

FACTORS INFLUENCING THE JOB INVOLVEMENT OF TEACHERS: A COMPARISON OF JAPAN AND TAIWAN

Jao-Nan Cheng, National Taitung University(R.O.C.)

Yi-Gean Chen, National University of Tainan(R.O.C.)

Satoshi Shiramatsu, EHIME University(Japan)

Ching-Ming Liang, National Taitung University(R.O.C.)

ABSTRACT

This study investigated factors affecting job involvement among teachers in Taiwan and Japan. Influences at a personal level (occupational commitment, workplace spirituality) and an organisation level (moral leadership by the principal, school culture) on teacher job involvement were analysed. A stratified sample of 2135 teachers in Taiwan and 273 teachers in Japan was analysed using ANOVA, Regression Analysis, and SEM. Occupational commitment, workplace spirituality, and job involvement among Japanese teachers exhibited no differences regardless of teacher training channel, gender, or experience, demonstrating stability. The workplace spirituality and job involvement of teachers in Taiwan exhibited differences according to teaching experience, with a V-shaped, “high-low-high” curve. Workplace spirituality and teaching commitment were major factors affecting teacher job involvement in both countries. Furthermore, moral leadership by principals in Japan exhibited influential effects, whereas in Taiwan, school culture was most influential. The results highlight differences and similarities in teacher job involvement in both countries.

Keywords: Job Involvement, Workplace Spirituality, Teaching Commitment, School Culture, Moral Leadership, Principal Appointment.

INTRODUCTION

Research Background and Purpose

Teacher job involvement refers to the degree that teachers are involved in their job. In successful schools, teacher job involvement is high (Sethi & Mittal, 2016). Japan is a country with high job involvement; teachers in Japanese experience job overload, working an exceedingly high average of 53 hours each week teaching and directing extracurricular activities (Ono 2018; The World Environment of Teachers in Japan, 2018). Researchers have investigated the factors which encourage high levels of job involvement and compliance with duties among teachers. Literature on this topic has demonstrated two personal level factors: occupational commitment and workplace spirituality. Satoh et al. (2017) argued that occupational commitment affects job involvement; when prospective teachers choose to become full-time teachers, they have prepared for the occupational commitment with full knowledge of workplace overload and are therefore willing to exhibit higher levels of job involvement. However, some studies have argued that job involvement is affected by the cultivation of workplace spirituality (Kawamura, 2016; Nakayama, 2019; Singh & Chopra 2016). Workplace spirituality in Japan may be traced back to the frequent coverage of popular spiritual movements (Seishin Undo, the “psychomotor movement”) by Japanese

media in the 1980s, in which sacred objects were linked to practical activities and were believed to change one's spirituality (Nakayama, 2019). When a teacher enters the workplace and feels the sacred mission of a teacher, they gradually develop workplace spirituality (Sheng & Chen, 2012). This includes a sense of meaning in their work, a sense of purpose in life, and the pursuit of excellence in work (Pawar, 2009). As a result, some studies have demonstrated that workplace spirituality significantly affects job involvement (Van der Walt, 2018). Because of Japan's high levels of job involvement, many scholars wish to understand the key factors in Japanese teacher job involvement. These were also investigated in this study.

Second, although Taiwan is largely an ethnically Chinese society, due to Japanese governance from 1879 to 1945, Taiwanese teachers exhibit work behaviour which shares a kinship with that of Japanese teachers. During Japanese Taiwan, schools had the spirit of Japanese education, and many schools 100 years old or older in Taiwan still bear the marks of Japanese education in their history. Therefore, prior to 1945, principal leadership and teacher job involvement in schools should have had been similar to that of Japan's schools. One may wonder whether, in the 75 years since the Japanese left Taiwan, any changes have occurred in principal leadership and teacher job involvement in Taiwan and which areas are still similar to those in Japan. The authors believe these are topics worth exploring. Therefore, we explored whether job involvement among Taiwanese teachers was affected by occupational commitment or workplace spirituality to establish a structural model for the job involvement of Taiwanese teachers. We also compared differences in factors affecting job involvement among Japanese and Taiwanese teachers.

The two factors of school culture and moral leadership by principals were observed at an organisational level. Within a school's organisation, the principal has massive influence and can turn teachers into followers (Bush & Glover, 2003). Many school principals set good practices through moral leadership, leading by example to demonstrate their leadership style and to influence teacher behaviour (Alshammari et al., 2015; Koning & Waistell, 2012). A principal's exertion of influence through moral leadership can encourage teachers to increase their job involvement (Abazaoğlu & Aztekin, 2016). Another organisation-level variable is school culture, which is the value beliefs and behavioural model present in a school (Yusof, et al., 2016). School culture can influence teacher behaviour (Hongboontri & Keawkhong, 2014) and affect teacher job involvement (Sawada 2013; Wang et al., 2017).

Therefore, the factors explored in this study which affect teacher job involvement can be distinguished into two levels: 1) the personal level, which involves occupational commitment and workplace spirituality, and 2) the organisational level, which is school culture and moral leadership by the principal.

Other major topics in this study include whether differences in job involvement are present among different teacher training channels, teaching seniority, and teacher gender. For example, Japan and Taiwan have two channels for training junior secondary and primary school teachers—one is through education-related study in universities, and the other is through teacher education centres (graduates of which are referred to in this study as “nonuniversity-trained” teachers). University graduates of education-related programmes undergo longer training, but whether they have higher levels of job involvement is unknown. Another question is teachers with long histories of teaching. More teaching experience indicates the teacher has been immersed in the “holy mission” of teaching for a long term and therefore may have a higher level of workplace spirituality. Another topic concerns female teachers in Japan and Taiwan. They typically undertake more household chores; thus, they may have less energy to devote to school duties, which might affect their job involvement.

Therefore, this study investigated differences in job involvement, occupational commitment, and workplace spirituality with regard to gender, teacher training channel, and teaching experience among teachers in Japan and Taiwan.

Regarding data analysis, this study used multiple regression analysis to investigate the influence factors in job involvement then used structural equation modelling (SEM) to construct a relationship model with the variables of occupational commitment, workplace spirituality, school culture, moral leadership of principals, and job involvement. Then, analysis of variance (ANOVA) was used to analyse differences in job involvement, occupational commitment, and workplace spirituality resulting from differences in gender, teacher training channel, and teaching experience. In summary, the goals of this study were as follows:

1. Investigating differences in workplace spirituality, occupational commitment, and job involvement due to differences in teacher training channel, teaching experience, and gender among teachers in Japan.
2. Investigating differences in workplace spirituality, occupational commitment, and job involvement due to differences in teacher training channel, teaching experience, and gender among teachers in Taiwan.
3. Constructing a model of the influences of workplace spirituality, occupational commitment, school culture, and principal moral leadership on job involvement among teachers in Japan.
4. Constructing a model of the influences of workplace spirituality, occupational commitment, school culture, and principal moral leadership on job involvement among teachers in Taiwan.
5. Comparing data on Taiwanese and Japanese teachers to investigate the factors influencing the job involvement of Japanese and Taiwanese teachers as well as their predictive power and proposing possible explanations for differences between the two groups to provide a reference for international comparative research. Furthermore, the scenarios shown the figure above are built with an approximate time frame of 20 years with a span until 2040. OECD (2019) suggested to navigate the scenario as a tool to observe the emerging trends and evolution in the school, explore the signals in the present timing and continue, change or speed up the process of evolution; and put ourselves in these futures and reflect how prepared schools are in the expected or unexpected situations that may disturb the ecosystem of the education.

Terminology

Teaching Commitment

Occupational commitment refers to an individual's attitude towards their occupation and the value beliefs of the individual regarding their profession (Özgenel & Koç, 2020). Teaching commitment refers to a teacher's professional beliefs, for instance, a teacher's willingness to design interactive activities and tacitly influence student behaviour (Shen, 2004). The concrete operational definition refers to the Teachers' Teaching Commitment Questionnaire score in this study; a higher score indicates the teacher demonstrates a higher degree of teaching commitment.

Workplace Spirituality

Workplace spirituality in this study refers to the spiritual experiences of teachers in the workplace, including a sense of meaning in their work, a sense of purpose in life, and the pursuit of excellence in work (Pawar, 2009). The concrete operational definition in this study is the Teachers' Workplace Spirituality Questionnaire score; a higher score indicates the teacher demonstrates a higher degree of workplace spirituality.

Job Involvement

Job involvement refers to teachers having an enthusiastic work attitude and sense of responsibility (Akhtar et al., 2016). The concrete operational definition is the Teacher's Job

Involvement Questionnaire score; a higher score indicates the teacher demonstrates a higher degree of job involvement.

