

MODERATION EFFECT OF GENDER TOWARDS THE RELATIONSHIP BETWEEN EMOTION REGULATION AND SELF-EFFICACY AMONG PRE-SERVICE TEACHERS

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ABSTRACT

Pre-service teachers are playing important role in educational transformation. As the front liner in educational system, self-efficacy to cope with stressful environment is crucial to provide high quality teaching. Gender differences lead to different thinking style and emotion regulation strategy. This research aims to identify the moderation effect of gender towards the relation between emotion regulation and self-efficacy among pre-service teachers. 238 pre-service teachers from a teacher education in Selangor had responded to Emotion Regulation Questionnaire (ERQ) and General Self-Efficacy (GSE). Based on the result, there is no significant moderation effect of gender towards the relationship between emotion regulation and self-efficacy ($p=0.308$, $\beta=-0.044$). However, descriptive analysis indicates that male pre-service teachers have higher emotion regulation compared to female pre-service teacher. At the same time, female pre-service teachers have higher general self-efficacy compared to male pre-service teachers. Therefore, researcher suggests that gender egalitarian should be fostered in teacher preparation process. Same strategies to develop pre-service teacher's self-efficacy through emotion regulation should be employed regardless gender differences. However, priority to develop emotion regulation and self-efficacy should according to gender's needs.

Keywords

Gender, Emotion Regulation, Self-efficacy, Pre-service teachers

Introduction

Malaysia educational system is experiencing tremendous transformation under Malaysia Education Blueprint (2013-2025). This transformation increases teacher's job-related stress. According to a psychological research from University Science Malaysia, 33% of teachers had moderate to extremely severe stress level, 68% of teachers had moderate to extremely severe of anxiety and 43% of teachers had moderate to extremely severe of depression. Besides, female teachers were reported to possess higher job-related stress compared to male teachers. According to research, 83.4% of female teachers were experiencing psychological distress compared to 16.6% of male teachers. Lastly, Malay teacher had the highest job-related stress compared to teacher from another ethnicity. According to research, 65.1% of Malays teachers were experiencing psychological distress compared to 12.7% of Chinese teachers and 22.3% of Indian teachers and teachers from another ethnicity (Othman Z. et al., 2019). High job-related stress is due to low emotion regulation ability to cope with negative emotion experience

in working environment. Research among teachers in west Malaysia shows that teachers are low in emotional intelligence. The mean value for emotional intelligences according to Malaysian Emotional Quotient Inventory (MEQI) was 64.36%. Lack of emotion regulation causes teacher respond passively to negative emotion from job-related stress (Noriah, Iskandar, Ridzaudin, 2017). Lack of autonomy in emotion regulation leads to low self-efficacy to deal with the stressful working environment. A study was conducted in Malaysia secondary schools to measure teacher's self-efficacy. Result shows that Malaysia teachers have below average self-efficacy ($m=6.43$) compared to the average TSES ($m=7.1$) (Rahimah, Abu, Ismail & Rashid, 2014). Ability to aware and regulate emotion enable pre-service teachers to regulate negative emotion in stressful environment. Emotional regulation adjusts the inductions of pre-service teacher's emotion state. It improves pre-service teachers' self-efficacy because they belief that they are capable to control and change the difficult situation (Koschmieder & Aljoscha, 2021). According to Pekrun's Theory of Control Value of Achievement Emotion, pre-service teachers' self-

efficacy is developed from the perceived control and value towards the achievement activity. Pekrun emphasizes that achievement emotion is an on-going appraisal on the achievement activity. Pre-service teacher experience achievement emotion when they have control, or no control over the achievement activity is subjected to the implication of emotion regulation to evaluate the control and value towards achievement. Positive achievement emotion such as pride will be induced when pre-service teacher perceives high control and value towards the achievement activity. Positive achievement emotion is positively correlated to self-efficacy, persistency, and motivation to pursuing goals. Implication of Pekrun's theory shows that perceived control and value is facilitating the emotion regulation and self-efficacy in achievement activity. Positive achievement emotion increases pre-service teacher's self-efficacy in achievement activity (Pekrun & Stephens, 2010).

The purpose of this research is to examine the relationship between gender, emotion regulation, and self-efficacy. Moderation effect of gender towards the relation between emotion regulation and self-efficacy was conducted to examine the hypothesis. The different implication of Pekrun's Theory of Control Value of Achievement Emotion in female and male pre-service teacher's emotion regulation and self-efficacy will be examine in this research.

