

# INFLUENCE OF TEACHER'S PERSONAL FACTORS AND ORGANIZATIONAL CHANGE STRATEGY ON TEACHER EVALUATION FOR PROFESSIONAL DEVELOPMENT IN ELEMENTARY SCHOOLS

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**Abstract:** The main purpose of this study was to research the influence of teacher's personal factors and organizational change strategy on Teacher Evaluation for Professional Development (TEPD) in elementary schools. According to the literature reviews in influence of teacher's personal factors and organizational change strategy on TEPD, using TEPD Influence Factor Scale as the research tool, targeting elementary school teachers. There are 299 effective samples. With AMOS processing CFA to choose the best model, and further its reliability and validity were tested. Results showed that the model fits, and its goodness-of-fitness conformed to standard. It can prove that teacher's personal factors have influences on the TEPD with causal relationship and organizational change strategies intervening variables effect are significant. We suggest that education institution can notice this issue in order to enhance the efficiency of the TEPD paper is a report on the findings of a study conducted on a graduate level virtual conference summer school course. Discourse analysis techniques were used to examine the resulting transcript of texts for evidence of a democratic discourse within a community of learners. Findings indicate that gender is not masked in the text driven discussions on the Internet. Distinctive discursive styles are often sex class linked. Like face to face or classroom contexts, status is accorded unequally within discourse communities. Participants are not equal and are not equally attended or responded to. Educators need to take a serious and wary approach to accepting claims of ensured democratic participation in computer mediated communication formatted classes.

**Keywords:** teacher's personal factor, organizational change strategy, Teacher Evaluation for Professional Development, confirmatory factor analysis

## Introduction

### 1. Research Background and Motives

A teacher plays an important role in ensuring the teaching quality and students' learning effectiveness in school (Tucker & Stronge, 2005). Nowadays, each country is committed to improving teachers' quality and promoting teachers' professional knowledge and teaching skills, and their main practice is to apply teacher evaluation which can enhance teachers' professional literacy and promote teachers' professional career development to improve education achievements (Avalos & Assael, 2006; Danielson, 2001). Therefore, the establishment of appropriate teacher evaluation system can improve teachers' quality and working performance and highlight teachers' professionalization, and it is also the only effective method to ensure teachers' dignity and social status (Yen, 2003).

Many researches suggest that teacher evaluation is an important method to increase teachers' professional development, and it is also an important mechanism to guarantee students' achievement (Sun, 2008). In order to respond to the highly expectation from all works of life to education quality, Ministry of Education ever listed "establishment of teacher evaluation mechanism and improvement of teachers' teaching performance" and "improvement of the current performance appraisal system of elementary and secondary school teachers and the enhancement of teachers' professional performance" into the discussion outline "in the meeting on education reform review and advancement in 2001" (Ministry of Education, 2001). In September 2003, in the meeting on national education development, Ministry of Education draws a conclusion to especially formulate "the implementation essentials on the handling of teacher evaluation for professional development with the subsidy of

Ministry of Education”, so as to assist in teachers’ professional growth, increase teachers’ professional literacy, improve teaching quality and increase students’ learning achievements. With the premise of teachers’ voluntary participation, a three-year “pilot subsidy scheme on teacher evaluation for professional development” has been promoted since 2006 to encourage school to participate in pilot scheme (Ministry of Education, 2006). Pilot scheme has been changed into normal scheme since 2007, and “the implementation essentials on the handling of teacher evaluation for professional development with the subsidy” are published, with the purpose of promoting the professional development of elementary and secondary school teachers and enhancing students’ learning achievements through normal handling of teacher evaluation for professional development (Ministry of Education, 2014).

The scheme on teacher evaluation for professional development has been promoted for nearly 10 years in Taiwan. In 2016, there are 1,441 elementary schools participating in pilot scheme, accounting for 54.5% of all elementary schools in Taiwan, with 29,493 participating teachers, accounting for 29.91% (website for teacher evaluation for professional development, 2015); the continuous growth in the number of participating schools and teachers shows that teachers can gradually accept and participate in teacher evaluation for professional development, but there is still room for improvement. Executive Yuan has passed “Amendments on some Articles in Teacher’s Law” to bring the teacher evaluation in senior high school and below into law, which has entered into the second reading program of Legislative Yuan (Chiu and Lin, 2012). In order to avoid falling into the same old trap of poor effectiveness in education reform in Taiwan, it is necessary to discuss the factors influencing teacher evaluation for professional development, which can be used as reference for future implementation schools and help to promote teacher evaluation policy and achieve the goal of evaluation.

Teacher evaluation for professional development is one of the important education policies at present and is critical to the significant organizational change of schools. During the implementation of this significant policy, the proper organizational strategies are required to be put forward, and meanwhile teacher’s personal factors should also be considered, so that organizational stability and development can be achieved. Wu (1999) indicates that teacher evaluation process is a part of teacher’s personal development and administrative reform of school. With teacher’s personal factors and organizational change strategy as pointcut, this research first collects data and then applies confirmatory factor analysis to analyze the influence of above-mentioned two factors on implementation effectiveness of teacher evaluation for professional development in elementary schools. Thus, it will help to implement teacher evaluation for professional development in elementary schools and put forward feasible improvement strategies.

