

Teaching Attitudes, Emotional Intelligence and Creativity of School Teachers in Singapore

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This study investigates the relationship between teaching attitudes, emotional intelligence and creativity in a group of school teachers in Singapore. It was predicted that liberal-democratic teachers were more creative and emotionally intelligent compared to conservative-autocratic teachers. A total of 204 trainee and primary school teachers were asked to complete a survey which contained the following scales: Teachers' Attitudes Towards Students (TATS) to measure the two teaching attitudes; Trait Meta-Mood Scale (TMMS) to measure emotional intelligence; and What Kind Of Person Are You (WKOPAY) to measure creativity. Liberal-democratic attitude was positively correlated with emotional intelligence: $r = .15, p < .05$; whereas conservative-autocratic attitude was negatively correlated with emotional intelligence: $r = -.14, p < .05$. In a similar vein, liberal-democratic attitude was positively correlated with creativity: $r = .16, p < .05$;

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whereas conservative-autocratic attitude was negatively correlated with creativity: $r = -.24, p < .001$.

Key words: teaching attitude; emotional intelligence; creativity

In a global village, a premium is placed on innovative and problem-solving skills. Those who can “think out of the box” are able to deal with the complex challenges in the modern world. Consequently, school teachers are encouraged to develop the creative potential of students, to prepare them for the workplace of the future (Ng, 2004). For example, The Ministry of Education in Singapore (1998) decrees that at the end of the basic 12 years of education, students should be resilient and resolute, have an entrepreneurial and creative spirit, and are able to think independently and creatively.

Although the nurturance of student creativity is an increasingly important goal of school teachers, an ironical finding is that school teachers do not like creative students. In one study, Westby and Dawson (1995) asked American school teachers to rate their favorite and least favorite students based on personality characteristics associated with creative children. They found that judgments for the favorite student were negatively correlated with creativity, whereas judgments for the least favorite students were positively correlated with creativity. In another study, Chan and Chan (1999) investigated the perception of Hong Kong teachers regarding the creative student. They found that aspects of creativity associated with nonconformity were prevalent among their implicit theories of creativity. In other words, school teachers in Hong Kong tend to associate creative students with nonconforming students. Given the accent on social responsibility within Chinese cultures, this finding was seen as a cause for concern.

Why do school teachers seem to hold negative or ambivalent attitudes towards creative students? Ng and Smith (2004) provided a culturally based account of this phenomenon, which they dubbed as the paradox of promoting creativity in the Asian classroom. They traced this paradox to the peculiar

conception of learning in the Confucian tradition. In this tradition, which stresses the moral cultivation of the learner, the teacher serves as a moral exemplar to students. In return, students show reverence for their teacher by behaving with meekness and obedience. Although there is a good fit between the teacher as moral exemplar and the student as docile learner in the Confucian tradition of learning, this fit is disrupted in the creative classroom. The reason is as follows: when students behave in a creative manner, two tendencies are set in motion simultaneously. Specifically, there is a decrease in student tendency to behave in a desirable but uncreative way (e.g., obedient, conforming, submissive), while there is an increase in student tendency to behave in a creative but undesirable way (e.g., skeptical, argumentative, individualistic).

In other words, the more creative a class of students becomes, the more difficult it is to control and manage them, especially for those teachers who are steeped in the Confucian tradition of learning. This is because they have been socialized to deal with learners who are docile and teachable, not creative and disruptive. In support of this argument, Ng and Smith (in press) found that cultural individualism-collectivism has a positive impact on liberal-democratic teaching attitude. On the other hand, it has a negative impact on conservative-autocratic teaching attitude. In turn, liberal-democratic teaching attitude has a positive impact on the tendency to promote creative but undesirable behaviors in class. On the other hand, conservative-autocratic teaching attitude has a positive impact on the tendency to promote desirable but uncreative behaviors in class.