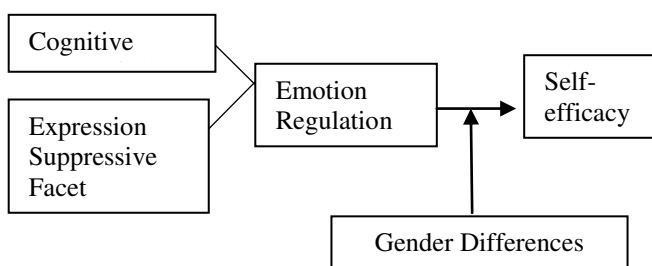


Figure 1: Theoretical framework

Gross's Emotion Regulation was used to discussed pre-service teacher's emotion regulation in this research. There are two facets in emotion regulation: cognitive reappraisal facet and expression suppressive facet. Cognitive reappraisal is the process of re-evaluates the circumstances to view it as safe. Acceptance constraint pre-service teachers to change the situation by non-judgmental perspective. Problem solving includes critical and creative thinking and

planning to take charge on the situation (Hofmann, 2009). Expressive suppression responds to negative emotion by neglecting it. This strategy triggers stress response model. Rumination causes pre-service teachers involve in repetitive reflection and constant correction. Compared to rumination, avoidance is the neutral strategy to deal with negative emotion. Avoidance keeps pre-service teachers to neglect the negative emotion. Expressive suppression contributes to mental illness such as anxiety, depression and eating disorder. (Hofmann, 2009). However, researcher notices the limitation of Gross's emotion regulation theory. Gross's research suggests empirical evidence of individual emotion regulation strategy. This strategy relies on pre-service teachers' self-awareness and self-control. However, his research did not consider sociocultural factor in emotion regulation. According to Gross's theory, individual emotion regulation strategy focus on intrapersonal skills (Zaki & Williams, 2013). In current research, researcher focus on the individual factors that influence emotion regulation. Gender differences and self-awareness and control are viewed as the individual factors that influence pre-service teacher's self-efficacy.

Self-efficacy is influence by four factors as suggested by Bandura (1977). Experience mastery increases when pre-service teacher knows the process of problem-solving task. Self-efficacy developed when pre-service teachers are equipped with experiences because they are familiar with the procedure to complete the tasks. In related to Theory of Control Value of achievement. Experience mastery provides pre-service teachers experiences in achievement activity. These experiences developed their perception on control over own achievement. They have higher positive activating emotion (achievement emotion) because their experiences indicate that they can success in the similar tasks. Focus on positive mastery experience improves pre-service teachers' achievement emotion and self-efficacy in teacher preparation. Positive achievement emotion assists pre-service teachers to focus on their mastery experience instead of the difficulty of tasks. Knowledge of vicarious experience from observing other's experiences and its consequences contributes to perceived value of achievement activity. In related to Theory of Control Value of Achievement Emotion, pre-

service teachers' perception of value over achievement activity increases when they observed others achieved success via the similar activity they are engaging. Vicarious experience increases perceived value of achievement emotion. It helps them to relate own situation with others' successful achievement. Their self-efficacy improves when they notice that they are on the same track as the successful peers (Bandura, 2006).

Regulation of emotion helps pre-service teacher to evaluate their self-efficacy realistically despite being influenced by emotion experience while receiving verbal persuasion. In related to epistemic emotional model, cognitive incongruent occurs when pre-service teachers experience cognitive disequilibrium from unauthentic verbal persuasion and reality. Cognitive disequilibrium reduces pre-service teacher's self-efficacy because it increases the physiological and psychological effects of epistemic emotion (Vogl E., Pekrun R. & Loderer K., 2021). Self-efficacy is negatively correlated to physiological and psychological effect (Bandura, 2006). Emotion regulation enables them to make reality judgment on verbal persuasion. Reality judgement on verbal persuasion improves the accuracy in self-evaluation. Realistic self-efficacy reduces epistemic emotion hence pre-service teachers feel more control over the achievement.

