



A Study of Primary School Teachers' Attitudes toward Teacher Evaluation for Professional Development and Teaching Effectiveness in the Remote Districts

Hsiu-Ping Huang

National Taitung University, Taiwan

Ya-Hui Shih

Kaohsiung Shou-Tian Elementary School, Taiwan

Received 23 April 2017 • Revised 12 July 2017 • Accepted 5 August 2017

ABSTRACT

The purpose of this study was to explore the primary school teachers' attitudes toward teacher evaluation for professional development (TEPD) and teaching effectiveness in remote districts. The questionnaire survey method was adopted in this study, formal questionnaires were distributed to 500 elementary school teachers in Kaohsiung and Pingtung areas by stratified random sampling, 446 questionnaires were returned, 393 were answered completely, the valid return rate was 88.12%. The findings were as follows: (1) The attitudes toward teacher evaluation for professional development among primary school teachers in remote districts was above average, with the most positive attitudes toward "evaluation outcome application". (2) Teachers in remote districts in Kaohsiung and Pingtung had a favorable perception in teaching effectiveness, with the most favorable perception in "teaching assessment and classroom management". (3) There are differences among primary school teachers' attitudes toward teacher evaluation for professional development in seniority, experience of participating in TEPD and school districts. (4) The primary school teachers' attitudes on teaching effectiveness have middle to high performance. However, no difference was observed on teachers' various backgrounds of gender, age, highest academic degree, post, seniority, experience of participating in TEPD, and school location in remote districts. (5) The primary school teachers' attitudes toward teacher evaluation for professional development show low positive correlation with their teaching effectiveness at various dimensions.

Keywords: teacher evaluation for professional development (TEPD), teaching effectiveness, remote districts

INTRODUCTION

Background of the Study

Teacher professional development has always been a core issue in education reform (Villegas-Reimers, 2003). Collie, Shapka, and Perry (2012) indicated that effective teacher professional development must be directly related to instruction. To maintain educational quality and students' learning effectiveness, teachers' professional development is an absolute necessity.

© **Authors.** Terms and conditions of Creative Commons Attribution 4.0 International (CC BY 4.0) apply.

Correspondence: Hsiu-Ping Huang, *National Taitung University, Taiwan.*

✉ hphuang3000@gmail.com

State of the literature

- Teacher professional development through learning new concepts and strategies, leads to teachers' willingness in change and modification in teaching setting.
- Primary connotations of teachers' evaluation for professional development include four parts as follows: "evaluation goal", "specifications and scopes", "evaluation implementation procedures" and "announcement and consulting guidance".
- Teaching effectiveness refers to adopting instructional techniques, familiarizing themselves with materials and encouraging learners with an emphasis on effective teaching while instructing. This enables learners to perform with distinction on academic attainment and behaviors so that specific learning goals can be met.

Contribution of this paper to the literature

- Teacher professional development refers to the fact that teachers are developmental individual and that they can enhance teaching professionalisms and techniques, and promote teaching effectiveness and professional performance through systematic activities, in-service education and continuous learning. Teachers' ability of self-reflection and self-realization can thus be strengthened.
- Teacher evaluation for professional development aims at enhancing teaching enthusiasms, professionalisms, promoting teaching effectiveness and achieving the goal of teachers' professional development by teachers' self-reflection on teaching and participating in in-service education through peer interaction, communication and cooperation.

Teachers in remote districts have relatively limited opportunities for participating in in-service education. This is due to several factors, including the limitation on transportation and geographical environments, small school and class scale, the number of teaching personnel, scarce opportunities for interacting with teachers from other schools. Granted that there is a scarcity of opportunities for acquiring new knowledge and self-refinement, teachers' professionalisms might be thus affected (Chan, 2012). Hsu and Wu (2014) mentioned that teachers and students in remote districts, there is a shortage of resources, lack of stimulation of professional development, and barriers due to distance. This would lead to a decrease in teachers' quality and limited effectiveness in students' learning.

Students in remote districts, due to factors including cultural difference, tend to have lower academic achievement than their counterparts in general areas. Their attainment is also impacted by the high turnover rate for teachers in remote districts, the high proportions in substitute or unqualified teachers, and the teachers' lower motivation to participate in in-service education (Hsu & Wu, 2014). Education is different in remote districts due to students' multiple backgrounds. Teachers' instructional strategies must accordingly adapt to instructional environments as well. Students' learning can be facilitated through teachers' development in teaching effectiveness and examination of teachers' professionalisms.