The research by Ng and Smith indicates that teachers differ in their attitude towards creative students, and this difference can be traced to the cultural context of the teacher. However, they did not explain why liberal-democratic teachers are more tolerant and accommodative towards creative but disruptive students compared to conservative-autocratic teachers. Our present study attempts to shed light on this matter, by arguing that liberal-democratic teachers possess a higher degree of emotional intelligence and creativity, compared to conservative-autocratic teachers.

According to Ng (2002), conservative-autocratic teachers believe in the traditional authority of the teacher, and expect students to respect and obey them, rather than challenging what they say. Little emphasis is placed on developing the individual autonomy of students. Instead, misbehaving students are scolded or punished to inculcate a sense of discipline in them. As a result, conservative-autocratic teachers encourage desirable but uncreative behaviors in class. In contrast, liberal-democratic teachers believe that every student has an inner potential to be realized. They strive hard to assist their students to realize this creative potential, by encouraging them to set their own goals. They also use reason and moral persuasion to deal with misbehaving students, instead of scolding or punishing them. As a result, liberal-democratic teachers encourage creative but undesirable behaviors in class.

From the above characterization, we suspect that there is a meaningful association between teaching attitudes and emotional intelligence. Emotional intelligence can be viewed as a combination of the intrapersonal and interpersonal intelligences of an individual. In his theory of multiple intelligences, Gardner (1993) relates intrapersonal intelligence to one's ability to deal with oneself and to "symbolize complex and highly differentiated sets of feelings" (p. 239). Interpersonal intelligence relates to one's ability to deal with others and to "notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations and intentions" (p. 239). Emotional intelligence, as a combination of these two types of intelligences, consists of the accurate appraisal and expression of emotion in self and others, the adaptive regulation of emotion in self and others, as well as the utilization of emotion in self and others to plan, create and motivate action (Mayer & Salovey, 1997).

As a set of competencies that reflect the capability of the person to manage a variety of emotions in self and others, emotional intelligence should be conceptually distinct from personality traits that reflect tendencies to think, feel, and behave in certain ways. In support of this assertion, Law, Wong, and Song (2004) found that emotional intelligence had incremental

predictive power on life satisfaction after controlling for the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness to experience). Because emotional intelligence involves the ability to understand and regulate others' as well as one's own emotions, it should also be related to the individual's ability to form and sustain good relationships with significant others.

In support of this assertion, Schutte and colleagues (2001) found that emotionally intelligent individuals engaged in more empathic perspective taking and self-monitoring; possessed better social skills and were more cooperative towards their partners; desired and felt more inclusion and affection, but not more control, in relationships; and experienced a higher degree of marital satisfaction. In addition, prospective partners of emotionally intelligent individuals anticipated more satisfaction in relationships.

Research by Ng and Smith (2004, in press) has shown that liberal-democratic teachers are more tolerant of those creative but undesirable behaviors that characterize creative students who are not "nice" (Ng, 2001a). By contrast, conservative-autocratic teachers are less tolerant of such behavior. Why is this so? We suspect that it is because liberal-democratic teachers possess a high degree of emotional intelligence, i.e., they are competent at dealing with a variety of emotions in self and others. This enables them to cope with the emotional strain of managing highly creative but disruptive students. By contrast, conservative-autocratic teachers do not possess a high degree of emotional intelligence. This prevents them from coping with the emotional strain of dealing with highly creative but disruptive students. This explanation gives rise to the following hypotheses. First, liberal-democratic attitude is positively associated with emotional intelligence (H1A). Second, conservative-autocratic attitude is negatively associated with emotional intelligence (H1B).

In a similar vein, we argue that there is a meaningful association between creativity and teaching attitudes. Creativity is a multi-dimensional construct, and different researchers understand it in different ways (Sternberg & Lubart, 1995). For example, personality psychologists examine the par-

ticular combination of traits that makes an individual creative. According to Barron and Harrington (1981), the creative individual displays a genuine passion in what (s)he is doing, and is willing to expend a lot of time and energy to realize a certain goal. (S)he is open to experience, and is willing to take calculated risks in the learning process. The creative individual is attracted to deep and complex ideas, and has broad rather than narrow interests in life. In addition, (s)he is also a confident, independent and autonomous person.