Lastly, emotion regulation hindrances pre-service teacher from somatic and negative emotion states while facing stressful environment (Bandura, 2006). In related to theory of control value of achievement emotion, negative deactivating emotion such as disappointment demotivates pre-service teachers' motivation in achievement activity. Emotion regulation redirects pre-service teachers' focus on the achievement instead of ruminating on the negative emotion experience. In related to epistemic emotion model, surprise interrupted the ongoing cognitive process and redirect the cognitive process to unexpected information (Vogl E., Pekrun R. & Loderer K., 2021). Emotion regulation helps pre-service teachers to control their own cognition to concentrate on the on-going tasks and regain self-efficacy over achievement activity

Gross's emotion regulation theory and Bandura's self-efficacy theory are independent theories to explain the variables in this research. Researcher uses Control-Value Theory of Achievement

Emotion and Epistemic Emotion Model to identify the interdependent relationships between variables. In Control-Value Theory of Achievement Emotion, emotion is influenced by perceived control and value over achievement activity. Achievement emotions are stimulated while pre-service teachers aware and regulate their control and value over the achievement activity. Self-efficacy increases when pre-service teachers' perceived control and value is high over the achievement activity (Pekrun & Stephens, 2010).

In Epistemic Emotion Model, cognitive incongruent occurs when existing knowledge does not match with new information. Epistemic emotions are stimulated when expectation does not match with reality. Cognitive reappraisal process to help pre-service teachers re-evaluate the epistemic emotional experience cognitively. Evaluation on epistemic emotion debug the cognitive incongruent. Pre-service teachers achieve cognitive congruent when the new cognitive scheme match with the new information and reality. Ability to achieve cognitive congruent increase pre-service teachers' self-efficacy because they belief that they can aware and regulate their emotion through metacognitive process (Vogl E., Pekrun R. & Loderer K., 2021). Male and female have different cognition and it influences emotion strategies for different gender. Different emotion regulation leads to different implication of emotional theory. Current research is using gender as a moderator to examine the implication of Pekrun's Theory of Control Value of Achievement Emotion and Volg's Epistemic Emotion Model towards the relationship of emotion regulation and self-efficacy among pre-service teachers for both genders. This research investigate is there any significant moderation effect of gender towards the relationship between emotion regulation and self-efficacy among pre-service teachers.

Methodology

Quantitative research was used to identify the moderation effects of gender on the relationship between emotion regulation and self-efficacy. Variables of this research were measured by scaled instruments. A quantitative research is focus on the actual data collected therefore

research can be duplicate to similar population. A correlation research is limited to correlation coefficient, odds ratio, and regression coefficient between two variables only. Researcher increases the possible relations among variables by including gender as the third variable to this correlation. Moderation analysis examines the interaction of moderator with the relationship of dependent and independent variable. It is not interacting with the variable directly. Therefore, moderating effect can not be considered as the interacting effect. Moderation analysis increases generalizability of this research. Researcher uses moderation analysis to investigate whether emotion regulation has similar effects on self-efficacy for both genders. This analysis is important because it demonstrates the influence of gender in obtained for all pre-service teachers. The consistency influence of gender increases the generalizability of the research. Besides, moderation analysis provides specificity of gender moderation effects towards pre-service teachers' emotion regulation and self-efficacy. It identifies the group for its greatest or lowest effects. This information provides a useful reference for teacher education while planning teacher's training (David P, 2011).

Besides moderation effect of gender, researcher also investigate the gender differences in emotion regulation and self-efficacy. Gender differences in emotion regulation and self-efficacy were compared using Mann Whitney U-test. This statistical test is commonly used to measure the difference between two different sample groups. It analyzes the difference between gender for emotion regulation and self-efficacy. Researcher uses Mann Whitney U-Test instead of Independent T-test because the distribution for male and female pre-service teachers is imbalance. There are 55 male respondents but 183 female respondents in this research. Researcher used U-test instead of T-test because U-test compares the gender different using ranking instead of mean value. Imbalance cases in female and male respondents' distribution in this research have impact on the mean value. Besides, Kolmogorov-Smirnova test indicates that data distribution for the emotion regulation and self-efficacy in this study are abnormal ($p < .05$). Therefore, Mann Whitney U-test as a non-parametrical statistical analysis is suitable to

compare the emotion regulation and self-efficacy between genders.

238 pre-service teachers from an Institute of Teacher Education participated in current research via convenient sampling method. 55 respondents were male pre-service teachers, and 183 respondents were female pre-service teachers.