## 2. Research Purposes

According to the above research background and motives, the main purpose for this research is to know about the influence of teacher’s personal factors and organizational change strategy on implementation effectiveness of teacher evaluation for professional development; with the technology of Structural Equation Modeling as theoretical verification tool, the goodness of fit for the model “influence of teacher’s personal factors and organizational change strategy on implementation effectiveness of teacher evaluation for professional development” is tested to further understand its direct and mediating effect.

## Literature Review

Teacher evaluation for professional development is the policy scheme promoted strongly by Ministry of Education in recent ten years, and will also bring significant organizational change in schools. This research will verify the influence of teacher’s personal factors and organizational change strategy on implementation effectiveness of teacher evaluation for professional development, and the relevant literature review is as follows:

### 1. Teacher’s personal factors

**(1) Teacher’s demand and attitude.** The demand for teacher’s professional development comes from the perceived role gap between “reality” and “ideality” (Sun, 1997); Chang and Lin (2006) points out that in order to respond to the implementation of new curriculum and policies of teaching and evaluation, teachers need professional development to increase confidence and self-efficacy and to understand the weakness in their profession and demand and connotation for professional growth through teacher evaluation for professional development, so as to improve teacher’s professional status. Castle and Aichele (1994) think that intrinsic motivation is the important kinetic energy to promote teacher’s continuous professional growth, and the teacher’s consciously professional development demands his personal education idea and professional awareness to generate internal driving force for the pursuit of professional growth; Beerens (2001) also indicates that the best method for teacher’s professional development is the initiative pursuit based on intrinsic motivation and demand. In addition, for instance, a teacher can sort out teaching files and data systematically due to being the national education

guidance group members, so as to understand his own profession degree or strengths and weaknesses in teaching through sharing and counseling the teacher's teaching process (Chang and Lin, 2006).

This research discusses the teacher's demand for professional development as well as his attitude towards teaching and evaluation to understand the influence of this factor on the implementation effectiveness of teacher evaluation for professional development.

**(2) Teacher's concerns.** Discussion on teacher's concerns originates from the "concerns theory" of Fuller (1969). "Concerns" mean that one person tries to do something under the expected situation or has the tendency of trying to do something under other special situations. Concerns can be said to be the motive power of action, while action is the result of concerns (Sun and Chen, 2007). Fuller divides teacher's concerns into three phases: 1) Self-concerns phase: teacher concerns whether his own performance in teaching ability and role play is competent and affirmed. 2) Task-concerns phase: teacher concerns the environmental factors of teaching and how to achieve teaching task, such as routine of school-room, teaching material resources, working atmosphere, etc. 3) Impact-concerns phase: teacher concerns students' learning process, emotional demand, social development, etc. In her opinion, teacher's concern for teaching is a kind of demand and also the learning motive. Following the research into teacher's concerns for teaching, Hall and Hord (1987, 2001) propose "Concerns-Based Adoption Model" (CBAM) to divide teacher's concerns into 7 development phases: awareness, information, personal, management, consequence, collaboration and refocusing, and their integrated viewpoints are shown in Table 1.

**Table 1:** Characteristics of teacher's concerns in each phase

Phase	Name	Characteristics
	Awareness	Rare concerns for or participation in innovation.
	Information	Having a preliminary understanding of innovation and wishing to understand more contents about innovation.
	Personal	Aimed at the conflict between innovation and existing school structure, innovate in contradictions between the responsibilities needing to be shouldered now as well as in the connotation of their own and colleagues' treatment and status, and consider it deeply.
Task-concerns	Management	Concerns focus on implementation process and work of innovation as well as the best method for information and resource usage, especially the concerns for the requirements for working efficiency, organization, management, plan and time limit.
	Consequence	Concerns for the influence of innovation on students, focusing on the applicableness of innovation on students, evaluation for students' learning achievements and change demands for students' performance gains.
	Collaboration	Concerns for how to coordinate and cooperate with others during the implementation of innovation.
	Refocusing	Concerns for searching more wide benefits from innovation, including discussion on significant change or feasibility of being replaced by another innovation; individuals have other schemes or more specific ideas for selection or innovation.

Source: revision by Hall & Hord, 1987, NY: State University of New York Press, p.60.

Hall and Hord (2001) think that in spite of respective characteristics in each development phase, they are not mutually exclusive with each other and have the relationship of dynamic change. That is to say, a teacher may have concerns for different development phases simultaneously in the certain time, where the greatest concerns will change due to the implementation of change. With the time going, the change participants' concerns for change will change for being affected by personal experience, knowledge, impressions and the attitudes towards participation degree in change. The opinions of teacher's concerns imply the problems facing them, the assistance required and psychological resistance to innovation (Hall & Hord, 1987; Hall & Shieh, 1998); it also shows that the input and commitment of organizational members and requires the change agent to provide effective support and intervention. Thus, this research discusses the above-mentioned 7 kinds of teacher's concerns.

