Measuring Pre-Service Teachers' Sense of Efficacy: The Effect of Professional, Instructional, and Personal Mentoring

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ABSTRACT

Teaching is a challenging job. Teachers must be equipped with content-related and classroom management skills to be able to effectively facilitate learning and keep students motivated and engaged in their studies. Those who intend to engage in this profession need to undergo academic preparation as well as teaching internship. During their internship, pre-service teachers are mentored by cooperating teachers in the schools they are assigned. Mentoring covers the professional and instructional aspects of the job as well as personal or emotional support extended to pre-service teachers. Such mentoring is intended to enhance the pre-service teachers' confidence in their ability to handle the multifaceted job of a teacher. This study has investigated the effect of mentoring on the pre-service teachers' sense of efficacy. The Teachers' Sense of Efficacy Scale (TSES) developed by Megan Tschannen-Moran and Anita Woolfolk Hoy (2001) was utilized to measure efficacy. In order to gauge the quality of mentoring provided by cooperating teachers, the researcher has devised a Professional, Instructional, and Personal Mentoring Scale (PIPMS). This test has an excellent internal consistency reliability as evidenced by a Cronbach's alpha coefficient of .94. The data gathered using these scales were treated using multiple regression analysis. The study adopted a descriptive-correlational survey research design. A total of 100 undergraduate teacher education students from a state university in the Philippines participated in the study. Results show that professional, instructional, and personal mentoring significantly predict the sense of efficacy of pre-service teachers.

Keywords: teacher education, mentoring, pre-service teachers, sense of efficacy

INTRODUCTION

Teaching is a complicated and challenging job. Those who choose to establish a career in this field are expected to have mastered the content of the subject areas they will teach and to possess impressive pedagogical skills and classroom management skills in order to facilitate learning effectively and keep their students motivated and engaged in their studies. Even experienced teachers still find these tasks daunting, much more so for those who are yet to experience them firsthand. Hence, Teacher Education Institutions (TEIs) design a curriculum that will cover the major areas that pre-service teachers must master. During their first three years in the program, pre-service teachers are enrolled in general education courses and specialization courses. In their final year in the program, they undergo field study courses and a semester of internship. These are intended to equip them with all the necessary knowledge and skills they will be needing to accomplish the tasks and to build their confidence in their ability to do so. The sense of self-efficacy is as important if not more important than having the actual ability. It is the motivating factor that propels them to successfully accomplish their tasks. It is for this reason that studying the self-efficacy of pre-service teachers and the factors that help develop them is important. One such factor deemed to be influential in developing the self-efficacy of pre-service teachers is mentoring which is done formally during their internship. Pre-service teachers are assigned to cooperating teachers during their internship. These cooperating teachers are expected to provide them with professional, instructional, and personal mentoring. As to what extent such mentoring affects the pre-service teachers' sense of self-efficacy is the main focus of this study.

A. Pre-service Teachers' Sense of Self-Efficacy

Ever since Albert Bandura came out with his theory on self-efficacy, research interest on teacher self-efficacy has continuously grown ([1],[2]). Such growing interest is to be expected since teacher self-efficacy has been known to have positive correlations with teachers' instructional behavior, job satisfaction, and effectiveness. It was also established to positively affect student motivation, student engagement, student achievement, and student self-efficacy ([3],[4],[5],[1], [6],[7]).

Teacher self-efficacy has been defined as the "teachers' belief in his or her ability to successfully perform the tasks of teaching" [8]. Teachers without a doubt are at the center of the educational process. If we want to have an excellent educational system, then we must have excellent teachers who believe in their ability to perform their tasks of teaching. Developing a sense of self-efficacy among teachers takes time and effort and it should start during their pre-service years particularly during their internship. Studies have shown that student teaching has a positive effect in the preparation of pre-service teachers for their role as a teacher ([9],[10]).

