EXAMINING THE ROLE OF IMPLICIT BELIEFS AND TEACHING ACHIEVEMENT GOALS IN THE DEVELOPMENT OF TEACHING EMOTIONS IN FILIPINO IN- SERVICE TEACHERS

GISELLE O. DANGDANG, DR. IMELU G. MODERNO
CIEDELLE NADELA-GRAGEDA, ED.D
Department of Professional Education, College of Education
Mindanao State University of Iligan Institute of Technology, Philippines

Abstract: *Despite strong support for the study of how implicit beliefs of emotion and achievement goals affect emotion, none have studied these in the context of teaching. This study aims to examine how implicit beliefs of emotions affect teaching emotions through achievement goal orientation. This study, wherein a total of 428 teachers from public elementary and high schools in Iligan City, Lanao Del Norte were chosen through cluster random sampling, gathered data through the use of questionnaires: implicit beliefs questionnaire (IBEQ), teaching emotions questionnaire (TEQ) and achievement goal questionnaire (AGQ) which were all validated and psychometrically cross-examined. All statistical procedures were performed using the Statistical Package for the Social Sciences (SPSS) Version 20. These implicit beliefs appeared to have a positive significance towards teaching achievement goals (IB to PAp= 1.02%, IB to PAv= 1.03%, IB to MAp= 3.32%, IB to MAv= 1.90%, IB to PAp= 0.92%) and is also a significant predictor of teaching emotions (IB to Ang=2.32%, IB to= Anx=3.30%, IB to En = 1.37%). It was also found that achievement goals were shown to be predictors of teaching emotions (MAp to En=32.03%, MAptoAng=14.53%, MAv to Ang=6.85%, MAptoAnx=10.96%, MAvtoAnx=4.04%, PAp to Anx=6.35%). Finally, teaching achievement goals were found out to be significant mediators of implicit beliefs of emotions and teaching emotions.*

Keywords: *implicit beliefs, entity and incremental belief, teaching emotions, achievement goal*

1.   INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Emotions abound teaching profession (Zembylas&Schutz, 2016).Teachers' emotions have been found to affect teachers' ways of thinking, motivation, interests and quality of teaching (Sutton & Wheatley, 2003; Hagenauer, Hascher, &Volet,2015).The recognition on the importance of teachers' emotions stimulated the increase of studies examining antecedents of teachers' affective experiences. Students' behavior (Becker,Keller,Goetz,Frenzel,&Taxer,2015), personal characteristics (Fried, Mansfield, & Dobozy, 2015), and educational changes (Shuck, Reio, & Rocco, 2011) are identified to significantly affect teachers' emotions. Although there are studies showing how implicit beliefs of emotion (Tamir, John, Srivastava, & Gross, 007); (Gyurak, Gross, &Etkin, 2011); (DeCastellaetal, 2013) and achievement goals (Shim, Cho, & Cassady, 2013) affect emotion, to the authors' knowledge, none have studied these in the context of teaching. Also, this study is the first to examine the influence of implicit beliefs of emotions on achievement goals. This study addresses the gap by examining how teaching implicit beliefs of emotions affect teaching emotions through achievement goal orientation. This study contends that teachers' beliefs of their emotions affect their emotional experiences, and in turn, influence their achievement goals orientation.

1.2 STATEMENT OF THE PROBLEM

This study aims to identify the influences of implicit beliefs in teaching emotions and also determine the mediating role of teaching achievement goals in Filipino In-service teachers. Specifically, this study aims to answer this question:

Controlling for socio-demographic profile, are teaching achievement goals significant mediators between implicit beliefs and teaching emotion?

1.3 SIGNIFICANCE OF THE STUDY

This study aims to distinguish the effects of implicit beliefs of emotions on teaching emotions and determine the mediating role of teaching achievement goals in Filipino In-service teachers.

Consequently, the result of this serves as a guide for the teachers to enhance the effectiveness of their teaching.

This study is a significant endeavor to the future researchers whose interests is in relation to the implicit beliefs, emotions and achievement goals of teachers. This is but a form of awareness for teachers on how their implicit beliefs of emotions influence their emotions and how these are brought about by their achievement goal orientation. The findings of this study provides an interesting new line of research regarding the study of the influences of implicit beliefs in teaching emotions and the mediating role of teaching achievement goals.

