goals have not been established”. According to Erikson’s personality development stage theory, the main task of undergraduate students is to integrate their self-identity; however, they are prone to being confused with the various values and options available [3] and can fall into empty and boring

situations. Therefore, it is of great necessity to appropriately guide undergraduate students to help them realize, clarify, and devote themselves to pursuing their future goals and meaning in life.

Acting as a significant concept in positive psychology, meaning in life refers to the extent to which people understand their meaning in life and seek their own mission or goal in a broader sense. It consists of two dimensions, that is to say, the presence of meaning in life and the search for meaning in life. The former refers to “the degree to which people experience their lives as comprehensible and significant and feel a sense of purpose or mission in their lives that transcends the mundane concerns of daily life”, and the latter refers to an individual’s dynamic effort to establish and/or augment their comprehension of the meaning, significance, and purpose of their lives [4]. As two relatively independent dimensions of the meaning in life, the presence of meaning in life and the search for meaning in life may have different effects on an individual’s mental health. Generally speaking, the presence of meaning in life is positively correlated with well-being and life satisfaction and negatively correlated with depression and anxiety; meanwhile, the relationships between the search for meaning in life and relevant mental health variables were the opposite [5]. In addition, the relationship between the presence of meaning in life and the search for meaning in life may vary with cultural background. Steger and his colleagues [6] compared the possible difference between the performance of the presence of meaning in life and the search for meaning in life of 1183 American and 982 Japanese undergraduate students, and the results proved that diversity was exhibited in the relationship between the presence of meaning in life and the search for meaning in life under different cultural backgrounds. Specifically speaking, for American undergraduate students, there was a significant negative correlation between the presence of meaning in life and the search for meaning in life; on the contrary, there was a significant positive correlation between the two dimensions of meaning in life for Japanese undergraduate students. In addition, American undergraduate students reported a stronger presence of meaning in life, while Japanese undergraduate students reported stronger search for meaning in life. China and Japan are not only adjacent to each other geographically but are also both influenced by Confucianism dogmas. Therefore, this study assumed that the performance of the presence of meaning in life and the search for meaning in life for Chinese undergraduate students may be similar to that of Japanese undergraduate students; that is, the presence of meaning in life and the search for meaning in life of Chinese undergraduate students would be significantly positively correlated, and Chinese undergraduate students’ search for meaning in life would be stronger than the presence of meaning in life.

Great attention has been focused on the effect of meaning in life to other variables. For example, it was found that a sense of meaning in life played a protective role in individuals’ physical and mental health [4,7–9], while the lack of meaning of life was closely related to low self-esteem, anxiety, and even the risk of suicide [10,11]. However, few studies have explored the effect of relevant antecedent variables on meaning in life. Therefore, based on the Chinese cultural background, it is necessary to explore the specific characteristics of Chinese undergraduate students’ search for meaning in life and the presence of meaning in life, as well as the relationship between these two aspects and other relevant antecedent variables, so as to promote the positive development of meaning in life of Chinese undergraduate students and complete the smooth transformation during emerging adulthood.

## 2. Academic Satisfaction and Meaning in Life

Previous studies have mainly examined and found a significantly positive relationship between life satisfaction and meaning in life [12,13]. However, life satisfaction does not show the specific source of satisfaction for undergraduate students. Generally speaking, learning occupies the majority of undergraduate students’ daily time, which plays the significant role of becoming the source of their current goals and values. Therefore, examining the relationship between the academic satisfaction of undergraduate

students and meaning in life is more suitable for the content and characteristics of the life of undergraduate students.

Academic satisfaction refers to an individual's subjective perception of learning experience and educational value [14], which is an important indicator expectation, experience, perception, and evaluation of higher education. Although limited research has focused on the direct relationship between the academic satisfaction of undergraduate students and their meaning in life, several studies have found that undergraduate students who experience a high level of academic satisfaction have a higher willingness to improve their learning engagement and, thus, are more likely to obtain ideal learning performance [15–17], which could increase the positive experience of achieving current goals and promoting future goals [18]. Therefore, this study assumed that undergraduate students' academic satisfaction could have a positive effect on their presence of meaning in life and search for meaning in life.

