Impact Assessment on the Program of Teacher Evaluation for Professional Development

Summary

Introduction

In order to assure the quality of teachers to promote student achievement, teacher evaluation plays a substantial role. In the context of Taiwan's education, a pilot program of teacher evaluation for professional development (TEPD) had been implemented from 2006-2009 and then formally launched afterwards.

With the rise of civic consciousness, the public has the right to know whether government policy has achieved its goals, and if the intervention is effective. The evaluation on TEPD, as an on-going program, offers necessary feedbacks for improvement. The impact assessment is of great importance to clarify the changes that the program has made and is useful for policy makers to examine how well the program functions.

Traditionally, experimental design is the typical method of impact assessment. However, constrained by the difficulty of implementation, statistical control of non-experimental design is adopted instead. Furthermore, a trend toward multi-methods has gained popularity due to the paradigm shift. Not only qualitative research is advocated, but also the theory-driven evaluation approach. Reviewing previous studies of TEPD, we found that most of them focused either on the survey of program implementation or on the program outcomes of case schools. No systematic inquiry of impact was conducted for the national sample of TEPD. Therefore, this study aimed to explore the impact of TEPD intervention and to clarify which components of the program (i.e. supporting system and/or program activity) were significant contributors to program outcomes.

Method

Sample and Instrument

Using the pilot program of TEPD as an object, this study employed statistical control technique and theory-driven evaluation to assess the program impact. Administrators and teachers in primary and secondary schools who attended the program in the 2008 academic year were surveyed. In total 2,316 respondents' data were analyzed.

A questionnaire with four-point Likert scale was designed to measure three main program components (supporting system, program activity and program outcome). Item analysis and exploratory factor analysis were techniques used to establish the validity of the instrument. Seven factors were extracted: 1. supporting system-"training and communication" and "consultation and guidance"; 2. program activity-"teacher discussions and self-assessment," "peer assessment and teacher growth"; 3. program outcome-"the enhancement of teaching competence," "the improvement of evaluation cognition," and "the change of school ecology." Moreover, a reliability test was conducted with the values of Cronbach alpha ranging from .91 to .96 for the seven factors extracted.

The Logic Model

In addition to using statistical control to measure the program net impact, this study employed theory-driven evaluation to further examine the significant program components contributing to the outcome. Program theory or logic model, explicating the causal linkage between program intervention and effect, is needed for the impact assessment. Through literature review and document analysis, the key components of TEPD were identified. And it was hypothesized that schools acquired their program outcomes with antecedents of positive supporting system and highly implemented program activities.

Results

Several findings were acquired from the national survey of primary and secondary school faculty. First of all, it indicated that the extent of implementation with regard to supporting system and program activity was put into order from high to low as: "training and communication" (3.17), "peer assessment and teacher growth" (3.10), "teacher discussions and self-assessment" (3.09), "consultation and guidance" (3.01). During the three-year pilot program, relevant policy communication and trainings hosted by authorities were obviously perceived by school personnel. On the other hand, "consultation and guidance" which also belonged to the category of "supporting system" did not yield the same result. Perhaps it is due to the fact that the website was still under construction and the limited numbers of "guidance partners" (school practitioners) and "consultants" (professors) which are still expanding. Since teachers need more time to familiarize with and adjust to new policies, other factors such as "teacher discussions and self-assessment," "peer assessment and teacher growth" were not implemented to the same degree. Secondly, TEPD is a personnel evaluation, thus its impacts were the most conspicuous among faculty members who are encouraged to reflect on their growth in many aspects including the improvement of teaching methods, self-awareness, confidence. Teachers could clearly feel the differences after the implementation of TEPD. Comparatively, the enhancement of evaluation cognition is less obvious, perhaps because most teachers were not very familiar with the program. And as for the change of school ecology which got lower score in the survey, it revealed that the implementation of TEPD takes time before it can become deeply rooted in the school. Thirdly, this study employed theory-driven evaluation to examine the logic model and used hierarchical regression to study why and how the program exerted its influence. When the background of respondents is controlled, the four factors, "training and communication" ($\beta = .17$, $t = 10.80$, $p < .001$), "consultation and guidance" ($\beta = .18$, $t = 10.80$, $p < .001$), "teacher discussions and self-assessment" ($\beta = .16$, $t = 8.41$, $p < .001$) and "peer assessment and teacher growth" ($\beta = .46$, $t = 23.11$, $p < .001$), all significantly explained the variation of program outcome. Among the four factors, "peer assessment and teacher growth" had gained the greatest explanatory power.

Conclusion

In order to assess the impact of TEPD, the approaches of statistical control technique and theory-driven evaluation were used and the data were collected from a national survey of primary and secondary school faculty. It was found that the degree of TEPD implementation decided the amount of program impact. Moreover, it suggested that through communication and training, teachers became acquainted with TEPD and if timely assistance was provided when they encountered difficulties, their perception of the usefulness of TEPD would be increased. Additionally, full operation of teacher discussion, self-assessment, peer assessment and the designing and execution of professional development plans not only contributed to teacher capacity enhancement but also helped teachers reach consensus on "good teaching." As a consequence, school participants were willing to engaged themselves in more frequent professional dialogues and were eager to learn, to grow and to teach together.

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