1.4 SCOPE AND LIMITATION OF THE STUDY

This study finds out how the implicit beliefs of teachers affect their emotions and also, how teaching achievement goals mediate these two variables. This study focuses on Basic Education teachers in Iligan City- Philippines where the study would take place. The parameters to consider are from obtaining complete and essential data, analyzing, synthesizing, and interpreting them. This study is limited to13 public schools in Iligan City-Philippines. This covers the extent of the teachers' personal involvement, knowledge and beliefs in providing the necessary data. The teachers who are involved come from different sections to avoid prejudice of their insights. Moreover, each of the respondent is given a questionnaire to answer that is limited only with checklist and a Likert scale with an open-ended response item.

2.   REVIEW OF RELATED LITERATURE
2.1   IMPLICIT BELIEFS

Implicit beliefs are beliefs that can't be easily recognized. These beliefs refer to the attributes of human nature (Hughes, 2015) and could influence our behavioral, affective, and cognitive responses with our environment. Implicit beliefs are schematic knowledge structures that incorporate beliefs about the stability of an attribute and organize the way people acquire meaning to events (Ross, 1989; Knee, 1996). According to Dweck (1999), the beliefs about the controllability or malleability of particular attributes such as emotions are also referred to as "implicit beliefs".

2.2 ACHIEVEMENT GOALS

Achievement goals are defined as the goals or purposes that motivate an individual in a specific area (Wolters,2004). Achievement goals have been identified as "an integrated pattern of beliefs, attributions, and affect that produces the intentions of behavior (Gonidaetal.,2006).It is postulated that achievement goals are predictors of emotions (Robins&Pals,2002). Also, studies have shown that achievement goals have direct relation to implicit beliefs and achievement relevant outcomes (John et al.,2010)There are theories and approaches developed concerning the achievement goal of an individual. One of which is the study of (Johnetal. 2010)which has shown that the achievement goal approach is tremendously helpful in acquiring knowledge about affect, cognition, and behavior. In addition, the traditional achievement goal theory was proposed by Nicholls (1989).This theory suggests that a person's goal orientation and perceived competence have an impact on the affective outcomes. A key assumption of this approach is that the goal of action is the demonstration of competence (John et al.2010)

2.2   EMOTIONS

Emotions, in psychology, are states of vigilant readiness that guide human behavior during survival-salient situations (Nummen & Tuominen, 2017). Emotions do not come from out of nowhere. Rather, they are constantly generated, usually by stimuli in our interpersonal world (Grecucciet.al. , 2017). According to Fredicksonet al.,(2008), emotions are what arose to help fix problems that happen within relationships. Emotions are often thought of as irrational or "nonintellectual" feelings that are beyond our control. However, emotions are complex states of mind and body, consisting of physiological, behavioral, and cognitive reactions to situations that can be managed and directed. Cognitively, individuals interpret an event as one that may be sad, dangerous, joyous, etc. Physically, as a situation may yield tears or a dangerous situation might lead to an elevated heart rate. Behaviorally, we may seek comfort when we are sad or run and seek help when we face danger. It is critical to recognize the important link between emotions, thought, and action. Emotions also influence our ability to process information and to accurately understand what we encounter. Our emotional state has the potential to influence our thinking. First, when our emotions are heightened, we use up our intellectual resources (Becker et al., 2015). For

example, a person who is distressed might be thinking so much about as ad memory has little mental room is left to think about other things.

3.   METHODOLOGY

The target sample consists of teachers in elementary and high schools located in Iligan City, Lanao Del Norte-Philipppines. This study, wherein a total of 428 teachers from public elementary and high schools in Iligan City, Lanao Del Norte were chosen through cluster random sampling , gathered data through the use of questionnaires: implicit beliefs questionnaire (IBEQ), teaching emotions questionnaire (TEQ) and achievement goal questionnaire (AGQ) which were all validated and psychometrically cross-examined. All statistical procedures were performed using the Statistical Package for the Social Sciences (SPSS) Version 20. Descriptive statistics was used in presenting participants' socio-demographic profiles. The PROCESS macro for SPSS (Hayes, 2013) was used to perform the analyses. Prior to the mediation analyses, the data was screened and estimation-maximization technique of imputation was utilized to replace values that appear to be missing at random. Multiple mediation analyses were conducted to find out if implicit beliefs (incremental and entity beliefs) are related to teaching emotions as mediators of teaching achievement goals (mastery and performance goals). Because indirect effects usually do not have normal sampling distributions(Hayes&Preacher,2008) the indirect effects of the mediators operating in serial was analyzed using the non parametric boot strapping procedure-based on 10,000 resample's (Hayes,2013).

