

EXPLORING TEACHERS' EMOTION IN TEACHING AND THEIR APPROACHES TO TEACHING

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Abstract

Teachers' approaches in teaching enormously influence the success of students. Like that both positive and negative emotions play an important role in teachers' construction of pedagogical content knowledge, curriculum planning and relationships with children and colleagues. The aim of the present study was to investigate the relationship between teachers' emotion in teaching and their approaches to teaching. In this study, 480 teachers (160 primary assistance teachers, 160 junior assistance teachers and 160 senior assistance teachers) participated. By using random sampling technique, the sample was chosen from ten Basic Education High School located in Yangon Region and Bago Region. The instruments were (1) Emotion in Teaching Inventory (ETI) with two subscales; positive emotion and negative emotion ($\alpha = 0.82$) and (2) Approaches to Teaching Inventory (ATI-R) with two subscales; conceptual change/ student-focused (CCSF) and information transmission/ teacher-focused (ITTF) ($\alpha = 0.76$). The data were analysed using mean score, independent sample t-test, one-way analysis of variance, and Pearson product-moment correlation. The results of the study indicated that most of the teachers tend to adopt teacher-focused approach than student-focused. JAT teachers widely use student-focused approach than PAT and SAT. The more training courses they have, the more student-focused approach they apply. Based on the result, it was found that SAT teachers feel more anxious and frustrated (negative emotion). According to the Pearson product-moment correlation result, there is intercorrelation between teachers' emotion and their teaching approaches. Thus, it can be said that teachers with positive emotions can be adopted more student-focused approach in their teaching.

Keywords: Teaching approaches, Teachers' emotions, Information Transmission/ Teacher-Focused Approach, Conceptual Change/ Student-Focused Approach

Introduction

Education is the most effective instrument to meet all the challenges. One of the important problems of today's education system is individuals not conveying their school education to their normal lives. However, in modern education systems this situation changed as the school is the life itself. This principle underlies the constructionist education model. The teachers want the students to reflect the issue they learn in the school to the life. The learning process is completed in this situation. In all kind of education, a teacher occupies a central place. A teacher is at the bases of the work of mind. In every day teaching, teachers frequently experience positive emotions such as joy, excitement, warmth, and affection, and negative emotions including anger, frustration, and anxiety (e.g. Hargreaves, 1998). Emotions, both positive and negative, play an important role in teachers' construction of pedagogical content knowledge, curriculum planning and relationships with children and colleagues.

Considering teachers' approaches to teaching is as important as their emotion in teaching. Over the past several decades in Myanmar, teachers taught their students with the traditional method that emphasized on the transmission of information, knowledge, facts and skills to learners. In later educators attended to use the other approaches to teaching to improve education. Educators are always in search of teaching strategies to improve the quality of learning. They endeavor to produce students who can solve practical problems and are ready to

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join the work force. So, it is clearly that teachers' approaches enormously influence the success of students.

The previous research conducted on a range of variables that are related to the teaching approaches that teachers adopt and that these approaches are related to the quality of their students' learning. And many researchers focused on the relationship between students' emotion in learning and their academic achievement. But very few studies have been reported on the connections between emotions and approaches in teaching. Therefore, this study is mainly focused on the exploring the emotions in teaching and their approaches to teaching of primary, junior and senior teachers.

Purposes of the Study

The purpose of this study is to gain more insight into the relationship between teachers' approaches to teaching on the one hand, and their emotions in teaching among Primary, Junior and Senior Assistant Teachers. The specific objectives are as follows:

- (1) To investigate the teaching approaches that teachers adopt
- (2) To explore the differences in teachers' emotions in teaching among PAT, JAT and SAT teachers
- (3) To investigate the relationship between teachers' emotions in teaching and their approaches to teaching

Research Questions

The following research questions are identified in this study.

- Which approach do teachers adopt in their teaching?
- Is there a significant difference in teachers' emotions in teaching among PAT, JAT and SAT teachers?
- Is there the relationship between teachers' emotions in teaching and their approaches to teaching?

Definitions of Key Terms

The Approaches to Teaching. The approaches to teaching are defined as the way teachers think about teaching is a key factor in the approach they adopt to their teaching (Kember & Kwan, 2002).

Information Transmission/ Teacher-Focused Approach. Information Transmission/ Teacher-Focused Approach is one in which the teacher adopts a teacher-focused strategy, with the intention of transmission to the student information about the discipline (Trigwell & Prosser, 1996).

Conceptual Change/ Student-Focused Approach. Conceptual Change/ Student-Focused Approach is one in which the teacher adopts a student-focused strategy to help their students change their world views or conceptions of the phenomena they are studying (Trigwell & Prosser, 1996).

