

Exploring the Relationship between Job Involvement, Teacher Beliefs, Job Satisfaction, and Career Self-Efficacy among Substitute Elementary School Teachers

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ABSTRACT

The role of substitute teachers in the education market is increasingly important, and factors such as job commitment, teacher beliefs, and job satisfaction are significant factors that affect the career self-efficacy of substitute teachers. This study aims to explore the relationship between job involvement, teacher beliefs, job satisfaction, and career self-efficacy of substitute teachers in elementary schools. A total of 304 valid questionnaires were analyzed using SPSS 18.0 package software for descriptive statistics, Pearson correlation, and regression analysis. The results indicate that job involvement, teacher beliefs, and job satisfaction of substitute teachers in elementary school are at a medium to high level, and their career self-efficacy is at a medium level. There are significant correlations among job involvement, teacher beliefs, job satisfaction, and each dimension of career self-efficacy. Moreover, job involvement, teacher beliefs, and job satisfaction have partially significant predictive power on each dimension of career self-efficacy.

Keywords: Job Involvement, Teacher's Beliefs, Job Satisfaction, Career Self-Efficacy.

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1. INTRODUCTION

The concept of respecting teachers and valuing education has long been prevalent in traditional societies, and teachers have enjoyed a high social status, particularly among primary and secondary school teachers, whose professional status has consistently ranked among the top (Chen & Liu, 2019). Therefore, many people aspire to pursue a career in education (Kuan *et al.*, 2019). Teachers are important figures in the field of education, positioned at the forefront of education. Thus, the quality of teachers is a crucial factor in determining the quality of education (Wu, 2006).

In recent years, due to changes in socio-economic structures and advances in technological expertise, the traditional teacher education system is no longer sufficient to meet the demands of an open and diversified society (Yang, 2020). In response to this trend, the government revised the Teacher Education Law in 1994, transforming the teacher

education system from a single normal school to a diversified teacher education system, shifting from government-funded to self-funded, from planned teacher training to reserve training (Su, 2015), and from an integrated training and appointment system to separate tracks. The previously ingrained culture of special school campuses has transformed into a competitive free market (Chen & Liu, 2019). The vast array of open teacher education channels has resulted in an increasing number of individuals with reserve teacher qualifications, coupled with Taiwan's declining birth rate, which has led to a significant problem of wandering teachers. In fulfilling its tax reduction commitments, the government has caused a shortfall of at least 20,000 teachers in primary and secondary schools nationwide. However, the Ministry of Education only provides hourly fees as compensation (Lin, 2013). To respond to changes in the social context and safeguard the rights of formal teachers, many schools have adopted the strategy of not hiring enough formal teachers to cope with the increased number of teacher positions, so as to avoid excess teachers with nowhere to go in the future (Hong & Chang, 2022). However, insufficient formal teachers mean that the ratio of substitute teachers in a school structure increases, with an average of one non-formal teacher (including substitute, acting, and part-time) for every six formal teachers (Lin, 2013). The use of substitute teachers as a cost-saving measure not only saves personnel costs but also reduces the risk of excess teachers in the future (Chen & Liu, 2019).

Substitute teachers are characterized by low salary, low rank, flexible employment, and no retirement benefits or social security (Chen & Liu, 2019). They are education workers outside the school system, and their rights and obligations are significantly different from those of full-time teachers (Yang, 2020). The contract period for substitute teachers is usually from three months to one year and is not guaranteed (Lin, 2015). Perhaps they have work this semester, but they don't know if they will have substitute opportunities next semester. Therefore, the job involvement, teacher beliefs, and job satisfaction of a substitute teacher will affect their career self-efficacy, as well as whether they can continue to adhere to their own beliefs and maintain their educational enthusiasm. Career self-efficacy will affect their expectations for the outcomes of their profession, their professional interests, and activities related to their profession (Wang *et al.*, 2020). Therefore, it is worth exploring and understanding in detail whether these substitute teachers are willing to continue to struggle in the education profession.

2. LITERATURE REVIEW

2.1 Job involvement

Lodahl and Kejner (1965) first proposed the term "job involvement," which refers to the degree of importance that work holds in an individual's self-perception. This concept is based on the idea of self-investment and a desire for life interests (Wu & Chung, 2011). Kahn (1990) considered job involvement to represent a person's high motivation and mastery of the skills required for work. Subsequent scholars have further defined job involvement. Schaufeli *et al.* (2009) viewed it as a positive, self-fulfilling psychological state, while Bakker *et al.* (2014) defined it as an expression of an individual's state of being invested in work, with a substantial cognitive and emotional component, emphasizing proactive integration into work and demonstrating positive, optimistic emotional and cognitive states. In the academic world, teacher performance is considered a consequence of job involvement (Guhao Jr., 2023).