Emotion Regulation Questionnaire (ERQ) was used to measure respondents' emotion regulation strategies in two facets: Cognitive Reappraisal Facet and Expressive Suppression Facet. There are 10 items with 7-point Likert-scale in ERQ. The internal consistency coefficient of ERQ was $\alpha=.73$ and stability coefficient of ERQ was $\alpha=.69$ (Gross, 2003).

General Self-Efficacy Scale (GSE) was used to assess respondents' general sense of self-efficacy and predict the capability to cope with difficulties in life. It measures self-efficacy by 10 items with Likert-4 scale. The internal consistency coefficient of GSE was $\alpha=.76$ to $.90$ and stability coefficient of GSE was $\alpha=.80$ (Schwarzer and Jerusalem, 1995).

Table 1: Pilot Test Result

	Internal consistency (α)	Corrected item correlation (α)
ERQ	0.626	0.431 to 0.601
GSE	0.812	0.751 to 0.808

Table 1 indicates the pilot test result of ERQ and GSE from 30 pre-service teachers. Internal consistency for ERQ is $\alpha=0.626$, corrected item correlation (α) for ERQ ranged between 0.431 to 0.601. Remove any item from ERQ leads to lower internal consistency. Therefore, researcher do not remove any item from the questionnaire. Internal consistency for GSE is $\alpha=0.812$, corrected item correlation (α) for GSE ranged between 0.751 to 0.808. Remove any item from GSE leads to lower internal consistency. Therefore, researcher do not remove any item from the scale.

Data Collection and Screening

Online survey is used to collect data from pre-service teachers from Institute of Teacher Education. Data collected is used to make inferences about gender differences towards

relationship between self-efficacy and emotional regulation. It provides recent descriptive and inferential information on emotion regulation and self-efficacy for both genders. Researcher used Google Survey Form to collect data for this research. Survey link was distributed through email and messaging apps to targeted population. Self-report survey was used to collect data on respondent's emotion regulation and self-efficacy. There are two instruments included in one online survey form. Each respondent needs to complete all instruments.

238 cases were responded to survey. However, two outlier cases were removed from the data set after Mahalanobis Distant analysis. Researcher excluded the outlier cases from the study to avoid surge the potential of a Type I or Type II error. The remaining cases to be used to measure hypothesis was 236 cases.

Assessment of Measurement Model

Assessment of Measurement Model was conducted before moderation analysis to ensure model is fit for structural equation modelling. After the process of clearing poor indicators, all constructs have achieved the satisfactory level of AVE result of >0.50 (AVE ERQ =0.506, AVE GSE =0.517). Besides, the satisfactory level of CR result of >0.8 is also met (CR ERQ= 0.856, CR GSE =0.865). All indicators for formative construct met the VIF values and they are smaller than minimum value of 5 according to Hair (2017) and 3.3 according to Diamantopoulos (2006). Researcher concludes that collinearity does not reach the critical level and the estimation of PLS path model is achieved. All formative indicators are significant in the path model. The SRMR value is 0.043. According to Henseler (2018), the acceptable fit for SRMR is ≤ 0.08 . Therefore, this shows that the model is fit for SRMR. The NFI value is 0.902. According to Bryne (2016), the acceptable fit for NFI is ≥ 0.90 . Therefore, this shows that the model is fit for NFI. The Rms Theta value is 0.133. According to Ronkko and Evermann (2013), Rms Theta ranged between 0.10 to 0.17 is acceptable for model fit in Rms Theta. Therefore, researcher concludes that study model is fit for Goodness of Fit (GoF).

Result and Discussion

Moderation effect of Gender towards Emotion Regulation and Self-efficacy

Researcher conducted moderation analysis with SmartPLS. Product indicator approach was used to evaluate the interrelation effects of constructs. This approach is the common approach which establish the interrelation term in regression analysis. It multiplies exogenous construct indicator with moderator's indicator. Thus, product indicator is the indicators of interaction term. The notion of product indicator is the product term ($X*M$) which is employed to measure the influence of moderator (M) towards the association between predictor (X) and dependent variable (Y) (Ramayah T. et al., 2018).

