

The Influence of Occupational Values on Academic Motivation among Pre-service Teachers

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Abstract

This study investigates the differential impact of various dimensions of vocational values on different types of academic motivation among pre-service teachers. Based on data from 380 valid questionnaires, this study conducted a stratified regression analysis on career values and academic motivation. The results indicate that: (1) Within the realm of career values, material security factor and prestige factor exert significant positive influences on the intrinsic and extrinsic motivation of teacher-training students, respectively. (2) Developmental factors had no significant impact on either intrinsic or extrinsic motivation. Yet, it positively predicted the lack of motivation among current teacher-training students. Therefore, higher normal colleges should recognize and respect the reasonable pursuit of teacher trainees for job security and stable career development. Adeptly guide students to transform external employment demands into intrinsic motivation for their professional studies. We should also expand the innovative development paths for teacher trainees and build personalized growth platforms. To effectively prevent academic burnout.

Keywords

academic motivation, occupational values, pre-service teachers, teacher education

1. Introduction

Normal students study in relevant majors in higher normal colleges and universities, and master teacher knowledge and subject knowledge. After graduation, it is generally a group of students who work in primary and secondary educational units or educational institutions. Normal education is highly career-oriented, and the learning attitude of normal students in school is highly linked to the professional quality shown when they become teachers in the future.

Academic motivation is an important basis for exploring the intrinsic motivation of students' learning investment and academic pursuit. The nature of academic motivation can be divided into internal motivation, external motivation and non-motive [1]. By evaluating the dominant motivation of students, the intrinsic causes of their learning behavior can be rationalized and explained. Normal students need to learn large-scale and multi-dimensional professional knowledge of teachers during their time in school. Without the support of strong internal learning motivation, it is difficult for normal students to maintain high-quality and efficient

learning investment, and cannot master real teaching skills. The dominant academic motivation and its strength are related to whether the current normal students can really complete the identity transformation from “students” to “prosi-teachers”.

Career values refer to the internal and external goals pursued by individuals when choosing a career under the influence of social environment, psychological state and other factors [2]. Unlike comprehensive professional students, the future employment direction of normal students is clearer. Their subjective cognition of the field of education and the teaching profession greatly affects the mentality and initiative of professional learning [3]. If their career values are in line with the professional characteristics of teachers, normal students will learn the professional knowledge theory that can be invested in future educational practice with a more positive attitude. Stimulate internal academic motivation and obtain a positive sense of educational self-efficacy [4].

Most of the existing studies focus on the cultivation of professional identity and the education policy of career values of normal students. It focuses on theoretical construction, and the employment orientation is obvious. Few studies pay attention to how career values affect the formation process of academic motivation of normal students, so as to improve their learning dedication and self-efficacy. In addition, there is a lack of attention to the academic motivation of normal students, and there is a large gap in research, which still needs to be further studied. To address these issues, this paper takes current teacher-training students as the research subject and examines the differentiated impact of career values on different types of academic motivation. Clarify relevant relationships, thereby providing theoretical and practical support for the high-quality development of teacher education in China.

2. Literature Review

2.1 On Academic Motivation

Within the construct of academic motivation, intrinsic and extrinsic motivation constitute the core components of Self-Determination Theory [5]. Intrinsic motivation focuses on personal interests, enjoyment, development, and growth. Extrinsic motivation focuses on external rewards, incentives, and on comparison and surpassing others. Some argue that extrinsic motivation has a more negative impact on the academic performance of Western students. But, in the Chinese educational context, intrinsic motivation can maintain a long-term positive effect in improving academic performance. Furthermore, extrinsic motivation also contributes to enhancing academic performance when learners' willingness to engage in autonomous learning is low [6].

Teacher trainees' academic motivation is “profession-oriented”. Research indicates that the academic engagement of pre-service teachers exerts a significant positive predictive effect on their professional identity [7]. Professional identity plays a crucial role in shaping educators' sense of belonging and dedication to the teaching profession [8]. Fostering the intrinsic academic motivation of current teacher-training students enables them to engage in future educational practice with a more proactive attitude.

Under the background of the severe employment situation, the academic motivation of Chinese normal students has a strong competitive orientation. It is easy to cause academic burnout. In the stage of higher education, academic burnout will cause fatigue, low self-efficacy and other phenomena, which are significantly negatively related to academic achievement [9]. It is of great practical significance and social value to guide normal students to establish positive and self-determination academic motivation.

2.2 On Career Values

Career values can be divided into four dimensions: internal, external, social and prestige. Inner values pay attention to personal interests, self-growth and other aspects; External values pay more attention to stable security and income level; Social values pursue interpersonal communication and social contribution; prestige values pursue higher social status and prestige [10]. The future employment direction of normal students, medical students and other students studying in specific majors in some colleges and universities is generally clear. But the career values and career goals of such students are still affected by a variety of complex factors

[11]. It has pluralism and uncertainty. Colleges and universities need to further strengthen career values education and assist students in clarifying their personal career goals.