Mumford and Gustafson (1988) account for this set of creative attributes in the following way. Being open to experience, having broad interests in life, and being attracted to deep and complex ideas enable the creative individual to develop and make use of complex mental models to solve problems in the real world. However, as far as creative work is concerned, these complex mental models are not sufficient by themselves. This is because in every creative undertaking, an abstract and untested idea must eventually be translated into concrete action. In the process, the creative individual is likely to meet up with a lot of social resistance. To overcome these obstacles, (s)he needs to be passionate and committed to the task, to take calculated risks, as well as to persevere against the wishes of the community (Ng, 2001b). This requires the creative individual to display personal autonomy, independence and confidence as a person.

Ng (2002) found that liberal-democratic teachers tend to subscribe to open and liberal values like self-direction, stimulation, universalism and hedonism, whereas conservative-autocratic teachers tend to subscribe to closed and conservative values like conformity, security, tradition and power. This finding suggests that liberal-democratic teachers are more creative in comparison with conservative-autocratic teachers. Having a more creative personality, the liberal-democratic teacher is likely to accept the wild ideas of creative students, as well as to tolerate their eccentric behaviors in class. By contrast, having a less creative personality, the conservative-autocratic teacher will tend to take a “no-nonsense” approach towards students, which emphasizes the inculcation of moral discipline rather than the development

of creative potential. This argument leads to the following set of hypotheses. First, liberal-democratic attitude is positively associated with creativity (H2A). Second, conservative-autocratic attitude is negatively associated with creativity (H2B).

Method

Sample

A total of 204 participants were recruited for this study. They had an average age of 28.93 years, 164 of them were females, 38 were males, while 2 did not indicate their gender. While 60% of these participants ($n = 122$) were trainee-teachers who were enrolled in postgraduate diploma in education program at the National Institute of Education in Singapore, 40% of them ($n = 82$) were experienced teachers who were teaching at a primary school in Singapore. Both groups of respondents completed a survey containing a variety of scales measuring teaching attitudes, emotional intelligence and creativity. The first author handled out the survey to the trainee-teachers to complete in his class, whereas the second author handled out the survey to the experienced teachers to complete in her school.

Measures

Teacher's Attitude Towards Student (TATS). This scale was developed by Ng (2002) to measure two teaching attitudes: liberal-democratic (L-D) and conservative-autocratic (C-A). It consists of 8 L-D items and 8 C-A items, arranged in a random order to prevent response set. Examples of L-D items are "Teachers should 'open negotiation' with students, e.g., on "How much work (s)he can give them" and "Teachers should reason with misbehaving students instead of punishing them". Examples of C-A items are "Teachers should have absolute authority in class; students should obey the teacher without fail" and "Training students to behave properly is more important than developing their creativity." Participants rate the extent to which they agree with these items, based on a 5-point scale which ranged from

“1: strongly disagree” to “5: strongly agree”. Psychometric properties of the TATS scale were reported by Ng (2002). The C-A subscale had an internal reliability of 0.76, while the L-D subscale had a slightly lower reliability of 0.62. Exploratory factor analysis using principal axis factoring with oblique rotation revealed a two-factor solution, with the C-A items loading on one factor and the L-D items loading on the other factor. The C-A subscale correlated positively and significantly with conservative values like conformity, security, tradition, and power (Schwartz, 1992). The L-D subscale correlated positively and significantly with liberal values like self-direction, stimulation, universalism, and hedonism.

What Kind of a Person Are You (WKOPAY). Creativity is measured by a self-report inventory called What Kind of Person Are You or WKOPAY (Khatena & Torrance, 1976). It consists of 50 forced-choice items which have been found to differentiate between creative and uncreative individuals. An example is “independent in judgment” versus “considerate of others”. Participants decide which item in the pair describes themselves better. If the appropriate item is chosen (e.g., independent in judgment), one point is awarded. Creativity is calculated by summing up the number of points awarded, and it can range from 0 to 50. The WKOPAY demonstrated adequate test-retest reliabilities, ranging from .71 to .97. Its construct validity was established via its link with other creativity measures, like the Torrance Test of Creative Thinking (Torrance, 1974).