This study sampled primary school teachers in remote districts in Kaohsiung and Pingtung, exploring the attitudes of teachers in remote districts toward teacher evaluation for professional development (TEPD), the current situation of teaching effectiveness and related issues. It is hoped that this study can serve as a reference and provide suggestions for teachers in remote districts, regarding their professional development and teaching effectiveness, and administrative authorities, teachers and future research, expecting that this study can facilitate teachers' teaching effectiveness and professional development.

Objective of the Study

Based on the aforementioned research backgrounds, the objectives of this study are as follows:

1. To explore the current situation and differences among primary school teachers in remote districts regarding their attitudes toward participating in teacher evaluation for professional development.
2. To understand the current situation and differences among primary school teachers in remote districts regarding their teaching effectiveness.
3. To explore the relationship between the attitudes toward teacher evaluation for professional development and teaching effectiveness among primary school teachers in remote districts.

LITERATURE REVIEW

Relevant Connotations of Teacher Professional Development

Teachers play a critical role in educational reform. The professionalization of teaching affairs already became a common focus in developed countries. Teachers should learn continuously and enhance professionalism and instructional techniques for adapting to the current era. As we live in an era of knowledge-based economy, teachers should enhance multiple instructional concepts and techniques adapting to the current era (Huang, 2009).

Harris (1985) pointed out that teacher professional development refers to an individual's growth, improvement and extended actions in knowledge and techniques. Peers, Diezmann and Watters (2003) proposed that professional development, through learning new concepts and strategies, leads to teachers' willingness in change and modification in teaching setting.

Gabriel (2005) believed that teacher professional development refers to teachers' continuous enquiry into teaching connotations during the process of teaching so that they can enhance professionalisms and ameliorate teaching quality according to students' learning needs.

Connotations of Teacher Evaluation for Professional Development

Primary connotations of teachers' evaluation for professional development include four parts as follows: "evaluation goal", "specifications and scopes", "evaluation implementation procedures" and "announcement and consulting guidance". The "evaluation goal" includes two subcategories: formative evaluation and summative evaluation. Formative evaluation, currently, is primarily adopted in teachers' evaluation for professional development (Chen, 2010; Huang, 2009), with an emphasis on teachers' collecting and analyzing individual teaching related information according to evaluative specifications. Formative evaluation can facilitate teachers' reflection of their advantages and disadvantages at work. In terms of "specifications and scopes", four subcategories are included, such as "curricular design and instruction", "classroom management and guidance", "professional dedication and attitudes" and "research development and in-service education". Each school can refer to the specifications provided by the educational authorities and decide school-based evaluative contents catering to necessity (Chen, 2011; Cheng & Pan, 2013; Pan, 2012).

It is regulated in the "evaluation implementation procedures" that a task force or committee responsible for the promotion of evaluation prior to the implementation of a school-organized teachers' evaluation for professional development. Methods include teaching portfolio, teaching seminar or observation, data collection of parents and students' response to instruction. Eventually, educational authorities should regulate relevant approaches for propaganda and consulting guidance to assist schools and teachers facing difficulties when implementing the evaluation (Chang, Cho, & Lee, 2009; Yu & Huang, 2016, p.4).

Connotations of Teaching Effectiveness

Teaching is a highly-professionalized task, with its efficacy affecting students' learning quality and effectiveness (Chang, 2002). Teaching effectiveness is one of the factors determining success or failure in students' learning. It exerts important influence on facilitating students' learning, performance and teaching effectiveness (Fishler & Firestone, 2006; Labone, 2004; Tschannen-Moran & Woolfolk, 2001).

Yeung and Watkins (2000) proposed that eight dimensions are included in the connotations of teaching effectiveness, such as instructional involvement, students' learning needs, student communication and relation, academic knowledge and instructional techniques, curricular preparation, classroom management, effective teaching, teaching commissions and self-confidence.

Celep Eminoglu (2010) held that self-efficacy, classroom management, and the effectiveness of educational organization, outcome effectiveness and interpersonal effectiveness are included in the dimension of teaching effectiveness.

In light of the connotations of teaching effectiveness proposed by Yeung and Watkins, and Celep Eminoglu along with the consideration of the study's focus on teachers' effective teaching, teaching effectiveness is defined as follows: "In instructional activities, teachers can conduct lesson planning beforehand, demonstrating multiple instructional strategies, creating a supportive environments for learning through favorable classroom interaction, guiding students to learn effectively to enhance learning effectiveness and achieve learning goals". As a

Table 1. Sampling of Schools and Teachers for Formal Questionnaire

School Size	School Sampling (Kaohsiung)	School Sampling (Pingtung)	Total School Sampling	Teacher Sampling for Each School	Total Teacher sampling
Below 6 classes	14	23	37	6	222
7-12 classes	7	13	20	8	160
13-24 classes	1	8	9	10	90
25 Above	0	2	2	14	28
Total	22	46	68	-	500

consequence, the study generalized the three connotations of teaching effectiveness, including: planning and preparation prior to instruction, employing strategies in instruction and learning evaluation and classroom management.