Career values are highly sensitive to changes in social environment and social needs. Societal criteria for evaluating talent exert a reciprocal influence on the formation of college students' career values. High competitiveness, an elite profile, comprehensive personal qualities, and technical expertise are gradually becoming key indicators by which society identifies and evaluates qualified talent [12]. Students' career values are obviously affected by social discipline, and they are prone to pay attention to social identity and attach importance to the utilitarian tendency to surpass others. The career selection standards of college students are gradually enriched and diversified from time to generation. Beyond basic dimensions such as compensation, new dimensions are constantly being expanded, including self-identity construction, harmonious interpersonal relationships, alignment of personal values, and the pursuit of life ideals. Becoming an important component of university students' career values [13, 14].

2.3 Theoretical Linkages Between Career Values and Academic Motivation

Theoretically, there is a certain intrinsic connection between career values and academic motivation. Career values affect how individuals understand the meaning and goals of their future careers. This value judgment will further affect its purpose-based understanding of current learning tasks. For current teacher-training students, their professional studies are closely linked to their future preparations for the teaching profession. Career values may play a more significant role in the formation of academic motivation.

Overall, existing research still suffers from significant shortcomings. Research on career values often focuses on outcome variables such as career choice, willingness to work, and career identity. Paying relatively little attention to its impact on students' learning motivation during their time at school; The research on academic motivation mostly focuses on conceptual measurement and impact evaluation, and the discussion of its cause mechanism is relatively weak; The specialized research on the group of normal students is not enough, and the empirical research on distinguishing the differential impact of different dimensions of career values on academic motivation needs to be supplemented urgently. So it is necessary to further examine the influence of the career values of normal students on academic motivation to make up for the existing research shortcomings.

3. Methodology

3.1 Study Subjects and Data Collection

This study focuses on current teacher-training students majoring in Chinese Language and Literature, Ideological and Political Education, and Special Education at two “Double First-Class” normal universities in China. Data were collected using a questionnaire survey. The questionnaire was distributed via an online platform, and the completion process adhered to the principles of voluntary participation and anonymous response. A total of 420 questionnaires were distributed, and 400 were returned. After manual screening, invalid questionnaires with abnormal answer time, obvious regular distribution of answers and missing key information are eliminated. In the end, 380 valid questionnaires were obtained, and the effective recovery rate was 95%. Specifically, 115 valid questionnaires were collected from male respondents (accounting for 30.3% of the total), and 265 valid questionnaires were collected from female respondents (accounting for 69.7% of the total). Additionally, 95 valid questionnaires were collected from students in each of the four undergraduate years (each accounting for 25% of the total).

3.2 Variables and Measurement

3.2.1 Career Value Scale (WVS)

The Work Value Scale (WVS) [16] was employed, a scale for assessing the work values of university students developed by Ling Wenquan et al. in 1999, based on Holland's theory of vocational personality [15]. The questionnaire is a localized measurement tool developed based on a sample of Chinese college students. It transforms the original dimensions of career values into three dimensions: prestige, material security, and development. It is more suitable for the actual context of China, with good ecological validity and measurement indicators. The questionnaire consists of 22 items, comprising three dimensions: The Prestige Factor consist of 9

items (e.g., “High organizational reputation”); The Material Security Factor consist of 6 items (e.g., “High income”); And the Development Factor consist of 7 items (e.g., “Ability to utilize one's talents”). A 5-point Likert scale is used, where 1 represents “least important” and 5 represents “most important.” Calculate the equal score of each dimension. The higher the score, the higher the corresponding career values. The Cronbach's α coefficient of the whole volume is 0.91, and the Cronbach's α coefficient of the component table is between 0.80-0.88.

3.2.2 Academic Motivation Scale (AMS)

The Academic Motivation Scale (AMS), revised by Vallerand et al. in 1992, was employed [17]. The scale adopts the Likert-style 7-point scoring, including seven scales of Amotivation, External Regulation, Introjected Regulation, Intrinsic Motivation-Knowledge, Intrinsic Motivation-Accomplishment, Intrinsic Motivation-Stimulation. Each component table has 4 questions, a total of 28 questions. The Cronbach's α coefficient of each component table is between 0.83-0.86, showing a very high degree of confidence. In order to improve the conciseness and explanatory nature of the analysis results, this paper integrates the data in the second level according to the self-determination theory: Combine the three intrinsic motivation component tables into the “intrinsic motivation” dimension. Combine the three external motivation component tables into the “external motivation” dimension. Analyze “Amotivation” as a relatively independent dimension. Scores for each dimension are represented by the mean score of the corresponding items; a higher score indicates a higher level of the respective motivation.