### **3. The Mediating Effect of Personal Growth Initiative**

Personal growth initiative refers to the tendency for individuals to improve themselves consciously and actively as they grow up [19]. Undergraduate students during the emerging adulthood phase need to transition gradually from teenagers who were highly dependent on their families to adults who take responsibility to their own lives. Therefore, to properly deal with the transformation of roles in growth, it is of great significance for undergraduate students to be actively aware of changes taking place within their own selves and make active improvements on themselves, that is, to bring their personal growth initiative into play [20]. It was found that undergraduate students with high academic satisfaction showed high learning initiative [21], which could help them to not only recognize their own improvement and experience stronger meaning and value in life but also gain much more motivation to explore the value and meaning of their own lives. Based on the studies mentioned above, this study assumed that the personal growth initiative of undergraduate students may play a mediating role in the relationship between academic satisfaction and meaning in life.

### **4. The Mediating Effect of Career Adaptability**

Accompanied by the increasingly severe employment situation in recent years, it has been necessary for undergraduate students to make upfront and careful considerations about their future career choices and achieve a successful school-to-work transition, even while their current goals and the main contents of their lives are still focused on learning. As a core construct of career development, career adaptability refers to a set of attitudes, behaviors, and competencies that are necessary for individuals to realize a smooth transformation between different roles and to cope with career tasks or problems, predictable or unpredictable. Career adaptability consists of four dimensions: concern, control, curiosity, and confidence [22]. Savickas and Porfeli [23] believed that each of these four dimensions could have a specific effect on individual's career adaptability. Specifically, career concern could help individuals to think about what their future could be like; career control could enable individuals to take responsibility for their own career choices; career curiosity could accelerate individuals' explorations of themselves and their careers; and career confidence could encourage individuals to overcome difficulties and be efficacious in problem-solving. According to the Career Construction Theory, individuals' adaptive motivation is the premise of obtaining adaptability. It was found that undergraduate students with higher academic satisfaction usually showed higher academic engagement, which was an important indicator to reflect individuals' learning motivation and promote individuals' career adaptability [24], which could not only enhance their presence of meaning in life but also offer more motivation to search for new goals [25,26]. Overall, this study assumed that the career adaptability of undergraduate students could play a significant mediating role in the relationship between their academic satisfaction and meaning in life.

## 5. Methods

### 5.1. Participants

A total of 558 undergraduate students from 3 universities in Jinan, a city in Shandong Province in eastern China, were recruited. The sample consisted of 424 girls (75.99%) with an average age of 19.23 years ( $SD = 1.06$ ) and 134 boys (24.01%) with an average age of 19.19 years ( $SD = 1.02$ ), respectively. The participants independently completed the questionnaires, which were distributed by trained research assistants in one class period that lasted approximately 40 min.

### 5.2. Measures

#### 5.2.1. Meaning in Life

The meaning in life of undergraduate students was assessed by the Meaning in Life Questionnaire [12]. This scale consists of 10 items with 7 point response scales ranging from 1 (strongly disagree) to 7 (strongly agree), including two dimensions: the presence of meaning in life (5 items, e.g., "I understand my life's meaning") and the search for meaning in life (5 items, e.g., "I am looking for something that makes my life feel meaningful"). Higher scores reflected a higher presence of meaning in life or search for meaning in life. Previous studies have proven that this scale has good internal consistency and reliability in Chinese undergraduate students [27]. In this study, the Cronbach's alpha for the presence of meaning in life subscale of the scale was 0.84, the Cronbach's alpha for the search for meaning in life subscale was 0.90, and the Cronbach's alpha for the total questionnaire was 0.88.

#### 5.2.2. Academic Satisfaction

The academic satisfaction of undergraduate students was assessed by the Academic Satisfaction Scale [28]. This scale consists of 13 items with 6 point response scales ranging from 1 (strongly disagree) to 6 (strongly agree) (e.g., "I am satisfied with my learning"). Higher scores reflected a higher academic satisfaction. In this study, the Cronbach's alpha for academic satisfaction was 0.86.