Job involvement is defined as the extent to which a person psychologically identifies or commits to their work (Yudhaputri *et al.*, 2021). Schaufeli and Bakker (2004) divided job involvement into three dimensions: vigor, dedication, and absorption. Chen (2005)

investigated the relationship between job involvement, experiential learning, and career self-efficacy in educational servicemen and divided job involvement into three dimensions: work weight, work identification, and work achievement. Wu and Chung (2011) explored the job involvement of intern teachers in elementary schools and divided job involvement into three dimensions: work evaluation, work identification, and life influence. Yang (2015) used secondary school sports teachers as an example to explore the relationship between teacher self-efficacy, job involvement, and creative teaching performance, dividing job involvement into three dimensions: vigor, absorption, and dedication. Huang *et al.* (2019) used public high schools as an example to divide teacher job involvement into four dimensions: work participation, work identification, work concentration, work pleasure, and evaluation. Wang and Huang (2020) used primary school teachers as an example and divided teacher job involvement into five dimensions: work identification, work participation, work concentration, work evaluation, and work pleasure. Guhao Jr. (2023) used quantitative, non-experimental research using multiple linear hierarchical regression to determine three prediction models on the job involvement of public-school teachers.

As teachers themselves have a high degree of job involvement, their positive identification, positive evaluations, and enjoyment of their work can lead to more active teaching and a more positive influence on students (Yeh *et al.*, 2013). The degree of teacher job involvement is related to teaching quality and effectiveness, as highly engaged teachers have a positive identification and high participation (Wang & Huang, 2020). The job involvement scale used in this study was originally developed by Lodahl and Kejner (1965), consisting of 20 items. It was translated and adapted into a Chinese version by domestic scholar Chen (1984). This Chinese scale was used to investigate the job involvement of substitute teachers in primary schools, focusing on three dimensions: job weighting, job identification, and job achievement.

2.2 Teacher beliefs

Pajares (1992) defined teacher beliefs as perceptions that teachers have about education, teaching, learning, and students. Li (2005) suggested that instructional beliefs of teachers are the values they have accumulated over a long period of time, which can be influenced by their past experiences. Chang *et al.* (2016) defined instructional beliefs of teachers as the viewpoints that teachers hold related to their teaching processes, which may be clear or implicit and non-systematic but can impact teachers' evaluations, planning, and even the decision-making process.

The instructional beliefs of teachers serve two essential functions. First, they affect teaching and determine the instructional design and curriculum planning of teachers, ultimately impacting students' learning outcomes. Second, teachers' beliefs can change throughout the teaching process due to factors such as school policies, student characteristics, teacher environment, and atmosphere (Richardson, 2003; Tsai *et al.*, 2013). Brousseau *et al.* (1988) categorized teacher beliefs into five domains: "students," "curriculum," "social environment," "teacher," and "teaching strategies and methods." The belief tendencies of teachers can be roughly divided into two orientations: open and monitoring. Tillema's (2000) research divided teacher beliefs into four levels: "student management," "curriculum and instructional planning," "teaching and assessment," and "student learning."

Tang's (1993) Teacher Belief Scale includes teachers' viewpoints and opinions on "curriculum and learning," "teacher-student relationships," "teacher roles," and "student differences" in the teaching process, and is divided into traditional and progressive orientations. Chang *et al.* (2016) categorized instructional beliefs of teachers into three domains: "teacher role," "curriculum and instruction," and "student differences." Although

the content of teacher beliefs examined by different researchers is not entirely consistent, most of them are related to teachers' views on the curriculum, teaching activities, student learning, teacher roles, and student characteristics. In other words, teacher beliefs are analyzed based on the teaching activities that teachers most commonly encounter.

2.3 Job satisfaction

Job satisfaction, in its most simple terms, is a concept that describes an employee's view and emotional state as a result of their work and work experience (Pink-Harper *et al.*, 2016; Johnson & Johnson, 2021). Steel *et al.* (2019) pointed out that job satisfaction refers to an individual's feelings and evaluations of their job, including satisfaction with both the intrinsic and extrinsic aspects of the job. Steers (1994) stated that job satisfaction is an evaluation of the job and work experience, which creates a happy or positive emotional state. Robbins (1996) believed that job satisfaction is a general attitude that workers hold toward their job, and high job satisfaction indicates a positive attitude toward the job. Williams (2005) pointed out that job satisfaction is a positive joy or sense of satisfaction that employees experience during the work process, and it includes various aspects of feelings. Employees evaluate their job satisfaction based on the degree of satisfaction they experience.