## 2. Organizational change strategy

From the perspective of organizational change theory of Kurt Lewin, teacher evaluation for professional development implemented in elementary schools can be divided into 3 phases of strategy dimensions of unfreezing, action and freezing, and the discussions are as follows:

### **(1) Strategy in unfreezing phase**

1. Inspiration of change demand: Jackson (2000) and Kotter (2007) think that if organizational members have high degree of self-satisfaction, they will have lower interest in participating in change; in the case of lacking incentive factors, the change work will become more difficult. Successful changes mainly originate from that individual or team begins to seriously think about organizational competition situation and pays attention to potential crisis. Therefore, Kotter (2007) puts forward that the top priority is to establish crisis awareness among the 8 steps of change leadership. The promotion of organizational change requires the highly cooperation of organizational members, and the inspiration of change demand through crisis awareness is related to the cooperation degree of change action, so how to develop members' demands for organizational change and cultivate crisis awareness are the indispensable methods. By means of crisis awareness, the potential crisis and opportunity appearing in organizations are found out, or with the understanding of market competition situation and organizational status, organizational members are promoted to reflect on their own situation to increase their commitment to organizational change.

2. Analysis of change environment: Chen (2003) and Hsieh (2004) indicate that the resistance of school organizational members to the promotion of teacher evaluation change for professional development should be eliminated in unfreezing phase, so as to shape the organizational culture in favor of change. During the promotion of change scheme, the positive driving force in favor of change and negative driving force going against change are bound to appear. Fidler (1996) thinks that school organization has 3 important jobs in this phase: they are respectively presenting the evidence of organizational problems, linking organizational problems and school goals to trigger teachers and administrative staff's anxiety and motivation and presenting the possible solving strategies. In other words, in order to eliminate the adverse factors for the promotion of teacher evaluation for professional development in unfreezing phase, schools should analyze the adverse environment factors and make students know about them, so as to formulate solving strategies in combination with school goal.

### **(2) Strategy in action phase**

1. Organizational change team: Keyton (2005) indicates that the premise for school's promotion of change is that school must formulate change scheme according to organizational characteristics, and the expectation of students, teachers and administrative staffs, community and parents, and really carry out the action strategy of change. Yukl (2002) further indicates that organizational working scheme and promotion process need powerful force, and it is certain that the work will not be completed with only one-man force. The establishment of a powerful change team is the indispensable factor of organizational change and transformation for change team, and its team members must have mutual trust and common goal; only if the team members have the aspiration to pursue common excellent goal, the true collaboration will occur.

2. Construction of shared vision: organizational shared vision is one of the key factors for the success of organizational change (Hall & Hord, 2001), as organizational vision has three roles: clarifying the direction of organizational change, inspiring organizational members to adopt proper action towards the correct direction and rapidly and effectively organizing members to coordinate each other's action. Vision is just like an image presenting the future and provides an open or implicit explanation for the future that partners are try best to create. Keyton (2005) further points out that the formation of vision relies on the effective communication and coordination between change leaders to reach a consensus; the team's change cognition is increased and teacher's personal goal and organizational goal are integrated through the process of whole staff's participation, so as to improve school organizational change efficiency.

3. Inspiration of change and innovation: for individuals, team or organizations, change often goes along with pains and difficulties (Torres & Preskill, 2001), which may cause individual's sense of anxiety for the uncertainty of future or the resistance to organizational structure inertia or team inertia to threaten the existing power relation (Robbins & Judge, 2007). Therefore, the method of inspiring change and innovation or reducing the resistance to change can be adopted, such as, increasing staff's participation and communication to enhance identity and support, intensifying staff's educational training, adopting material and spiritual reward and counseling and step by step method (Wu, 1999). In addition, relevant researchers indicate that the external incentives and motivations are also extremely important factors; in particular, the factors of peer influence and invitation of directors hold a majority (Li, 2007; Hung, 2007; Chen and Lo, 2011).

4. Enhancement of teacher's empowerment: with teacher's professional development as the main guidance, teacher evaluation for professional development aims to assist teacher in professional growth and increase teacher's professional literacy and improve teaching quality. If school operator can construct a platform where teachers can give full play to their expertise and potential and are willing to share, so as to apply the concepts of teaching leadership, teacher leadership and other distributed leadership for fully empowerment and hierarchical

responsibility, the members can be inspired to implement change and innovation to effectively achieve organizational goal (Li, 2003; Lin, 2011; Chang, Chou, and Li, 2011) and realize the functions of teacher empowerment.

### **(3) Strategy in freezing phase**

According to Kurt Lewin, organizational change theory means that establishment of a certain program can make the new action and operation continue and original state will no longer recover, so that the effectiveness obtained in promotion phase is steadied and retained (Hall & Hord, 2001). Only when change is transformed into organizational culture and integrated into the blood of organizations, change can last for long. (Kotter, 2007).