4.   RESULTS AND DISCUSSION

Mediation Analyses of IV on DV

Independent Variable (IV)	Mediating Variable (M)	Dependent Variable (DV)	Direct Effect (c')	Total Indirect Effect	Total Effect (c)	Indirect Effects	SE	BC 95% CI	
								LL	UL
Entity Beliefs	MAp	Enjoyment	0.0134	-0.0182	-0.0048	-0.0068	0.0151	-0.0429	0.0173
	MAv					-0.0014	0.0062	-0.0161	0.0099
	PAp					0.0000	0.0083	-0.0160	0.0179
	PAv					-0.0100	0.0093	-0.0353	0.0027
	MAp	Anger	0.1522**	0.0299	0.1821**	0.0046	0.0101	-0.0127	0.0292
	MAv					0.0208	0.0125	-0.0030	0.0539
	PAp					**0.0209**	0.0138	0.0013	0.0574
	PAv					-0.0164	0.0135	-0.0530	0.0025
	MAp	Anxiety	0.1816**	0.0272	0.2089*	0.0040	0.0091	-0.0104	0.0287
	MAv					0.0160	0.0105	-0.0013	0.0446
	PAp					**0.0255**	0.0150	0.0034	0.0642
	PAv					**-0.0182**	0.0130	-0.0529	-0.0002
Incremental Beliefs	MAp	Enjoyment	0.1169**	0.0803	0.1973**	**0.0882**	0.0344	0.0340	0.1715
	MAv					-0.0039	0.0111	-0.0326	0.0141
	PAp					0.0023	0.0083	-0.0115	0.0233
	PAv					-0.0062	0.0091	-0.0374	0.0032
	MAp	Anger	-0.1011	-0.0203	-0.1214*	**-0.0748**	0.0295	-0.1436	-0.0268
	MAv					**0.0397**	0.0233	0.0056	0.0994
	PAp					**0.0255**	0.0172	0.0017	0.0708
	PAv					-0.0107	0.0136	-0.0536	0.0049
	MAp	Anxiety	-0.0834	-0.0196	-0.103	**-0.0710**	0.0319	-0.1446	-0.0176
	MAv					**0.0315**	0.0198	0.0036	0.0841
	PAp					**0.0315**	0.0197	0.0023	0.0815
	PAv					-0.0117	0.0140	-0.0542	0.0046

Note: Data was bootstrapped to 10,000 resamples; All coefficients are unstandardized; MAp- Mastery Approach Goal, MAv- Mastery Avoidance Goal, PAp- Performance Approach Goal, PAv- Performance Avoidance Goal;*p< .05, **p< .01; LL=lower limit; UL=upper limit; Significant indirect effects are indicated in boldface. N=428.

The main goal of the study was to explore a comprehensive model for understanding the mechanism that might explain the link between the independent variable (implicit beliefs) and dependent variable (teaching emotions) among elementary and high school teachers. Analysis of the results by means of mediation model yielded outcomes with the proposed hypothesis linking teaching emotions of teachers through mediation of teaching achievement goals (mastery-approach goal, mastery-avoidance goal, performance-approach goal and performance-avoidance goal). It has been found that implicit beliefs, such as the entity and incremental beliefs, influence teaching emotions, wherein entity belief increases negative emotions (anger and anxiety) and incremental belief increases positive emotion (enjoyment), (Tamir et al. 2007). Moreover, teachers with entity

belief of emotion are more likely to hold the performance goals such as performance-approach goal and performance-avoidance goal while teachers with incremental belief of emotion tend to hold mastery goals such as mastery-approach goal and mastery-avoidance goal.

Consequently, with the mediation of teaching achievement goals in the link between implicit beliefs (entity and incremental) and teaching emotions (enjoyment, anger and anxiety), it has been found that entity belief (the belief that emotions are fixed) increases teaching achievement goal (Performance-approach goal) and in turn increases teaching emotions (anger and anxiety). In connection with this, entity belief has also been found to increase the teaching achievement goal (performance-avoidance goal) but decreases the teaching emotion, anxiety. In addition, the data also revealed that incremental belief (the belief of the malleability of emotions) increases teaching achievement goal (mastery-approach goal) and in turn, increases teaching emotion (enjoyment).

Also, it is revealed that incremental belief increases the teaching achievement goals (mastery-avoidance goal and performance-approach goal) and in turn increases the teaching emotions, anger and anxiety.

