

Teacher Efficacy among KPLI Pre-Service Teachers in MPPM Before and After Completion of Training

by

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ABSTRACT

This research measures the pre and post teacher efficacy of pre-service teachers. The treatment in this study was the one year KPLI teacher training course. KPLI trainees (pre-service teachers) were given the 22 - item Teacher Efficacy Scale by Gibson and Dembo (1984) during the orientation week and later after completion of their training. This is considered important as Mortin & Welsh (1991) state that, "an educator with high teaching efficacy will engage in activities that promote the development of competencies, whereas teachers with low efficacy may avoid engaging in those activities" (p. 3) Comparing of means before training and after completion of training showed a significant difference. t-scores of 4.123 ($p < 0.001$) were obtained. The means for teacher efficacy decreased upon completion of training. The study is part of an ongoing research that intends to measure the teacher efficacy of these teachers at various times in their career.

INTRODUCTION

The psychological and educational literature devotes much attention to the concept of teacher efficacy, which is usually described as 'the extent to which the teacher believes he or she has the capacity to affect student performance' (Bergman et al., 1977, p. 137). In a review of virtually all sources dated between 1974 and 1997 that used the term 'teacher efficacy' Tschannen-Moran et al. (1998) identified over 100 articles, conference papers and books that refer somehow or other to teacher efficacy. Down through the years the concept of teacher efficacy has been connected with many important educational variables such as student achievement, student attitudes to school, student attitudes to the subject matter being taught, student attitudes to the teacher, teachers' classroom behaviours, teachers' attitudes to teaching, teacher stress and burn-out, and teachers' willingness to implement innovation (Tschannen-Moran et al., 1998).

The concept of teacher efficacy may well have emerged from Bandura's (1977) work on the conceptualization of self-efficacy and personal efficacy. Bandura (1977) states, "an efficacy expectation is the conviction that one can successfully execute the behavior required to produce outcomes" (p. 193). According to Morin and Welsh (1991), "self-efficacy...is an individual's perception of how effectively one can perform specific behaviors" (p. 1). Applying the concept of self-efficacy to teachers, Gibson and Dembo (184) state, "self-efficacy beliefs would indicate teachers' evaluation of their abilities to bring about positive student change" (p. 570). In 1985

Dembo and Gibson refer to teacher efficacy as "the extent to which teachers believe that they can affect student learning" (p. 173).

Entrance to teachers' colleges in Malaysia is very competitive as the applicant has to go through various filtration processes and compete with hundreds of thousands of aspiring applicants. Thus, it will be interesting to see with what kind of beliefs the pre-service teacher enters and leaves college. This is considered important as Mortin & Welsh (1991) state that,

"an educator with high teaching efficacy will engage in activities that promote the development of competencies, whereas teachers with low efficacy may avoid engaging in those activities" (p. 3)

Purpose of the Study

The purpose of this research is to see how successful the KPLI program has been, in instilling a sense of teacher efficacy in the pre-service teachers; that is did the one year KPLI course have any effect on their sense of teacher efficacy.

In future, once the pre-service teachers have graduated, once again teacher efficacy will be measured to see what influence experience and the school environment had on teacher efficacy. It would be interesting to see whether the exuberance, enthusiasm and the naive's of the pre-service teacher produces higher teacher efficacy scores than that obtained by the trained teacher who has seen the reality of the classroom world or would the experience and maturity of trained teachers produce the opposite results.

Objective of the Study

It is hoped that results of the study will help us to better understand the teaching efficacy of the teachers and help us to enhance the sense of efficacy of future teachers and will lessen complaints like that the training did not prepare them to deal with the realities of the classroom (Hermanowicz, 1996). Also it is quite obvious from the above statement that the higher a teacher's sense of efficacy, the more successful that teacher will be in facilitating desirable outcomes.

Research Question

What is pre-service teachers' sense of efficacy before they enter the KPLI one year program and after they have completed their one year KPLI teacher training program?

Definition of Variables

Teacher efficacy

Refers to the extent to which teachers believe that they can affect student learning (Dembo and Gibson, 1985). That is the teacher's belief that he or she can execute the appropriate teacher behavior to effect positive student outcomes (Campbell, 1996)

Pre-service teachers

Individuals in Malay Women Teacher Training College undergoing a 1 year Post Graduate Certificate Education course (KPLI) in teacher education.

REVIEW OF LITERATURE

Bandura (1997) defined self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). These beliefs make up a self-system, which mediates between knowledge and action: that is, the self-system determines the action people take and how much they persevere when the task becomes difficult. Self-efficacy beliefs are based on information conveyed by direct mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective experiences.