Table 2: Path Coefficient of ERQ, GSE, Gender and interaction of Gender and ERQ towards GSE

	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
ERQ -> GSE_	0.477	0.498	0.132	3.605	0
GENDER*ERQ					
_ -> GSE_	-0.044	-0.022	0.05	0.877	0.381
Gender -> ERQ	-0.016	-0.013	0.103	0.152	0.879
Gender -> GSE_	0.159	0.104	0.156	1.021	0.308

Table 2 is the path coefficient of ERQ, GSE, gender and the interaction of gender and ERQ towards GSE. Based on the results, there is a significant correlation coefficient between ERQ to GSE ($p < .05$, $SD =0.132$). However, there is no significant correlation coefficient between gender to GSE ($p =0.308$, $SD =0.156$). Lastly, there is no significant correlation coefficient between the interaction of Gender and ERQ to GSE ($p = 0.381$, $SD =0.05$).

Table 3: Results of the moderation analysis for Gender

Relationship	Std. Beta	Std. Error	t-value
GENDER*ERQ_ -> GSE	-0.044	0.05	0.877

Table 3 is the results of moderation analysis for gender towards ERQ and GSE. There is no significant correlation coefficient between the interaction of gender and ERQ towards GSE ($\beta = -0.044$, $SE =0.05$, $t =0.877$).

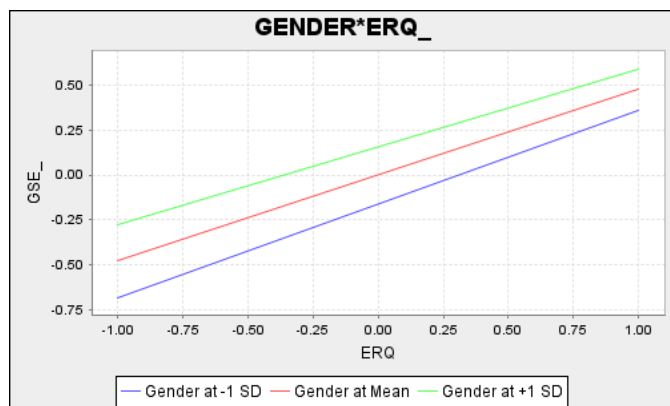


Figure 2: Graphing plot result for the moderation effects of Gender towards the association between Emotion Regulation and General Self-Efficacy

There is no significant coefficient between the interaction of Gender and ERQ towards GSE ($p > 0.05$). Therefore, researcher accepts null hypothesis and concludes that there is no significant moderation effect of gender towards the relationship between emotion regulation and general self-efficacy among pre-service teachers.

Gender does not have any moderation effect on the relationships between emotion regulation and general self-efficacy among pre-service teachers. It indicates that the correlation of emotion regulation and self-efficacy are consistent for both genders. Therefore, researcher suggests that development in emotion regulation leads the same outcome in self-efficacy for both genders. Hence, teacher education should provide equal learning opportunities to develop emotion regulation for all pre-service teachers regardless their gender.

Current finding shows no moderation effect of gender towards the relationship between emotion regulation and self-efficacy is supported by a research on Spanish population. Caprara (2020) investigated the influence of self-efficacy on emotion regulation in different genders. In accordance with current study, research from Caprara indicated that there was no gender effect emerged for Multidimensional Negative Emotions Self-Regulatory Efficacy Scale (MNESRES). Confirmatory Factor Analysis indicated that the influences of self-efficacy on emotion regulation were consistent for female and male. There were no significant effects on the chi-squared between configural invariance model and metric invariance model. There were no significant changes in chi-squared value between metric invariance and scalar invariance. Therefore, Caprara concluded that metric invariance and scalar invariance were consistent for both genders. Caprara explained

that general self-efficacy was related to basic self-conscious instead of gender. At the same time, emotions experience was associated differently with negative affect and life satisfaction instead of gender. Researcher explains that pre-service teacher's negative emotion regulation was affected by emotions experience. It depends on what type of emotion information their cognition provides them in the metacognitive process. Therefore, pre-service teachers' self-efficacy in term on emotion regulation is based on metacognitive abilities instead of gender.

Based on Pekrun' Theory of Control Value of Achievement Emotion, pre-service teachers' self-efficacy is influenced by achievement emotion. There is no gender influence in Theory of Control Value. Achievement emotion is developed from pre-service teachers perceived control and value towards achievement emotion. In conclusion, researcher suggests teacher education to focus on pre-service teachers' metacognitive development to improve emotion regulation and self-efficacy. The higher ability in metacognition the greater impact of emotion regulation towards general self-efficacy. Gender equality should be emphasized in teacher education. Gender stereotypes need to be avoided while accessing pre-service teachers' emotion regulation and self-efficacy. Teacher education should emphasize on gender egalitarian in teacher preparation. Pre-service teachers should not be segregated by gender in teacher preparation. Male and female pre-service teachers should receive the same learning experience in teacher education.