There are many factors that influence job satisfaction, and most studies explore the antecedents and consequences of job satisfaction (Yeh & Huang, 2012). Seashore and (1981) has organized a conceptual framework of variables related to job satisfaction, covering both antecedents and consequences. Chang and Shen (2013) indicated that there are two general types of job satisfaction theories. The first type focuses on exploring personal intrinsic needs, such as Maslow's Hierarchy of Needs, Motivation Hygiene Theory, and ERG Theory. The second type focuses on the discrepancy between an individual's job expectations and actual results, which may stimulate, maintain, or stagnate individuals. Examples of this type include Equity Theory, Expectancy Theory, and Discrepancy Theory.

The meaning of job satisfaction and job satisfaction level both refer to being satisfied with the current job (Lin *et al.*, 2022). Factors that may affect job satisfaction for substitute teachers include personal factors, teaching work, work environment, compensation, interpersonal relationships, and continuing education. High levels of job burnout among substitute teachers may also affect job satisfaction, as lower levels of burnout are associated with higher job satisfaction.

2.4 Career self-efficacy

Career self-efficacy refers to "individuals' evaluation of their personal effectiveness in performing behaviors related to career choice and adaptation" (Lent *et al.*, 1994). Research has found that self-efficacy beliefs are an important predictor of career entry behavior (Mohd Rasdi & Ahrari, 2020). Individuals with low self-efficacy may experience more anxiety than those with high self-efficacy, have lower confidence in their abilities, focus on their deficiencies, and perceive challenges as threats (Hamzah *et al.*, 2021).

Hackett and Betz (1981) applied Bandura's self-efficacy theory to individual career behavior and developed the "Career Self-Efficacy Theory." In this theory, Betz and Hackett (1987) also emphasized the interrelationship between personal factors, the environment, and individual behavior and believed that through the cognitive process of individuals, their career decision-making behavior can be adjusted. Betz and Hackett (1987) incorporated the concept of career self-efficacy into this model to understand the process of career self-efficacy and its relationship with individual career behavior (Kao *et al.*, 2022). Career self-efficacy can help understand and predict individual career behavior, and it is influenced by various factors such as career achievement, vicarious learning, verbal persuasion, and

emotional arousal, resulting in different levels of career self-efficacy and ultimately leading to differences in individual career choice, performance, and persistence. Career self-efficacy will affect individuals' expectations of occupational outcomes, occupational interests, and activities related to their occupation (Kao *et al.*, 2020).

In this study, career self-efficacy refers to the personal views, beliefs, and expectations of the substitute teachers in their own career development, specifically their expectations and confidence in their ability to successfully perform a task when faced with career decision-making issues, including career choice, performance, and persistence, as well as their confidence in actively performing and persisting in the chosen field.

2.5 Derivation of research hypotheses

Job involvement is the extent to which a person psychologically identifies or commits to their work (Yudhaputri *et al.*, 2021). Peterson (1993) found that university students with work experience had significantly higher career self-efficacy than those without work experience, while Li (2005) found that university graduates with work experience had higher career self-efficacy compared to those without. Chen (2005) discovered that educational service soldiers with high job involvement had significantly higher career self-efficacy compared to those with low job involvement, and Wu (2021) also found a significant correlation between employee job involvement and career self-efficacy. Based on these studies, it can be inferred that the higher the job involvement and work experience, the higher the level of career self-efficacy. Therefore, the research hypothesis H1 is proposed as follows:

H1: Job involvement of substitute elementary school teachers has a positive and significant effect on their career self-efficacy

Chen (2009) found that teacher beliefs play an important role in the personal and professional development of substitute teachers in secondary schools, and Chang *et al.* (2010) discovered a significant correlation between teacher beliefs and teaching self-efficacy. In their study of teachers in the electrical and electronic group of vocational high schools, Chang *et al.* (2016) found that teachers with more seniority had better teaching beliefs than those with less seniority, and that teacher beliefs and professional development could effectively predict teaching efficacy. From the literature analysis, it can be concluded that teacher beliefs cover a wide range of aspects. This study will focus on the personal experience and environmental factors of teachers and explore their impact or relationship on career self-efficacy. Therefore, the research hypothesis H2 is proposed as follows:

H2: Teacher beliefs of substitute elementary school teachers have a positive and significant effect on their career self-efficacy

Job satisfaction is an integral part to the success of both the organization and the employee (Jung, 2013; Johnson & Johnson, 2021). Chang and Edwards (2015) studied hospital nurses and found a close relationship between job satisfaction and career self-efficacy. Organizations should pay attention to employee job satisfaction and take measures to improve it to promote employees' career self-efficacy. Bargsted *et al.* (2019) studied Chilean workers and found that individuals who are satisfied with their job usually exhibit higher career self-efficacy, as a satisfactory work environment can enhance their confidence and belief in their abilities. At the same time, a satisfactory work environment can also promote personal learning and development, thereby improving skills and abilities and further enhancing career self-efficacy. From literature analysis, it was found that the factors affecting substitute teachers' job satisfaction include personal factors, teaching work, work

environment, job rewards, interpersonal relationships, and further education. The higher the level of job satisfaction, the lower the level of work stress and work fatigue. Therefore, the research hypothesis H3 is proposed as follows:

H3: The job satisfaction of elementary substitute teachers has a positive and significant impact on their career self-efficacy

3. RESEARCH METHODS

3.1 Research framework

This study divides job involvement into three dimensions: job weighting, job achievement, and job identification. Teacher beliefs are divided into three dimensions: views on student discipline, views on curriculum and teaching plans, and views on teaching and assessment. Job satisfaction is divided into three dimensions: intrinsic satisfaction, extrinsic satisfaction, and general satisfaction. Career self-efficacy is divided into four dimensions: self-assessment, goal selection, future planning, and problem-solving. The research framework is shown in Figure 1.

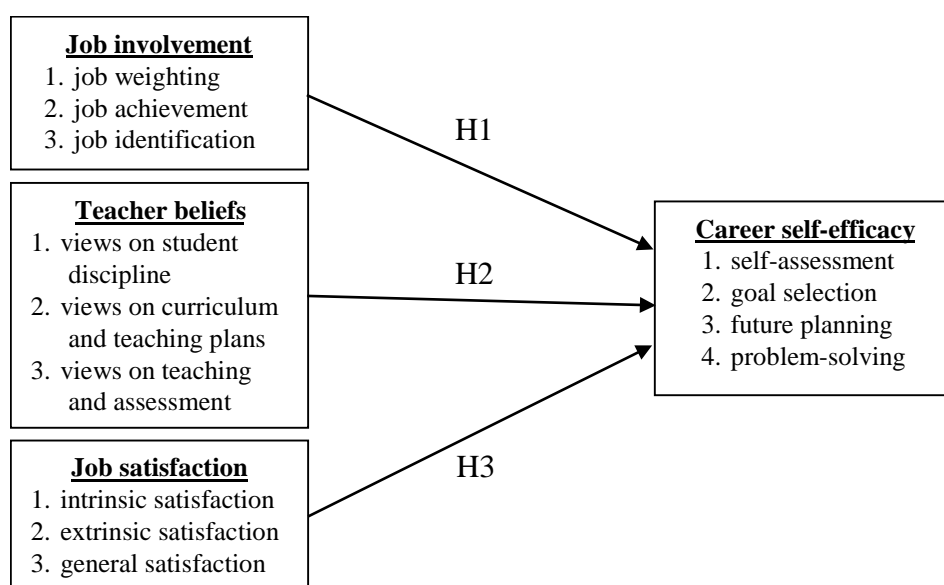


Figure 1. Research framework diagram

3.2 Research subjects and sampling methods

This study surveyed substitute teachers in public elementary schools in Taiwan, with a selection criteria of having served as a substitute teacher for at least three months. The "Questionnaire on Job Involvement, Teacher Beliefs, Job Satisfaction, and Career Self-Efficacy for Substitute Teachers in Elementary Schools" was distributed by mailing it to each school's academic affairs director or team leader, who was responsible for distributing it to the relevant substitute teachers to complete and return to the researcher.

Although the website has posted information on the selection of long-term substitute teachers in each school, the number of substitute teachers varies by school. Therefore, this study adopted a convenience sampling method to distribute the questionnaire, in addition to mailing it, using phone requests to increase the response rate and enhance the study's reliability.

3.3 Research instruments

The 5-point Likert scales ranging from (1) "strongly disagree" to (5) "strongly agree" were

adapted to make the instrument for this study. The job involvement scale used in this study was originally developed by Lodahl and Kejner (1965), and it was translated and adapted into Chinese by Chen (1984). The "Job Involvement Scale" used in this study was revised based on this Chinese scale, as well as the employee job involvement scales developed by Liu and Lo (2017) and Wei *et al.* (2022), and it was tailored to fit the context of substitute teachers in elementary schools. The scale aims to explore the job involvement of substitute teachers from three dimensions: "job weighting," "job identification," and "job achievement."

To construct the "teacher beliefs" scale, the researchers used the "Elementary Tzu Chi Teachers' Teaching Belief Scale" by Wang and Wu (2007), the "College Teacher Belief Scale" by Tsai *et al.* (2013), and the "Elementary School Teacher Belief Scale" by Chen (2019) as references. The "Substitute Teacher Belief Scale" was developed based on relevant literature and explores the beliefs of substitute teachers from three aspects: "views on student discipline," "views on curriculum and teaching plans," and "views on teaching and assessment."