B. Pre-service Teachers and Teacher Mentors

Internship is a critical period in the preparation of pre-service teachers. This phase should be used to help pre-service teachers bridge the gap between the theories they learned in their classes and the actual practice. When pre-service teachers are deployed to a partner school, they are assigned to cooperating teachers who are to be their mentors. Mentors are expected to provide support for the professional, instructional, and personal growth of their mentees. During internship, pre-service teachers are given the opportunity to experience at firsthand the tasks that teachers do on a regular basis. According to Reference [11] in his Program Handbook: Mentoring Beginning Teachers, mentoring is a "nurturing process" and that a mentor should serve as a "role model" who will teach, encourage, counsel, and befriend a less skilled or less experienced person to help him or her develop professionally and that such functions must be carried out within the context of a "caring relationship between the mentor and the protégé."

There are three areas in which pre-service teachers need assistance, namely: professional, instructional, and personal or emotional. Professional mentoring includes acquainting the pre-service teachers with school policies and procedures, including those mandated by the government, and the roles, rights, and responsibilities of a teacher. Instructional mentoring covers all those tasks related to actual teaching such as diagnosing, prescribing, evaluating, and reporting student performance. Finally, personal and emotional mentoring entails providing pre-service teachers the moral support and encouragement they need [11].

C. Pre-service Teachers' Self-efficacy and Mentoring

In most cases, classroom-based teachers serve as cooperating teachers of the pre-service teachers sent to their school for internship. Teachers chosen to be cooperating teachers are tasked to be mentors who are expected to "nurture, advise, guide, encourage and facilitate authentic learning experiences for developmental growth" [12]. Studies involving pre-service teachers' preparation account for the important role played by classrooms teachers [13]. It has always been the assumption that the personal experiences of classroom teachers will help them mentor pre-service teachers effectively [14].

However, mentoring is a complicated process. Cooperating teachers are expected to provide their mentees valuable assistance in at least three major areas: professional, instructional, and personal or emotional [11].

Studies show that cooperating teachers who possess the essential characteristics of a good mentor and are professionally prepared for the task are more likely to positively affect their mentees' confidence, satisfaction, career growth, and personal and professional development ([15],[16]).

A number of research studies reveal positive impact of mentoring on pre-service teachers. In a study conducted by Reference [17], it was revealed that mentor teachers play a critical role in reducing pre-service teachers' initial anxieties and improving their personal and professional knowledge, confidence and skills. In another study, Reference [18] found that the trust, guidance and support as well as field experiences the mentor

teachers provide have significantly developed pre-service teachers' skills, dispositions and understanding of teaching. Limited research studies have been conducted so far on the development of self-efficacy of pre-service teachers after they have undergone a period of internship and specifically on how their self-efficacy beliefs are influenced by the quality of mentoring, they received from their cooperating teachers. Findings of this study discuss the pre-service teachers' self-efficacy and the impact of professional, instructional, and personal mentoring on it.

METHODS

D. Research Design and Sample

The study adopted a descriptive-correlational survey research design. This research method is deemed to be the best design for this particular study since its main thrust is to describe the pre-service teachers' level of self-efficacy, as well as their perception of the quality of mentoring they received from their cooperating teachers. Moreover, this design enabled the researcher to explore the effects of mentoring on the self-efficacy of pre-service teachers.

A total of 100 undergraduate teacher education students from a state university in the Philippines participated in the study. All participants have already completed the required content coursework, finished all field study courses, and a semester of student practicum teaching (internship) in the public schools.

All participants were duly informed of the study's purpose, procedures, potential risks and benefits, and their right to withdraw at any time. Confidentiality and anonymity were maintained throughout the study; all data was stored securely and any identifying information was removed during analysis and reporting.

E. Instrumentation

The Teachers' Sense of Efficacy Scale (TSES) developed at the Ohio State University by Megan Tschannen-Moran and Anita Woolfolk Hoy [19] was used in this study. There are three factors measured in this test, i.e., Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management. The short form which consists of 12 items ranked on 5-point Likert Scale was chosen over the long form of the TSES. The responses ranged from 1 – nothing to 5- a great deal. Sample questions include: How much can you do to motivate students who show low interest in school work? How much can you use a variety of assessment strategies? How much can you do to control disruptive behavior in the classroom?