Difference of Gender on Emotion Regulation

Table 4: ERQ Descriptive Statistics according to gender

	N	Minimum	Maximum	Mean	Standard Deviation
Male	51	3.4	6.3	5.2216	0.65919
Female	185	2.9	7	5.067	0.75061

Table 5: Test Statisticsa for ERQ

	Ave_ERQ
Mann-Whitney U	3924
Wilcoxon W	21129
Z	-1.84
Asymp. Sig. (2-tailed)	0.066

a Grouping Variable: Gender

Table 5 shows the difference of gender in Emotion Regulation Questionnaire (ERQ). Result shows that significant value ($p=0.066, >0.05$), therefore researcher accept null hypothesis there is no significant difference for emotion regulation between male pre-service teachers and female pre-service teachers. Even though result indicates that male pre-service teachers have higher mean for ERQ compared to female pre-service teachers ($5.2216 > 5.067$) but there is no different for distribution from both genders.

Table 6: CRF Descriptive Statistics according to gender

	N	Minimum	Maximum	Mean	Standard Deviation
Male	51	3.17	7	5.5098	0.74342
Female	185	2.83	7	5.3946	0.94577

Table 7: Test Statisticsa for CRF

	Ave_CRF
Mann-Whitney U	4358.5
Wilcoxon W	21563.5
Z	-0.835
Asymp. Sig. (2-tailed)	0.404

a Grouping Variable: Gender

Table 7 shows the difference of gender in Cognitive Reappraisal Facet (CRF). Result shows that significant value ($p=0.404, >0.05$), therefore researcher accept null hypothesis there is no significant difference for cognitive reappraisal between male pre-service teachers and female pre-service teachers. Even though result indicates that male pre-service teachers have higher mean for CRF compared to female pre-service teachers ($5.5098 > 5.3946$) but there is no different for distribution from both genders.

Table 8: ESF Descriptive Statistics according to gender

	N	Minimum	Maximum	Mean	Standard Deviation
Male	51	1.75	6.5	4.7892	0.91839
Female	185	1.25	7	4.5757	1.05794

Table 9: Test Statisticsa for ESF

	Ave_ESF
Mann-Whitney U	3996.5
Wilcoxon W	21201.5
Z	-1.676
Asymp. Sig. (2-tailed)	0.094

a Grouping Variable: Gender

Table 9 shows the difference of gender in Expressive Suppression Facet (ESF). Result shows that significant value ($p=0.094, >0.05$), therefore researcher accept null hypothesis there is no significant difference for expressive suppression between male pre-service teachers and female pre-service teachers. Even though result indicates that male pre-service teachers have higher mean for ESF compared to female pre-service teachers ($4.7892 > 4.5757$) but there is no different for distribution from both genders.

Based on the result, researcher concludes that there is no significant difference between male and female pre-service teachers' emotion regulation. However, descriptive analysis shows that male pre-service teachers had higher emotion regulation abilities compared to female pre-service. Next, researcher concludes that there was no significant difference between male and female pre-service teachers' Cognitive Reappraisal Facet. However, descriptive analysis result shows that male pre-service teachers were more likely to involve in cognitive reappraisal compared to female while facing work-related stress. Lastly, researcher concludes that there was no significant difference between male and female pre-service teachers' Expressive Suppression Facet. However, descriptive analysis shows that male pre-service teachers were more suppressive compared to female while facing work-related. From the results above, researcher concludes that there were no differences on the distribution of emotion regulation, cognitive reappraisal, and expression suppressive for male and female pre-service teachers. However, the level of emotion regulation, cognitive reappraisal, and expression suppressive were different for both genders.