RESEARCH DESIGN AND METHOD

Participants

Participants in the study were public primary school teachers in remote districts in Kaohsiung City and Pingtung County. Teachers teaching in private primary schools, special schools, affiliated preschools of public primary schools were excluded. The studied population was public primary school teachers in remote districts in Kaohsiung City and Pingtung County. According to the latest Statistics conducted by the Ministry of Education on August 1st 2015, there is a total of 157 schools in remote districts in Kaohsiung City and Pingtung County, with 1,620 teachers (Ministry of Education, 2015). Questionnaire was administered to participants recruited using stratified random sampling.

Stratified random sampling was conducted for formal samples. According to the size of schools in remote districts in Kaohsiung City and Pingtung County, 37 schools were sampled from schools consisting of 6 classes, with 14 and 23 schools in Kaohsiung and Pingtung areas respectively; 20 schools were sampled from schools of the size ranging from 7 to 12 classes, with 7 and 13 schools in Kaohsiung City and Pingtung County respectively; 9 schools were sampled from schools of the size ranging from 13 to 24 classes, with 1 and 8 schools in Kaohsiung and Pingtung areas respectively; 2 schools, both of which are in Pingtung County, were sampled from schools consisting of more than 25 classes. A total of 68 schools, with 500 students, were sampled to participate in the study (see [Table 1](#)), 446 questionnaires were returned, 393 were answered completely, the valid return rate was 88.12%.

Research Instrument

On the theoretical basis of the literature review along with the reference to research instruments developed by relevant scholars, pilot study and formal questionnaires were developed. The draft questionnaire was organized as questionnaire items after having been analyzed using expert validity and modified. After this, the draft questionnaire was administered to participants in pilot study. Their responses were then processed using item and factor analysis. After these analyses, the formal questionnaire was developed, consisting of the "Scale of Teachers' Attitudes toward Teacher Evaluation for Professional Development (TEPD)" and the "Scale of Teachers' Attitudes toward Teachers Effectiveness".

Reliability

Overall α value for the Scale of Teachers' Attitudes toward TEPD is .964, with internal consistency α coefficients for each dimension as follows: .940 for evaluation goal, .951 for evaluation criteria and methods, .936 for evaluation outcome application, and .911 for evaluation coordinative measures; α values for all measurement dimensions are higher than .90. Overall α value for the "Scale of Teachers' Attitudes toward Teachers Effectiveness" is .984, with internal consistency α coefficients for each dimension as follows: .972 for planning and preparation prior to instruction, .959 for employing strategies in instruction, and .970 for teaching assessment and classroom management; α values for all measurement dimensions are higher than .90, indicating an excellent reliability for the two scales.

Data Analysis

Descriptive statistics, independent t-test, one-way ANOVA and the Pearson product-moment correlation analysis and a post hoc Scheffé test statistical methods were used to analysis the data.

Table 2. Teachers' Attitudes toward Teacher Evaluation for Professional Development

Dimension	Mean	SD
overall attitudes	3.85	0.548
evaluation goal	3.49	0.741
evaluation criteria and methods	3.90	0.604
evaluation outcome application	4.01	0.607
evaluation coordinative measures	3.99	0.669

Table 3. Differences of Teachers' Overall Attitudes in Teacher Evaluation for Professional Development

Variables	Item	M	SD	t	F	p
Gender	Men	3.85	.571	-0.33		.974
	Female	3.85	.532			
Age	Below29	3.82	.522		.055	.983
	30-39	3.86	.576			
	40-49	3.84	.509			
	50above	3.85	.649			
Highest Academic Degree	undergraduate degree (including Teacher training program)	3.81	.583		.216	.806
	junior teachers college, normal university and college, and university of education	3.86	.524			
	postgraduate degree (including 40-credit program)	3.85	.552			
Current Post	homeroom teachers	3.83	.549		.483	.694
	full-time teachers	3.91	.438			
	homeroom teachers with administrative posts	3.79	.534			
	full-time teachers with administrative posts	3.87	.578			
Years of Service	Below 5	3.84	.500		1.250	.289
	6-10	3.96	.552			
	11-15	3.81	.561			
	16-20	3.79	.518			
	Above 21	3.91	.596			
Experience of Participating in TEPD	without any experience	3.77	.610		1.796	.147
	1-2 years	3.86	.533			
	3-4years	3.85	.440			
	Above 4 years	3.99	.550			
School Districts	Kaohsiung	3.90	.537	1.313		.189
	Pingtung	3.82	.553			