In order to gauge the quality of mentoring provided by cooperating teachers, the researcher has devised a Professional, Instructional, and Personal Mentoring Scale (PIPMS). This test has an excellent internal consistency reliability as evidenced by a Cronbach's alpha coefficient of .94.

Also, a factor analysis was conducted to determine how the participants responded to the questions and it consistently resulted to three moderately correlated factors: Professional Mentoring, Instructional Mentoring, and Personal Mentoring. The test has 14 items and sample items include: My Cooperating Teacher gave me an orientation which included identification of services in support of instruction; the spatial layout of the school; departmental relations and resources. My Cooperating Teacher modeled effective instruction, including co-teaching with me as I gradually assumed greater responsibility. My Cooperating Teacher helped me see the positive side of my teaching practice which supported and encouraged my growth. The responses ranged from 1 – strongly disagree to 5 – strongly agree.

RESULTS AND DISCUSSION

To measure the level of the respondents' self-efficacy, the Teachers' Sense of Efficacy Scale (TSES) by Tschannen-Moran and Woolfolk Hoy [19] was utilized. The respondents were asked to give their answers to the 12 questions in the scale.

Table I presents their mean scores for each subscale and the corresponding interpretation. It may be gleaned from the data in Table I that the level of pre-service teachers' self-efficacy was generally high as evidenced by the mean of each variable. The pre-service teachers have a strong belief in their ability to keep students engaged

in their studies, use different instructional strategies, and manage a classroom effectively. The low standard deviation calculated for each variable indicates that individual responses to a question are fairly concentrated around the mean.

Table I Level of Pre-Service Teachers' Self-Efficacy

Variables	Mean	Std. Deviation
Efficacy in Student Engagement	4.36	.48011
Efficacy in Instructional Strategies	4.23	.45482
Efficacy in Classroom Management	4.29	.45246

The respondents' perception of the quality of mentoring they received from their cooperating teachers was also recorded. To gather data for this specific concern, the Professional, Instructional, and Personal Mentoring Scale (PIPMS) was used. There are three subscales for this test: Professional Mentoring, Instructional Mentoring, and Personal Mentoring.

The data in Table II suggest that pre-service teachers' perception of their mentors' support was generally high as indicated by the mean of each variable. The results indicate that the pre-service teachers think highly of their cooperating teachers in terms of the support they were given during their semestral-long practicum teaching. Furthermore, results show a low standard deviation indicating that individual responses are not scattered far and wide.

Table II pre-service teachers' perception of their cooperating teachers in terms of mentoring

Variables	Mean	Std. Deviation
Professional Mentoring	4.22	.81541
Instructional Mentoring	4.30	.86307
Personal Mentoring	4.26	.85261

Multiple regression analysis was conducted to help determine which of the three components of mentoring could be used to predict the self-efficacy of pre-service teachers.

Table III summarizes the descriptive statistics and analysis results. As can be gleaned from the data, all three components: professional mentoring, instructional mentoring, and personal mentoring are positively and significantly correlated with self-efficacy, indicating that those with high scores on these variables tend to have a strong sense of self-efficacy.

A closer look at the data revealed that Professional Mentoring contributed significantly to the model (B =0.330

, p = .000); likewise, Instructional Mentoring contributed significantly to the model (B = 0.388, p = .000); moreover, Personal Mentoring also showed significant contribution (B = 0.236, p = .004). B weights tell us that each added point on professional mentoring increases the expected self-efficacy by 0.330 while each added point on instructional mentoring increases the expected self-efficacy by 0.0388, and that each added point on personal mentoring increases the expected self-efficacy by 0.236.

Moreover, looking at the standardized coefficients reveals that professional mentoring (beta = 0.344, p = .000) showed significant and positive contribution on self-efficacy.

Furthermore, instructional mentoring (beta = 0.428, p = .000) revealed a highly significant positive correlation with self-efficacy.

