



Self-Efficacy, Emotions, and Optimisations of Pre-Service Special Education Teachers during Teaching Practicum

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Abstract:

This study investigates the changes of self-efficacy, emotions, optimisation and the correlation between these teaching competences of pre-service special education teachers to work in inclusive settings in Indonesia. This study was a survey with a combination of three questionnaires (TEIP, SF-LAEQ, OBI) used to gather information on the self-efficacy, achievement emotions and optimal best of 71 pre-service special education teachers before and after teaching practicum in inclusive and or special school. Results reveal that the level of teaching efficacy, optimisation and positive emotions increased after teaching practicum. By contrast, the level of participants' negative emotions decreased after teaching practicum. The correlation between the teaching competences after the practicum were varied. Based on the results, practical implication, limitation and future research are discussed.

Keywords:

Self-efficacy, emotions, optimisations, pre-service teachers, inclusive classroom

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INTRODUCTION

Studies on pre-service teachers' teaching efficacy to teach in inclusive classrooms are conducted worldwide. Most of them are focusing on general and subject teachers who do not have any formal education on special education by exposing them to inclusive education related knowledge (Tindall, Culhane & Foley, 2016; Scheer, Scholz, Rank & Donie, 2015; Civitillo, De Moor & Vervloed, 2016; Sokal & Sharma, 2013; Loreman, Sharma & Forlin, 2013; Woodcock, Hemmings & Kay, 2012). Teaching in inclusive classroom requires more specialized strategies and provision that match students' needs since the students are more diverse in term of educational needs. This condition emerges teachers' emotions which tend to be more negative such as more stressful than positive. Specialized teachers on Boujut, Dean, Grousselle and Cappe's work (2016) considered to be less emotionally exhausted compared to general teachers when they work with students with Autism Spectrum Disorder. Some pre-service teachers on McKay's work (2016) were driven by fear to teach in inclusive classroom due to their limited capacity in fulfilling their new role. In addition, some of them were frustrated seeing the real condition of their students' behaviour which led them to decline to teach students with behaviour problem. In dealing with such situation, the process of optimisation is of help. Optimisation is an individual's effort to demonstrate and/or to seek mastery in teaching at any given time by reflecting his/her fullest capacity (Phan, Ngu, & Williams, 2016).

Self-efficacy, achievement emotions and optimisation are believed to be interrelated. In this study, self-efficacy is defined as the beliefs that pre-service teachers are performing in inclusive classroom in accordance with expected outcome (Bandura, 1997). Self-efficacy in this study has two main elements based on the definition, that is, action and expectation. Both elements are related to achievement emotions. Pekrun (2006) argued that “emotions tied directly to achievement activities or achievement outcomes”. Achievement activities are related to the teacher’s actions during teaching, whereas achievement outcomes are related to the expectations from a teacher during teaching.

Action and expectation results are mostly related to increasing students’ competences and fostering their development (Guo et al., 2012, Bolshakova, Johnson, Czerniak, 2011, Phan, 2014). Such results will influence teachers’ emotion positively or negatively (Tsouloupas et al., 2010, Yuan & Lee, 2016, Brigido et al., 2013). With regard to teaching practicum, pre-service teachers need to develop their teaching efficacy and optimisation to avoid overwhelming negative emotions. They will experience negative emotions when their expectation is far from reality and vice versa. These emotions and optimisation may influence teaching efficacy to a certain extent. It is the scarcity of study which focuses on the relationships between self-efficacy, emotions and optimisation that direct this study. The goal of this study is to determine the changes of these three teaching competences and correlation between them in pre-service special education teachers who are prepared to teach in inclusive classroom.

METHODS

This study was a survey which surveyed pre-service teachers of Special Education Department of a State University in Jakarta, Indonesia. It investigated the changes and correlation of teaching-efficacy, achievement emotions and optimisation before and after teaching practicum. The participation for this study was voluntarily. All the participants put their students’ number on the responses to be matched for analysis since they were answering the same questionnaires. The participants in this research were the pre-service special education teachers conducting teaching practicums. The participants were registered as Batch 2014 comprising 71 active students from Special Education Department with 13 males and 58 females. Most of participants conducted their practicums in special schools, with only 12 conducting their teaching practicums in inclusive schools.

The questionnaire was created via Google Docs form which intended to save time, to improve accuracy of the data and to enhance accessibility. To obtain the data, the questionnaire link was shared to batch of 2014 WhatsApp group. After sharing the questionnaire link, the researcher monitored all the responses submitted to the Google Docs form. She reminded both group members every week for nearly four weeks to respond to the questionnaire’s link. The researcher ensured that all responses would be treated with strict confidentiality and can only be accessed by the researcher. In addition, she assured them that their responses would not affect their study in any way.