Moral Leadership

In this study, moral leadership by principals refers to the demonstrative moral behaviour of principals, in which the principal leads by example through personal and diligent engagement with their work (Hunter, 2012). The concrete operational definition refers to the Principal's Moral Leadership Questionnaire score; a higher score signifies the principal demonstrates a higher level of moral leadership.

School Culture

School culture refers to the values, beliefs, and behaviour of school faculty. Negiş-Işık & Gürsel (2013), through onsite observation of school contexts, determined that schools can have three types of culture: 1) positive relationships, or a culture of positive teacher–student relationships; 2) problem-solving, or a culture of problem-solving and sharing; and 3) pursuit of success, in which is the culture involves school managers wanting the school to succeed. School culture as referred to in this study is the reporting by faculties of beliefs and behaviour which align with positive teacher–student relationships, problem-solving and sharing, and the pursuit of success. The concrete operational definition is the School Culture Questionnaire score; higher scores indicate higher degrees of positive relationships, problem-solving, and pursuit of success in the school culture.

LITERATURE REVIEW

Teacher Training Systems in Japan and Taiwan

Teacher training in Japan has two main channels—graduating with an education-related university degree and enrolling in courses at a university teacher training school (Masahiro, 2002). A teaching qualification from a university major in education typically requires 4 years of study, whereas the teaching training courses in a teacher trainer unit typically involve school credits, and students may graduate upon completing their credits (Barış & Hasan, 2019), which typically takes 2–3 years. Due to the length of training, pre-service teachers may demonstrate differences in spirituality, attitude, and involvement towards the workplace.

The approach to teacher training in Taiwan is relatively similar to the approach in Japan and also has two main channels: studying in a university department of education and gaining school credits for training. University departments in education require 4 years of study, but school credits require only 2–3 years. Due to the difference in the duration of training, teachers may have different workplace spirituality and job involvement. When the authors visited schools, some Taiwanese principals recalled that in the past, some teachers opened their homes after schools to voluntarily assist students with academic upward mobility and to provide those meals; this is also recorded in many anecdotes. However, in the modern school campus, many teachers make proposals during school affair meetings and haggle over their teaching tasks; as a result, principals have lamented about declining job involvement and workplace spirit among teachers. Some principals believe this is the fault of the teacher training channels: university-trained teachers in education underwent longer training periods and are hardworking; nonuniversity-trained teachers underwent shorter training periods and

exhibited these “petty” problems in teaching commitment and job involvement, and many principals attributed these problems to the different teacher training channels. Therefore, the authors hoped to investigate differences in job involvement, workplace spirituality, and teaching commitment among university-trained and nonuniversity-trained teachers and to compare teachers in Taiwan and Japan.

Training and Leadership in Japan and Taiwan

In the Japanese school system, principals are assigned by the board of education, and the principal answers to the board. The main responsibility of Japanese principals is to ensure the successful operation and harmonious development of the school (Christopher, 2000). The typical path to becoming a school principal is from senior teacher to director of academic affairs and then to principal; principals are often already highly qualified and experienced. As such, the principal is typically a moral role model and highly reputable, leading by example and demonstrating their leadership style by taking on moral responsibilities (Alshammari et al., 2015). Under Japan’s appointment system, the principal sets the example in everything and use their morals to persuade staff; this may be conducive to teacher job involvement (Abazaoğlu & Aztekin, 2016) and the display of workplace spirituality.

Taiwan’s school system initially inherited Japan’s appointment system (i.e. school principals were assigned by an educational administration institution). After 2000, this was changed to an open selection process; any qualified candidate may participate in the open selection. A school may have more than one candidate for principal, and the principal is elected by a selection panel. Principals in Taiwan have dual responsibilities—to the region’s department of education and to the parent association and the teacher association. The principal selection panel includes teachers and parent committee members, these committee members have the right to vote, and as a result, the prestige of the principal’s moral leadership may be affected. Therefore, whether the leadership of principals can influence teacher job involvement is worth investigating. Furthermore, studies have demonstrated that school cultures constructed by principals can influence teacher job involvement and workplace spirituality (Sawada, 2013; Wang et al., 2017). Therefore, this study investigated whether the moral leadership of principals in Taiwan can influence teacher job involvement and workplace spirituality and whether Taiwan’s school cultures can influence teacher job involvement.

The Personal Level: Teacher Occupational Commitment, Workplace Spirituality, and Job Involvement

Successful classroom learning is related to teacher job involvement (Sethi & Mittal, 2016). According to test results from the Program for International Student Assessment (PISA), Japanese students perform well in math, reading, and science (Kawamura, 2016); this may be related to teachers demonstrating high job involvement. Work overload and job involvement among Japanese teachers is evident, with an average of 53 hours spent teaching and in extracurricular activities each week (The Work Environment of Teachers in Japan, 2018). This indicates that Japanese teachers have high job involvement. Factors influencing teacher job involvement are worth investigating. The literature compiled by the authors indicates that the personal level involves two possible factors, occupational commitment and workplace spirituality (Garcia-Zamor, 2003; Kolodinsky et al., 2008; Major et al., 2013; Van der Walt, 2018). For the participating teachers of this study occupational commitment can also be called teaching commitment; teaching commitment refers to a teachers’ beliefs in their profession, such as in designing more teacher–student interactions and tacitly influencing

student behaviour (Shen, 2004). One study indicated that occupational commitment and job involvement are related, and the correlation coefficient was 0.518 (Major et al., 2013). Thus, the authors believed that a significant correlation would also be present between teaching commitment and job involvement. When a teacher enters a school to teach, they typically already have stronger occupational commitment and enjoy teaching work, and therefore, the correlation between their teaching commitment and job involvement may be high. Whether this correlation meets the authors' expectations requires verification through actual data. However, given the heavy workload of teachers over recent years, teaching commitment and job involvement may now exhibit a negative correlation; this is worth studying and reviewing.

Referencing Pawar's definition, this study defined workplace spirituality as spiritual experiences which an individual has in the workplace, including a sense of meaning in their work, a sense of purpose in life, and the pursuit of excellence in work (Pawar, 2009). Tolliver (2016) argued that people with high workplace spirituality can find great meaning in their work. Individuals reflect, practice workplace spirituality, and observe themselves in the workplace (Sheng & Chen, 2012); after many days, workplace spirituality is spontaneously produced. Inferring teacher workplace spirituality from workplace spirituality is also reasonable. Liang et al. (2017) studied teacher workplace spirituality among 610 teachers and determined that workplace spirituality in the teachers was conducive to their sense of meaning in life and their career well-being. The question then is whether this workplace spirituality affects job involvement. Some studies have indicated that workplace spirituality and job involvement are correlated (Singh & Chopra, 2016; Van der Walt, 2018). Therefore, the authors believe that teachers with greater workplace spirituality also have greater job involvement.

Furthermore, some studies have demonstrated a correlation between organisational commitment and job involvement (Pan & Guha, 2018). However, the relationship between occupational commitment and workplace spirituality remains unclear; some studies have held that this relationship is weak (Mousa & Alas, 2016), whereas others have stated that occupational commitment and workplace spirituality are correlated (Shahbaza & Ghafoor, 2015). In their study on Japanese corporations, Satoh et al. (2017) determined employee occupational commitment and professional self-motivation were correlated. Professional self-motivation is similar to the pursuit of excellence within workplace spirituality; therefore, it may be inferred that occupational commitment and workplace spirituality among school teachers are correlated.

According to these studies, teacher occupational commitment and job involvement were correlated. Workplace spirituality was also correlated with job involvement. However, the relationship between teacher occupational commitment and workplace spirituality is still unclear and merits verification with actual data.

The Organisational Level: Moral Leadership from Principals and the Job Involvement of Teachers

Again, in the Japanese education system, a board of education appoints principals to each school, and the principal answers to the board of education. The role of the principal is that of manager and coordinator (Christopher, 2000). The principal leads by example in all matters, displays their leadership style, and undertakes moral responsibilities (Alshammari et al., 2015; Kimura & Nishikawa, 2018). Some studies have demonstrated that principals affect teacher behaviour through moral narratives and persuasions (Koning & Waistell, 2012). Van der Walt's (2018) study supported the position that moral leadership can affect job involvement.