Trait Meta-Mood Scale (TMMS). Emotional intelligence is measured by another self-report inventory called Trait Meta-Mood Scale or TMMS (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). This 30-item scale is designed to assess relatively stable individual differences in people’s tendency to attend to their moods and emotions, discriminate clearly among them, and regulate them. It is made up of three subscales. The first subscale is *Emotional Attention*, and it contains 13 items. An example is “I often think about my feelings”. The second subscale is *Emotional Clarity*, and it contains 11 items. An example is “I am usually very clear about my feelings”. The final subscale is *Emotional Repair*, and it contains 6 items. An example

is "I try to think good thoughts no matter how badly I feel". Participants rate the extent to which they agree with these items, based on a 5-point scale which ranged from "1: strongly disagree" to "5: strongly agree". Emotional intelligence is derived by summing up the three subscales, and it can range from 30 to 150. The Trait Meta-Mood Scale possesses high internal reliability. Its three-factor structure is verified by confirmatory factor analysis. Its construct validity is established by links with relevant measures. For example, Emotional Attention is positively associated with private and public self-consciousness; Emotional Clarity is negatively associated with ambivalence over emotional expression; Emotional Repair is negatively associated with depression and positively associated with optimism and beliefs about negative mood regulation (Salovey et al., 1995).

Results

No significant differences were found for gender (male vs. female) or teaching experience (trainee teachers vs. experienced teachers). So the results are reported based on the whole sample. Table 1 below displays the means and standard deviations of the sample, as well as the internal reliabilities and inter-correlations amongst the various measures. The respondents tended to be more open and liberal towards students. This could be gleaned from their higher score on the liberal-democratic measure. The various measures were also reliable, with the exception for the liberal-democratic measure, which has a slightly lower reliability of 0.59. The two teaching attitudes were negatively correlated with each other, as one would expect: $r = -.14, p < .05$. Creativity and emotional intelligence were positively correlated with each other, again as one would expect: $r = .25, p < .001$. With regard to H1A, liberal-democratic attitude was positively correlated with emotional intelligence as predicted: $r = .15, p < .05$. A finer analysis revealed that only the correlation with emotional repair was significant: $r = .22, p < .001$. With regard to H1B, conservative-autocratic attitude was negatively correlated with emotional intelligence as predicted: $r = -.14, p < .05$. A finer analysis

revealed that only the correlation with emotional repair was significant: $r = -.20, p < .001$. With regard to H2A, liberal-democratic attitude was positively correlated with creativity as predicted: $r = .16, p < .05$. With regard to H2B, conservative-autocratic attitude was negatively correlated with creativity as predicted: $r = -.24, p < .001$.

Table 1 Means, Standard Deviations, Internal Reliabilities and Inter-Correlations

	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7
1. L-D	29.01	3.88	.59	1.00						
2. C-A	26.21	4.66	.72	-.14*	1.00					
3. WKOPAY	25.98	7.54	—	.16*	-.24**	1.00				
4. TMMS	106.66	10.68	.79	.15*	-.14*	.25**	1.00			
5. EmoAtt	45.92	5.91	.73	.09	.01	.13	.80**	1.00		
6. EmoCla	38.81	6.10	.86	.03	-.12	.21**	.80**	.13	1.00	
7. EmoRep	21.92	3.98	.78	.22**	-.20**	.15**	.57**	-.07	.40**	1.00

* $p < .05$ ** $p < .001$

Note. L-D: Liberal-democratic; C-A: Conservative-autocratic;

WKOPAY: What Kind Of Person Are You

TMMS: Trait Meta-Mood Scale; EmoAtt: Emotional Attention;

EmoCla: Emotional Clarity;

EmoRep: Emotional Repair

Due to the data-entry procedure, there is only a final summative score for WKOPAY, so no figure for its internal reliability is available.