3.2.3 Treatment of Control Variables

In order to reduce the interference of demographic factors on research results, this paper incorporates gender and grade as control variables into the regression analysis. The gender is virtually coded, with 0 for men and 1 for women; The grade is assigned according to the student's current study stage, and the first year of college to the fourth year of college are recorded as 1-4 respectively; In the subsequent regression analysis, the direction of the correlation coefficient is explained based on the above coding method.

3.3 Data Analysis Strategy

This study first conducted reliability tests on the various variables and performed a preliminary assessment of data quality through a common method bias test. Secondly, descriptive statistics and correlation analysis were conducted to examine the fundamental relationships between the various dimensions of vocational values and academic motivation. Finally, multiple regression analysis was employed. Building upon the control of demographic variables, we further examine the predictive role of occupational values on different types of academic motivation. This paper employs the three dimensions of academic motivation as dependent variables. It examines the differential impact of each dimension of vocational values, thereby revealing the relationship between vocational values and academic motivation.

3.4 Statistical Assumptions and Quality Checks

The three dimensions of professional values (prestige factor, material security factor, and development factor) are tested respectively. Cronbach's α coefficients of reputation, health care and development factors are .767, .716 and .700 respectively; The reliability of the three dimensions of academic motivation (intrinsic motivation, extrinsic motivation, and amotivation) was tested separately. The Cronbach's α coefficients for intrinsic, extrinsic, and amotivation were .851, .833, and .733, respectively.

All data in this study were collected through student self-reporting. Objectively speaking, there may be an issue of common method bias. To ensure the reliability of the research findings. The study employed Harman's one-factor test to conduct an unrotated principal component analysis on all items in the measurement questionnaires.

The results show that there are multiple common factors with eigenvalues greater than 1. The first principal component explains 20.29% of the variance, which is well below the 40% threshold. This indicates that the research data do not exhibit serious common method bias and possess high empirical validity.

4. Results

4.1 Descriptive Statistics and Correlation Analysis

SPSS 27.0 software was used to conduct descriptive statistics and Pearson product-moment correlation analysis on the various dimensions of college students' career values and academic motivation. The means (M), standard deviations (SD), and correlation coefficients (r) for the major variables are presented in Table 1.

Table 1: Descriptive Statistics and Correlation Analysis Results of Variables

Variable	M	SD	1	2	3	4	5	6
1. Prestige Factor	3.10	0.76	1					
2. Material Security Factor	3.57	0.79	.673**	1				
3. Development Factor	3.46	0.74	.684**	.686**	1			
4. Intrinsic Motivation	5.47	1.07	.299**	.358**	.315**	1		
5. Extrinsic Motivation	4.91	1.11	.309**	.283**	.295**	.821**	1	
6. Amotivation	2.01	1.15	.147**	-.105*	.041	.029	.262**	1

Note: M = mean; SD = standard deviation. ** indicates that the correlation is significant at the 0.01 level (two-tailed).

* indicates that the correlation is significant at the 0.05 level (two-tailed).

As shown in Table 1, the three sub-dimensions of career values exhibit significant positive correlations with both intrinsic and extrinsic motivation. The correlations with intrinsic motivation indicate that higher scores on the prestige factor ($r = .299$, $p < .01$), material security factor ($r = .358$, $p < .01$), and the development factor ($r = .315$, $p < .01$) are associated with higher levels of intrinsic motivation among students; These three dimensions also showed significant positive correlations with extrinsic motivation (prestige factor, $r = .309$; health factor, $r = .283$; development factor, $r = .295$; all $p < .01$). The prestige factor was significantly positively correlated with amotivation ($r = .147$, $p < .01$), whereas material security factor was significantly negatively correlated with amotivation ($r = -.105$, $p < .05$). No significant correlation was found between development factors and amotivation.

4.2 Regression Analysis

To further investigate the net predictive effect of vocational values on academic motivation, this study conducted a hierarchical linear regression analysis. Treating each dimension of academic motivation (intrinsic motivation, extrinsic motivation, and amotivation) as a dependent variable, respectively; In Model 1, demographic variables (gender, grade) were introduced as control variables. In Model 2, the three dimensions of career values (prestige factor, material security factor, and development factor) were included as predictor variables.