Emotion. Emotion is defined as a conscious mental definition (as anger or fear) subjectively experience as strong feeling usually directed towards a specific object and typically

accompanied by physiological and behavioral changes in the body (Mayer, Salovey & Caruso, 2000).

Method

Research Design

Quantitative research design and descriptive survey method were used in this study.

Participants of the Study

By using random sampling technique, the sample for this study was chosen from ten Basic Education High School located in Yangon Region and Bago Region. A total of 480 teachers (160 primary assistant teachers, 160 junior assistant teachers and 160 senior assistant teachers) from selected schools participated. Each teacher answered the emotions in teaching inventory and approaches to teaching inventory.

Instrumentation

The present study consists of two questionnaires; the Emotions in Teaching Inventory (ETI) and the Approaches to Teaching Inventory (ATI-R).

The Emotions in Teaching Inventory (ETI). This questionnaire was originally developed by Trigwell (2009) and it included 20 items. It is an instrument of five-point Likert-type. The ETI included two subscales; positive emotions and negative emotions. The components in the positive emotions scale contain 3 items of Motivation, 3 items of Pride, 2 items of Confidence, 1 item of Satisfaction and single item of Happiness respectively. The internal consistency in this study was 0.82.

The Approaches to Teaching Inventory (ATI-R). The teachers' approaches to teaching were measured using items drawn from the Approaches to Teaching Inventory (ATI-R) (Prosser and Trigwell, 1999, 2006; Trigwell and Prosser, 2004; Trigwell et al., 2005). This questionnaire is composed of 22 items, with 11 items in the conceptual change/student-focused (CCSF) approach scale and 11 items in the information transmission/teacher-focused (ITTF) approach scale. Each item of this questionnaire had a five-point Likert scale. Cronbach's alpha for this questionnaire was 0.76.

Procedure

All the measures used in this study were adapted to Myanmar version. After preparing the questionnaires, expert review was conducted for face validity and content validity by twelve experts from Yangon University of Education who have special knowledge and close relationship in the field of educational psychology. According to their recommendations and suggestions, the questionnaires were modified. The responses were checked to correct misunderstanding, requisites and inappropriate uses. The questionnaires were modified again to be more accomplished. And then, a pilot study was conducted during the fourth week of November, 2015, with a sample of 30 teachers from No. 1 B.E.H.S, Mingalardon to check whether the wording of items, statements and instructions had clear enough in Myanmar version and they could answer them without ambiguity. Then, the researcher improved and modified the weak points, misunderstanding of wording and phrases of some items on which participates seemed to be vague. Cronbach's alphas for all the measures in this study were above 0.7, hence having satisfactory reliability.

By the use of these instruments, test administration was conducted on the first week of December, 2015 in Yangon Region and on the third week of December, 2015 in Bago Region. Teachers were provided with necessary instruction and explanations on how to complete these inventories before answering. The participants were allowed nearly fifteen minutes to respond the questionnaires. They were informed about the purpose of the study and they were told that their names, addresses and responses would not be expressed and these data were just only the identification they were required to submit. They were assured that the results will be used only for research purposes and would not influence personal cases. Permission was obtained from the Head of the schools to use this data.

Results

Comparison of Approaches to Teaching Among Teaching Positions

The mean scores and standard deviations of teaching approaches among PAT, JAT and SAT teachers were described in Table 1. According to the Table 1, mean scores of all teachers showed higher in information transmission/ teacher-focused approach (ITTF) than in conceptual change/ student-focused approach (CCSF). It can be said that most of the selected teachers adopted teacher-focused approach. However, the mean score of CCSF is higher in JAT teachers than the other two and the mean score of ITTF showed higher in PAT teachers.

Table 1 Means and Standard Deviations for Approaches to Teaching Among PAT, JAT and SAT Teachers

Positions of Teachers	Number of Teacher	CCSF Approach		ITTF Approach	
		Mean	SD	Mean	SD
PAT	160	33.71	10.83	45.51	5.35
JAT	160	38.68	9.25	42.92	8.03
SAT	160	33.30	9.19	43.09	5.85

One way analysis of variance (ANOVA) was conducted to obtained more detail information for the difference of teachers' approaches by the positions of teachers. The results pointed out that there was significant difference between teaching approaches in the positions of teachers at 0.001 level. (Table 2)

Table 2 ANOVA Results of Mean Comparison for Approaches to Teaching Among PAT, JAT and SAT Teachers

Teaching Approaches		Sum of Squares	df	Mean Square	F	p
CCSF Approach	Between Groups	2870.213	2	1435.106	14.989***	0.000
	Within Groups	45671.119	477	95.747		
ITTF Approach	Between Groups	672.454	2	336.227	7.925***	0.000
	Within Groups	20237.513	477	42.427		

Note. *** Mean difference is significant at the 0.001 level.