1. Timely review and improvement: after the evaluation for the effectiveness of change, the evaluation results must be fed back to organizational members for the revision of change strategies; with the methods of reward system, resource support, positive reinforcement, etc, the change scheme will become the formal organizational planning to retain the change effectiveness for a long term. After the change (no matter whether it is change in organization, individual or team and technology) lasts for some time and can achieve the change goal of school organizations, it must be institutionalized and formalized to retain the change effectiveness for long, so that organizations will return to the stable and balanced state, i.e. the organizational institutionalization and the permanence of new action of organizational members (Hall & Hord, 2001).

2. Shape of organizational culture: organizational culture is the code of conduct and shared value of organizational members; during the shape of change culture, it is necessary to let members know about the new practice and action to improve performance and guarantee the consistence of supervisor's words with his action (Yen, 2003; Kotter, 2007); if members can clearly see and affirm the effectiveness of change, they will further vigorously advocate the effectiveness of change. In case of the combination between organizational change and organizational culture, organizational members can not only observe the system of organizational change, but also can accept the idea of organizational change heartily (Kotter, 2007).

*Therefore, the effectiveness of teacher evaluation for professional development lies in whether organizational members can timely make the review and improvement, so that change scheme will become the common rules of organizational members and be shaped into organizational change culture to retain the effectiveness of organizational change for long.*

### **3. Relationship between teacher's personal factor, organizational change strategy and teacher evaluation for professional development**

Tseng (2006) thinks that teacher evaluation for professional development refers to the "formative evaluation" for teacher's profession; during the process of change, teachers are helped to understand their own strengths and weaknesses in teaching or where it can be better and proper help are provided for teacher's growth, so as to promote teacher's professional development and improve teaching quality. Hung and Hsieh (2007) hold that teacher evaluation for professional development refers to the teaching evaluation with the aim of enhancing teacher's professional development. With the teacher's profession as principal axis, this evaluation emphasizes the teacher's initiative participation; a set of systematic evaluation indicators is used to carry out teacher's self-evaluation and intramural evaluation, and evaluation results can assist teachers to understand the strengths and weaknesses in teaching and its reasons and can be used as the basis for the arrangement of teacher's training or enhancement of professional knowledge and skills. Based on the Taiwanese research, it is found that teacher's initiative, personal motives and attitude are all the influence factors promoting teacher's professional development (Chen and Jiao, 2009; Li, 2002). Goodson (2001) emphasizes that the educational change should not only consider the organizational internal affairs and external relationship, it should also consider the balance between personal factors. In the analysis of change, personal transformation should be put to the top; only when teacher's personal input is considered as the motives for change and its necessary goal, educational change can achieve the greatest effectiveness. Lin (2007) thinks that the implementation process of teacher evaluation for professional development is affected by social opinions, teacher culture, economic factors, structure, politics and other environment factors. According to Chang, Chou, and Li (2011), the influence factors for teacher evaluation scheme for professional development focus on 3 items of teaching leadership, teacher culture and external environment.

School organizations are characterized by bureaucracy system and loosely coupled dual system and belong to domesticated organization (Qin, 2000), so it is more difficult to promote organizational change in schools compared with general business establishments. Since 2006, Ministry of Education has promoted and encouraged

teachers below high schools and higher vocational schools to voluntarily participate in evaluation scheme for professional development; it is hoped to assist in teacher's professional growth, increase teacher's professional literacy, enhance teaching quality and increase students' learning achievements through the promotion of this scheme. According to Owens (1995), in face of the change of internal and external environmental factors, in order to achieve the sustainable development in school affair and improve education quality, the school authority will certainly master school organizational characteristics and change focus and adopt good coping strategies for organizational change.

## RESEARCH DESIGN AND IMPLEMENTATION

### 1. Research Subjects

According to the data provided by website for teacher evaluation for professional development (2015), aimed at the schools selected by each county and city to implement teacher evaluation for professional development in elementary schools, stratified random sampling was used for test according to the proportion of teachers in elementary schools participating in teacher evaluation for professional development in northern, middle and southern district; after deducting the samples with incomplete answers and the samples answered by teachers without the experience of participating in evaluation, 299 valid samples were obtained.