The association of implicit beliefs of emotion and teaching achievement goals can be well explained with the notion that implicit beliefs of emotion can be indirectly associated to achievement goals via emotional regulation (Tamir et al. 2007; Burnette et al. 2013). It can be inferred, through their studies, that teachers with incremental beliefs of emotion can regulate their emotions well, thus giving them access to use mastery-oriented strategies when faced with challenging situations. These teachers, as a result, are willing to perform challenging tasks for they know that if they fail, they can regulate their emotions in response to failure, hence they can prevent outburst of negative emotions. In addition, it implies that teachers with incremental belief of emotion are likely to hold mastery-approach and mastery-avoidance goals for they are willing to perform and master challenging tasks. When faced with failure, mastery-approach and mastery-avoidance oriented teachers would accept their failure as part of the learning process (Garcia et al. 2014). Also, it can be inferred that teachers with incremental belief of emotion also have the tendency to hold performance-approach goal orientation, because individuals with this goal orientation may also have the likelihood to perform challenging tasks to display competence towards others.

In connection with this, teachers with entity belief of emotions have lower ability in regulating their emotions, which leads them to using helpless strategies when encountered with challenging tasks (Tamir et al. 2007; Burnette et al. 2013; De Castella et al. 2013). This implies that teachers with entity belief of emotion prefer easy tasks rather than challenging ones, for they are aware that if they fail, they can't regulate their emotions well in response to failure. In this respect, it can be inferred that teachers with entity belief of emotion also have the likelihood to be performance-approach and performance-avoidance goal oriented for they prefer easy tasks most of the time rather than challenging ones to demonstrate competence and avoid displaying incompetence among others. When faced with failure, unlike mastery-oriented individuals, teachers with performance goal orientation would not accept failure as part of their tasks. (Garcia et al. 2014).

Moreover, the direct paths of entity belief to performance-approach to anger and anxiety; entity belief to performance-avoidance to less anxiety; incremental belief to mastery-approach to enjoyment; incremental belief to mastery-avoidance to anger and anxiety; and incremental belief to performance-approach to anger and anxiety can be well understood with the following notions. First, Stenling et al. (2014) indicated that performance-approach goal is positively associated with adaptive and maladaptive outcomes such as performance oriented climate, striving for perfection and negative reactions to imperfection, ill-being, fear of failure, extrinsic motivation and challenge and threat appraisals.

With this, it can be inferred that performance-approach goal oriented teachers tend to experience negative emotions including anger and anxiety as a result of their quest on displaying competence towards others. Therefore, it explains well the direct path from entity belief, performance-approach up to anger and anxiety since it has been explained earlier that teachers with entity belief of their emotion tend to hold performance-approach goal and as a result experience anger and anxiety in their teaching career. Second, it can be inferred that teachers holding performance-avoidance goal, who avoid challenging tasks in order to hide incompetence may reduce their anxiety in teaching because of their avoidance in doing a difficult task. It has been discussed that entity belief can be associated with performance-avoidance goal. With that in mind, this satisfies the direct path from entity belief, performance-avoidance goal up to lesser anxiety. Third, Wang et al. (2010) suggest that people with mastery-approach goal attain optimal motivation for learning which then results to a feeling of enjoyment. It has further been added by Sheldon et al. (2003)

that individuals with mastery-approach goal tend to enjoy developing and learning skills which then promotes absorption and enjoyment of challenging tasks. So to speak, it implies that mastery-approach goal serves as an antecedent of enjoyment. This justifies the result that teachers with incremental belief of emotion hold mastery-approach goal and somehow experience enjoyment in teaching.

Fourth, mastery-avoidance goal has been associated with negative emotions such as anger and anxiety. Wang et al. (2010) & Sanchez and Furlan, (2017) indicated that individuals with mastery-avoidance goal predict and produce less adaptive motivational patterns and are somehow focused on negative task engagement which then results to negative emotional experiences such as feeling angry and anxious. With these indications, it can be implied that mastery-avoidance goal is perhaps associated with negative emotions such as anger and anxiety. As explained, teachers with incremental belief may hold mastery-avoidance goal, and with this goal orientation, they tend to experience negative emotions such as anger and anxiety. Lastly, as indicated by Stenling et al. (2014), performance-approach goal is positively associated with adaptive and maladaptive outcomes which then results to negative emotional experiences including anger and anxiety. This implies that teachers with performance-approach goal orientation tend to experience negative emotions such as anger and anxiety. Moreover, it has been explained that incremental belief of emotion may also be associated with performance-approach goal orientation. Thus, these explanations justify the direct path from incremental belief, performance-approach goal, up to negative emotions such as anger and anxiety. However, one of the teaching achievement goals has been found to have inverse relationship with the teaching emotions such as anger and anxiety.

