

# Teacher Efficacy Among Pre-Service Teachers in MPPM

by

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## ABSTRACT

*This research measures the beginning teacher efficacy of pre-service teachers. KPLI and KDPM trainees were given the 22 - item Teacher Efficacy Scale by Gibson and Dembo (1984) during the orientation week. 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) A comparison of teaching efficacy was made between KPLI and KDPM pre-service teachers. 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 purpose of teacher education is about developing general qualities of a personal and social kind as well as those of an intellectual kind. That is apart from providing subject knowledge they hope to instill a sense of efficacy to ensure that when the pre-service teachers graduate they have the confidence to apply their knowledge to bring about changes in the students they teach.

The teacher education program in Malaysia has been upgraded since July 1996 from a Certificate level to Diploma level. Entrance to teachers college 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 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 the entry level teacher efficacy of the pre-service teachers and in future see how successful the program has been, in instilling teacher efficacy in the pre-service teachers and how it differs during the various stages of the training and their career.

Also the researcher intends to compare the teacher efficacy between the KPLI and KDPM pre-service teachers. 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 has 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**

1. What is pre-service teachers' sense of efficacy before they begin their teacher training
2. Is there a difference in the teachers' sense of efficacy between the KPLI and KDPM

### **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 3 year Diploma course (KDPM) or 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 316 college students from the teacher education program at the Malay Women Teacher Training College - of these 139 were KPLI pre-service teachers and 177 KDPM pre-service teachers. All participants were Malay women and were recruited on a voluntary basis.

### **Procedure**

The survey 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.

## 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 will be analyzed using descriptive statistics and 2x2 chi-square. Correlations will be conducted on the variables of age, qualifications, teaching experience, to more closely examine their effect on teacher efficacy.

## FINDINGS

A total of 316 pre-service teachers participated in the study during the orientation week. Table 1 provides the demographic data of the participants involved in the study. Majority of the KPLI participants (88.5%) were between the ages of 20 – 29, whereas majority of KDPM participants (87.0%) were below the age of 24. Most of the participants (KPLI – 72.2%; KDPM – 90.4%) were not married. Also majority of the participants did not have teaching experience.

Table 2 presents the means and standard deviations of personal teacher efficacy and teaching efficacy for KPLI and KDPM participants. Table 3 correlates marital status and teaching experience with teacher efficacy. Both the variables did not show significant correlations with teacher efficacy.

**Table 1: Demographic data of participants**

Variable	KPLI		KDPM	
	FREQUENCY	PERCENT	FREQUENCY	PERCENT
AGE				
Below 20	1	0.7	52	29.4
20 – 24	61	43.9	102	57.6
25 – 29	62	44.6	23	13.0

30 - 34	15	10.8	-	-
<b>MARITAL STATUS</b>				
Single	99	71.2	160	90.4
Married	40	28.8	17	9.6
<b>TEACHING EXPERIENCE</b>				
No experience	97	69.8	135	76.3
0 – 2 years	36	25.9	35	19.8
3 – 5 years	5	3.6	6	3.4
6 – 8 years	1	.7	1	.6

**Table 2: Teacher efficacy**

Teacher Efficacy	KPLI			KDPM		
	<u>N</u>	<u>M</u>	<u>SD</u>	<u>N</u>	<u>M</u>	<u>SD</u>
Personal Teaching Efficacy	139	57.98	6.22	177	60.08	5.70
Teaching Efficacy	139	28.57	5.54	177	27.01	5.73

**Table 3: Correlations (Spearman's rho)**

Variable	Teacher efficacy
Marital status	.044
Teaching Experience	-.015

## 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 28.57 and the KDPM pre-service teachers had a similar low mean score of 27.01 for GTE. If the GTE was used as a selection criteria and given as test, than the KPLIs will have a score of 47.62%. Similarly KDPMs will have a score of 45.02%. 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.

Comparatively the KPLI participants had a better score for GTE than the KDPM participants. This could be because they had experienced more successful experiences in their life as a student. Self-efficacy beliefs are based on information conveyed by direct mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective experiences.

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 57.98 from a maximum possible score of 72. This would mean the KPLIs had a percentage of 80.53. This shows that the pre-service believed in their own capability to bring about the desired outcome even though their perceived GTE is low. Similarly the KDPMs had a mean score of 60.08 for PTE. This would transform to a percentage of 83.44. This shows that KDPM participants too believed in their own capabilities to bring about the desired change among their students. This shows that all the participants were confident and positive about meeting future challenges in education, as they believed in their own ability and this is more obvious among the KDPM participants compared to the KPLI participants.

Correlations show that variables like teaching experience and marital status have little significance on the teacher efficacy of pre-service teachers. That is to say, when selecting future candidates for teacher education, these variables should not be given much emphasis.

## **CONCLUSION**

The participants begin 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. However the pre-service teachers believed in their own capability to bring about the desired outcome. Marital status and teaching experience do not show significant correlations with teacher efficacy.

### **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 their sense of efficacy .

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