Findings of current study are supported with a study conducted on undergraduate students in Beijing (Zhang and Bian, 2020). Zhang and Bian employed model invariance test to examine the consistent measurement of cognitive reappraisal facet and expression suppressive facet between male and females undergraduate. The study indicates that gender had impact on ERQ's facets. Both studies employed the same instrument of measurement (Emotion Regulation Questionnaire) to assess respondents' emotion regulation facet. Similarity of measurement instrument enabled researcher to make more relevant comparison between these two studies. Male undergraduates from Beijing had higher mean score in emotion

regulation compared to pre-service teachers from current research ($6.118 > 5.2216$). Female undergraduates from Beijing had higher mean score in emotion regulation compared to pre-service teachers from current research ($5.732 > 5.067$). The gap between male undergraduates and male pre-service teachers was higher compared to the gap between female undergraduates and female pre-service teachers ($0.8964 > 0.665$). These findings indicate that pre-service teachers' emotion regulation was generally lower compared to undergraduates. Even though, female pre-service teachers showed lower emotion regulation in current research, however male pre-service teachers had bigger gap in emotion regulation. Researcher emphasizes that development of emotion regulation for both genders is crucial in teacher preparation. Emotion regulation among pre-service teachers should not be neglected even though they had higher emotion regulation compared to female pre-service teachers. As the minority in teacher population, they are facing different type of stress and challenges. Hence, development of emotion regulation helps them to select most effective ways to cope with the stress in future teaching career.

Current findings indicate that there was no significant difference between male pre-service teachers and female pre-service teachers in cognitive reappraisal facet. This finding is supported by Zhang and Bian (2020) research. According to Zhang and Bian's result there was no significant difference between male undergraduates and female undergraduates in cognitive reappraisal facet ($t = 1.223$, $p = 0.171$). This indicates that there were no differences for the distributions of female pre-service teachers and male pre-service teachers. However, Zhang and Bian (2020) results were different in the level of cognitive reappraisal facet compared to current research. In current research, male pre-service teachers had higher cognitive reappraisal facet compared to female pre-service teachers. In Zhang and Bian's, male undergraduates had lower cognitive reappraisal facet compared to female undergraduates. This indicates that male pre-service teachers were more likely to employ cognitive reappraisal facet as emotion regulation strategy compared to female undergraduates.

Zhang and Bian's result indicates that male undergraduates had higher expression suppressive

facet compared to female undergraduates. This result supported current research finding which indicates that male pre-service teachers had higher expression suppressive facet compared to female pre-service teachers. Same as result from current findings, male undergraduate students were more likely to suppress their negative emotion compared to female undergraduate students. According to Karandashev (2021), the consequence of cognitive reappraisal and expressive suppression vary for cultural differences. There is a positive consequence of cognitive reappraisal in western culture. Individual receives better social support. At the same time, cognitive reappraisal reduces the impact of psychopathology symptoms. However, expressive suppression has more negative consequence in western culture such as depression and anxiety. However, the situation is opposite in Asian cultural. According to Wang (2020), cognitive reappraisal can be ineffective for the groups experiencing oppression. Expressive suppression has less harmful consequences compared to cognitive reappraisal for the oppressed groups.

Researcher compared current research to another research conducted on gender emotional regulation and its correlation to post-traumatic stress disorder (PTSD). According to Melka S.E (2019), there was a significant difference on the expressive suppression facet between male and female. However, different from current study, his study shows that male participants were less emotionally expressive compared to female participants. Whereas current study shows that male pre-service teachers were more emotionally suppressive compared to female pre-service teachers. Researcher explains that this difference was caused by different cultural expectations. Men in eastern culture are expected to be strong and reliable while facing challenges in life (Wang 2020). Therefore, male pre-service teachers are more likely to suppress their negative emotion. Teacher education should alert the stress level on male pre-service teachers.

Based on Chen (2016), cognitive reappraisal facet and expression suppressive facet reduce the behaviour emotion include expression of emotion. Cognitive reappraisal facet allows pre-service teachers to re-evaluate the emotion experience cognitively. This emotion regulation strategies able to reduce the physiological and psychological

effects of negative emotion. According to epistemic emotion model, cognitive reappraisal allows pre-service teachers to achieve cognitive congruity. Cognitive congruity reduces pre-service teachers' rumination on negative emotion. Hence, cognitive reappraisal reduces the expression of emotion in a healthy pathway. In the other hand, expression suppressive facet only reduces the behavioural emotion by suppressing it. This emotion regulation strategy does not reduce the physiological and psychological effect of negative emotion but exaggerates it. It is only beneficial for social well-being in short term because suppression accumulated unsolved negative emotion in interpersonal relationship. Inauthentic relationship occurs in long term. Therefore, researcher encourages male pre-service teachers and female pre-service teachers to use cognitive reappraisal facet as emotion regulation strategy because it reduces the physiological, psychological, and behavioural emotion in healthy way.