Under the appointment system in Japan, the principal acts in accordance with their moral responsibility in all matters to lead teachers; this may be conducive to teacher job involvement. Again, in Taiwan's school system, the appointment of principals was originally inherited from the Japanese system; after 2000, this was changed to an open selection process. Any candidate with the qualifications to be a principal may participate in the open selection. Each school may have more than one candidate for principal, and the principal is elected by the selection panel. Since 2000, principals in Taiwan have been responsible to both the department of education and to parent and teacher associations. Because the principal selection panel includes teachers and parent committee members, who have voting rights over the office of principal, the prestige of the principal's moral leadership may be affected. Therefore, principals in Taiwan may need to find other factors which can affect teacher job involvement. Studies have demonstrated that school culture can affect teacher job involvement and workplace spirituality (Alas & Mousa, 2016; Sawada, 2013; Wang et al., 2017). Therefore, this study further investigated whether principals in Taiwan still affect teacher job involvement and workplace spirituality through moral leadership, as principals in Japan do, or whether they instead affect job involvement through school culture.

The Organisational Level: School Culture and Teacher Workplace Spirituality and Job Involvement

Both Japan and Taiwan respect Confucian culture and regard studying and academic advancement as important values. Assisting students in testing to enter elite schools is one of the main objectives of education in both countries. Therefore, the pursuit of excellence and problem-solving is widespread in campus culture in Japan (Holloway & Yamamoto, 2003). Negiş-Işık & Gürsel (2013) also argued that school culture incorporates the culture of pursuing excellence, the culture of solving problems, and the culture of caring about the school. The culture of pursuing academic excellence and solving problems is also prevalent in Taiwan's schools (Huang & Chang, 2017). School culture and job involvement may be related. Louis, Smith, and the National Centre on Effective Secondary Schools (1991), studying individual cases, went into schools to observe school culture and teacher job involvement; they determined that school culture was conducive to teacher job involvement. Wang et al. (2017) also revealed that organisational cultures have effect on job involvement. Therefore, the authors were able to infer that in Japanese and Taiwanese schools, school cultures which involve the pursuit of excellence, problem-solving, and caring about the school can have positive influences on job involvement. Furthermore, studies have demonstrated that organisational culture also has large influences on the spiritual dimension of workplaces (Alas & Mousa, 2016); this indicates that we can also infer that school culture has positive influences on workplace spirituality.

Relationship of Seniority and Gender on Teaching Commitment, Workplace Spirituality, and Job involvement

Whether higher seniority leads to a teacher displaying more workplace spirituality is unknown. Higher seniority indicates a longer history of teaching; more time spent teaching, a sacred task, may lead to greater senses of meaning and value in the workplace. However, studies in this area are relatively few, and the effect was to be substantiated in this study. Furthermore, some studies have indicated that seniority is associated with level of teaching commitment (Özgenel & Koç, 2020). Teaching seniority represents a teacher's sense of purpose and the number of years spent cultivating their practice. This cultivation may

gradually strengthen or slowly erode an individual's commitment to teaching; this is worth verifying.

With regard to gender, some studies have identified no significant difference in teaching commitment among teachers of different gender (Özgenel & Koç, 2020). However, women typically have more family responsibilities, and job involvement may affect their family, leading to differences in job involvement among women. Nevertheless, some studies have also observed no gender differences in job involvement among teachers (Azad & Nataraj, 2018). Women may have lower job involvement than men, but women are commonly believed to enjoy teaching; perhaps women do not have lower workplace spirituality and teaching commitment than men. This study aimed to investigate differences in job involvement, teaching commitment, and workplace spirituality among teachers of different gender in Japan and Taiwan.

Research Design and Implementation

Research framework

This study had two frameworks. Framework 1 analysed differences in teaching commitment, workplace spirituality, and job involvement by teacher training system (university-trained and nonuniversity-trained). This structure also analysed differences in teaching commitment, workplace spirituality, and job involvement by gender and teaching seniority (Figure 1). Framework 2 analysed whether the influential relationship model for teaching commitment, workplace spirituality, moral leadership from principals, school culture, and job involvement holds; the model schema of the variables is shown in Figure 2.

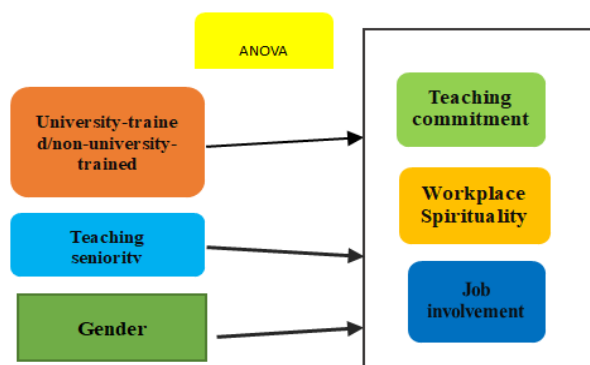
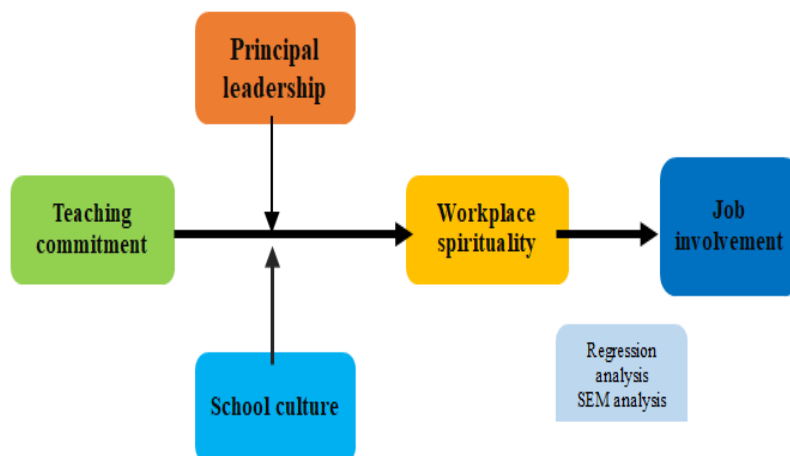


FIGURE 1
ANALYSIS FRAMEWORK OF THE THEORETICAL RELATIONSHIP MODEL (1)

**FIGURE 2****ANALYSIS FRAMEWORK OF THE THEORETICAL RELATIONSHIP MODEL (2)****Research Hypotheses**

The following hypotheses were proposed in this study:

1. Teachers from different teacher training channels exhibit significant differences in workplace spirituality, teaching commitment, and job involvement.
2. Teachers of different gender exhibit significant differences in workplace spirituality, teaching commitment, and job involvement.
3. Teachers with different teaching seniorities exhibit significant differences in workplace spirituality, teaching commitment, and job involvement.
4. Teaching commitment, moral leadership from the principal, school culture, and workplace spirituality have positive influences on job involvement among teachers in Japan.
5. Teaching commitment, moral leadership from the principal, school culture, and workplace spirituality have positive influences on job involvement among teachers in Taiwan.

Participants

The participants were teachers from public junior high schools and elementary schools. The Taiwan sample was recruited using stratified sampling, which divided all the municipalities in Taiwan into four regions—north, central, south, and east—and selected participants in proportion to the number of schools in each region. After communicating with the schools, the questionnaires were sent out, and 2135 valid questionnaires were collected. The Japan sample was collected from Japan's Shikoku Island, which includes the prefectures Kagawa, Tokushima, Kochi, and Ehime; 273 valid surveys were collected.

Instrument

The research tools involved five questionnaires, which were designed referencing literature on this topic. The items were graded on a Likert 5-point scale. The options were "Very true," "True," "Somewhat true," "Not true," "Not true at all" and assigned 5 points, 4 points, 3 points, 2 points, and 1 point, respectively.

Teaching Commitment Questionnaire

This questionnaire was adapted from Jepson & Forrest's (2006) questionnaire on occupational commitment and has three items; one factor was extracted from the factor

analysis results Table 1. The explained variance was 68.43% for the Taiwan questionnaire and 59.27% for the Japan data. For the Taiwan questionnaire, construct validity was 0.81–0.85, and the Cronbach's alpha reliability coefficient was 0.768, demonstrating favourable reliability and validity. For the Japan questionnaire, construct validity was 0.73–0.82, and the Cronbach's alpha reliability coefficient was 0.655, demonstrating favourable reliability and validity.

