

A Study on the Relationship between Teaching Efficacy and Job Burnout of University Teachers in a Private University in Shandong Province, China

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Abstract The purpose of this paper was to understand the current situation of teaching efficacy and job burnout of full-time teachers in a private university in Shandong Province and the differences of teaching efficacy and job burnout under different population background variables. Through questionnaire survey, 303 full-time teachers in a private university in Shandong Province were quantitatively studied. This paper analyzed the teaching efficacy and job burnout of teachers with different gender, age, teaching experience, educational background, and professional title. The results showed that there was no significant difference in teaching efficacy and job burnout among teachers of different genders. There were significant differences in teaching efficacy among teachers of different ages, teaching experience, professional titles, and educational backgrounds. There were partial significant differences in job burnout among teachers of different ages, teaching experience, and professional titles. There was a significant negative correlation between teaching efficacy and job burnout. In the end, the researcher made some reflections, discussions and suggestions based on the results of this study, recommending that universities prioritize the enhancement of personal teaching efficacy and establish mental health support systems for young teachers.

Keywords: Teaching Efficacy, Job Burnout, University Teachers, Private University.

1. Introduction

As China's higher education enters the stage of popularization, application-oriented undergraduate colleges, as an important part of the higher education system, undertake the core mission of cultivating high-quality application-oriented talents. Qingdao Hengxing Science and Technology College, as a distinctive private application-oriented undergraduate college, has always adhered to the "school-industry cooperation and integration of production and education" educational model. In recent years, the school has continuously promoted teaching reforms and set higher requirements for teachers' teaching ability, practical guidance ability, and course development ability.

Teachers of application-oriented undergraduate colleges face unique professional pressure: on the one hand, they need to undertake theoretical teaching tasks; on the other hand, they also need to invest a lot of energy in participating in industry-academia integration projects, guiding students' internships, and developing school-enterprise cooperation courses. The teaching staff of Qingdao Hengxing Science and Technology College have a relatively high proportion of young teachers, and their career development stage is in a critical growth period. Meanwhile, the teacher

development support system, promotion channels for professional titles, and salary and welfare guarantees of private colleges differ from those of public colleges, and these structural factors may exacerbate teachers' perception of professional pressure.

Job burnout, as a syndrome of emotional exhaustion, dehumanization, and reduced sense of achievement under long-term work pressure, has increasingly attracted attention in the teaching staff of universities. Teaching efficacy – the subjective belief of teachers that they can effectively complete teaching tasks and promote students' development – has been confirmed by Bandura's social cognitive theory as the core psychological resource to resist job burnout. Highly efficient teachers are more inclined to view challenges as tasks that can be dealt with and adopt positive teaching strategies; while low-efficiency teachers are more likely to fall into a "resource depletion spiral", accelerating the occurrence of job burnout.

However, current research on the relationship between teachers' teaching efficacy and job burnout mostly focuses on public universities or teachers in primary and secondary schools. There is a scarcity of specialized research on teachers of private application-oriented undergraduate colleges. This study takes this as the starting point, using the "Teacher Teaching Efficacy Scale" compiled by Shen Jiliang et al. and the revised "Work Burnout Scale

MBI-GS" by Li Chaoping et al., to deeply explore the relationship between teaching efficacy and job burnout.

Research Objectives

This study analyzed the current situation of teaching efficacy and job burnout of full-time teachers in a private university in Shandong Province, and further explores the differences of teaching efficacy and job burnout under different background variables. Specific research objectives are as follows:

- (1) To understand the demographic factors of full-time teachers in this private university;
- (2) To investigate the teaching efficacy level of full-time teachers;
- (3) To investigate the job burnout level of full-time teachers;
- (4) To compare the differences of teachers under different background variables in teaching efficacy;
- (5) To compare the differences of teachers under different background variables in job burnout;
- (6) To explore the correlation between teaching efficacy and job burnout.

Literature Review

Social Cognitive Theory

Bandura's social learning theory posits that beliefs are closely linked to behavior. Bandura argues that individuals develop a general expectation involving the possibility of action-outcome based on life experiences. Self-efficacy includes outcome expectations and effect expectations. When an individual not only expects a specific behavior to produce the desired outcome, but also believes that they have the ability to carry out this behavior, the behavior is formulated and implemented. Teacher efficacy, as an extension of self-efficacy, refers to the subjective judgment of teachers regarding the effectiveness of their teaching behaviors. Bandura believes that there are four sources of individual efficacy: experiential mastery, vicarious experience, verbal or social persuasion, and physiological or emotional expression.