Table 2: Hierarchical Regression Analysis Results of Occupational Values on Academic Motivation

Variable	Model1 Intrinsic Motivation	Model2 Intrinsic Motivation	Model1 Extrinsic Motivation	Model2 Extrinsic Motivation	Model1 Amotivation	Model2 Amotivation
Gender	-.041	-.007	-.319***	-.287***	-.245***	-.187***
Grade	.485***	.417	.503***	.462***	-.357***	-.376***
Prestige Factor		.108		.149*		.288***
Material Security Factor		.181**		.069		-.305***
Development Factor		-.004		-.021		.141**
R^2	.232	.296	.310	.342	.212	.283
Adjusted R^2	.227	.286	.306	.333	.208	.273
ΔR^2		.064		.033		.070
F	56.798***	31.378***	84.525***	38.922***	50.840***	29.492***
ΔF		11.322***		6.193***		12.231***

Note: The coefficients reported in the table are standardized regression coefficients (β). * indicates $p < .05$, **

indicates $p < .01$, and *** indicates $p < .001$. Model 1 represents the control variable model, while Model 2 represents the model after adding the dimensions of occupational values.

In all regression models, the tolerance values for the respective independent variables range from 0.422 to 0.980 (all greater than 0.4), while the Variance Inflation Factors (VIF) range from 1.020 to 2.367. All VIF values are much smaller than the usual critical value of 10. This indicates that there is no serious multicollinearity among the predictor variables, and the model estimation results are stable and reliable. Following the introduction of the various dimensions of work values, the final models for all three dependent

variables reached a highly significant level. Among these, the total explanatory power R^2 of the intrinsic motivation model was 0.296 ($F = 11.322$, $p < .001$). The R^2 value of the extrinsic motivation model was 0.342 ($F = 6.193$, $p < .001$), while the R^2 value of the amotivation model was 0.283 ($F = 12.231$, $p < .001$), indicating a good overall model fit.

Regression analysis with intrinsic motivation as the dependent variable showed that, after controlling for demographic variables (gender, grade). The explanatory power of the model increased after the inclusion of the various dimensions of career values ($\Delta R^2 = 0.064$, $p < .001$). The material security factor exerted a significant positive predictive effect on intrinsic motivation ($\beta = 0.181$, $p < .01$). The predictive effects of the prestige and development factors did not reach statistical significance.

The regression analysis results with extrinsic motivation as the dependent variable show that. After controlling for demographic variables (gender, grade), prestige had a significant positive predictive effect on extrinsic motivation ($\beta = 0.149$, $p < .05$). The material security factor and development factor did not significantly predict extrinsic motivation.

The results of the regression analysis, with amotivation as the dependent variable, indicate that the three dimensions of career values all exerted a significant predictive effect on amotivation, albeit in differing directions: The prestige dimension demonstrated a significant positive predictive effect ($\beta = 0.288$, $p < .001$). The development dimension demonstrates a significant positive predictive effect ($\beta = 0.141$, $p < .05$). The material security dimension exerted a significant negative predictive effect ($\beta = -0.305$, $p < .001$).

5. Conclusion

This study explores the influence of the career values of normal students on their academic motivation. Focus on distinguishing the differentiated influence of various dimensions of career values on the internal motivation, external motivation and amotivation of normal students. After controlling gender and grade, material security factors have a significant positive predictive effect on intrinsic motivation. The reputation factor has a significant positive predictive effect on external motivation; Development factors did not significantly predict intrinsic or extrinsic motivation, but they significantly positively predicted amotivation. Different dimensions of career values have different effects on academic motivation.

The research results reflect the career demands and practical considerations of the group of normal students in China. The inherent stability of the teaching profession and the pursuit of work and income security by some normal students have formed a two-way choice. In the face of fierce competition in the teacher preparation examination, in order to obtain a stable career prospect, normal students. External material security needs can be effectively transformed into intrinsic motivation to engage deeply with professional knowledge and improve overall personal competence. However, it is noteworthy that among all dimensions of career values, development factors representing talent development and self-realization were significantly positively correlated with amotivation among teacher-training students. To a certain extent, it reflects the potential limitations of China's current normal education system. In view of the professional positioning of cultivating qualified educational talents. The curriculum setting and evaluation standards of normal education often focus on uniformity and standardization. There is a lack of sufficient flexible space to meet the personalized development needs of students.

This study fills the research gap on the impact of career values on academic motivation. It provides an empirical basis for colleges and universities to strengthen the professional identity of normal students and stimulate their learning motivation. Normal education in colleges and universities should face and respect the reasonable pursuit of normal students for job security and stable development. Actively guide students to transform their external needs into the endoc motivation for professional learning. We should also expand the innovative development path of normal students. Build a personalized growth platform to prevent them from falling into academic burnout.

This research also has certain limitations. The research sample only comes from some “double first-class” normal colleges and universities in China. It may lead to the lack of representativeness of the group of normal students in general normal colleges and universities. In the future, the scope of the sample should be expanded, and the qualitative research method of in-depth interviews can be added to verify the universality of the conclusions of this study.

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Conflicts of Interest

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