The questionnaire used in this study was a combination of Teaching Efficacy for Inclusive Practice (TEIP, Sharma, Loreman, & Forlin, 2012), Short Form Learning-related Achievement Emotions Questionnaire (SF-LAEQ, Yang & Sin, 2013) and Optimal Best Index (OBI, Phan, Ngu, & Williams, 2016). The first part was aimed to access the demographic information of the respondents which was adopted from TEIP (Sharma, Loreman, & Forlin, 2012). The second part was the TEIP, an 18-item scale that measured teachers’ perceived teaching efficacy to teach in inclusive classrooms. The

third part was the SF-LAEQ (Yang & Sin, 2013) which was adopted from Academic Emotion Questionnaire (Pekrun, Goetz, & Perry, 2005). SF-LAEQ is a 24-item scale which measured students' emotion related to the learning achievement. The fourth part was OBI as part of Academic Optimal Best Questionnaire (Phan, Ngu, & Williams, 2016). OBI was an index of performance of an individual to his/her fullest capacity which measured the fullest performance of an individual. The TEIP and SF-LAEQ were used with permission from one of each developer, while the OBI can be used if we acknowledge the copyright owner. These three questionnaires were originally written in English. They were translated into bahasa Indonesia in accordance with the translation/back-translation procedure (Behling & Law, 2011) which has high quality of informativeness and language transparency as well as medium quality of security and practicality. The validity and reliability of the instrument are presented on table 1.

Table 1. Reliability of the Questionnaires

Instrument	Number of Items	Reliability
TEIP (Sharma, Loreman, & Forlin, 2012)	18	.904
Instruction	6	.791
Collaboration	6	.780
Behaviour	6	.663
SF-LAEQ (Yang & Sin, 2013)		
Positive emotions	4	.732
Negative emotions	15	.919
OBI (Phan, Ngu, & Williams, 2016)	6	.820

RESULTS & DISCUSSION

Results

A series of t-test were conducted to determine the change of teaching competences of the participants before and after teaching practicum. The effect size of each teaching competence was also sought by using online Cohen's calculator. Pearson correlation was also used to investigate the relationship among these teaching competences.

The pre-service special education teaching competences to teach in inclusive classroom score is presented in table 2. The t-test results revealed that teaching efficacy of pre-service special education teachers in an inclusive classroom was higher after the teaching practicum ($m = 80.3662$, $s = 9.1$) than before the teaching practicum ($m = 77.0563$, $s = 10.12$), $t(70) = 2.606$, $p \leq .05$.

The average score of positive emotions of pre-service special education teachers before the teaching practicum was lower ($m = 20.38$, $s = 2.15$) than after the teaching practicum ($m = 21.27$, $s = 1.84$). Thus, teaching practicum is statistically significant in affecting the positive emotions of pre-service teachers, $t(70) = 2.5$, $p \leq 0.05$. By contrast, the negative emotions of pre-service special education teachers before the teaching practicum is higher ($m = 46.21$, $s = 10.25$) than after the teaching practicum ($m = 43.41$, s

= 11.48). Thus, teaching practicum is statistically insignificant in affecting the negative emotions of pre-service teachers, $t(70) = 1.52, p \geq .05$.

The average score of optimal best prior to the teaching practicum is lower ($m = 26.8310, s = 2.79$) than afterwards ($m = 29.0986, s = 3.08$). Teaching practicum is significantly affecting the optimal best of preservice special education teachers by $t(70) = 5.869, p \leq .05$.

Table 2. t-Test Results for Each Teaching Competence

	N	M		SD		<i>t</i>	<i>p</i>	<i>d</i>
		Pre	Post	Pre	Post			
TEIP	71	77.056	80.366	10.12	9.097	-2.606	.011	0.344
OBI	71	26.831	29.099	2.79	3.08	-5.869	.000	0.772
Emotions								
Positive	71	20.38	21.27	2.15	1.84	-2.502	.015	0.445
Negative	71	46.21	43.41	10.25	11.48	1.520	.133	0.257

The correlation between teaching efficacy and positive emotions of pre-service teachers was weak and related positively, $r(69) = .434, p = .000$, signifying that lower teaching efficacy weakly decreases positive emotions. The correlation between negative emotions and teaching efficacy was very weak and negatively correlated, $r(69) = -.191, p = .111$, indicating that the lower the teaching efficacy, the higher the negative emotions.

The participants' teaching efficacy and optimisation were moderately and positively correlated, $r(69) = .670, p = .000$. Thus, a moderate correlation exists between teaching efficacy and optimal best in lowering and raising both. Thus, if teaching efficacy is low, then, optimal best is also low and vice versa.

The positive emotions and optimisation correlation was strong and positive, $r(69) = .662, p = .000$, showing that positive emotions are higher when the optimisation is also higher. For negative emotions, the correlation between negative emotions and optimisation was very weak and negative, $r(69) = -.170, p = .156$, showing that when the optimisation is at its lowest, the negative emotions are at their highest and vice versa.