#### 5.2.3. Career Adaptabilities

The career adaptabilities of undergraduate students were assessed by the Career Adapt-Abilities Scale [23]. This scale consists of 24 items with 5 point response scales ranging from 1 (strongly disagree) to 5 (strongly agree), including four dimensions: career concern (e.g., "Preparing for the future"), career control (e.g., "Taking responsibility for my actions"), career curiosity (e.g., "Becoming curious about new opportunities"), and career confidence (e.g., "Overcoming obstacles"). Higher scores reflected a higher career adaptability. Previous studies have proven that this scale has good internal consistency and reliability in Chinese undergraduate students [29]. In this study, the Cronbach's alphas for the four subscales were between 0.85 and 0.91, and the Cronbach's alpha for the total questionnaire was 0.95.

#### 5.2.4. Personal Growth Initiative

The personal growth initiative of undergraduate students was assessed by the Personal Growth Initiative Scale (PGIS) [30], revised by Tien and Wang [31]. This scale consists of 9 items with 6 point response scales ranging from 0 (strongly disagree) to 5 (strongly agree), where higher scores reflected a higher personal growth initiative. In this study, the Cronbach's alpha for the total questionnaire was 0.91.

### 5.3. Data Analysis

Data analyses were performed with SPSS 22.0 and Mplus 7.4. First, SPSS 22.0 was used to perform descriptive statistics and investigate the correlations among the main variables. Second, we constructed two models, with one investigating the direct effects, from academic satisfaction to the presence of meaning in life and the search for meaning in

life, and the other one investigating the mediating effects of personal growth initiative and career adaptabilities on the relationships between academic satisfaction and the presence of meaning in life and academic satisfaction and the search for meaning in life, respectively. We applied a bootstrap approach, with 2000 bootstrapped samples and 95% bias-corrected bootstrap confidence intervals (CIs), to assess the significance of the mediating role of career adaptability and personal growth initiative. The effect was considered significant if zero was not contained within the CI. The results are shown in Table 1. The model was determined to be acceptable when the values of comparative fit index (CFI) and the Tucker–Lewis index (TLI) were greater than 0.90 and the values of root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) were less than 0.08 [32].

**Table 1.** Mediating effect values and effect size.

	Mediating Path	Effect Value	Effect Size	95% CI	
				LL	UL
Direct effect	AS→PMIL	0.20			
	AS→SMIL	0.01			
Mediating effect	AS→PGI→PMIL	0.42	64.62%	0.30	0.54
	AS→CAA→PMIL	0.03	4.62%	−0.03	0.09
	Total mediating effect	0.45	69.23%	0.35	0.55
	AS→PGI→SMIL	0.30	78.95%	0.18	0.43
	AS→CAA→SMIL	0.07	18.42%	0.01	0.14
	Total mediating effect	0.37	97.37%	0.26	0.49
Total effect	AS→PMIL	0.65			
	AS→SMIL	0.38			

Note. CI: confidence interval; LL: lower limit; UL: upper limit; AS: academic satisfaction; PMIL: presence of meaning in life; SMIL: searching for meaning in life.

## 6. Results

### 6.1. Descriptive Statistics

The mean, standard deviation, and bivariate correlation of the variables are given in Table 2. Academic satisfaction, personal growth initiative, career adaptabilities, presence of meaning in life, and searching for meaning in life were positively correlated with each other.