Gibson and Dembo (1984) and Ashton and Webb (1986) applied Bandura’s (1977) theory to the construct of teachers’ sense of efficacy, which comprises the constructs of general teaching efficacy (GTE), that is, the degree to which teachers believe that students can be taught, given such factors as family background, IQ, and school conditions, and personal teaching efficacy (PTE), that is, the conviction that one can successfully execute the behavior required to produce the desired outcome (Bandura, 1977). Numerous studies have supported this sharply drawn distinction between teaching or general teaching efficacy and personal or personal teaching efficacy (Gibson & Dembo, 1984; Pigge & Marso, 1993; Woolfolk & Hoy, 1990).

Much research has been conducted about the ways in which prospective teachers experience and adapt to their teaching practice (Atiken & Mildon, 1991; Kalekin-Fishman & Kornfeld, 1991; MacDonald, MacKinnon, Joyce, & Gurney, 1992; Morton, Vesco, Williams & Awender, 1997). Prospective teachers’ sense of efficacy is often based on their roles as students in elementary classrooms and knowledge gained in teacher education programs (Bullough, 1989). Knowles and Coles (1996) have emphasized that “pre-service teachers often have well-rooted images of themselves as teachers and high ideals and aspirations for teaching, and they strive to enact or play out their personal images despite contextual realities that are often at odds with them” (p. 654). Bandura (1997) noted that unrealized expectations have a significant impact on human performance and organizational commitment. Accordingly, when schools create performance expectations but fail to provide relevant resources, teachers experience uncertainty.

Hoy and Woolfolk (1990) compared three groups: (a) education students who were to have their teaching practice experience in the coming semester, (b) education students who were scheduled to practice teaching in a later semester, and (c) non-education majors enrolled in a psychology course. The authors found that the sense of general teaching efficacy of those who experienced classroom teaching declined, whereas the other two groups were unchanged. Hoy and Woolfolk suggested that the decline might have been due to the pre-service teachers’ reaction to their

inability to control unruly pupils. To help prospective teachers prepare for these contextual realities, researchers have attempted to enhance teachers' feelings of efficacy by modifying their pre-service program.

Brosseau, Book, and Byers (1988) reported a decline in pre-service teachers' feelings of general teaching efficacy after their initial teaching practice. Cannon (1992) found that even as feelings of general teaching efficacy declined, there was some evidence that personal teaching efficacy increased during pre-service. According to Ross (1995), this increased confidence could be the result of teachers' recognizing that they were becoming more skilled in their craft.

Pigge and Marso (1993) compared a group of outstanding pre-service teachers and a group of outstanding in-service teachers and found no significant difference on the variables of personal teaching efficacy and general teaching efficacy. However, when Campbell (1996) compared feelings of efficacy for pre-service and in-service teachers in Scotland and America, he found a significant difference between the group of pre-service and in-service teachers. The in-service teachers from both the countries scored higher on a scale measuring teachers' sense of efficacy than the pre-service teachers.

In a study by Coladarci and Brenton (1991), teachers who found their supervision beneficial scored higher on perceptions of efficacy than teachers who were dissatisfied with their supervision. Similarly, Grafton (1993) found a positive correlation between beginning teachers' sense of efficacy and their perception that they were encouraged to experiment and try new things in their positions. Moore and Esselman (1994) found an increase in teacher efficacy attitudes to be related to a positive school atmosphere that focused on instruction, the reduction of barriers to teaching effectively, and classroom-based decision making.

Guyton, Fox, and Sisk (1991) found that an 8-week summer residency program followed by a 1-year supervised internship had no greater impact on teachers' perceptions of efficacy than did a traditional pre-service program. On the other hand, in a study of involving 24 prospective elementary teachers, Volkman, Scheffler, and Dana (1992) investigated the effects of field-based reflective practice on prospective teachers' sense of efficacy. Twelve of the prospective teachers were assigned to the treatment group, and another 12 to the control group. The participants in the treatment group kept journals and met with the graduate teaching assistant after each lesson that was observed to make sense of the problematic situation. They also met biweekly with other prospective teachers in the treatment group to discuss problems and solutions. At the end of the 4-week experiment, the prospective teachers in the treatment group had higher scores on a measure of their sense of efficacy. The authors concluded that sharing experiences made the prospective teachers in the treatment group more efficacious. In a study by Sills (1993), participation in Outward Bound courses resulted in significant increases in teachers' sense of efficacy in female participants.

METHODOLOGY

Participants

The participants were 139 KPLI pre-service teachers from the teacher education program at the Malay Women Teacher Training. All participants were Malay women and were recruited on a voluntary basis.

Procedure

The pre-test was conducted during the first week of their enrolment at the college. The participants were seated in the college hall and before they completed the Teacher Efficacy Scale (Gibson & Dembo, 1984), each item in the questionnaire was translated into the Malay language by the researcher himself to clear any doubts due to language. The researcher also answered any questions regarding the survey. The post test was conducted after trainees had completed their one year of KPLI training and had sat for their final exam. It was conducted while the trainees were undergoing their SSM induction course.