In constructing the "job satisfaction" scale, the researchers referred to the dual-factor theory of physiological and psychological factors proposed by Herzberg *et al.* (1959), Maslow's (1943) theory of motivational needs, and the "Job Satisfaction Scale" by Hsu and Yeh (2010), Yen *et al.* (2016), and Chen *et al.* (2020). The scale was developed based on practical experience and divides the job satisfaction of substitute teachers in elementary schools into three dimensions: "intrinsic satisfaction," "extrinsic satisfaction," and "general satisfaction."

To construct the "career self-efficacy" scale, the researchers used the "Military Service Men's Career Self-Efficacy Scale" developed by Chen (2005), the "Teacher Career Self-Efficacy Scale" developed by Kao *et al.* (2022), and actual situations as references. The "Substitute Teacher Career Self-Efficacy Scale" was developed by the researcher and explores the career self-efficacy of substitute teachers in elementary schools from four aspects: "self-assessment," "goal selection," "future planning," and "problem-solving."

4. RESEARCH RESULTS

4.1 Analysis of reliability and validity

To analyze the reliability of the questionnaire used in this study, Cronbach's α coefficient was utilized (Suryanarayana, 2022). A higher α value indicates that the results of the measurement of each item in the scale are more consistent, which indicates a higher reliability of the scale. The overall Cronbach's α value of the questionnaire used in this study was found to be 0.931, and the Cronbach's α values for each dimension were greater than 0.7, indicating that the questionnaire was a highly reliable and acceptable scale. The relevant data are presented in Table 1.

The measurement items for each variable used in this study were modified from related domestic and foreign literature. In the process of questionnaire development, scholars and experts were invited to assist in identifying the content validity and appropriateness of the questions. Furthermore, the number of questions, content, and wording were revised accordingly. Thus, the questionnaire had a considerable level of content validity.

Table 1. Reliability analysis of the questionnaire

Variable	Dimension	Cronbach's α
Job involvement	job weighting	0.801
	job achievement	0.810
	job identification	0.835

	overall job involvement	0.929
Teacher beliefs	views on student discipline	0.730
	views on curriculum and teaching plans	0.835
	views on teaching and assessment	0.812
	overall Teacher beliefs	0.862
Job satisfaction	intrinsic satisfaction	0.843
	extrinsic satisfaction	0.822
	general satisfaction	0.806
	overall Job satisfaction	0.937
Career self-efficacy	self-assessment	0.843
	goal selection	0.822
	future planning	0.806
	problem-solving	0.937
	overall Career self-efficacy	0.954
	overall questionnaire	0.931

4.2 Sample data analysis

This study used substitute teachers in 243 public elementary schools in Taiwan as the population. A total of 355 questionnaires were distributed, and 320 were returned, with a response rate of 90.1%. Sixteen invalid questionnaires were excluded, and a total of 304 valid questionnaires were collected. The basic information of the questionnaire sample is shown in Table 2.

Table 2. Analysis of Basic Demographic Information of Samples

Variable	Category	Sample Size	%
Gender	male	237	78.0
	female	67	22.0
Age	30 years old	120	39.5
	31-40 years old	106	34.9
	41-50 years old	57	18.8
	51 years old and above	21	6.9
Substitute teaching experience	5 years or less,	168	55.3
	6-10 years	92	30.3
	11-20 years	32	10.5
	21 years or more	12	3.9
Marital status	married	171	56.3
	single	133	43.8
Employment type	substitute teacher	93	30.6
	2688 project teacher	125	41.1
	part-time teacher	86	28.3
Position held	homeroom teacher	67	22.1
	subject teacher	237	78.0
School size	less than 12 classes	45	14.8
	13-24 classes	69	22.7
	less than 25 classes	190	62.5

The statistical results presented in Table 3 provide further analysis of the sample status of each research variable. The results show that substitute teachers in elementary schools have a good to above-average level of overall job involvement with an average score of 3.432. When examining each sub-dimension, it was found that "job weighting" had the highest average score of 3.800, followed by "job identification" with an average score of 3.588, and "job achievement" with an average score of 2.842. Thus, substitute teachers in elementary schools currently show the highest level of job involvement in the area of "job weighting".

Moreover, the average score of "overall teacher belief" is 4.230, indicating a good to

above-average level, and falls in the middle to slightly higher range on the five-point scale. When examining each sub-dimension, it was found that "views on student discipline" had the highest average score of 4.290, followed by "views on teaching and assessment" with an average score of 4.280, and "views on curriculum and teaching plans" with an average score of 4.030. Thus, substitute teachers in elementary schools currently show the highest level of teacher belief in the area of "views on student discipline".