* $p < .05$

RESULTS AND DISCUSSIONS

1. Current situation and differences in attitudes toward participating in teacher evaluation for professional development among primary school teachers in remote districts

A 5-point Likert scale was used in the study, with a mean of 3. According to **Table 2**, the overall score for teachers' attitudes toward evaluation for professional development is 3.85, indicating primary school teachers in remote districts having a higher-intermediate level of attitudes toward the evaluation for professional development, with the highest in "evaluation outcome application" and lowest in the attitudes toward "evaluation goal". Specifically, mean for the score of each dimension is ranked as follows: from "evaluation outcome application" (4.01), "evaluation coordinative measures" (3.99), "evaluation criteria and methods" (3.90) to "evaluation goal" (3.49).

Table 3 shows that total male primary school teachers in remote districts in Kaohsiung and Pingtung averaged 3.85 ($SD=0.571$) in their attitudes scores. Total female primary school teachers averaged 3.85 ($SD=0.532$). After the additional t-test was conducted, the two did not reach any level of significance ($t=-0.33$, $p=.974 > .05$), no statistically significant difference was observed in gender effect on the "overall attitudes" toward participating in teacher evaluation for professional development among teachers in remote districts.

Table 4. Differences of Teachers' Attitudes in Evaluation Goal Dimension

Dimension	Variables	M	SD	F	p	Scheffé
Evaluation Goal	Current Posts			2.874*	.036	no sig.
	1. homeroom teachers	3.43	.749			
	2. full-time teachers	3.70	.584			
	3. homeroom teachers with administrative posts	3.31	.705			
	4. full-time teachers with administrative posts	3.56	.765			
Evaluation Goal	Experience of Participating in TEPD			4.505**	.004	4 > 1
	1. without any experience	3.33	.809			
	2. 1-2 years	3.51	.726			
	3. 3-4years	3.56	.654			
	4. Above 4 years	3.78	.616			

* $p < .05$

For “those aged between 30 to 39”, they averaged 3.86 in their attitudes scores of teacher evaluation for professional development, being the highest mean, followed by 3.85 for “those aged 50 and beyond”; the lowest being 3.82 for “those aged 29 and below”. Variance analysis revealed that they did not reach a level of significance ($F=0.55, p=.983 > .05$). No statistically significant difference was observed in age effect on teachers’ attitudes toward teacher evaluation for professional development (See **Table 3**).

Table 3 shows that those with highest academic degree in “junior teachers college, normal university and college, and university of education” averaged 3.86 in their attitudes scores of teacher evaluation for professional development, being the highest mean, followed by 3.85 for those with a “postgraduate degree (including 40-credit program)”; the lowest being 3.81 for those with “an undergraduate degree (including teacher training program)”. Analysis of variance revealed that they did not reach a level of significance ($F=.216, p=.806 > .05$). Academic background did not show significant difference on teachers’ overall attitudes toward teacher evaluation for professional development.

As indicated in **Table 3**, full-time teachers averaged 3.91 in their attitudes scores of teacher evaluation for professional development, being the highest mean, followed by 3.87 for “full-time teachers with administrative posts”; the lowest being 3.79 for “homeroom teachers with administrative posts”. No statistically significant difference ($F=.483, p=.694 > .05$) on teachers’ overall attitudes toward teacher evaluation for professional development. However, the statistically significant difference was observed in post effect on variance in the dimension of “evaluation goal” in teachers’ attitudes toward teacher evaluation for professional development ($F=2.874, p=.036 < .05$). After a post hoc Scheffé test was conducted (See **Table 4**), it indicated that “full-time teachers” showed higher attitudes toward “evaluation goal” than “homeroom teachers with administrative posts” ($p=.105 > .05$), is not statistically significant.

Table 3 shows that teaches whose seniority ranging from “6 to 10 years” averaged 3.96 in their attitudes scores of teacher evaluation for professional development, being the highest mean, followed by 3.91 for those with seniority of “21 years and beyond”; teachers whose seniority ranging from “16 to 20 years” averaged 3.79, being the lowest mean. Analysis of variance revealed that the score did not reach a level of significance ($F=1.250, p=.289 > .05$); therefore, the teachers with different years of service did not show significant differences in teacher evaluation for professional development. However, statistically significant difference was observed in seniority effect on the dimension of “evaluation coordinative measures” ($F=3.255, p=.012 < .05$) (See **Table 5**). **Table 5** shows that a post hoc Scheffé test indicated that teachers whose seniority ranging from “6 to 10 years” showed higher attitudes toward “evaluation coordinative measures” than those with seniority ranging from “16 to 20 years” ($p=.041 < .05$), which is statistically significant.