Teaching Efficacy Measurement

The earliest measurement of teachers' efficacy was conducted by the Rand Research Institute. Based on Rotter's theory, two items were developed to measure teachers' efficacy. Gibson and Dembo (1984) developed the Teacher Efficacy Scale (TES), which consists of 30 items with two dimensions: personal teaching efficacy (PTE) and general teaching

efficacy (GTE). In China, Shen Jiliang et al. (1995) compiled the teacher teaching efficacy scale based on TES. The scale includes 27 items, with 16 items scored negatively and 11 items scored positively. The scale uses a six-point scoring system. The internal consistency coefficient α of the total scale is 0.77, the internal consistency coefficient α of the personal teaching efficacy subscale is 0.84, and the internal consistency coefficient α of the general educational efficacy subscale is 0.74.

Job Burnout Research

The American psychologist Freudenberger (1974) was the first to propose the concept of job burnout. Maslach and Jackson developed the Maslach Burnout Inventory (MBI), which is currently the most authoritative scale in the field of job burnout. The MBI has three versions – the service version, the education version, and the general version. The general version (MBI-GS) includes three dimensions: emotional exhaustion, cynicism, and low job efficacy. In 2002, Professor Li Chaoping obtained authorization to revise the MBI-GS in China, and the revised scale consists of 15 questions.

Research on the Difference of Teaching Efficacy and Job Burnout

Existing studies have consistently confirmed that teacher teaching efficacy and job burnout are significantly negatively correlated. Teachers with high efficacy show lower emotional exhaustion, more positive work attitudes, and higher personal satisfaction. However, most existing studies focus on public universities or primary and secondary schools, while empirical research on teachers from private colleges is almost nonexistent. This study selected full-time faculty members of a private application-oriented undergraduate institution as the research subjects to fill this research gap.

2. Materials and Methods

This study took the full-time teachers of a private university in Shandong Province as the research object and adopted the convenient sampling method to select full-time teachers and issue questionnaires. According to the sample size requirements of Krejcie and Morgan (1970), this study sent questionnaires to 325 full-time teachers, and 303 effective questionnaires were recovered, with a recovery rate of 93.2%.

The specific questionnaire adopted in this research included the "Teacher Teaching Efficacy Scale" compiled by Shen Jiliang et al. based on TES,

with a total of 27 items using Likert 6-point scoring, and the "Work Burnout Scale MBI-GS" revised by Li Chaoping et al., including three dimensions: emotional exhaustion (5 questions), work attitude (4 questions), and sense of achievement (6 questions), totaling 15 items using Likert 7-point scoring. The Cronbach's α coefficient of the teaching efficacy scale in domestic research was above 0.85, and the Cronbach's α coefficient of each dimension of the MBI-GS was above 0.80, indicating good reliability.

3. Results and Discussion

According to the data filled in the questionnaire, among the teachers who answered the questionnaire, 141 were male (46.5%) and 162 were female (53.5%). Most teachers were aged 26-35 (40.9%). Teachers' educational background was mainly concentrated on master's degree (72.6%). There were 109 people (36.0%) with teaching experience of 5 years or less. There were 171 teachers (56.4%) with the title of lecturer. The basic personal information of teachers who participated in the questionnaire survey is shown in the following table:

Table. 1: Basic personal information of teachers

Background variable	classification	N	%
Gender	Male	141	46.5
	Female	162	53.5
Age	25 and below	20	6.6
	26 to 35 years old	124	40.9
	36 to 45 years old	89	29.4
	46 to 55 years old	58	19.1
	Aged 56 and above	12	4.0
Education background	Bachelor degree	21	6.9
	Master degree	220	72.6
	Doctor degree	62	20.5
Teaching experience	5 years or less	109	36.0
	6 to 10 years	93	30.7
	11 to 15 years	51	16.8
	16 to 20 years	29	9.6
	More than 20 years	21	6.9
Professional title	Teaching assistant	57	18.8
	Lecturer	171	56.4
	Associate professor	54	17.8
	Professor	21	6.9

The overall teaching efficacy of full-time teachers was at a moderately high level ($M = 4.27$, $SD = 0.66$). Among them, the personal teaching efficacy ($M = 4.45$, $SD = 0.71$) was relatively high, while the general educational efficacy ($M = 4.02$, $SD = 0.75$) was relatively low. The overall job burnout was at a moderately low level ($M = 3.07$, $SD = 1.13$).

(1) In the process of comparing the differences in teaching efficacy of teachers of different genders, the significance of personal teaching efficacy and general educational efficacy were 0.446 and 0.546 respectively, which are all higher than the standard 0.05. Therefore, there was no significant difference in teaching efficacy among teachers of different genders. Similarly, there was no significant difference in job burnout among teachers of different genders ($p > 0.05$).

(2) In the process of comparing the differences in teaching efficacy of teachers of different ages, the p values of total teaching efficacy, personal teaching efficacy and general educational efficacy were 0.002, 0.003 and 0.004 respectively, all of which are less than 0.05. There were significant differences in teaching efficacy among teachers of different ages, with an increasing trend with age. For job burnout, age had a significant impact on emotional exhaustion ($F=3.102$, $p=0.016$), with the 26-35 age group significantly higher than the 46-55 age group.