Table 1				
FACTOR ANALYSIS AND RELIABILITY ANALYSIS FOR TEACHING COMMITMENT				
--	Taiwan		Japan	
Item	Teaching Commitment	Commonality	Teaching commitment	Commonality
b3 I'm happy to be a teacher	0.823	0.678	0.82	.666
b4 I'm willing to design teacher–student interactive teaching activities	0.85	0.725	0.761	.579
b5 My teaching can tacitly influence student behaviour	0.81	0.650	0.73	--
Eigenvalues	2.053	--	1.778	--
Explained variance	68.433	--	59.276	--
KMO values	0.692	--	0.64	--
Reliability	0.768	--	0.655	--

Workplace Spirituality Questionnaire

This questionnaire was revised from Kolodinsky, et al. (2008) questionnaire on workplace spirituality and has five items. For the Taiwan questionnaire, one factor was extracted from the factor analysis results, and the explained variance was 63.35%; the construct validity was 0.76–0.85, and the Cronbach's alpha reliability coefficient was 0.85, demonstrating favourable reliability and validity. For the Japan questionnaire, the explained variance was 49.56%; and the construct validity was 0.58–0.79, and the Cronbach's alpha reliability coefficient was 0.73, demonstrating favourable reliability and validity Table 2.

Table 2				
FACTOR ANALYSIS AND RELIABILITY ANALYSIS FOR WORKPLACE SPIRITUALITY				
--	Taiwan		Japan	
Item	Workplace spirituality	Commonality	Workplace spirituality	Commonality
b9 I have a sense of purpose in my school life	0.85	0.720	0.750	0.562
b8 My work is meaningful	0.838	0.703	0.79	0.628
b7 I reflect on and grow in my teaching	0.767	0.588	0.673	0.453
b6 I feel a sense of sacredness working in a school	0.761	0.580	0.58	0.331
b10 I pursue excellence	0.76	0.577	0.710	0.504
Eigenvalues	3.167	--	2.478	--
Explained variance	63.35	--	49.56	--
KMO values	0.838	--	0.765	--
Reliability	0.85	--	0.73	--

Job Involvement Questionnaire

This questionnaire was revised from Feldt et al. (2013) questionnaire on job involvement and had three items in total. One factor was extracted from the factor analysis results for the Taiwan questionnaire, and the explained variance was 68.31%; the construct validity was 0.80–0.85, and the Cronbach's alpha was 0.77, indicating favourable reliability and validity Table 3. One factor was extracted from the factor analysis results for the Japan questionnaires, and the explained variance was 54.99%; the construct validity was 0.70–0.81, and the Cronbach's alpha was 0.58, indicating favourable reliability and validity.

Table 3 FACTOR ANALYSIS AND RELIABILITY ANALYSIS FOR JOB INVOLVEMENT				
--	Taiwan		Japan	
Item	Job Involvement	Commonality	Job involvement	Commonality
b12 Time passes quickly when I'm working at school	0.85	0.727	0.81	0.651
b11 I work without stopping when I'm at school	0.824	0.679	0.70	0.493
b13 I think school work is challenging	0.80	0.643	0.711	0.505
Eigenvalues	2.049	--	1.65	--
Explained variance	68.31	--	54.99	--
KMO values	0.690	--	0.606	--
Reliability	0.77	--	0.58	--

Principal Moral Leadership Questionnaire

This questionnaire was designed referencing Hunter's (2012) questionnaire on moral leadership behaviour and moral demonstrations by principals and had four items in total. One factor was extracted from the factor analysis results for the Taiwan questionnaire, and the explained variance was 80.82%; the construct validity was 0.74–0.95, and the Cronbach's alpha was 0.92, indicating favourable reliability and validity. For the Japan questionnaire, the explained variance was 72.99%; the construct validity was 0.59–0.94, and the Cronbach's alpha was 0.88, indicating favourable reliability and validity Table 4.

Table 4 FACTOR ANALYSIS AND RELIABILITY ANALYSIS FOR MORAL LEADERSHIP FROM PRINCIPALS				
--	Taiwan		Japan	
Item	Moral leadership	Commonality	Moral leadership	Commonality
b18 The principal always leads by example	0.95	0.905	0.94	0.882
b19 The principal always sets a good example for the teachers	0.943	0.889	0.59	0.349
b17 The principal rolls up their sleeves to work hard and motivate teachers	0.944	0.890	0.94	0.890

b16 I think the principal works too hard and forgets what time it is	0.74	0.549	0.89	--
Eigenvalues	3.233	--	2.919	--
Explained variance	80.82	--	72.99	--
KMO values	0.822	--	0.776	--
Reliability	0.92	--	0.88	--

School Culture Questionnaire

This questionnaire was designed by referencing Negiş-Işık & Gürsel's (2013) definitions of school culture and has six items in total. Using principle component analysis to extract factors with eigenvalues greater than 1 in the Taiwan questionnaire responses, two factors were obtained: "positive relationships and problem-solving" and "pursuit of excellence." The total explained variance was 74.48%; the construct validity was 0.79–0.93, and the Cronbach's alpha was 0.847, indicating favourable reliability and validity. For the Japan questionnaire, the explained variance was 65.75%; the construct validity was 0.63–0.93, and the Cronbach's alpha was 0.67, indicating favourable reliability and validity (Table 5).

Table 5						
FACTOR ANALYSIS AND RELIABILITY ANALYSIS FOR SCHOOL CULTURE						
--	Taiwan			Japan		
Item	Pursuit of excellence	Positive relationships and problem-solving	Communality	Pursuit of excellence	Positive relationships and problem-solving	Communality
b23 School teaching tends to emphasise students learning problem-solving skills	0.066	0.853	0.778	0.70	0.747	0.598
b24 Teachers emphasise that students must learn to share	0.049	0.839	0.739	0.054	0.775	0.632
b22 I often think about how students are learning at home	-0.079	0.830	0.643	-0.090	0.797	0.594
b27 The principal seeks out opportunities for the school to shine	0.930	-0.037	0.839	0.896	-0.030	0.786
b26 The principal wants the school to succeed	0.898	-0.021	0.792	0.93	-0.095	0.809
b28 The principal introduces new educational concepts to teachers	0.79	0.073	0.678	0.63	0.207	0.527
Eigenvalues	3.172	1.297	--	2.688	1.258	--
Explained variance %	52.867	21.613	--	44.794	20.959	--
Cumulative explained variance %	74.48	--	--	65.75	--	--
KMO values	0.77	--	--	0.724	--	--
Reliability	0.847	0.797	--	0.771	0.67	--

Data Collection and Procedure

The questionnaires were administered as follows: 1) After identifying the sample schools in each region, the school directors of academic affairs were contacted regarding responsible school staff willing to distribute the questionnaires as well as the number of teachers willing to respond to the questionnaires. 2) After obtaining the number of teachers willing to participate in the survey and the name of the director, the surveys were sent out individually to teachers; a return envelope was included with each survey, and the teachers

were asked to mail their responses. Ten to twenty days after the surveys were sent out, the researchers contacted the directors of the sample schools by telephone to inquire after any problems which required explaining or resolving in the survey process. The surveys were administered from March 2019 to January 2020.

Data Analysis

Reliability and Validity Analysis of the Survey Tools

Exploratory factor analysis was first conducted using SPSS to assess the survey's construct validity. Internal consistency reliability (Cronbach's α) was adopted for the reliability analysis.

Analysis of Variance

For hypotheses 1, 2, and 3, the differences in teaching commitment, workplace spirituality, and job involvement among teachers from different training channels, as well as differences across gender and teaching seniority, were analysed using ANOVA.

Multiple Regression Analysis

The relationship of the influence from the variables teaching commitment, workplace spirituality, moral leadership of the principal, and school culture on job involvement were analysed using multiple regression.

SEM

First, regression analysis was used as the foundation for the preliminary construction of an influential relationship model involving moral leadership, school culture, teaching commitment, workplace spirituality, and job involvement, then SEM was used to confirm the model fit. The structural model fit was verified using LISREL statistical software goodness-of-fit index (GFI). The χ^2 value, GFI, adjusted GFI (AGFI), root mean square error of approximation (RMSEA), comparative fit index (CFI), and normal fit index (NFI) were added to the fit comparison indices for the determination. When GFI, AGFI, CFI, and NFI were greater than 0.9, the reviewed model was reasonable.

Study Results

Differences in Workplace Spirituality, Teaching Commitment, and Job Involvement among Teachers in Taiwan across Demographics

Teacher training channel and differences between the means of teaching commitment, workplace spirituality, and job involvement

Table 6 compares teachers by teacher training channel. For workplace spirituality, the average score for university-trained teachers was 19.98 and for the nonuniversity-trained teachers was 20.34; the F-test results revealed a significant difference ($p < 0.05$), indicating that the nonuniversity-trained teachers had significantly greater workplace spirituality. For teaching commitment, the university-trained teachers had an average score of 12.51, and the average score of the nonuniversity-trained teachers was 12.695; based on the F-test, the difference was significant ($p < 0.05$), indicating that the nonuniversity-trained teachers had

significantly greater teaching commitment. The average scores for job involvement was 11.56 among the university-trained teachers and 11.74 among the nonuniversity-trained teachers; the F-test indicated a significant difference ($p < 0.05$) and that the nonuniversity-trained teachers had greater job involvement (Table 6).