Table 3 shows that the overall attitudes scale, teachers with “over 4-year” experience of participating in teacher evaluation for professional development averaged 3.99 in their attitudes scores of teacher evaluation for professional development, being the highest mean; those “without any experience” of participating in teacher evaluation for professional development averaged 3.77, being the lowest mean. Analysis of variance ($F=1.796,$

Table 5. Differences of Teachers' Attitudes in Evaluation Coordinative Measures Dimension

Dimension	Variables	M	SD	F	t	p	Scheffé
	Years of service						
Evaluation Coordinative Measures	1. Below 5	3.91	.720	3.255*		.012	2 > 4
	2. 6-10	4.22	.551				
	3. 11-15	3.95	.640				
	4. 16-20	3.86	.706				
	5. Above21	4.10	.680				
	School districts						
Evaluation Coordinative Measures	1. Kaohsiung	4.12	.612		2.517*	.012	
	2. Pingtung	3.93	.685				

* $p < .05$

$p = .147 > .05$) revealed that they did not reach a level of significance. **Table 4** shows that a post hoc Scheffé test indicated that teachers with "over 4-year" experience of participating in teacher evaluation for professional development showed higher attitudes toward "evaluation goal" than those "without any experience" ($p = .007 < .05$).

Table 3 shows that primary school teachers in remote districts in Kaohsiung averaged 3.90 ($SD = 0.537$) in overall attitudes; primary school teachers in remote districts in Pingtung averaged 3.82 ($SD = 0.553$) in overall attitudes. No statistically significant difference was observed in school location effect on teachers' overall attitudes toward teacher evaluation for professional development ($t = 1.313$, $p = .189 > .05$). **Table 5** shows that an analysis of independent samples t-test on the scores yields that, within the dimensions of the attitudes scale, a statistically significant difference was observed in school location effect on "evaluation coordinative measures" ($t = 2.517$, $p = .012 > .05$). As **Table 5** shows: teachers in remote districts in Kaohsiung showed statistically significantly higher attitudes toward the evaluation coordinative measures in the teacher evaluation for professional development than teachers in Pingtung.

In conclusion, the study found that a statistically significant difference exists in teachers' attitudes toward "evaluation goal" owing to the effect of participating experience of teacher evaluation for professional development. A post hoc test showed that teachers with "over 4-year" experience of participating in teacher evaluation for professional development showed higher attitudes toward "evaluation goal" than those "without any experience".

Furthermore, a statistically significant difference was observed in seniority effect on "evaluation coordinative measures". A post hoc test showed that teachers whose seniority ranging from "6 to 10 years" showed higher attitudes than those with seniority ranging from "16 to 20 years". In addition, the study also found that a statistically significant difference exists in teachers' attitudes toward "evaluation coordinative measures" in the teacher evaluation for professional development due to the school location effect, suggesting teachers in Kaohsiung City showed statistically significantly higher attitudes toward the evaluation coordinative measures than teachers in Pingtung County. However, no significant difference was observed in teachers' attitudes toward participating in the evaluation for professional development due to other backgrounds (i.e. gender, age, highest academic degree, teachers' current post).

2. Current situation and differences in teaching effectiveness among primary school teachers in remote districts

The Scale of Teachers' Attitudes toward Teachers Effectiveness includes three dimensions. Means and standard deviations obtained from each dimension were organized in **Table 6**. **Table 6** shows that the overall score for teaching effectiveness is 4.15, suggesting that the attitudes toward teaching effective among primary school teachers in remote districts was intermediate and beyond. Specifically, the ranking for the mean of each dimension is as follows: from "teaching assessment and classroom management" (4.21), "planning and preparation prior to instruction" (4.10) to "employing strategies in instruction" (4.10) sequentially. The primary and secondary school teachers' attitudes toward their own teaching effectiveness was intermediate and beyond currently.

Table 7 shows that no statistically significant difference ($t = -0.377$, $p = .706 > .05$) in the gender on the teaching effectiveness of teachers in remote districts.

Table 6. Teachers' Over all Attitudes toward Teaching Effectiveness

Dimension	Mean	SD
overall attitudes	4.15	0.415
planning and preparation prior to instruction	4.13	0.456
employing strategies in instruction	4.10	0.467
teaching assessment and classroom management	4.21	0.455

Table 7. Differences of Teachers' Overall Attitudes toward Teaching Effectiveness