Furthermore, the average score of "overall teacher satisfaction" is 3.791, and the order of the single item average scores from high to low are as follows: "general satisfaction" with an average score of 3.903, "external satisfaction" with an average score of 3.860, and "internal satisfaction" with an average score of 3.520. The average score of "overall career self-efficacy" is 3.811, and when examining each sub-dimension, it was found that "self-assessment" had the highest average score of 3.941, followed by "goal selection" with an average score of 3.832, "problem solving" with an average score of 3.743, and "future planning" with an average score of 3.672. Thus, substitute teachers in elementary schools currently show the highest level of career self-efficacy in the area of "self-assessment".

Table 3. Analysis of Current Status for Each Study Variable

Variable	Dimension	Mean
Job involvement	job weighting	3.800
	job achievement	2.842
	job identification	3.588
	overall job involvement	3.432
Teacher beliefs	views on student discipline	4.290
	views on curriculum and teaching plans	4.030
	views on teaching and assessment	4.280
	Overall Teacher beliefs	4.230
Job satisfaction	intrinsic satisfaction	3.520
	extrinsic satisfaction	3.860
	general satisfaction	3.903
	Overall Job satisfaction	3.791
Career self-efficacy	self-assessment	3.941
	goal selection	3.832
	future planning	3.672
	problem-solving	3.743
	overall Career self-efficacy	3.811
	overall questionnaire	3.798

4.3 Analysis of the correlation between variables and career self-efficacy

4.3.1 Analysis of the correlation between job involvement and career self-efficacy

There is a significant positive correlation between job involvement and career self-efficacy ($r=0.209$), indicating that the higher the job involvement score of elementary substitute teachers, the higher their career self-efficacy. Among the job involvement variables, the "job weighting," "job achievement," and "job identification" dimensions are significantly positively correlated with "career self-efficacy" ($r=0.112$, $r=0.142$, $r=0.226$, $r=0.175$), indicating that the higher the job involvement scores of elementary substitute teachers in the dimensions of "job weighting," "job achievement," and "job identification," the higher their career self-efficacy. Among the career self-efficacy variables, the "self-assessment," "goal selection," "future planning," and "problem-solving" dimensions are significantly positively correlated with "overall job involvement" ($r=0.213$, $r=0.203$, $r=0.167$), indicating that the higher the job involvement scores of elementary substitute teachers, the higher their career self-efficacy in the dimensions of "self-assessment," "goal selection," "future planning," and "problem-solving." Therefore, the higher the overall job involvement of teachers, the higher

their career self-efficacy in the dimensions of "self-assessment," "goal selection," "future planning," and "problem-solving." The relevant data are shown in Table 4.

Table 4. Correlation analysis between job involvement and career self-efficacy dimensions

Dimension	self-assessment	goal selection	future planning	problem-solving	overall career self-efficacy
job weighting	0.068	0.145**	0.102*	0.121	0.112*
job achievement	0.100*	0.090	0.075	0.082	0.095
job identification	0.142**	0.143**	0.113*	0.133	0.142**
overall job involvement	0.213***	0.203***	0.167**	0.185	0.209***

*: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$

4.3.2 Correlation analysis between teacher beliefs and career self-efficacy

The various dimensions of teacher beliefs, including "views on student discipline," "views on curriculum and teaching plans," and "views on teaching and assessment," were found to have significant positive correlations with the various dimensions of career self-efficacy, such as "self-assessment," "goal selection," "future planning," and "problem-solving," according to Pearson correlation analysis. Among the dimensions of teacher beliefs, "views on student discipline" had the highest correlation with "overall career self-efficacy" ($r=0.633$). Therefore, the higher the teacher's belief score, the higher their perceived level of career self-efficacy. The relevant data is presented in Table 5.

Table 5. Correlation analysis between teacher beliefs and dimensions of career self-efficacy

Dimension	self-assessment	goal selection	future planning	problem-solving	overall career self-efficacy
views on student discipline	0.635***	0.539***	0.588***	0.567***	0.633***
views on curriculum and teaching plans	0.546***	0.600***	0.564***	0.543***	0.613***
views on teaching and assessment	0.516***	0.520***	0.511***	0.521***	0.555***
Overall Teacher beliefs	0.688***	0.687***	0.699***	0.689***	0.744***

***: $p < 0.001$

4.3.3 Correlation analysis between job satisfaction and career self-efficacy

The various dimensions of job satisfaction, including "intrinsic satisfaction," "extrinsic satisfaction," and "general satisfaction," as well as the various dimensions of career self-efficacy, including "self-assessment," "goal selection," "future planning," and "problem-solving," showed significant correlation in the Pearson correlation analysis. Among the dimensions of job satisfaction, the correlation between "extrinsic satisfaction" and "overall career self-efficacy" was the highest ($r=0.400$). Therefore, the higher the score for job satisfaction among teachers, the higher their career self-efficacy. The relevant data is shown in Table 6.