The results demonstrate that the nonuniversity-trained teachers scored significantly higher than the university-trained teachers in workplace spirituality, teaching commitment, and job involvement. However, because the numerical difference between the mean scores were not great—0.36, 0.185, and 0.18, respectively—the differences between the two groups must be confirmed through more rigorous statistical methods.

Table 6 DIFFERENCES BETWEEN THE MEANS OF TEACHING COMMITMENT, WORKPLACE SPIRITUALITY, AND JOB INVOLVEMENT BY TEACHER TRAINING CHANNEL IN TAIWAN						
--	Training channel	N	Mean	Standard deviation	T value	<i>p</i> value
Workplace spirituality	University	1315	19.98	2.92675	-2.671*	0.008
	Nonuniversity	742	20.34	2.96472		
Teaching commitment	University	1322	12.51	1.65640	-2.409*	0.016
	Nonuniversity	742	12.69	1.68568		
Job involvement	University	1319	11.56	1.99070	-2.043*	0.041
	Nonuniversity	744	11.74	1.94870		
* $p < 0.05$						

Seniority and Differences between the Means of Teaching Commitment, Workplace Spirituality, and Job Involvement

Table 7 compares five teaching seniority brackets. Average scores for teaching commitment were 12.75 for 5 years and under, 12.48 for 6–10 years, 12.47 for 11–15, 12.43 for 16–20, and 12.73 for 21 years and longer. The F-test indicated that the differences were significant ($p < 0.05$), but according to the Scheffe post-hoc comparison, the differences were nonsignificant. This requires further statistical validation.

The average scores for job involvement were 11.78 for 5 years and under, 11.30 for 6–10 years, 11.39 for 11–15 years, 11.53 for 16–20 years, and 11.98 for 21 years and over. The F-test indicates that significant differences existed ($p < 0.05$), and the Scheffe post-hoc comparison suggested that the teachers with 21 or more years of seniority had higher job involvement, significantly higher than the teachers in the 6–10, 11–15, and 16–20 brackets. The data indicates that the Taiwanese teachers' job involvement started high, then decreased and rose again to form a V-curve. A similar trend was observed for workplace spirituality—a high-low-high, V-shaped curve.

The responses across the seniority brackets indicate that the teachers with the highest seniority (teaching for 21 years or longer) exhibited the highest job involvement and workplace spirituality. Job involvement and workplace spirituality were also high among the teachers with the least seniority (5 years or fewer) and lowest among the teachers with 6–10 years of teaching experience; some increase was displayed in the 11–15-year bracket, followed by another increase in the 16–20-years bracket. These results indicate that the teachers with up to 5 years of experience have high job involvement and enthusiasm, but this involvement and enthusiasm drops to a nadir in the next 5 years before slowly rising throughout their 11th–15th years and again in their 16th–20th years; by the time they have been teaching for 21 years (or longer), these teachers had achieved professional maturity, and their workplace willingness to

teach was also stabilised, resulting in their degree of job involvement being highest. This demonstrates that 21 years or more of teaching seniority is tied to maturity and stability in regard to job involvement. Although the inexperienced teachers have sufficient enthusiasm, ultimately, teachers with long experience are needed to stabilise job involvement and to be the school's backbone. Based on the same principle, workplace spirituality refers to sense of meaning and transcendence in work, and 21 or more years of teaching experience matures a sense of workplace spirituality. This may be why teachers with 21 years or more of work experience can find meaning and transcendence in their work.

Table 7
DIFFERENCES BETWEEN THE MEANS OF TEACHING COMMITMENT, WORKPLACE SPIRITUALITY, AND JOB INVOLVEMENT BY YEARS OF EXPERIENCE IN TAIWAN

--		N	Mean	Standard deviation	Standard error	F value	Scheffe's
Teaching commitment	(1) Up to 5 years	316	12.75	1.60727	0.09042	3.651*	n.s.
	(2) 6–10 years	287	12.48	1.77559	0.10481		
	(3) 11–15 years	418	12.47	1.61395	0.07894		
	(4) 16–20 years	550	12.43	1.71705	0.07322		
	(5) 21 years or more	526	12.73	1.65224	0.07204		
	Total	2097	12.57	1.67695	0.03662		
	Model						
	Fixed effect	--	--	1.67272	0.03653		
	Random effect	--	--	--	0.07184		
Job involvement	Up to 5 years	316	11.78	1.83138	0.10302	8.501*	(5)>(2) (5)>(3) (5)>(4)
	6–10 years	287	11.30	2.21772	0.13091		
	11–15 years	416	11.39	1.93468	0.09486		
	16–20 years	549	11.53	1.98845	0.08486		
	21 years or more	528	11.98	1.93533	0.08422		
	Total	2096	11.6240	1.98920	0.04345		
	Model						
	Fixed effect	--	--	1.97511	0.04314		
	Random effect	--	--	--	0.13026		
Workplace spirituality	Up to 5 years	312	20.29	2.59784	0.14707	9.374*	(5)>(2) (5)>(3) (5)>(4)
	6–10 years	286	19.64	3.26256	0.19292		
	11–15 years	415	19.83	2.84582	0.13970		
	16–20 years	550	19.90	3.09188	0.13184		
	21 years or more	526	20.72	2.85283	0.12439		
	Total	2089	20.11	2.96293	0.06483		
	Model						
	Fixed effect	--	--	2.93944	0.06431		
	Random effect	--	--	--	0.20417		

*p < 0.05

Gender and differences between the means of teaching commitment, workplace spirituality, and job involvement.

Table 8 compares teachers of both genders. The F-tests determined that female and

male teachers did not exhibit significant differences ($p < 0.05$) in teaching commitment, workplace spirituality, or job involvement. Özgenel & Koç (2020) uncovered no significant differences in teaching commitment among teachers by gender, and Azad & Nataraj (2018) also observed no gender differences in teacher job involvement. This study further verified that gender was not associated with workplace spirituality. Gender differences were not present for teaching commitment, workplace spirituality, or job involvement.

Table 8 DIFFERENCES BETWEEN THE MEANS OF TEACHING COMMITMENT, WORKPLACE SPIRITUALITY, AND JOB INVOLVEMENT BY GENDER IN TAIWAN						
--	Gender	N	Mean	Standard deviation	T value	p value
Workplace spirituality	M	697	20.2554	3.02303	1.333	0.183
	F	1372	20.0729	2.90284	1.315	.189
Teaching commitment	M	699	12.5479	1.67193	-.723	.470
	F	1377	12.6035	1.64633	-.719	.472
Job involvement	M	698	11.5989	1.98042	-.588	.557
	F	1377	11.6529	1.97552	-.587	.557
* $p < .05$						

Differences in Workplace Spirituality, Teaching Commitment, and Job Involvement Among Teachers in Japan across Demographics

Teacher training channel and differences between the means of teaching commitment, workplace spirituality, and job involvement.

Table 9 demonstrates that no significant differences were present in teaching commitment, workplace spirituality, or job involvement between university-trained and nonuniversity-trained teachers in Japan. Whether the teachers graduated with an education degree from university or had completed a teaching course, in principle, their teaching commitment, workplace spirituality, and job involvement exhibited stability.

Table 9 DIFFERENCES BETWEEN THE MEANS OF TEACHING COMMITMENT, WORKPLACE SPIRITUALITY, AND JOB INVOLVEMENT ACROSS DIFFERENT TEACHER TRAINING CHANNELS IN JAPAN						
--	Training channel	N	Mean	Standard deviation	T value	p value
Workplace spirituality	University	82	10.439	1.89279	-0.258	0.796
	Nonuniversity	188	10.5053	2.04102		
Teaching commitment	University	83	11.6024	1.57681	-0.878	0.381
	Nonuniversity	188	11.7872	1.64413		
Job involvement	University	81	18.4568	2.77511	-1.064	0.289
	Nonuniversity	185	18.8432	2.61107		

Seniority and Differences between the Means of Teaching Commitment, Workplace Spirituality, and Job Involvement

No significant differences were observed in teaching commitment, workplace spirituality, or job involvement across the five brackets of teaching seniority (Table 10). This indicates that teachers with different lengths of teaching experience demonstrated consistency and stability in these three areas.