**Table 2.** Descriptive statistics and correlations among the main variables (N = 558).

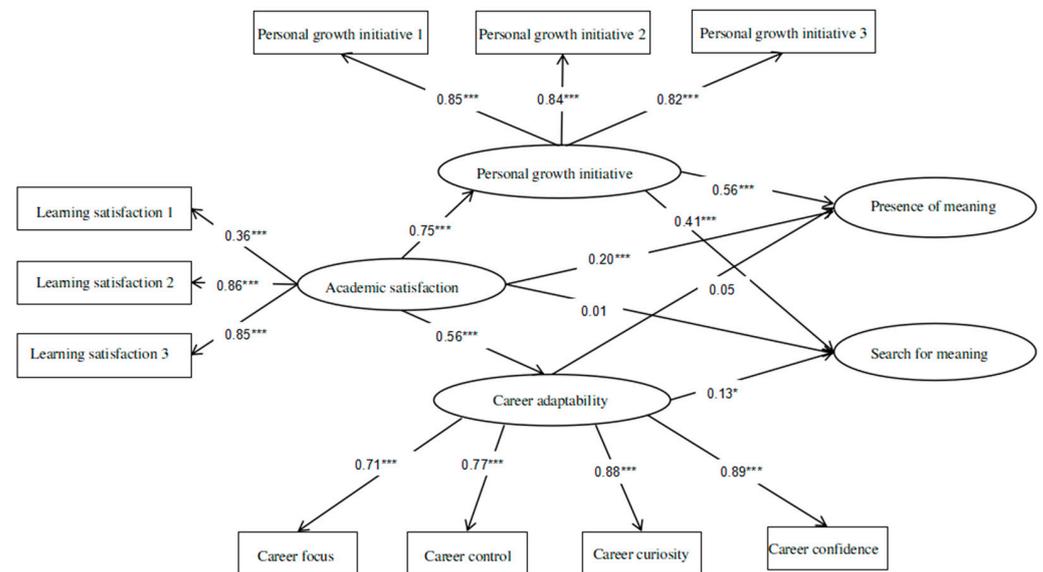
Variables	1	2	3	4	5
1. Academic satisfaction	1				
2. Personal growth initiative	0.61 ***	1			
3. Career adaptabilities	0.53 ***	0.62 ***	1		
4. Presence of meaning in life	0.58 ***	0.69 ***	0.54 ***	1	
5. Searching for meaning in life	0.40 ***	0.47 ***	0.40 ***	0.48 ***	1
<i>M</i>	46.13	10.11	14.66	4.80	5.31
<i>SD</i>	10.66	2.08	2.68	1.24	1.18

\*\*\*  $p < 0.001$ .

### 6.2. Mediation Analyses

The mediating role of personal growth initiative and career adaptabilities in the relationships between academic satisfaction and presence of meaning in life and between academic satisfaction and searching for meaning in life were analyzed using Mplus7.4. First, the direct relationships between academic satisfaction and presence of meaning in life ( $\beta = 0.75, p < 0.001, 95\% \text{ CI } [0.67, 0.81]$ ) and between academic satisfaction and searching for meaning in life ( $\beta = 0.48, p < 0.001, 95\% \text{ CI } [0.39, 0.56]$ ) were significant. The model fit

the data well ( $\chi^2/df = 6.32$ , CFI = 0.94, TLI = 0.93, RMSEA = 0.08, SRMR = 0.05). Second, we investigated whether the presence of meaning in life and searching for meaning in life were indirectly associated with academic satisfaction via personal growth initiative and career adaptabilities, respectively. The model fit the data well ( $\chi^2/df = 3.85$ , CFI = 0.97, TLI = 0.96, RMSEA = 0.06, SRMR = 0.04). The path coefficients are shown in Figure 1.



**Figure 1.** The path model of the relationship between academic satisfaction and meaning in life. \*  $p < 0.05$ , \*\*\*  $p < 0.001$ .

## 7. Discussion

The results of this study are as follows: (a) Chinese undergraduate students' academic satisfaction could positively predict their presence of meaning in life and searching for meaning in life. (b) The relationship between academic satisfaction and presence of meaning in life among Chinese undergraduate students was mediated by personal growth initiative and career adaptability, but the relationship between academic satisfaction and searching for meaning in life among Chinese undergraduate students was only mediated by personal growth initiative.

This study found that the higher the academic satisfaction of undergraduate students, the stronger their presence of meaning in life and search for meaning in life. Positive psychology believes that positive and emotional experiences can enhance an individual's sense of meaning in life [33]. The two-system model of life meaning construction [34] holds that life includes both prosperity and adversity, and it is necessary to approach mutual coordination between the coping system and the avoidance coping system to construct or maintain a sense of meaning in life and support positive development. A survey of teenagers found that very happy young people usually have harmonious interpersonal relationships, their school and life are good, they face less depression and social pressure, and they are more likely to find meaning in life [35].