Discussion

Increasingly, school teachers are urged to promote creativity in the classroom. However, an ironical finding is that school teachers dislike creative students. Ng and Smith (2004) have offered a culturally-based explanation of this phenomenon, which they dubbed as the paradox of promoting creativity in the Asian classroom. The Confucian tradition of learning stresses the moral cultivation of the learner. Consequently, in the Confucian classroom, there is a good fit between the teacher as moral exemplar and the student as docile learner. However, this fit is disrupted in the creative classroom, as students become more skeptical, argumentative, and defiant. Teaching attitude is an important factor in dealing with this paradox of creativity. Specifically, liberal-democratic teachers are more tolerant and accommodative towards creative but disruptive students, whereas conservative-autocratic teachers

are less tolerant and accommodative towards such students (Ng & Smith, in press).

Although Ng and Smith have shown that teachers behave differently towards creative students as a result of the cultural context, they did not explain why liberal-democratic teachers are more tolerant and accommodative towards creative but disruptive students, compared to conservative-autocratic teachers. In our present study, we attempted to shed light on this matter by proposing two hypotheses for further investigation. First, liberal-democratic teachers are more adept at dealing with emotions in self and other, compared to conservative-autocratic teachers. Their emotional intelligence enables them to cope with the emotional strain of managing highly creative but disruptive students. Second, liberal-democratic teachers are more creative than conservative-autocratic teachers. This enables them to adapt to the demands of the creative classroom, in terms of openness to different ideas suggested by students, acceptance of their individualistic behaviors in class, etc.

In support of the first hypothesis, emotional intelligence was found to correlate positively with liberal-democratic attitude, but negatively with conservative-autocratic attitude. A finer analysis revealed that Emotional Repair is significantly correlated with these two teaching attitudes. As this measure refers to the ability of the person to repair unpleasant moods or maintain pleasant ones (Salovey et al., 1995, p.129), it gives rise to the following suggestion: liberal-democratic teachers are more competent than conservative-autocratic teachers in coping with the strong emotions that stem from dealing with creative but disruptive students. In support of the second hypothesis, creativity was found to correlate positively with liberal-democratic attitude, but negatively with conservative-autocratic attitude.

Although this study has yielded significant findings, nevertheless it suffers from a major shortcoming. Specifically, the results are correlational in nature, and it is not possible to infer causation. That is, we do not know whether the adoption of a liberal-democratic attitude makes a teacher more creative and emotionally intelligent or vice versa. Another possibility is that

an external factor(s) influences the development of these individual characteristics. This possibility is worth exploring in greater detail, because a lot of empirical research has shown that socio-cultural environment cast a strong influence on the development of individual characteristics like attitudes, competencies and traits. For example, Ng (2001b) argued that Asians are less creative than Westerners as a result of growing up in a collectivistic society that stresses one's obligation to the social group rather than to the self. Ng and Smith (in press) found that school teachers in the East are likely to adopt a conservative-autocratic attitude towards students, whereas their counterparts in the West are likely to adopt a liberal-democratic attitude toward students. Taking a cue from these studies, future research can be cross-cultural in design, in order to understand how the socio-cultural environment affects the development of teaching attitudes, emotional intelligence and creativity.

At the beginning of our paper, we noted that in a global village, innovative thinking and problem-solving skills are valued, and schools are tasked with the mission of developing the next generation of creative problem-solvers. Based on the finding in this study, we believe that schools should pay more attention to the task of recruiting, training and retaining teachers with an apposite set of attitudes, traits and competencies. In particular, schools should encourage teachers to be liberal-democratic, creative and emotionally intelligent. Such teachers are in a better position to deal with the paradox of promoting creativity in the Asian classroom. First, they are tolerant of those creative but undesirable behaviors that characterize students who are not "nice", as they adopt a liberal-democratic attitude in class. Second, they can cope with the emotional strain of managing highly creative but disruptive students, as they are emotionally intelligent. Finally, being creative people in their own right, they are likely to try innovative methods of teaching students, and to persevere against great odds in liberating the creative spirit in students.

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