The teaching achievement goal that mediates inversely with negative teaching emotions such as anger and anxiety is the mastery-approach goal. Thus, we can infer that teachers with high mastery-approach goal orientation, in which they seek to learn and master a certain task, are more likely to experience less negative emotions such as anxiety and anger. Conversely, when teachers have low mastery-approach goal orientation, they have the tendency to experience more negative emotions such as anger and anxiety.

Consequently, the results support the proposed hypotheses. This research outlined a strong relationship between implicit beliefs, teaching achievement goals, and teaching emotions among teachers. Teaching achievement goals (mastery-approach goal, mastery-avoidance goal, performance-approach goal, performance-avoidance goal) as mediators of implicit beliefs and teaching emotions have a positive significant relationship. It has been proven that entity belief and teaching emotions (anger and anxiety) are high through the variable, performance-approach goal. This implies that the higher the teachers hold an entity belief of his or her emotions, the more they hold performance-approach goal, and consequently increase their anger and anxiety in teaching. Also, the result revealed that entity belief is high and teaching emotion (anxiety) is low through the variable, performance-avoidance goal. This means that when teachers hold an entity belief of their emotion, they may be performance-avoidance goal oriented and thus experience less anxiety in their teaching career. In addition, it has also been proven that incremental belief and teaching emotion (enjoyment) is high through the variable, mastery-approach goal. This suggests that the more the teachers hold an incremental belief of their emotions, the more they hold mastery-approach goal, and then somehow increase their enjoyment in teaching. In connection with this, it was also found out that incremental belief and teaching emotions (anger and anxiety) are high through the variables, mastery-avoidance goal and performance-approach goal. This means that teachers who hold incremental belief of emotion may also be mastery-avoidance or performance-approach goal oriented and thus increasing their anger and anxiety in teaching. On the other hand, anxiety and anger are high when mastery-approach goal is low. It can then be inferred that when teachers have low mastery-approach goal orientation, they are more likely to experience anxiety and anger. However, if the teachers' mastery-approach goal orientation is high, they are less likely to experience anxiety and anger.

These findings contribute to implicit beliefs of emotion, teaching achievement goals and teaching emotions literature in the Philippine context. Previous studies, specifically in the western context, have explored the implicit beliefs of ability and intelligence as antecedents of achievement goals. None so have explored the link of implicit beliefs of emotion to achievement goals. Researchers postulate that the implicit beliefs of emotion of the teachers will influence their teaching achievement goals and somehow predict their teaching emotions.

5.   FINDINGS

Implicit belief (entity belief) and teaching emotions (anger and anxiety) are positively significant with teaching achievement goal (performance-approach goal).Also, the implicit belief (entity belief) is positively significant while teaching emotion (anxiety) is negatively significant to the teaching achievement goal (performance-avoidance goal). On the other hand, implicit belief (incremental belief) and teaching emotion (enjoyment) are also positively significant with teaching achievement goals (mastery-approach goal). In addition, incremental belief is positively significant to mastery-avoidance and performance-approach goals while teaching emotions such as anger and anxiety are also positively significant. However, the teaching achievement goal (mastery-approach goal) is inversely significant with the teaching emotions (anger and anxiety).

6. CONCLUSION

There are positive and significant relationships among implicit belief (entity belief) and teaching emotions (anger and anxiety) with teaching achievement goals (performance-approach and performance avoidance goals). This indicates that teachers who perceive emotions as fixed tend to exhibit performance-approach and performance-avoidance goals orientation, which results to an increase (PAp),and decrease **(PAv)** of negative emotions such as anger and anxiety in teaching. Conversely, implicit belief (incremental belief) and teaching emotion (enjoyment) are also positively significant with the teaching achievement goal (mastery-approach goal). It can be inferred that those teachers who believe in the malleability of their emotions exhibit greater mastery-approach goal orientation which in turn would lead them to experience enjoyment in their teaching. Moreover, it has also been revealed that implicit belief (incremental belief) and teaching emotions (anger and anxiety) are positively significant with the teaching achievement goals (mastery-avoidance and performance-approach goal). This implies that teachers who hold an incremental belief of their emotions may also be mastery-avoidance or performance-approach goal oriented, which then results to negative emotional experiences such as feeling angry and anxious. However, there is an inversely significant relationship between the teaching achievement goal (mastery-approach goal) with the teaching emotions (anxiety and anger). This means that the higher teachers exhibit a mastery-approach goal orientation, the lower chance they will experience negative emotions such as anger and anxiety

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