Table 10 DIFFERENCES BETWEEN THE MEANS OF TEACHING COMMITMENT, WORKPLACE SPIRITUALITY, AND JOB INVOLVEMENT AMONG TEACHERS WITH YEARS OF EXPERIENCE IN JAPAN						
--		N	Mean	Standard deviation	Standard error	F value
Teaching commitment	Up to 5 years	41	10.6829	1.90314	0.29722	1.412
	6–10 years	27	10.5926	1.64689	0.31694	
	11–15 years	28	9.7857	2.0066	0.37921	
	16–20 years	21	11.0476	1.62715	0.35507	
	21 years or more	153	10.4641	2.09958	0.16974	
	Total	270	10.4852	1.99389	0.12134	
	Model	Fixed effect	--	1.98781	0.12097	
		Random effect	--	--	0.16993	
Job involvement	Up to 5 years	41	11.9268	1.86266	0.2909	0.454
	6–10 years	27	11.8148	1.71053	0.32919	
	11–15 years	28	11.6429	1.49603	0.28272	
	16–20 years	22	12	1.44749	0.30861	
	21 years or more	153	11.6405	1.59611	0.12904	
	Total	271	11.7306	1.62314	0.0986	
	Model	Fixed effect	--	1.62974	0.099	
		Random effect	--	--	0.09900 ^a	
Workplace spirituality	Up to 5 years	41	18.4634	2.82929	0.44186	0.697
	6–10 years	27	18.7407	2.62521	0.50522	
	11–15 years	28	18.2143	2.46992	0.46677	
	16–20 years	20	18.35	2.75824	0.61676	
	21 years or more	150	18.94	2.6552	0.2168	
	Total	266	18.7256	2.66279	0.16327	
	Model	Fixed effect	--	2.6689	0.16364	
		Random effect	--	--	0.16364 ^a	

Gender and Differences between the Means of Teaching Commitment, Workplace Spirituality, and Job Involvement

Female and male teachers did not exhibit significant differences in teaching commitment, workplace spirituality, or job involvement (Table 11). This is the same as the result for these items in Taiwan, reinforcing the absence of significant gender differences for teaching commitment (Özgenel & Koç, 2020) and job involvement (Azad & Nataraj, 2018); this also verifies that significant gender differences are not present for workplace spirituality.

Table 11
DIFFERENCES BETWEEN THE MEANS OF TEACHING COMMITMENT, WORKPLACE SPIRITUALITY, AND JOB INVOLVEMENT IN JAPAN BY GENDER

--	Gender	N	Mean	Standard deviation	T value	p value
Workplace spirituality	M	127	10.3858	2.07038	-0.768	0.443
	F	143	10.5734	1.92643		
Teaching commitment	M	126	11.8651	1.74518	1.26	0.209
	F	145	11.6138	1.50548		
Job involvement	M	125	19.064	2.89812	1.941	0.053
	F	141	18.4255	2.40605		

Regression Analysis of Factors Influencing Job Involvement among Teachers in Japan

According to the literature and the hypotheses, the main factors affecting job involvement among teachers in Japan include teaching commitment, workplace spirituality, school culture, and moral leadership. The possible influential relationships of these factors were first tested using regression analysis as the basis, and the results are presented in Table 12.

In Model 1, teaching commitment, school culture, and moral leadership were first used to predict job involvement. The results indicated that teaching commitment and moral leadership had significant influences ($p < 0.05$) on job involvement. The standardised regression coefficients were 0.266 for teaching commitment and 0.23 for moral leadership. School culture did not demonstrate a significant predictive power. The R^2 explanatory power for Model 1 was 0.205. This indicates that the teachers with high teaching commitment had high job involvement; higher degrees of moral leadership from the principal led to greater job involvement among the teachers; and the explanatory power of teaching commitment was slightly greater than moral leadership.

For Model 2, workplace spirituality was added to the regression equation. The results revealed that the influence of teaching commitment on job involvement was no longer significant, but the standardised influence coefficient of workplace spirituality on job involvement was 0.342; this indicates that the predictive power of teaching commitment on job involvement requires workplace spirituality as a mediator variable. The predictive power of moral leadership on job involvement was 0.23, whereas school culture had no predictive power. The R^2 explanatory power of Model 2 was 0.271. After workplace spirituality was entered into the regression model analysis, the explanatory power of the model rose slightly; this indicates that workplace spirituality was a key factor in job involvement.

Table 12 REGRESSION ANALYSIS OF JOB INVOLVEMENT AND RELEVANT FACTORS AMONG TEACHERS IN JAPAN						
Dependent variables	Model 1		Model 2		Model 3	
Independent variables	Job involvement		Job involvement		Workplace spirituality	
	B	Beta	B	Beta	B	Beta
Teaching commitment	0.329*	0.266	0.15	0.122	.685*	0.419
Moral leadership from the principal	0.135*	0.23	0.136*	0.23	0	0

School culture	0.032	0.069	-0.025	-0.055	0.221*	0.359
Workplace spirituality	--	--	0.257*	0.342	--	--
(Constant)	3.115*	--	2.322*	--	3.306*	--
Sample size	247	--	244	--	245	--
F value	20.954*	--	22.318*	--	61.416*	--
R ²	0.205	--	0.271	--	0.432	--
*p < 0.05						

Structural Model of Factors Influencing job Involvement among Teachers in Japan

Because school culture exhibited no significant predictive power for job involvement, it was not included in the structural model. To further confirm the paths by which teaching commitment, workplace spirituality, and moral leadership influence job involvement, LISREL software was used to perform an SEM analysis and verify the model fit. The statistical results are presented in Figure 3. The structural model fit met SEM requirements—GFI, AGFI, NFI, NNFI, IFI, and CFI were each greater than 0.90, and RMSEA was lower than 0.08 (Table 13). The main factors influencing Japanese teacher job involvement were workplace spirituality and teaching commitment, followed by moral leadership from the principal. Teaching commitment influenced job involvement indirectly, requiring workplace spirituality as a mediator. Although past studies have uncovered that school culture is conducive to teacher job involvement (Louis et al. 1991; Wang et al. 2017), the data from Japan indicate that school culture was not an influencing factor for job involvement; rather, moral leadership from the principal was an influencing factor, possibly because of the principal's role as both a manager and a senior teacher with moral responsibilities and a role model in Japanese schools (Alshammari et al., 2015).

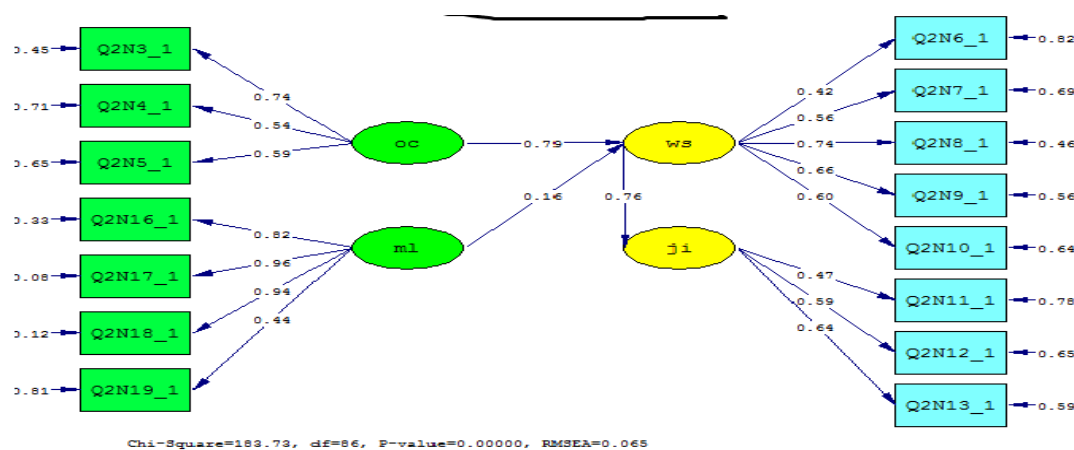


FIGURE 3
INFLUENTIAL RELATIONSHIP MODEL FOR JOB INVOLVEMENT AMONG TEACHERS IN JAPAN (A COEFFICIENT).