Variables	Item	M	SD	t	F	p
Gender	Men	4.14	.428	-.377		.706
	Female	4.16	.405			
Age	Below29	4.10	.497		.768	.513
	30-39	4.13	.420			
	40-49	4.17	.381			
	50above	4.24	.461			
Highest Academic Degree	undergraduate degree (including Teacher training program)	4.12	.401		.296	.744
	junior teachers college, normal university and college, and university of education	4.15	.426			
	postgraduate degree (including 40-credit program)	4.17	.414			
Current Post	homeroom teachers	4.15	.379		.116	.951
	full-time teachers	4.12	.450			
	homeroom teachers with administrative posts	4.17	.373			
Years of Service	full-time teachers with administrative posts	4.16	.453		2.143	.075
	Below 5	4.07	.476			
	6-10	4.16	.452			
	11-15	4.16	.410			
	16-20	4.11	.336			
Experience of Participating in TEPD	Above 21	4.27	.417		.303	.823
	without any experience	4.15	.503			
	1-2 years	4.15	.353			
	3-4years	4.14	.387			
School Districts	Above 4 years	4.21	.401			.990
	Kaohsiung	4.15	.418			
	Pingtung	4.15	.414	-.012		

* $p < .05$

In terms of age (see **Table 7**), analysis of variance revealed that the score did not reach a level of significance ($F=.768, p=.513 > .05$), which means there is no statistically significant difference on the teaching effectiveness among teachers of various ages.

No statistically significant difference was observed in the highest academic degree effect on the scores for the Scale of Teaching Effectiveness ($F=.296, p=.744 > .05$), which means there is no statistically significant difference on the scores for the teaching effectiveness among teachers of various backgrounds in the highest academic degree.

In terms of teachers' current posts, analysis of variance revealed that the score did not reach a level of significance ($F=.116, p=.951 > .05$, see **Table 7**), which means there is no statistically significant difference on the scores for the teaching effectiveness among teachers of various posts.

Table 7 shows that teachers of various seniority did not reach a level of significance ($F=2.143, p=.075 > .05$) toward teaching effectiveness. This finding is not in accordance with the study by Yang (2015).

Table 8. Correlation of teacher' attitudes toward TEPD and teaching effectiveness

	Dimension	Teachers' Attitudes' toward TEPD				Overall attitudes for TEPD
		evaluation goal	evaluation criteria and methods	evaluation outcome application	evaluation coordinative measures	
Teaching Effectiveness	planning and preparation prior to instruction	.440***	.477***	.501***	.479***	.557***
	employing strategies in instruction	.369***	.440***	.465***	.416***	.497***
	teaching assessment and classroom management	.316***	.393***	.404***	.408***	.444***
	Overall attitudes for teaching effectiveness	.417***	.484***	.506***	.483***	.555***

*** $p < .001$

No statistically significant difference was observed in the effect of experience of participating in the teacher evaluation for professional development on the scores for the Scale of Teaching Effectiveness ($F = .303, p = .825 > .05$), which means there is no statistically significant difference on the scores for teaching effectiveness among teachers of various experience of participating in the teacher evaluation for professional development (see [Table 7](#)).

[Table 7](#) shows that no statistically significant difference ($t = -.012, p = .990 > .05$) among the scores of primary school teachers in Kaohsiung and Pingtung areas for teaching effectiveness. Therefore, there is no statistically significant difference between school locations on teaching effectiveness.

3. Relation between attitudes toward evaluation for professional development and teaching effectiveness among primary school teachers in remote districts

Pearson product-moment correlation analysis was adopted as the standard for correlational analysis in this study, where a value of r equals 1.00 represents a total correlation; a value of r being greater than .70 indicates a strong correlation; a value of r being between .40 and .69 implies a moderate correlation; a value of r being less than .39 implies a weak correlation; a value less than .10 implies that there is a very weak or no correlation between variables.

[Table 8](#) shows that there was a positive moderate correlation between the overall attitudes toward teacher evaluation for professional development and overall teaching effectiveness ($r = .555$). The correlation is significant at the .001 level. Specifically, the dimension of "planning and preparation prior to instruction" had the highest correlation value ($r = .557$), implying that the higher the score in teacher evaluation for professional development, the higher the score in "planning and preparation prior to instruction", "employing strategies in instruction", teaching assessment and classroom management, and "overall teaching effectiveness"; namely, the more positive the attitudes toward teacher evaluation for professional development is, the better the perception of teaching effectiveness is.

In terms of one of the dimensions in teacher evaluation for professional development, "evaluation goal" had a positive weak correlation with "employing strategies in instruction" and teaching assessment and classroom management, and a positive moderate correlation with "planning and preparation prior to instruction" and "overall teaching effectiveness". This implies that the higher the score in the attitudes toward teacher evaluation for professional development is, the higher the score in "planning and preparation prior to instruction" and "overall teaching effectiveness" is.