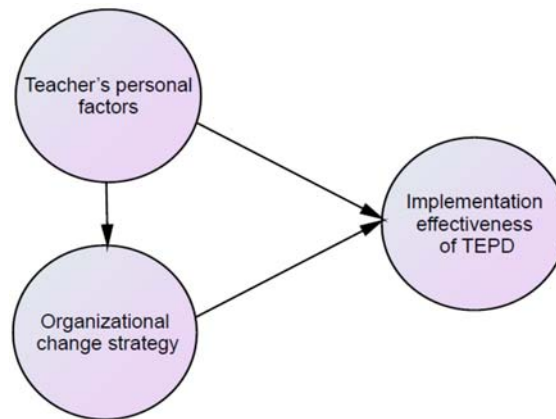
### 2. Research Tools

This research adopted "scale on influence factors of teacher evaluation for professional development implemented in elementary schools" (Su, 2014) as the tool, and the measurement items in this scale has been treated as follows in trial test: 1. With the adoption of extreme value test method, trial test samples are divided into two groups by 27% before and after trial test samples; with the significant difference of the two as discrimination degree, items without discrimination degree are deleted; 2. With the use of correlation analysis method of items and total scores, items where the correlation coefficient between item and total scores is smaller than 0.3 and the Cronbach's  $\alpha$  coefficient will increase after the deletion are deleted; 3. According to the suggestions of Hair, Anderson, Tatham and Black (2009), items where commonality is smaller than 0.5 are deleted. The scale on "teacher's personal factors" covers teacher's personal demand and attitude (attitude towards teaching and demand for professional development) and teacher's concerns (awareness concerns, information concerns, personal concerns, consequence concerns, collaboration concerns, refocusing concerns), with a total of 8 factor dimensions and 25 items. Bartlett's sphericity test of dimensions is significant, KMO value is 0.939, dimension explanation quantity is 82.30% and Cronbach's  $\alpha$  coefficient is 0.931. The scale on "organizational change strategy" is divided into 6 potential factors: inspiration of change demand, analysis of change environment, organizational change team, construction of shared vision, inspiration of change and innovation, enhancement of teacher's empowerment, with a total of 27 items. Bartlett's sphericity test of dimensions is significant, KMO value is 0.942, dimension explanation quantity is 84.230% and Cronbach's  $\alpha$  coefficient is 0.944, indicating the good reliability and validity in this questionnaire, so it can be used to discuss the influence of organizational change strategy on implementation effectiveness of teacher evaluation for professional development.

### 3. Research Method

Through literature review and integration, this research constructs the research structure of teacher's personal factors and organizational change strategy (Figure 1), and applies the structural equation modeling software Amos for confirmatory factor analysis (CFA) to confirm the goodness of fit of this structural modeling.

By referring to Bagozzi and Yi (1988), Jöreskog and Sörbom (1996) and Hairet al. (2009), this research uses the indicator of overall goodness of fit, including (a) the chi-square value of absolute index ( $\chi^2$ ), ratio of chi-square and degree of freedom ( $\chi^2/df$ ), fit index (GFI), root mean square residual (RMR) and root mean square error approximation (RMSEA); b. incremental fit index of incremental index (IFI) and comparative fit index (CFI); c. Parsimony Goodness Of Fit Index (PGFI) after the parsimony and adjust for parsimony index and Parsimony Normed Fit Index (PNFI) to gain compact model.