Table 13
JAPANESE TEACHER JOB INVOLVEMENT AND RELEVANT STRUCTURAL MODEL FIT INDICES

Index	Result	Determination value
Chi square values	183.73	$p > 0.05$
GFI(goodness-of-fit index)	0.92	> 0.90 (Hu & Bentler,1999)
IFI(incremental fit index)	0.96	> 0.90 (Hu & Bentler,1999)
NFI(normal fit index)	0.93	> 0.90 (Bentler & Bonett,1980)
NNFI(non- normal fit index)	0.95	> 0.90 (Bentler & Bonett,1980)
CFI(comparative fit index)	0.96	> 0.95 (Bentler,1988)
RMSEA (root mean square error of approximation)	0.065	≤ 0.08 (McDonald & Ho, 2002)

Regression Analysis of Factors Influencing Job Involvement among Teachers in Taiwan

In Model 1 (Table 14), teaching commitment, school culture, and moral leadership were first used to predict job involvement. The results indicated that teaching commitment and moral leadership had significant influences ($p < 0.05$) on job involvement. The standardised regression coefficients were 0.456 for teaching commitment, 0.102 for moral leadership, and 0.219 for school culture. The R^2 explanatory power for Model 1 was 0.422. This indicates that teaching commitment most contributed to higher levels of job involvement. The second-most influential factor was school culture. The predictive power of moral leadership from the principal was lower.

For Model 2, workplace spirituality was added to the regression equation. The influence of teaching commitment on job involvement was decreased somewhat; the regression coefficient dropped to 0.107, but the standardised influence coefficient of workplace spirituality on job involvement was 0.544; this indicates that the predictive power of teaching commitment for job involvement required workplace spirituality as a mediator. The predictive power of moral leadership on job involvement dropped to 0.071, and school culture had a predictive power of 0.109. The R^2 explanatory power of Model 2 was 0.534. After workplace spirituality was entered into the regression model analysis, the explanatory power of the model rose slightly; this indicates that workplace spirituality was a key factor in job involvement.

Table 14 REGRESSION ANALYSIS OF JOB INVOLVEMENT AND RELEVANT FACTORS AMONG TEACHERS IN TAIWAN						
Dependent variables	Model 1		Model 2		Model 3	
Independent variables	Job involvement		Job involvement		Workplace spirituality	
	B	Beta	B	Beta	B	Beta
Teaching commitment	0.539*	0.456	0.127*	0.107	1.132*	0.644
Moral leadership from the principal	0.062*	0.102	0.044*	0.071	0.054*	0.059
School culture	0.132*	0.219	0.066*	0.109	0.179*	0.199
Workplace spirituality	--	--	0.366*	0.544	--	--
(Constant)	0.726*	--	0.436	--	0.765*	--

Sample size	2068	--	2057	--	2062	--
F value	503.158*	--	589.285*	--	1142.825*	--
R ²	0.422	--	0.534	--	0.625	--
* p<0.05						

Structural Model of Factors influencing Job involvement among Teachers in Taiwan

To further confirm the pathways by which teaching commitment, workplace spirituality, moral leadership, school culture, and job involvement influence job involvement, LISREL software was used to perform an SEM analysis and verify the model fit. The statistical results are presented in Figure 3. The structural model fit met SEM requirements—GFI, AGFI, NFI, NNFI, IFI, and CFI were greater than 0.90, and RMSEA Figure 4 was lower than 0.08 (Table 15). The standardised (λ coefficient) coefficient for moral leadership from the principal was -0.18 , but the t value for the same factor was -0.157 , which does not meet the test (Figure 5); therefore, moral leadership from the principal does not influence the model relationship. This result indicates that workplace spirituality was the most influential factor ($\lambda=0.87$), followed by teaching commitment ($\lambda=0.64$); the weakest factor was school culture ($\lambda=0.47$). Although past studies have determined that school culture is conducive to teacher job involvement (Louis, Smith, and National Center on Effective Secondary Schools 1991; Wang, Lin, and Liang 2017), the data from Japan indicates that school culture was not an influencing factor for job involvement. By contrast, the data from Taiwan indicate that school culture was a major influential factor, highlighting the substantial significance of school culture on teacher job involvement in Taiwan.

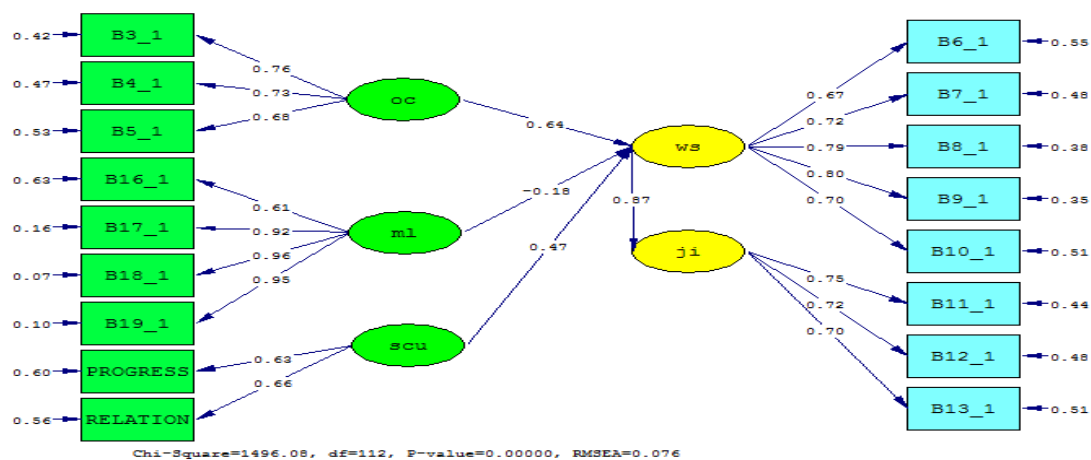


FIGURE 4

INFLUENTIAL RELATIONSHIP MODEL FOR JOB INVOLVEMENT AMONG TEACHERS IN TAIWAN (λ COEFFICIENT).

Note: ji refers to job involvement, ws to workplace spirituality, oc to occupational commitment, and ml to moral leadership.

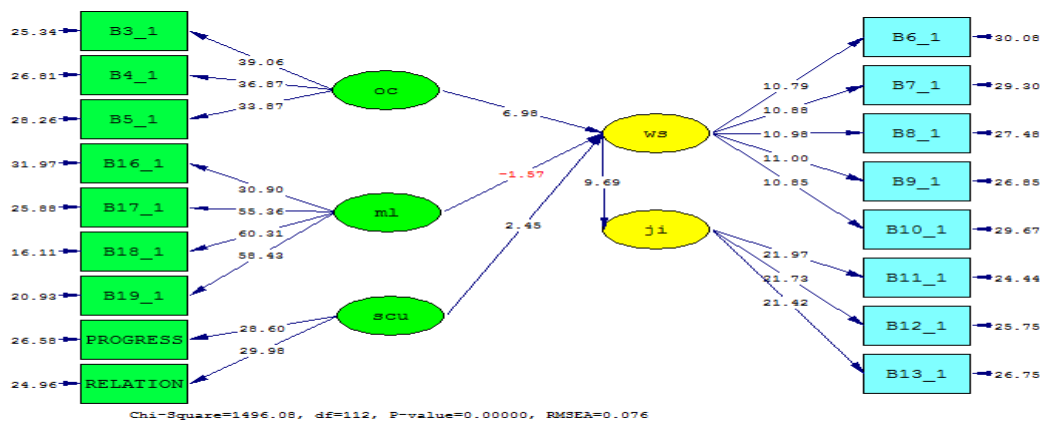


FIGURE 5
INFLUENTIAL RELATIONSHIP MODEL FOR JOB INVOLVEMENT AMONG TEACHERS IN TAIWAN (T COEFFICIENT)

Note: ji refers to job involvement, ws to workplace spirituality, oc to occupational commitment, ml to moral leadership, and scu to school culture.

Table 15 TAIWANESE TEACHERS JOB INVOLVEMENT AND RELEVANT STRUCTURAL MODEL FIT INDICES		
Index	Result	Determination value
Chi square values	1496.08	p>0.05
GFI(goodness-of-fit index)	0.92	>0.90(Hu & Bentler,1999)
IFI(incremental fit index)	0.97	>0.90(Hu & Bentler,1999)
NFI(normal fit index)	0.97	>0.90(Bentler & Bonett,1980)
NNFI(non- normal fit index)	0.97	>0.90(Bentler & Bonett,1980)
CFI(comparative fit index)	0.97	>0.95(Bentler,1988)
RMSEA (root mean square error of approximation)	0.076	≤0.08(McDonald & Ho, 2002)

Teaching commitment, workplace spirituality, and job involvement among Japanese teachers demonstrate consistency and stability without significant differences by gender, teaching seniority, and training channel.