Difference of Gender on Emotion Regulation

Table 10: GSE Descriptive Statistics according to gender

	N	Minimum	Maximum	Mean	Standard Deviation
Male	51	1.5	3.8	2.9039	0.32982
Female	185	1.9	4	2.9378	0.34716

Table 11: Test Statisticsa for GSE

	Ave_GSE
Mann-Whitney U	4567
Wilcoxon W	5893
Z	-0.351
Asymp. Sig. (2-tailed)	0.726

a Grouping Variable: Gender

Table 11 shows the difference of gender in General Self-efficacy (GSE). Result shows that significant value ($p=0.726$, >0.05), therefore researcher accept null hypothesis there is no significant difference for general self-efficacy between male pre-service teachers and female pre-service teachers. Even though result indicates that female pre-service teachers have higher mean for GSE compared to male pre-service teachers ($2.9378 > 2.9039$) but there is no different for distribution from both genders.

Based on the result, researcher concludes that there was no difference between male and female

pre-service teachers' general self-efficacy. However, descriptive analysis result shows that female pre-service teachers had slightly higher self-efficacy compared to male pre-service teachers. This result is supported by a research conducted on science pre-service teachers from University of Makerere. 200 science pre-service teachers were participated in the research. Result indicates that there was no difference in male and female pre-service teachers' self-efficacy (Asimwe, 2021). Researcher proposes that even though the level of self-efficacy for both genders was different but the distribution of self-efficacy for both genders was no different. Therefore, researcher suggests that teacher education should emphasize on male pre-service teachers' self-efficacy compared to female pre-service teachers. However, the strategies to develop self-efficacy for female and male pre-service teachers should be the same.

Researcher explains that male teachers had lower self-efficacy because of the impact of gender proximity. 70% of pre-service teachers were female and 30% of pre-service teachers were male (NUTP, 2020). As the minority group in the population, male pre-service teachers have lower vicarious experience. Male pre-service teachers have less role model to look up in this industry. They fail to relate their own experience and efficacy to female role model because they do not have the same experiences and gender characteristics (Harding T., Lopez V. & Klainin-Yobas P., 2019).

Researcher suggests that teacher education to invite more male in-service teachers to share their teaching experience. Such exposure enabled male pre-service teachers to interact with them directly. Similar background narrows the gap between them and increased proximity (Clark S. & Newberry M., 2019). Sense of proximity provides male pre-service teachers to gain more vicarious experience and increases their self-efficacy.

According to Christodoulou J & Andrew Lac (2021), society has complex expectations, beliefs, and attitudes on gender roles. It is effective to shape behaviour and understanding of self. Pre-service teachers learn about gender role from society. However, the understanding of gender role change from one society to another society. The characteristic of the society environment which pre-service teachers lived shape their behaviour and understanding of self. According

to Sun-Jung Moon (2021), there are two types of gender roles. Traditional gender roles are ascription of genders according to society expectation and values. In Malaysia, teachers are viewed as a feminine occupation. In current research, majority of pre-service teachers are female. Stereotype on gender occupation increase the stress of male pre-service teachers. Therefore, researcher suggests teacher education to emphasize on the egalitarian gender role. Egalitarian gender role emphasizes on the equality of male and female in all areas of life. Egalitarian gender role in teacher preparation includes non-discriminatory expectations and judgement on pre-service teachers from different gender. Pre-service teachers learn their gender roles from teacher education. They transfer the gender roles that they have learned in teaching career to meet the expectation of society (Deole, et al, 2021).

Conclusion

Current study shows that gender does not have any influence on emotion regulation and self-efficacy among pre-service teachers. Gender also does not moderate the relationship between emotion regulation and self-efficacy among pre-service teachers. Even though descriptive analysis indicates that the level of metacognition, emotion regulation and self-efficacy are different for both genders, but teacher education should provide the equal learning experience for both gender in teacher preparation. Theory of Control Value of Achievement Activity and Epistemic Emotion Model are implacable in both genders. However, the emotion intensity from achievement emotion and epistemic emotion are influence by gender differences. Same strategies to develop pre-service teachers' emotion regulation and self-efficacy should be used for both genders. However, emphasis of strategies to develop different component in emotion regulation and self-efficacy should be modified according to gender needs.

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