The findings also revealed the same significant positive correlation between personal mentoring (beta = 0.257, p = .004) and pre-service teachers' sense of self-efficacy. The positive beta weights indicate that if teacher self-efficacy is to be fortified, it is necessary to enhance the professional, instructional, and personal mentoring support given to pre-service teachers.

Furthermore, the results of the regression indicated that the model accounted for 84.6% of the variance and that mentoring was a significant predictor of pre-service teachers' sense of efficacy (F3,96 = 84.127, p = .000). Data further revealed highly significant combined effects of mentoring on self-efficacy. Thus, mentoring seemed to be a significant predictor of self-efficacy.

Table III Regression Analysis of Mentoring on Self-Efficacy

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.133	0.261		0.510	0.613
Professional Mentoring	0.330	0.086	0.344	3.825	0.000
Instructional Mentoring	0.388	0.080	0.428	4.819	0.000
Personal Mentoring	0.236	0.077	0.257	3.052	0.004
R-squared = .846					
F-value = 84.127					
p-value = .000					
alpha = 0.05					

Teaching internship or that period of practicum student teaching is the most highly valued component of teacher education programs. During this period, pre-service teachers undergo observation, teaching, reflection, and critiquing under the guidance of cooperating teachers [20]. Internship allows pre-service teachers to bridge the gap between theory and practice. However, this period is also be filled with tensions, contradictions, and challenges for pre-service teachers ([21],[22]). As they go through the myriad tasks and responsibilities of a teacher on a regular basis, pre-service teachers form a mental image of the kind of teacher they are or will be in the future [20]. This mental image captures their sense of self-efficacy. A more positive the image reflects a stronger sense of self-efficacy.

Results of this study revealed that the pre-service teachers have a strong sense of self-efficacy after having undergone a period of teaching internship. They are confident in their ability to motivate students and keep them engaged in their studies. They believe in their ability to teach using a variety of instructional and assessment strategies. Moreover, they believe they can establish an effective classroom management system. It indicates that they have had a positive experience during their internship. Research suggests that teacher self-efficacy tends to be high while still in the teacher education program [23]. However, various researches also suggest that the sense of self-efficacy decreases after graduation and towards the end of the first year of teaching due to what is referred to as "reality shock" which occurs when they realized that their vision of the kind of teacher they would like to be may be harder to achieve [23].

This study also showed the positive perception held by the pre-service teachers of the support they received from their cooperating teachers in terms of professional, instructional, and personal mentoring. The pre-service teachers rated their cooperating teachers high on all components of mentoring. They believe that their mentors were able to give them the assistance they need to be able to grow professionally and teach effectively.

Furthermore, they believe that their cooperating teachers gave them the moral support and encouragement they need. Hence, they were able to establish that "caring relationship between the mentor and the protégé" [11].

However, it must be pointed out that the perception of pre-service teachers of the mentoring support given by their cooperating teachers was measured using a researcher-made questionnaire due to the absence of suitable instruments. Therefore, it is important to acknowledge the inherent methodological and theoretical limitations that come with this novel instrument and a restricted sample. The use of this instrument since it measured newly defined constructs adds an exploratory nature to the study. The current study may serve as an important initial step to measure pre-service teachers' perception of the support they received from their cooperating teachers in terms of professional, instructional, and personal mentoring, but its findings should be viewed within the context of these limitations.

CONCLUSIONS

This study has shown that professional, instructional, and personal mentoring received from cooperating teachers are linked positively with pre-service teachers' sense of efficacy. The findings suggests that a positive mentoring environment during the internship plays a vital role in developing high levels of self-efficacy among pre-service teachers. The positive perceptions of mentor support in professional, instructional, and personal areas directly contribute to the pre-service teachers' confidence in their teaching abilities. These findings emphasize the importance of formal mentoring program. This kind of program if implemented effectively will successfully forge the connection between theory and practice and lessen the impact of reality shock once these pre-service teachers enter their first year of professional teaching. Moreover, it will help support the professional and personal growth of pre-service teachers and provide professional development opportunities for cooperating teachers.

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