From the perspective of psychodynamics, the basic psychological needs satisfaction model for the formation of meaning in life holds that under the joint action of the self and the environment, individuals experience meaning in life by exploring deep psychological needs. Meaning is gained when psychological needs are met, whereas meaninglessness and inner suffering are created when psychological needs are not met [36]. This study constructs a parallel two-mediator model to reveal the mechanism of academic satisfaction affecting meaning in life in both the self and the environment. This is of great value for enhancing the meaning of undergraduate students who are in the stage of emerging adulthood. Previous studies have shown that focusing on individual strengths is more likely to stimulate individual growth initiatives [37] than focusing on improving individual developmental

deficits, as this strategy made individuals more optimistic about learning and work and more adaptable [38] and enabled them to achieve greater meaning in life guided by a clear sense of purpose [18]. Thus, undergraduate students with high academic satisfaction are more likely to experience positive emotions, which could stimulate their motivation to meet their self-fulfilling needs and enhance their personal growth initiative [20,39]. It also enables them to have more academic fun and adapt well to life, thus enhancing the meaning of their lives [26].

It is worth noting that when considering personal growth initiative and career adaptability, the relationship between academic satisfaction and the presence of meaning in life was still significant, and the mediating effect size of the mediating effect of personal growth initiative in the relationship between academic satisfaction and presence of meaning in life was 64.62%. Meanwhile, the mediating effect of career adaptability between academic satisfaction and presence of meaning in life was not significant, which indicated that undergraduate students' academic satisfaction could have an effect on the presence of meaning in life through their personal growth initiative but not career adaptability. However, when considering personal growth initiative and career adaptability, the relationship between academic satisfaction and searching for meaning in life was not significant, but the mediating effect size of the mediating effect of personal growth initiative in the relationship between academic satisfaction and searching for meaning in life was 78.95%, and the mediating effect of career adaptability on the relationship between academic satisfaction and searching for meaning in life was 18.42%, which indicated that the effect of undergraduate students' academic satisfaction on searching for meaning in life mainly occurred through their personal growth initiative and career adaptability. These findings suggest that academic satisfaction is more likely to enhance the sense of meaning in life by enhancing emerging adults' personal growth initiative than by facilitating adaptability to the external environment. This may be because the psychological need for meaning in life originates from continuous development and improvement [40], and it emphasizes individuals' initiative and consciousness of life growth based on their experience [41] as well as the goals and importance of life based on their subjective perception [42]. As a positive individual subjective psychological experience, academic satisfaction could enhance individuals' initiative for exploration, self-development, and self-improvement, enhance the growth initiative of undergraduate students, and help them obtain meaning in life.

## 8. Limitations

This study had some limitations. First of all, the data in this study were all reported through the same subjects, which may be affected by common method bias. Therefore, we will use various data collection subjects, such as teachers, classmates, and parents, to evaluate an individual's growth initiative and career adaptability in order to ensure the objectivity and accuracy of research data. Alternatively, we will combine qualitative research, such as interviews, to collect data from multiple sources, research the relationship between variables, and reduce common method bias. In addition, the causal relationship between academic satisfaction and meaning in life is not clear. For example, some researchers believe that the more satisfied people are with their lives, the more meaning they perceive [35], while some researchers believe that people who have meaning in life are more satisfied with their lives [43]. The causal relationship between variables is not determined because we used cross-sectional data in this study. Thus, we will further explore this relationship through a tracking-based research design or experimental research design in the future.

**Author Contributions:** Conceptualization, H.-L.S.T. and T.L.; methodology, H.-L.S.T. and T.L.; software, T.L.; validation, H.-L.S.T., T.L. and J.W.; formal analysis, T.L.; investigation, J.W.; resources, H.-L.S.T. and T.L.; data curation, T.L.; writing—original draft preparation, T.L.; writing—review and editing, H.-L.S.T.; visualization, J.W.; supervision, H.-L.S.T.; project administration, T.L.; funding acquisition, T.L. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by the Social Science Planning Project of Shandong province (grant number 18CJYJ06) and the conceptual literature review comes from the funding of National Science Council in Taiwan (grant number NSC97-2410-H-003-081-SS2).

**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki, and approved by the Psychology and Education Research Ethics Committee of Shandong Normal University (project number 2021xj01, date of approval 21 December 2021).

**Informed Consent Statement:** Written participant consent form was waived due to the questionnaire survey was written anonymously. They agreed to fill in the questionnaire and did not have to sign the consent form.

**Data Availability Statement:** The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

**Conflicts of Interest:** The authors declare no conflicts of interest.

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