To find out which positions of teachers had greatest difference in teaching approaches, post-hoc comparison by using Tukey HSD test was conducted. (Table 3)

Table 3 The Results of Tukey HSD Multiple Comparison for Approaches to Teaching Among PAT, JAT and SAT Teachers

Teaching Approaches	I (Positions of Teachers)	J (Positions of Teachers)	I-J (Mean Difference)	<i>p</i>
CCSF Approach	JAT	PAT	4.969 ^{***}	0.000
		SAT	5.381 ^{***}	0.000
ITTF Approach	PAT	JAT	2.594 ^{**}	0.001
		SAT	2.419 ^{**}	0.003

Note. ^{**} Mean difference is significant at the 0.01 level.

^{***} Mean difference is significant at the 0.001 level.

According to Table 3, JAT teachers tend to adopt more CCSF approach of teaching scale than PAT and SAT teachers while teaching students. The results of this study might be the reason that SAT teachers were more afforded to finish the lessons in time and so they had no time to use CCSF approach to teaching in any subject. In addition, at primary level, teachers were not sufficient with the students' ratio. So, they were weak in using CCSF approach at teaching. PAT teachers tend to adopt more CCSF approach of teaching scale than JAT and SAT teachers while teaching students. It might be the facts that students at middle level could follow teachers' instruction very well and teachers did not have much of work load.

Comparison of Approaches to Teaching with Teaching Subjects of JAT Teachers

Descriptive analyses conducted whether the teaching approaches were different according to subjects of JAT teachers. The mean scores and standard deviations of teaching approaches with teachers' subjects were described in Table 4.

Table 4 Means and Standard Deviations for Approaches to Teaching with Teaching Subjects of JAT Teachers

Teaching Subjects	CCSF Approach		ITTF Approach	
	Mean	SD	Mean	SD
Myanmar	42.06	7.01	37.65	8.48
English	33.37	9.48	44.96	7.66
Mathematics	37.42	9.41	45.45	5.91
Science	43.59	6.05	37.78	8.50
History	38.68	10.19	46.45	5.74
Geography	36.18	9.90	47.05	4.42

The results showed that the mean score of Myanmar and Science showed higher in conceptual change/ student-focused approach (CCSF). Moreover, History and Geography showed

greater mean score in information transmission/ teacher-focused approach (ITTF). One way analysis of variance (ANOVA) was conducted to obtain more detail information for the difference of teachers’ approaches with teaching subjects. The results pointed out that there was significant difference between teaching approaches in teachers’ subjects. (Table 5)

Table 5 ANOVA Results of Mean Comparison for Approaches to Teaching with Teaching Subjects of JAT Teachers

Teaching Approaches		Sum of Squares	Df	Mean Square	F	p
CCSF Approach	Between Groups	1954.464	5	390.893	5.165***	0.000
	Within Groups	11654.280	154	75.677		
ITTF Approach	Between Groups	2537.131	5	507.426	10.132***	0.000
	Within Groups	20472.540	154	50.083		

Note. *** Mean difference is significant at the 0.001 level.

To find out which subjects had greatest difference in teaching approaches, post-hoc comparison by using Tukey HSD test was conducted. (Table 6)

Table 6 The Results of Tukey HSD Multiple Comparison for Approaches to Teaching with Teaching Subjects of JAT Teachers

Teaching Approaches	I (Teaching Subjects)	J (Teaching Subjects)	I-J (Mean Difference)	p
CCSF Approach	Myanmar	English	8.694**	0.003
	Science	English	10.222***	0.000
		Geography	7.411*	0.040
ITTF Approach	English	Myanmar	7.318**	0.002
		Science	7.185**	0.004
	Mathematics	Myanmar	7.806***	0.000
		Science	7.674**	0.001
	History	Myanmar	8.809***	0.000
		Science	8.677***	0.000
	Geography	Myanmar	9.400***	0.000
		Science	9.268***	0.000

Note. * Mean difference is significant at the 0.05 level.

** Mean difference is significant at the 0.01 level.

*** Mean difference is significant at the 0.001 level.

Post-hoc comparison by using Tukey HSD test indicated that Myanmar and Science subjects had more adopted in conceptual change/ student-focused approach (CCSF). Information transmission/ teacher-focused approach (ITTF) had been more adopted in English, Mathematics, History and Geography subjects. This finding was similar with the previous research conducted by Lindblom-Ylanne et al. (2006); Trigwell (2002), higher CCSF scores are found in teaching in Science as soft disciplines than in Mathematics as hard disciplines. However, unlike their results that scores of History and Geography of soft disciplines were found to be better in information transmission/teacher focused approach (ITTF).