Table 6. Correlation analysis between job satisfaction and dimensions of career self-efficacy

Dimension	self-assessment	goal selection	future planning	problem-solving	overall career self-efficacy
intrinsic satisfaction	0.117*	0.121*	0.116*	0.121*	0.127*
extrinsic satisfaction	0.362***	0.413***	0.342***	0.352***	0.400***
general satisfaction	0.074	0.079	0.047	0.048	0.017
Overall Job satisfaction	0.059	0.013	0.004	0.002	0.028

*: $p < 0.05$; ***: $p < 0.001$

4.4 Regression analysis of variables and career self-efficacy

4.4.1 Prediction of overall career self-efficacy

This study primarily focuses on the direct relationship between the main explanatory variable and the dependent variable. We have attempted to use variables such as gender, age, marital status, and teaching experience as control variables, but the results had no impact. Therefore, we did not include them in the regression analysis section of this paper.

The results of the stepwise regression analysis of job involvement, teacher beliefs, and job satisfaction on "career self-efficacy" are shown in Table 7. It was found that only the variable of "job satisfaction" was significant and had a predictive power of 55.3% on "overall career self-efficacy". "job involvement" and "teacher beliefs" were not significant predictors of "overall career self-efficacy".

Table 7. Summary of regression analysis of variables on career self-efficacy

Dependent variable	Independent variable	β	R	R^2	$Adj. R^2$	F value
Career self-efficacy	Job satisfaction	0.744	0.744	0.553	0.552	489.414***

***: $p < 0.001$

The stepwise regression analysis was performed on the sub-dimensions of job satisfaction, as shown in Table 8. The selected order of variables was "intrinsic satisfaction," "extrinsic satisfaction," and "general satisfaction." The beta coefficients of the three variables were all positive, indicating that their predictive power on career self-efficacy was positive. The total predictive power (R^2) was 0.563, indicating a 56.3% predictive power on "overall career self-efficacy." Among them, the sub-dimension of "intrinsic satisfaction" had the highest predictive power of 51.3%, indicating that it had the greatest impact on the perception of "overall career self-efficacy."

Table 8. Summary table of regression analysis for job satisfaction subscales on career self-efficacy

Dependent variable	Independent variable	β	R	R^2	$Adj. R^2$	F value
Career self-efficacy	intrinsic satisfaction	0.425	0.717	0.512	0.513	416.811***
	extrinsic satisfaction	0.232	0.741	0.546	0.035	239.504***
	general satisfaction	0.189	0.753	0.563	0.018	171.376***

***: $p < 0.001$

4.4.2 Prediction of the self-assessment dimension

Using the dimensions of job satisfaction as predictors, the results of the regression analysis in Table 9 show that the selected variables are in the order of "intrinsic satisfaction", "extrinsic satisfaction", and "general satisfaction". The F-values for all three dimensions reached a significant level, and the β coefficients were positive, indicating that the predictive power of the three variables on the "self-assessment" dimension is positive. The total predictive power (R^2) was 0.508, indicating that there is a 50.8% predictive power for the "self-assessment" dimension. Among them, the "intrinsic satisfaction" dimension has the highest predictive power of 44.4%, indicating that the impact of the "intrinsic satisfaction" dimension on the "self-assessment" feeling is the greatest.

Table 9. Summary of stepwise regression analysis of job satisfaction sub-constructs on self-assessment

Dependent variable	Independent variable	β	R	R^2	$Adj. R^2$	F value
self-assessment	intrinsic satisfaction	0.369	0.666	0.444	0.444	315.480***
	extrinsic satisfaction	0.315	0.708	0.501	0.057	198.018***
	general satisfaction	0.114	0.713	0.508	0.007	135.191**

** : $p < 0.01$; *** : $p < 0.001$

4.4.3 Prediction of the self-assessment dimension

Using the dimensions of job satisfaction as regression analysis, the selected variables were "intrinsic satisfaction", "extrinsic satisfaction", and "general satisfaction" in sequence. The F values of the three dimensions were all significant, and the β coefficients were positive, indicating that the predictive power of the three variables on the "goal selection" dimension was positive, the results are shown in Table 10. The total predictive power (R^2) was 0.485, indicating that there was 48.5% predictive power on the "goal selection" dimension. Among them, the "intrinsic satisfaction" dimension had 44% predictive power, indicating that the pressure from the "intrinsic satisfaction" dimension had the greatest impact on the feeling of "goal selection".