Measures

The teaching efficacy and personal teaching beliefs of each participant were measured using the Teacher Efficacy Scale developed by Gibson and Dembo (1984). A 6-point Likert scale format (1= strongly disagree to 6= strongly agree) was used to measure prospective teachers' level of agreement with each statement. Gibson and Dembo obtained Cronbach's alpha coefficients of .78 for the items in Personal Teaching Efficacy factor, .75 for the items in Teaching Efficacy factor, and .79 for the whole scale.

Data Analysis

The results were analyzed using descriptive statistics and t-test.

FINDINGS

A total of 138 pre-service teachers participated in the study. Table 1 provides the demographic data of the participants involved in the study. Majority of the participants (88.5%) were between the ages of 20 – 29. Most of the participants (72.2%) were not married. Also majority of the participants did not have teaching experience.

The mean scores for teacher efficacy of the KPLI pre-service teachers upon entering the college and upon completing the one year KPLI course were compared using a paired sample t test. This analysis resulted in a score of 4.123 ($p < 0.001$).

DISCUSSION

A pre-service teacher who strongly believes that students can be taught, given such factors as family background, IQ, and school conditions will have a full score of 60 (10 items x 6) for general teaching efficacy (GTE). In the study the KPLI pre-service teachers had a mean score of only 31.70. If the GTE was used as a selection criteria and given as test, than the KPLIs' will

have a score of 47.62%. This shows that prospective teachers enter the training with the general belief that teachers really can't make much difference in the students' performance. This is disappointing as beliefs make up a self-system, and this self-system determines the action people take and how much they persevere when the task becomes difficult.

Sadly this not get any better even after one year of training and teaching practicum; as a matter of fact the mean decreased by .21 to 31.49 Self-efficacy beliefs are based on information conveyed by direct mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective experiences. It could be possible the pre-service teachers did not have any of these positive experiences that could have other wise changed their belief system of teachers and teaching in general

Personal teaching efficacy (PTE), refers to the conviction that one can successfully execute the behavior required to produce the desired outcome (Bandura, 1977). Findings from the study show that the mean PTE score for KPLI pre-service teachers was 57.92 from a maximum possible score of 72. This would mean the KPLIs' had a percentage of 80.53. This shows that the pre-service teachers believed in their own capability to bring about the desired outcome even though their perceived GTE is low. This shows that all the participants were confident and positive about meeting future challenges in education, as they believed in their own ability.

Table 1: Demographic data of participants

Variable	KPLI	
	FREQUENCY	PERCENT
AGE		
Below 20	1	0.7
20 – 24	61	43.9

25 – 29	62	44.6
30 - 34	15	10.8
MARITAL STATUS		
Single	99	71.2
Married	40	28.8
TEACHING EXPERIENCE		
No experience	97	69.8
0 – 2 years	36	25.9
3 – 5 years	5	3.6
6 – 8 years	1	.7

Table 2: Teacher efficacy pre-post

Teacher Efficacy	PRE		POST			
	<u>N</u>	<u>M</u>	<u>SD</u>	<u>N</u>	<u>M</u>	<u>SD</u>
Personal Teaching Efficacy	138	57.92	6.20	156	54.67	6.34
General Teaching Efficacy	138	31.70	5.65	156	31.49	5.11
Teacher Efficacy	138	89.62	7.61	156	86.16	7.18

Table 3: t-test for pre-post teacher efficacy

<i>t</i> -test	<i>df</i>	sig.
4.123	137	.000

However PTE too did not increase after completion of training. It is possible the training and teaching practice made the students aware of their ability and limitations and thus the decrease in

PTE. It could be they had entered college full enthusiasm and confidence but upon facing the realities of classroom situations, it nose dived.

Comparing of means before training and after completion of training showed a significant difference. T-scores of 4.123 ($p < 0.001$) were obtained.

CONCLUSION

It is clear that there is a significant difference between teachers who had just entered the teacher education training program and those who have completed it on the variable of teacher efficacy. It seems safe to conclude that the teacher training college did not succeed in increasing the teacher efficacy pre-service teachers in their education programs. This conclusion was confirmed by the t test analyses.

The participants began their training with a belief that teachers in general can't make much difference the students performance as other factors like family background, IQ, and school conditions have a stronger influence on the students performance. This belief did not get any better upon completion of training.

However the pre-service teachers entered teachers' training colleges with a strong belief in their own capability to bring about the desired outcome. This belief became weaker upon completion of training.

Limitations of The Study

Generalization of the findings is limited to pre-service teachers in MPPM, who are all Malay women. Also the results could have been influenced by the atmosphere during the orientation week, namely tiredness, new surrounding, away from home and fright.

Directions For Future Research

It will be interesting to measure the teacher efficacy during the various stages in the life of a teacher and see what factors influence the teacher efficacy of the teachers. Future researchers may also develop strategies to increase the teachers' sense of efficacy .

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