Discussion

Results show that the teaching efficacy of pre-service special education teachers increased after the teaching practicum and were statistically significant with $t(70) = 2.606, p \leq .05$. This outcome suggests that the practicum has provided many useful lessons for all participants. Moreover, the practicum has improved participants' belief in their ability to teach in inclusive schools. The results of this study support those of the previous studies on the teaching practicum of pre-service teachers and their teaching efficacy to teach in inclusive classrooms (Klassen & Durksen, 2014; McDonnough & Matkins, 2010; Peebles & Mendaglio, 2014; Atilas, Jones & Kim, 2012; Hoy & Spero, 2005; Pagiling, Natsir, Palobo & Mayasari, 2022), which suggest that field experience increases pre-service teachers' efficacy to teach in inclusive classrooms.

The positive emotions after the teaching practicum were higher than before the teaching practicum but statistically insignificant with $t(70) = 1.17, p \geq .05$. This result indicates that teaching practicum has affected the pre-service teachers' emotion in achieving their teaching goals although the effect was statistically insignificant. The result of this study supports the study by Hascher and Hagenauer (2016) on pre-service

teachers' emotions during their teaching practicum where they reported more intense for positive emotions.

On the optimisation of pre-service special education teachers, pre-service teachers' optimal best after the teaching practicum was greater than the realistic best before teaching practicum. It was also statistically significant with $t(70) = 5.869$, $p \leq .05$. This result means that during the teaching practicum, the pre-service teachers in this study strived hard to achieve the goals and target of learning using the various skills and methods they have mastered. This finding support the work of Phan, Ngu and Yeung (2017) where they designed an optimizer that impacting their participants optimal achievement best in Mathematics learning.

The relationships between teaching efficacy and achievement emotions are correlated weakly and negatively. This relationship means that when the teaching efficacy is high, the achievement emotions are low. This finding shows that the stronger the efficacy belief to teach in inclusive classrooms, the more success the pre-service teachers will experience which will in turn decrease their negative emotions in achieving their teaching goals. However, the effect of the correlation is weak, which may seldom occur.

The relationships between teaching efficacy and achievement emotions found in this study support some previous studies on emotions such as the work by Pekrun, Elliot and Maier (2009) on the prediction of performance attainment by achievement emotions. In addition, the work by Yuan and Lee (2016) is supported by this study results in terms of negative feelings, which challenge the teacher's self-belief. Moreover, the notion that better teaching is provided by happier teachers (Taxer & Frenzel, 2018), was reflected by participants in this study.

Teaching efficacy and optimal best have been found to be correlated moderately and positively before and after the teaching practicum. Thus, the higher the belief of pre-service teachers have on their ability to teach in inclusive classrooms, the more efforts they put in achieving their teaching goals. This result reinforces the work of Phan and colleagues on the influence of teaching efficacy toward the achievement of optimal best (Phan, Ngu & Yeung, 2016).

On the relationships between achievement emotions and optimal best, before the teaching practicum the correlation is strong and negative. However, after the teaching practicum it becomes moderate. The strength of correlation between achievement emotions and optimal best becomes different that is possibly owing to the nature of participants; prior to the teaching practicum, their responses to the questionnaire that are based on their assumptions and expectations on their future classrooms. After the teaching practicum, their responses to the questionnaire are based on the reality and their experiences during the teaching practicum.

This study is the first of it kinds to relate self-efficacy, emotions and optimal best or optimisation of pre-service special education teachers during their practicum in inclusive classroom. The result of this study supported the common knowledge that self-efficacy is an important factor in the success of inclusive education. In addition, pre-service teachers' emotions and optimisation are considered to be related to the improvement of teachers' self-efficacy. However, this study is an unbalanced and has small composition of the participants with only 13 male and 58 female which does not portray the real general condition. Furthermore, there are only 12 participants who carry out their practicum in inclusive school. A future study investigating this three teaching competences simultaneously with more balanced of participants sample size and practicum place needs to be conducted in order to gain the better picture of real condition.

CONCLUSION

The finding of this study has several important implication for future practice. First, this research provides evidence on the use of the three questionnaires to seek the relationship between self-efficacy, emotions and optimisation of pre-service of special education teachers to teach in inclusive classroom. It is important to measure the mental development of inclusive education implementer in order to evaluate the policy being implemented whether the policy is well implemented or not. Second, the current study has shown that field experience or teaching practicum is an important source of self-efficacy where pre-service teachers are being challenged to apply their learned knowledge as an optimisation form in order to experience more positive than negative emotions. Thus, it will be beneficial for pre-service special education teachers to have more practicum in inclusive classroom in order to be the advocator of inclusive education.

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