The survey responses from the Japanese teachers indicated that no gender differences were present for teaching commitment, workplace spirituality, or job involvement, nor were any differences based on teaching seniority or training channel. Male and female teachers did not exhibit significant differences in commitment to their occupation or in their sense of meaning in work and transcendence resulting from teaching; nor were differences observed in job involvement. Similarly, in Japan, teaching experience and training channel did not demonstrate differences for teaching commitment, workplace spirituality, or job involvement. This indicates that consistency and stability are present in the teaching commitment of teachers trained in Japan; the recently graduated teachers had substantial teaching commitment, and this commitment was unchanged among the teachers with greater seniority. Teachers from different channels of training (university-trained vs. nonuniversity-trained), despite the differences in training field and duration, have proximate levels of teaching commitment, job involvement, and even workplace spirituality. This again demonstrates that

consistency and stability are present in Japanese-trained teachers.

Workplace spirituality and job involvement among Taiwanese teachers differ significantly by teaching seniority, demonstrating an up-down-up curve.

The data on the Taiwanese teachers indicated that job involvement and workplace spirituality exhibited a trend of starting high, dropping, and then rising again in a V-shaped curve. The teachers with up to 5 years of teaching experience had higher job involvement and workplace spirituality, and the biggest drop occurred during the 6th to 10th years of teaching, followed by a slight increase during the 11th to 15th years and again during the 16th to 20th years; the teachers with at least 21 years of teaching experience had the highest job involvement and workplace spirituality. These results indicate that the teachers teaching for up to 5 years were highly enthusiastic in their job involvement, but after 6–10 years of teaching, their job involvement dropped drastically before slowly rising from the nadir during their 11th–15th years and again during the 16th–20th years of teaching; job involvement rose to its peak after 21 years of teaching. This could mean that the workplace for teachers in Taiwan cultivates a V-shaped curve for teaching experience with regard to job involvement and workplace spirituality. Teachers just entering the workplace are filled with commitment to education and passion for the work; however, this passion rapidly drops over the next 5 years. This may be because Taiwan's education policies and curriculum have changed too rapidly—teachers exert considerable effort keeping up with the rapidly changing curriculum, which affects their job involvement, sense of meaning, and transcendence in their work. After teaching for 21 years, teachers have reached a stage of emotional maturity and professional mastery and are approaching retirement age; therefore, these teachers have a more pressing sense of meaning and higher transcendence in their work.

Workplace Spirituality, followed by Teaching Commitment, is the main factor Influencing Japanese and Taiwanese Teacher Job Involvement

The results of this study indicate that teaching commitment has an indirect influence on job involvement, with workplace spirituality as the mediator variable; this is true for both Japanese and Taiwanese teachers. However, if the influencing factors are compared in an influence model, workplace spirituality is the main factor influencing teacher job involvement; which is to say, among both Japanese and Taiwanese teachers, a sense of meaning and transcendence in work are the main factors influencing job involvement. The indirect influence of teaching commitment on job involvement mediated by workplace spirituality is even more present among Japanese teachers. Although teaching commitment has direct influences among Taiwanese teachers, the influence is rather small and still requires workplace spirituality as a mediator to affect job involvement.

Job Involvement is Influenced by the Principal's moral Leadership in Japan and by School Culture in Taiwan

The structural model for job involvement among Japanese teachers demonstrates that in Japan, moral leadership from the principal influences job involvement. In Taiwan, moral leadership from school principals does not exhibit any significant influence. Instead, school culture influences teacher job involvement. This highlights differences between Japan and Taiwan in the education workplace. In Japan, school principals are responsible to the prefecture board of education, and their word carries substantial weight in schools; the principal is also often a teacher with sizeable seniority who leads by example in all matters. Moral

demonstrations and moral responsibility have demonstrative significance for teachers, and therefore, moral leadership from the principal is even more meaningful.

Since 2000, principals in Taiwan have been appointed through an open selection process, unlike the assignment system in place in Japan. Principals in Taiwan are reappointed every 4 years, and the principal is responsible to the selection panel (i.e., education authorities) as well as parent and teacher committees. At this time, moral demonstration cannot be fully implemented. The school culture constructed by the principal to manage the school is then a major factor. Therefore, data on Taiwan indicate that school culture produces major benefits for teacher job involvement. This conclusion highlights the importance of school culture on Taiwanese teacher job involvement.

Suggestions

The most critical factor affecting job involvement among teachers in Japan and Taiwan is workplace spirituality. The second-most critical factor is teaching commitment. Workplace spirituality refers to a sense of meaning in work, a sense of purpose in life, and a sense of pursuing excellence in work; thus, for a teacher to be seriously involved in their work, their workplace must provide a sense of meaning in their work and purpose in their life as well as encourage them to willingly pursue excellence in their work. Furthermore, from a perspective of organisational-level factors, moral leadership from principals in Japan carries the influence of leadership by example, whereas in Taiwan, principals must construct a school culture conducive to the pursuit of success, positive teacher–student relationships, and problem-solving.

The survey data from Japan and Taiwan also suggested a major implication—the change to the open selection process for appointing principals may be the reason for the ineffectiveness of the moral leadership of principals. Again, in Japan, principals are appointed by a board of education, to whom they are responsible and which supervises the principal's performance. The principal is then free to lead teachers. However, since Taiwan has changed to the open selection process, the principal is supervised by the education authorities as well as teacher association representatives, and as a result, the principal often has their hands tied by the need to be scrupulous. As a result, principals in Taiwan must construct school cultures—the pursuit of success and positive teacher–student relationships—to encourage job involvement among teachers. Thus, although Taiwan's open principal selection system gives teacher associations the right to participate in the principal selection process and to supervise the principal's behaviour—highlighting the democratisation of school campuses—it may have also limited the benefits of principal leadership behaviour. This merits deeper thought.

Another prominent discovery in this study is that no differences were present in teaching commitment, workplace spirituality, or job involvement regardless of the length of experience of teachers in Japan; consistency and stability were demonstrated. However, job involvement and workplace spirituality among teachers in Taiwan exhibited a V-shaped curve relationship—teachers with less than 5 years of experience are filled with passion for their work, a sense of transcendence in the workplace, and a sense of meaning in their work, but this passion and sense of transcendence drops rapidly during their 6th to 20th years of teaching until the 21st year of teaching, when job involvement and workplace spirituality rise to their zeniths. The reason for this trend is unclear. It is perhaps related to the waning of principal supervisory and managerial powers and the rapid changes in education in Taiwan. The authors posit it may be due to the change to the open selection process for principals; again, whether someone is appointed principal or continues their appointment is determined by a vote of the

selection panel, and a teacher association representative is one of the panellists. Subject to supervision by the education authorities and required to pay attention to the viewpoints of the teachers' association, the principal is shackled in their actions and leadership, and their supervisory and managerial powers are thus diminished. Twenty years have elapsed since 2000. Within the first 5 years of teaching, teachers are still unclear about many of their rights and obligations and still feel strong enthusiasm and a sense of meaning in their work, and although the education reforms and curriculum changes are in full swing, teachers still display higher levels of job involvement and workplace spirituality. However, after teaching for 6 to 20 years and becoming more familiar with their rights and obligations, their job involvement is impacted by their workload; furthermore, the supervisory power of the principal's leadership cannot be exerted, which reduces some job involvement. Teachers who have been teaching for more than 20 years are not far from retirement and have developed deeper feelings for teaching; their job involvement and workplace spirituality have also recovered and increased. Again, from the study data on Japan and Taiwan, the authors determined that in Japan, moral leadership by principals has a significant influence on teacher job involvement, but in Taiwan, a principal's moral leadership does not demonstrate an influence, possibly because of the open selection process. Of course, some experienced researchers will argue that the study data cannot confirm whether the leadership behaviour of principals is directly constrained by the selection process; the authors are only making a possible inference based on the study results. Therefore, the authors believe that the leadership behaviour of principals and the influence of the selection process can be further explored through individual case interviews in the future to confirm the relationship between the principal selection process and principal leadership.

CONCLUSION

Furthermore, based on the findings in this study, the influence of the leadership behaviour of principals on teacher job involvement in Taiwan has become miniscule, and as a result, the principal can only encourage job involvement among teachers through the constructed school culture. Conversely, the leadership behaviour of principals in Japan has a beneficial influence on teacher job involvement, and the influence of school culture therefore seems weaker in comparison. On the surface, the factors which influence job involvement in Japan and Taiwan each have their own traits, but based on PISA performances, Japanese students slightly outperform Taiwanese students in math, reading, and science skills. This too may indicate that principals may directly encourage job involvement among teachers through leadership behaviour, whereas Taiwanese principals must establish a school culture to indirectly influence teacher involvement. The indirect influence of a school culture on student performance requires long-term establishment, which is not as immediate as the benefits of direct leadership from a principal. This finding of the difference between principal selection and appointment systems merits consideration from scholars in other countries, and education policy makers in each country should also meditate on how to draft procedures for appointing or selecting school principals.

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