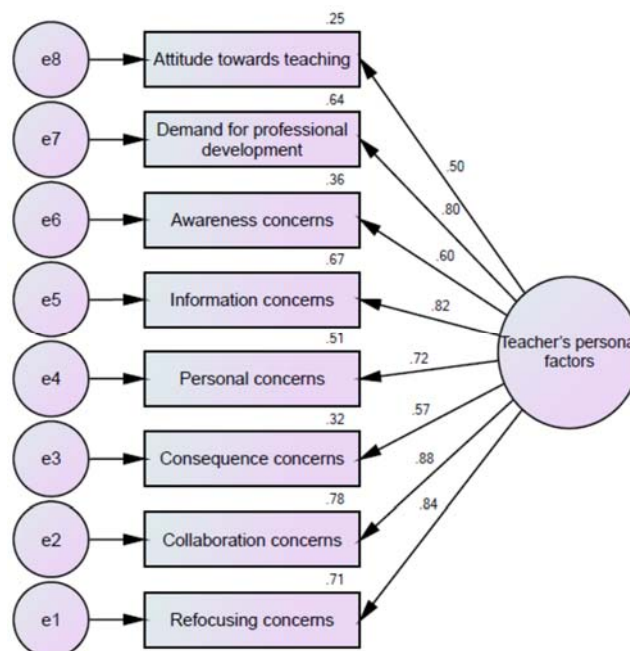


**Figure 1.** Structural Equation Modeling

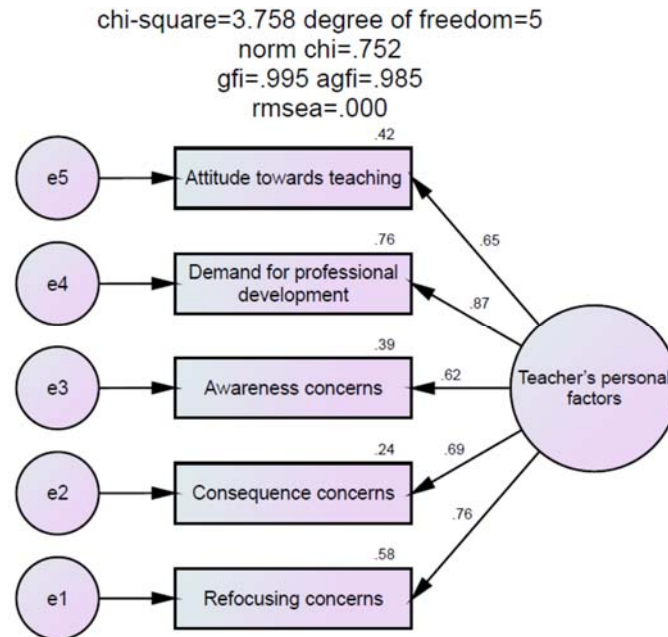
## RESEARCH RESULTS AND ANALYSIS

### 1. Goodness of fit test for the modeling of teacher's personal factors

This research uses 299 valid samples to carry out the SEM analysis, and there are totally 8 observation variables in teacher's personal factors (see Figure 2), degree of freedom  $8 * 9/2 = 36$ , with a total of 8 residual errors; with the addition of 1 variance and 7 factor loadings, the degree of freedom is greater than estimated parameter, so the modeling belongs to over identification, conforming to the requirements of positive definite model in theory. The factor loading of the 8 observation variables after CFA is greater than 0.5, but the residual errors of 3 observation variables of collaboration concerns, personal concerns and information concerns are not independent. Due to the compact modeling and the violation of the principle of residual error independence, 5 observation variables are retained after these 3 observation variables are deleted. Each factor loading is as follows: attitude towards teaching is 0.65, demand for professional development is 0.87, awareness concern is 0.6, consequence concern is 0.69, and refocusing concern is 0.76 (see Figure 3).



**Figure 2.** Dimension of teacher's personal factors



**Figure 3.** Dimension of teacher’s personal factors after cfa

After deleting observation variables, PGFI=0.332 is smaller than suggestive value 0.5, and the reason may be that the item similarity is too high, causing the lower statistics of this index; other absolute fit index, incremental fit index and PGFI all get the ideal value, and the index within the evaluation index is greater than suggestive value, indicating that this modeling has good goodness of fit (See Table 1); the composite reliability of this dimension is (CR value) is 0.884, average variance extracted (AVE) is 0.524, and both of them are greater than suggestive value.

**Table 2:** Each goodness of fit index and statistics for the dimension of teacher’s personal factors

Goodness of fit	Statistics	Suggestive value
$\chi^2$	3.758	The smaller, the better
df	5	
$\chi^2/df$	.752	<3
GFI	.995	
AGFI	.985	
RMR	.009	
SRMR	.0181	
RMSEA	.000	
NFI	.991	
NNFI	1.006	
CFI	1.0	
RFI	.983	
IFI	1.00	
PGFI	.332	
PNFI	0.50	
CN	878	>200

**2. Goodness of fit test for the modeling of organizational change strategy**

There are totally 6 observation variables in organizational change strategy (see Figure 4), degree of freedom  $6 * 7/2=21$ , with a total of 6 residual errors; with the addition of 1 variance and 5 factor loadings, the degree of freedom is greater than estimated parameter, so the modeling belongs to over identification, conforming to the requirements of positive definite modeling in theory. The factor loading of the 6 observation variables after CFA is greater than 0.5, but the residual errors of observation variable of “inspiration of change demand” are not independent. Due to the compact modeling and the violation of the principle of residual error independence, 5 observations are retained after this observation variable is deleted. Each factor loading is as follows: inspiration of change and innovation is



0.70, analysis of change environment is 0.83, organizational change team is 0.72, construction of shared vision is 0.83 and enhancement of teacher empowerment is 0.77(see Figure 5).

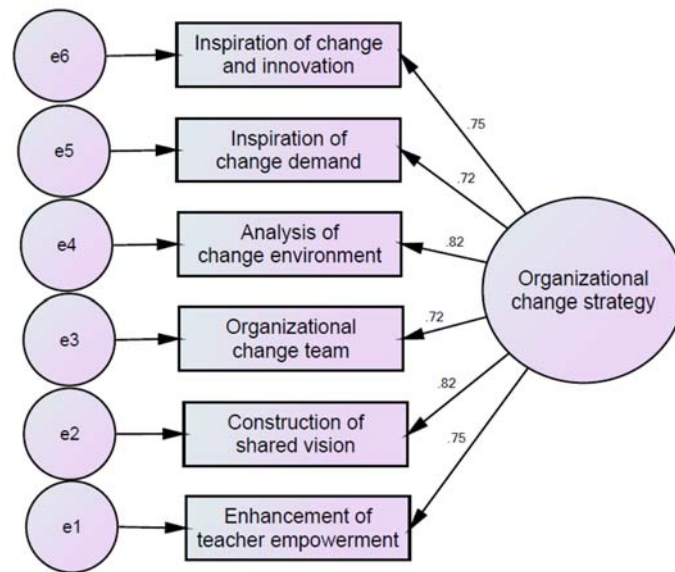


Figure 4. Modeling of dimension of organizational change strategy

chi-square=17.031 degree of freedom=5  
norm chi=3.406  
gfi=.978 agfi=.933  
rmsea=.090