(3) In the process of comparing the differences in teaching efficacy of teachers with different teaching experience, the p values of total teaching efficacy, personal teaching efficacy and general educational efficacy were all 0.001, all of which are less than 0.05. As teaching years increased, both personal teaching efficacy and general educational efficacy significantly improved. For job burnout, teaching experience had a significant impact on emotional exhaustion ($F=3.698$, $p=0.006$) and work attitude ($F=2.521$, $p=0.041$), with teachers in early career stages more likely to experience burnout.

(4) In the process of comparing the differences in teaching efficacy of teachers with different professional titles, the p values of total teaching efficacy, personal teaching efficacy and general educational efficacy were 0.001, 0.002 and 0.001 respectively, all of which are less than 0.05. Professors and associate professors had significantly higher teaching efficacy than lecturers and teaching assistants. For job burnout, professional title had a significant impact on emotional exhaustion ($F=4.912$, $p=0.002$) and low sense of achievement ($F=3.498$, $p=0.016$).

(5) In the process of comparing the differences in teaching efficacy of teachers with different educational backgrounds, the p values of total teaching efficacy, personal

teaching efficacy and general educational efficacy were 0.024, 0.034 and 0.038 respectively, all of which are less than 0.05. Teachers with doctoral degrees had significantly higher efficacy than those with master's and bachelor's degrees.

(6) The Pearson correlation analysis showed that personal teaching efficacy was significantly negatively correlated with emotional exhaustion ($r = -0.435$, $p < 0.01$), work attitude ($r = -0.402$, $p < 0.01$), and low sense of achievement ($r = -0.548$, $p < 0.01$). General educational efficacy was also significantly negatively correlated with emotional exhaustion ($r = -0.278$, $p < 0.01$), work attitude ($r = -0.265$, $p < 0.01$), and low sense of achievement ($r = -0.355$, $p < 0.01$). The absolute values of the correlation coefficients between personal teaching efficacy and each dimension of job burnout were all greater than those of general educational efficacy, indicating that the association between personal teaching efficacy and job burnout was more closely related.

4. Conclusion

There were no significant differences in teaching efficacy and job burnout among teachers of different genders. This is different from the conclusion of some traditional studies that female teachers might face more role conflicts. This might be because in the field of higher education, especially in applied undergraduate colleges, the teaching evaluation standards are relatively objective, and male and female teachers face similar requirements and challenges in teaching work, so their psychological feelings tend to be consistent.

There were significant differences in teaching efficacy among teachers of different ages, teaching experience, professional titles, and educational backgrounds. Age, teaching experience, and professional title have significant positive effects on the two sub-dimensions of teaching efficacy. Teachers over 46 years old, with more than 16 years of teaching experience, or with senior professional titles had significantly higher personal teaching efficacy and general educational efficacy than younger, less experienced teachers. This fully conforms to Bandura's theory of self-efficacy. For personal teaching efficacy, experienced teachers, through long-term teaching practice, have accumulated rich "mastering experience" and

formed mature strategies. For general educational efficacy, with the development of their career and the accumulation of successful experiences, experienced teachers are more inclined to believe in the power and value of education.

In terms of job burnout, the research found that young teachers aged 26-35, with less than 10 years of teaching experience and holding the positions of lecturer or teaching assistant, experienced more severe levels of emotional exhaustion and low sense of achievement. During this stage, teachers not only have their personal teaching efficacy still in the process of establishment, but are also prone to self-doubt when facing teaching setbacks. When experienced teachers have stable personal teaching efficacy and relatively high general educational efficacy, they form stronger psychological resilience. Therefore, school administrators should regard the mental health of young teachers as the focus of teacher team construction.

The core finding of this study is that both dimensions of teaching efficacy are significantly negatively correlated with the three dimensions of job burnout, but the protective effect of personal teaching efficacy is stronger. The absolute values of the correlation coefficients between personal teaching efficacy and emotional exhaustion and low sense of achievement were 0.435 and 0.548 respectively, which were higher than 0.278 and 0.355 of general educational efficacy. This indicates that "believing in one's ability to do well" is more directly and effectively capable of resisting job burnout than "believing in the effectiveness of education". According to the resource conservation theory, personal teaching efficacy is a more operational, more controllable, and more directly feedbacked personal resource. Therefore, the teacher development programs of schools should first focus on enhancing teachers' personal teaching efficacy.

This study confirmed that in the specific context of this private university, the relationship between the two dimensions of teachers' teaching efficacy and job burnout was consistent with theoretical expectations, and it also revealed that the protective effect of personal teaching efficacy was more prominent. The research results provide a clear evidence-based approach for schools: under the condition of limited resources, systematic intervention measures should be prioritized to

enhance teachers' personal teaching efficacy, especially that of young teachers. This is the most direct and effective path to prevent and alleviate job burnout, stabilize the teacher team, and improve teaching quality.

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