In terms of another dimension in teacher evaluation for professional development, "evaluation criteria and methods" had a positive weak correlation with teaching assessment and classroom management, and a positive moderate correlation with "planning and preparation prior to instruction", "employing strategies in instruction" and "overall teaching effectiveness". This implies that the higher the score in the attitudes toward evaluation criteria and methods for teacher evaluation for professional development is, the higher the score in "planning and preparation prior to instruction", "employing strategies in instruction", and "overall teaching effectiveness" is.

In terms of another dimension in teacher evaluation for professional development, "evaluation outcome application" had a positive moderate correlation with "planning and preparation prior to instruction", "employing strategies in instruction" and teaching assessment and classroom management, with the highest in "overall teaching effectiveness". This implies that the higher the score in the attitudes toward evaluation outcome application for teacher evaluation for professional development is, the higher the score in "planning and preparation prior to instruction", "employing strategies in instruction", teaching assessment and classroom management, and "overall teaching effectiveness" is. Namely, the more positive the attitudes toward employing the results from teacher evaluation for professional development is, the better the perception of teaching effectiveness is.

In terms of another dimension in teacher evaluation for professional development, "evaluation coordinative measures" had a positive moderate correlation with "planning and preparation prior to instruction", "employing strategies in instruction" and "teaching assessment and classroom management", with the highest in "overall teaching effectiveness". This implies that the higher the score in the attitudes toward coordinative measures for the evaluation for teacher evaluation for professional development is, the better the perception of teaching effectiveness is.

The research findings are in accordance with the majority of previous studies, indicating there is a positive correlation between teachers' attitudes, cognition or willingness toward teacher evaluation for professional development and teachers' teaching effectiveness.

CONCLUSIONS

1. Attitudes toward teacher evaluation for professional development among primary school teachers in remote districts was intermediate and beyond, with the most positive attitudes toward "evaluation outcome application"

The study found that teachers scored the highest in "evaluation outcome application", but lowest in "evaluation goal". The study infers that the majority of teachers accepted and acknowledged the "evaluation outcome application" highly, because the results from the evaluation were employed to assist teachers with professional development and receiving feedbacks rather than serving as a summative evaluation. However, teachers expressed lowest acknowledgement and acceptance to the "evaluation goal" possibly because teachers held a conservative attitude toward using the evaluation as a means to assessing performance, enhancing teaching quality, and facilitating students' learning effectiveness.

2. Teachers in remote districts in Kaohsiung and Pingtung had a favorable perception in teaching effectiveness, with the most favorable perception in teaching assessment and classroom management

Among the three dimensions in the variable of teaching effectiveness, the highest score was "teaching assessment and classroom management", the lowest, "employing strategies in instruction". The mean for each of these three dimensions, however, is 4 or beyond. It is visible that teachers could assess students' learning progress after teaching and have a high sense of acknowledgment to the communication between themselves and students. Teachers have a higher acknowledgement to the learning progress of each student and classroom management because the number of students in remote districts is small. However, it is also perceivable that teachers need more development and assistance in their usage of instructional strategies under the condition of a deficiency in mutual support and mutual communication regarding teaching because the school scale is small, the number of classes and the teacher quota are small.

3. There are differences among primary school teachers' attitudes toward teacher evaluation for professional development in seniority, experience of TEPD and school location

The study found that teachers whose seniority ranging from "6 to 10 years" showed a significantly higher attitude toward "evaluation coordinative measures" than those with seniority ranging from "16 to 20 years". The reason might be that teachers whose seniority ranging from "6 to 10 years" showed a relatively positive attitude toward teacher evaluation for professional development, having a higher sense of acknowledgement to the implementation of the evaluation, which means evaluation coordinative measures are of high importance and teacher evaluation can be supported externally. By contrast, teachers with seniority ranging from "16 to 20 years" showed a lower sense of acknowledgement and acceptance to all dimensions in the variable of teacher evaluation for professional development; thus, they did not think highly of evaluation coordinative measures.

Teachers with beyond 4-year experience of participating in teacher evaluation for professional development showed a significantly higher attitude toward “evaluation goal” than those without any experience of participating in teacher evaluation for professional development. Teachers with beyond 4-year experience of participating in teacher evaluation for professional development are familiar with the evaluation goal, connotations, process. They have been participating in the evaluation for many years, showing a higher sense of acknowledgement and acceptance to the evaluation goal. On the contrary, teachers without any experience of participating in teacher evaluation for professional development might be frightened by hearing the word “evaluation”. In addition, their lack in understanding the process of teacher evaluation for professional development led to their low sense of acknowledgement to evaluation goal.

From the perspective of school location, teachers teaching in remote districts in Kaohsiung showed a significantly higher attitude toward “evaluation coordinative measures” than teachers in Pingtung. The reason might be that teachers in Kaohsiung showed a positive attitude toward teacher evaluation for professional development and expressed a higher sense of acknowledgement and acceptance to the implementation of evaluation, leaving the evaluation coordinative measures appear more important.