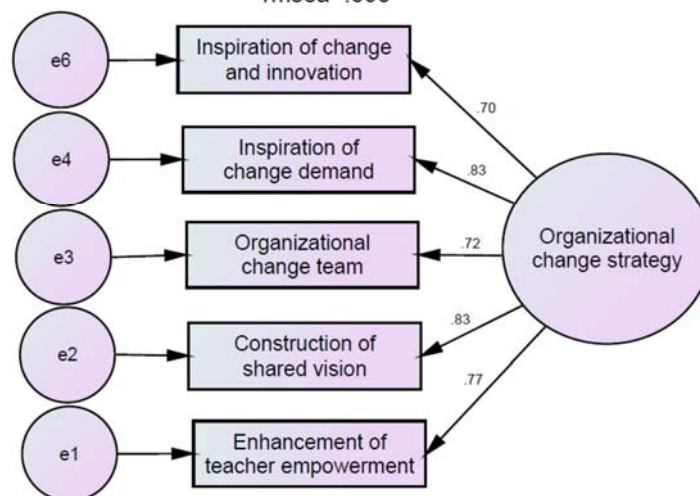


Figure 5. Modeling of dimension of organizational change strategy after cfa

**Table 3:**Each goodness of fit index and statistics for the dimension of organizational change strategy

Goodness of fit	Statistics	Suggestive value
$\chi^2$	17.03	The smaller, the better
df	5	
$\chi^2/df$	3.406	<3
GFI	0.978	
AGFI	0.933	
RMR	0.008	
SRMR	.0266	
RMSEA	0.009	
NFI	0.977	
NNFI	0.967	
CFI	0.984	
RFI	0.955	
IFI	0.984	
PGFI	.326	
PNFI	0.499	
CN	264	>200

### 3. Effect analysis between potential variables for structural modeling

According to the results of path model (see Figure 6), it can be known that the influence coefficient of teacher's personal factors on teacher evaluation for professional development has achieved significant level (0.79). Thus, teacher's personal factor has the significant direct effect on implementation effectiveness of teacher evaluation for professional development.

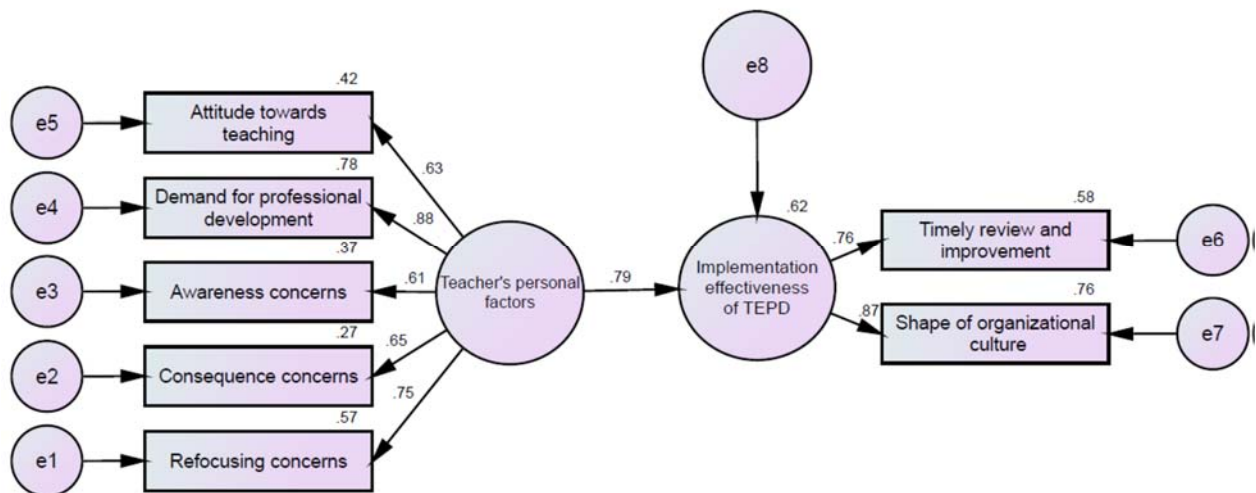
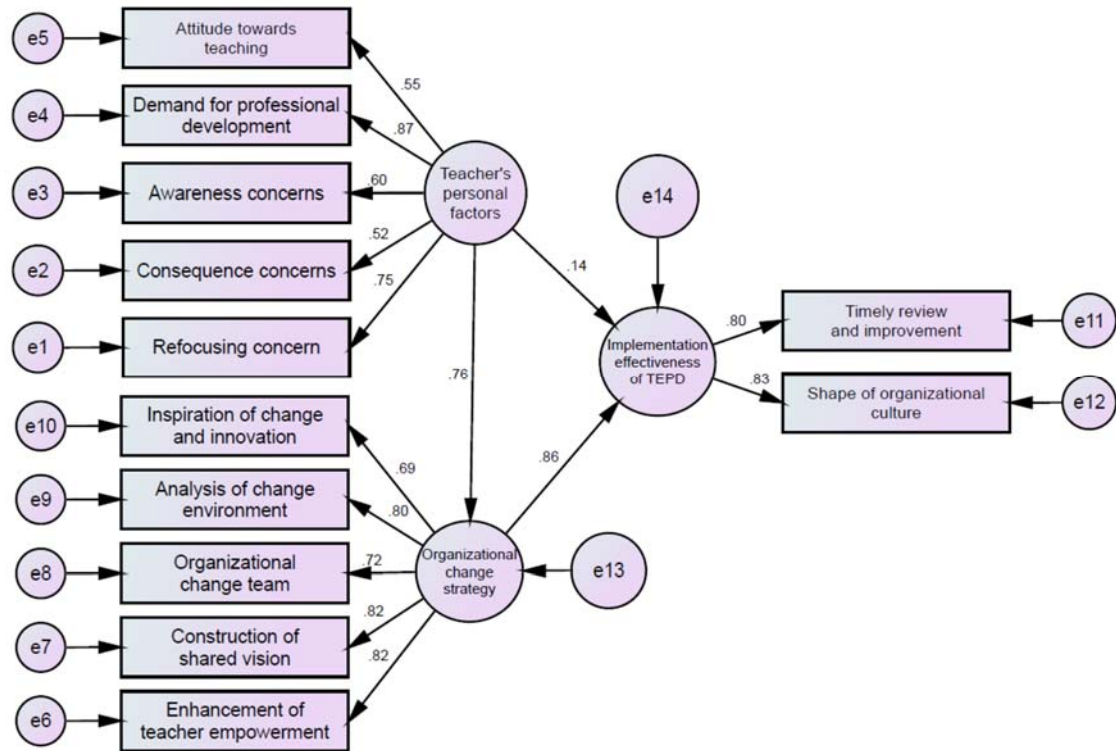