Table 10. Summary table of stepwise regression analysis of job satisfaction dimensions on goal selection

Dependent variable	Independent variable	β	R	R^2	$Adj. R^2$	F value
goal selection	intrinsic satisfaction	0.411	0.664	0.440	0.440	310.654**
	extrinsic satisfaction	0.253	0.692	0.478	0.038	180.651**
	general satisfaction	0.111	0.696	0.485	0.006	123.163**

** : $p < 0.01$

4.4.4 Prediction of the future planning dimension

Using job satisfaction dimensions for regression analysis, the results are shown in Table 11. The selected variables were "intrinsic satisfaction", "extrinsic satisfaction", and "general satisfaction", in that order. The F values for all three dimensions were significant, and the β coefficients were positive, indicating that the predictive power of the three variables on the "future planning" dimension was positive. The total predictive power (R^2) was 0.492, indicating that there was 49.2% predictive power for the "future planning" dimension. Among them, the "intrinsic satisfaction" dimension had the highest predictive power of 44.6%, indicating that the influence of the "intrinsic satisfaction" dimension on the "future planning" dimension was the greatest.

Table 11. Summary table of stepwise regression analysis of job satisfaction dimensions on future planning

Dependent variable	Independent variable	β	R	R^2	$Adj. R^2$	F value
future planning	intrinsic satisfaction	0.330	0.668	0.446	0.446	317.437***
	extrinsic satisfaction	0.170	0.689	0.475	0.030	178.521**
	general satisfaction	0.173	0.701	0.492	0.016	126.653**

** : $p < 0.01$; *** : $p < 0.001$

4.4.5 Prediction of the problem-solving dimension

Using the job satisfaction sub-dimensions for regression analysis, the results shown in Table

12 indicate that the selected variables are in the order of "intrinsic satisfaction," "extrinsic satisfaction," and "general satisfaction." The F values for all three dimensions are significant, and the β coefficients are positive, indicating that the predictive power for the "problem-solving" dimension is positive. The total predictive power (R^2) is 0.502, indicating a predictive power of 50.2% for the "problem-solving" dimension. The "intrinsic satisfaction" dimension has the highest predictive power at 42.6%, indicating that the impact of the "intrinsic satisfaction" dimension on the perception of "problem-solving" is the greatest.

Table 12. Summary of stepwise regression analysis of job satisfaction sub-dimensions on problem-solving

Dependent variable	Independent variable	β	R	R^2	Adj. R^2	F value
problem-solving	intrinsic satisfaction	0.410	0.538	0.426	0.422	274.351***
	extrinsic satisfaction	0.213	0.635	0.435	0.242	156.283**
	general satisfaction	0.225	0.711	0.502	0.115	146.836**

** : $p < 0.01$; *** : $p < 0.001$

The summary of the analysis and the results of hypothesis testing in this study are presented in Table 13.

Table 13. Results of hypothesis testing

Hypothesis	Result
H1: Job involvement of substitute elementary school teachers has a positive and significant effect on their career self-efficacy	Partially supported
H2: Teacher beliefs of substitute elementary school teachers have a positive and significant effect on their career self-efficacy	Supported
H3: The job satisfaction of elementary substitute teachers has a positive and significant impact on their career self-efficacy	Partially supported

5. CONCLUSION

On average, substitute teachers in primary schools are responsible for teaching 20-24 lessons per week, resulting in a high workload. Some schools even assign administrative tasks to long-term substitute teachers, which further increases their workload and leaves them physically and mentally exhausted, with no energy to prepare for the teacher certification examination after work. To address this issue, educational administrative agencies should establish clear work rules that take into account the unique background and circumstances of substitute teachers in primary schools. This will enable substitute teachers to teach with peace of mind during the day and have sufficient energy to prepare for the teacher certification examination at night.

While most substitute teachers in primary schools possess teaching certificates, they temporarily serve as substitute teachers because they have not been able to obtain formal teacher qualifications. This temporary position provides them with work, but it also results in lower levels of intrinsic self-satisfaction. To address this issue, educational administrative agencies should create more primary school teacher positions and open up more formal teacher vacancies to provide reserve teachers, currently serving as substitute teachers, with more opportunities to join the formal teacher ranks.

Managing classes and student discipline are integral parts of the teaching work that substitute teachers in primary schools focus on. At the primary school level, managing students' daily routines is a challenging task. Therefore, schools should provide counseling

channels to help substitute teachers understand where to seek assistance when encountering problems. Schools should also utilize experienced or excellent teachers to provide advice and training during various meetings to improve substitute teachers' teaching and student management abilities.

Despite most substitute teachers in primary schools planning to obtain formal teacher qualifications in the future, the acceptance rate for the teacher certification examination has been low in recent years. This has caused many individuals to try for years without success, leading them to consider changing their career paths. To assist substitute teachers in preparing for the teacher certification examination, school units should provide various resources, including human and material resources, and carefully consider teachers' professional abilities, personal preferences, and personal development needs when arranging duties. This will help retain and attract high-quality teaching talent.

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