4. The primary school teachers’ on teaching effectiveness have middle to high performance. However, no difference was observed on teachers’ various backgrounds of gender, age, highest academic degree, post, seniority, experience of participating in TEPD, and school location in remote districts

Primary school teachers in remote districts maintain an above average level of performance in teaching effectiveness despite their difference in gender, age, highest degree, post, seniority, experience of participating in teacher evaluation for professional development, and school location. It is visible that primary school teachers in remote districts in Kaohsiung and Pingtung showed an upper-immediate sense of acknowledgement to their own performance in teaching effectiveness. This, however, only indicates teachers’ acknowledgement to their own ability and beliefs in teaching. It requires further validation that students’ learning effectiveness can be enhanced through effective teaching.

5. The primary school teachers’ attitudes toward teacher evaluation for professional development show low positive correlation with their teaching effectiveness at various dimensions

There was a positive correlation between the overall attitudes and its sub-dimensions toward teacher evaluation for professional development and overall teaching effectiveness and its sub-dimensions, implying that the more positive the attitudes toward teacher evaluation for professional development is, the better the perception of teaching effectiveness is.

REFERENCES

- Celep, C., & Eminoglu, E. (2010). Primary school teacher’s experience with mobbing and teacher’s self-efficacy perceptions. *Procedia Social and Behavioral Sciences*, 46, 4761-4774.
- Chan, P. H. (2012). The study of decision-making capability of administrative management to the schools at the typhoon high risk zone. *Journal of Educational Administration Research*, 2(1), 203-241.
- Chang, D. R. (2002). Improving the teaching effectiveness of teachers by teaching portfolio. *Journal of Education Research*, 104, 25-31.
- Chang, D. R., Cho, L. H., & Lee, C. D. (2009). A case study on formative teacher evaluation process and its impact in an elementary school. *Curriculum and Instruction Quarterly*, 12(3), 265-290.
- Chen, J. L. (2010). A study on teacher professional growth under the teacher professional development evaluation. *School Administration*, 66, 188-207.
- Chen, T. T. (2011). A study on teacher profession developmental evaluation and its forecast: a case study in Hsinchu County. *School Administration*, 76, 220-233.
- Cheng, S. H., & Pan, H. L. (2013). Process and outcome evaluation on a national pilot program: a case of secondary school teacher evaluation for professional development. *Secondary education*, 64(2), 78-97.
- Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*, 104(4), 1189-1204.
- Fishler, J. L., & Firestone, W. A. (2006). Teacher learning in a school-university partnership: Exploring the role of social trust and teaching efficacy beliefs. *Teachers College Record*, 108(6), 1155-1188.

- Gabriel, J. G. (2005). *How to thrive as a teacher leader*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Harris, D. G. (1985). *Faculty and administrative perceptions of post-secondary occupational staff development*. University of Houston.
- Hsu, C. C., & Wu, C. H. (2014). Those engaged in the professional development of teachers in remote schools difficulties and suggestions. *School Administration, 90*, 108-126. doi:10.3966/160683002014030090005
- Huang, H. P. (2009). Teacher evaluation for professional development: current status, obstacles, and possible solutions. *Educational Resources and Research, 89*, 71-88.
- Labone, E. (2004). Teacher efficacy: maturing the construct through research in alternative paradigms. *Teaching and Teacher Education, 20*, 341-359.
- Ministry of Education (2015). *All levels of school directory*. Retrieved from <http://www.edu.tw/pages/detail.aspx?Node=1729&Page=24500&Index=6&WID=31d75a44-efff-4c44-a075-15a9eb7aefc>
- Pan, W. F. (2012). Case study on choice of school-based teacher evaluation criteria for professional development. *Journal of Teacher Education and Professional Development, 5*(1), 75-98.
- Peers, C. E., Diezmann, C. M., & Watters, J. J. (2003). Supports and concerns for teacher professional growth during the implementation of a science curriculum innovation. *Research in Science Education, 33*(1), 89-110.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805.
- Villegas-Reimers, E. (2003). Teacher professional development: an international review of the literature. In UNESCO International Institute for Educational Planning. Retrieved from <http://www.unesco.org/iiep>
- Yeung, K. W., & Watkins, D. (2000). Hong Kong student teachers' personal construction of teacher efficacy. *Educational Psychology, 20*(2), 213-235.
- Yu, T. H., & Huang, H. P. (2016). A case study on the implementation of teacher evaluation for professional development in a Pingtung County elementary school. *Yu Da Academic Journal, 42*, 1-14.

<http://www.ejmste.com>