Figure 6. Coefficient of path structural modeling

As for the effect between all the variables of structural equation modeling in this research, (see Figure 7), Amos is used to test mediating effect and it is found that teacher's personal factors and organizational change strategy have the significant total effect on implementation effectiveness of teacher evaluation for professional development. Moreover, teacher's personal factors also have significant indirect effect on implementation effectiveness of teacher evaluation for professional development through organizational change strategy, indicating that organizational change strategy has the significant mediating effect. The effect of each variable is summarized in Table 4.



**Figure 7.** Structural equation modeling for teacher’s personal factors and organizational change strategy

**Table 4:** Effect between variables of structural equation modeling

Potential independent variable	Potential dependent variable	
	Organizational change strategy	Implementation effectiveness of teacher evaluation for professional development
<b>Teacher’s personal factors</b>		
Direct effect	.76	.14
Indirect effect		.65
Total effect		.79
<b>Organizational change strategy</b>		
Direct effect		.86
Total effect		.86

### Conclusion and Suggestions

With the teacher evaluation for professional development strongly promoted by Ministry of Education since 2007, the trial scheme has been further changed into normal scheme, hoping that the teacher’s professional development can be promoted through teachers’ participating in the process of evaluation activity. This research discusses the influence of teacher’s personal factors and organizational change strategy on implementation effectiveness of teacher evaluation for professional development in elementary schools, so as to test, clarify and master the relationship between variables, which can help to research and formulate the thoughtful and feasible improvement method. The conclusions and suggestions in this research are illustrated as follows:

## Conclusion

The conclusions for this research are as follows:

1. The research results show that teacher's personal factors and organizational change strategy have the significant direct effect on teacher evaluation for professional development, and teacher's personal factors also have significant indirect effect on implementation effectiveness of teacher evaluation for professional development through organizational change strategy, indicating that organizational change strategy has the significant mediating effect.
2. Attitudes towards teaching, demand for professional development, awareness concerns, consequence concerns, refocusing concerns, etc in teacher's personal factors are all the important factors influencing the implementation of teacher evaluation for professional development. It can be known from research results that "demand for professional development" and "refocusing concerns" are the two items with the highest factor loading in the teacher's personal factors, while teacher's "awareness concerns" has the lowest factor loading.
3. Analysis of change environment, organizational change team, construction of shared vision, inspiration of change and innovation and enhancement of teacher's empowerment in organizational change strategy are the important factors influencing the implementation of teacher evaluation for professional development. "Construction of shared vision" and "enhancement of teacher's empowerment" are the two items with the highest factor loading in the organizational change strategy, while "inspiration of change and innovation" has the lowest factor loading.

## Suggestions

1. Teacher's "awareness concerns" has the lowest factor loading, indicating that teachers rarely concern for or participate in teacher evaluation for professional development. Therefore, only the elimination of misgiving and discomfort in teachers' heart, selection of proper contents, criteria and methods of teacher evaluation for professional development can reduce teacher's psychological obstacle of participating in evaluation so as to improve the effectiveness of teacher evaluation for professional development, which is also the urgent task of the government. Therefore, schools should assist in the teacher's professional development and provide various rewards to improve the effectiveness of teacher evaluation for professional development.

The understanding of relevant teacher's personal factors can help to increase the willingness to participate in evaluation or reduce the obstacle of participating in evaluation.

2. The subjects for this research are only restricted to teachers in public elementary schools, and the subjects will be expanded to teachers in public middle schools and even in private elementary and secondary schools in the follow-up research; after the cross validation is carried out for the research scale, the modeling stability for this research is further verified, and then whether the difference in teacher's factors in elementary and secondary schools with different levels will generate significant change in implementation effectiveness of evaluation is discussed.
3. This research is conducted in terms of teacher's personal factors and organizational change strategy; it is suggested to discuss the influence of organizational change background and other factors on implementation effectiveness of teacher evaluation for professional development in the follow-up research, so as to make the structural modeling more complete to give play to the best effectiveness of teacher evaluation for professional development.

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