Comparison of Approaches to Teaching with Teaching Services

Descriptive analyses conducted whether the teaching approaches were different according to the teachers’ service. (Table 7)

Table 7 Means and Standard Deviations for Approaches to Teaching with Services

Teaching Services	Number of Teacher	CCSF Approach		ITTF Approach	
		Mean	SD	Mean	SD
< 10 years	136	33.46	10.00	42.33	6.69
10-25 years	176	38.89	9.74	44.24	7.44
>25 years	168	34.99	9.94	44.50	6.17

The results showed that the mean score of all service showed higher in information transmission/ teacher-focused approach (ITTF). However, < 10 years teaching services showed lower mean score in conceptual change/ student-focused approach (CCSF) than the other two and over 25 years teaching services showed highest mean score in information transmission/ teacher-focused approach (ITTF). The highest mean score of conceptual change/ student-focused approach (CCSF) was found in service 10-25 years. One way analysis of variance (ANOVA) was conducted to obtain more detail information. The results pointed out that there was significant difference between teaching approaches in teachers’ services. (Table 8)

Table 8 ANOVA Results of Mean Comparison for Approaches to Teaching with Services

Teaching Approaches		Sum of Squares	Df	Mean Square	F	p
CCSF Approach	Between Groups	1555.587	2	777.794	7.896***	0.000
	Within Groups	46985.744	477	98.503		
ITTF Approach	Between Groups	437.427	2	218.713	5.096**	0.006
	Within Groups	20472.540	477	42.919		

Note. ** Mean difference is significant at the 0.01 level.

*** Mean difference is significant at the 0.001 level.

To find out which services had greatest difference in teaching approaches, post-hoc comparison by using Tukey HSD test was conducted. (Table 9)

Table 9 The Results of Tukey HSD Multiple Comparison for Approaches to Teaching with Services

Teaching Approaches	I (Teaching Services)	J (Teaching Services)	I-J (Mean Difference)	p
CCSF Approach	10-25 years	< 10 years	5.436***	0.000
		> 25 years	3.899**	0.005
ITTF Approach	> 25 years	< 10 years	2.171**	0.005

Note. ** Mean difference is significant at the 0.01 level.

*** Mean difference is significant at the 0.001 level.

Post-hoc comparison by using Tukey HSD test indicated that moderate service 10-25 years teachers perceived having significantly higher mean scores in conceptual change/ student-focused approach (CCSF) than the other two groups. In information transmission/ teacher-focused approach (ITTF), there is a significant difference between services greater than 25 years and less than 10 years. It means that only moderate services teachers likely adopt more CCSF approach of teaching scale than less services and more services teachers. This result was unique and contrast with the previous research conducted by Postareff, Lindblom-Ylance and Nevgi in 2007 that teachers who had more teaching services tend to adopt more CCSF approach in their teaching. It may be interpreted that teachers with less teaching services could not fit with CCSF approach in teaching and they do not know how to organize the content of teaching (McKenzie, 2003). And teachers with more teaching services were passive in teaching according to their ages and health. They were eager to use ITTF approach in teaching than CCSF approach. So, teachers who had moderate teaching services controlled over what was taught and tend to adopt more characteristics of CCSF approach to teaching scale.

Comparison of Approaches to Teaching by Training Courses

It is interesting that whether there was a difference between approaches to teaching and training courses. The mean and standard deviation of sample teachers' approaches to teaching through training courses were reported in table 10.

Table 10 Means and Standard Deviations for Approaches to Teaching by Training Courses

Approaches to Teaching	Training Courses	Number of Teacher	Mean	Standard Deviation
CCSF Approach	None	30	39.30	7.54
	One	342	44.08	6.18
	Two or more	108	44.36	7.21
ITTF Approach	None	30	35.77	10.73
	One	342	35.16	10.06
	Two or more	108	34.13	7.57

The results of descriptive analyses showed that there was slight difference in mean scores by training courses. In other word, teachers who had not attended training courses used less CCSF approach in their teaching. And, teachers who had training courses tended to adopt more CCSF approach. Consequently, the more training courses are given, the more CCSF approach will be used by teachers in their teaching. In ITTF approach to teaching scale, this finding reported that, no training course teachers adopted more ITTF approach than teachers who had attended training courses. Moreover, it was found that teachers who had training courses were the lowest mean scores in ITTF approach. Thus, the more training courses were given, the less ITTF approach using in teaching. To obtain more detail information on the difference of approaches to teaching by training courses, one way analysis of variance was conducted. (Table 11)

Table 11 ANOVA Results of Mean Comparison for Approaches to Teaching by Training Courses

Teaching Approaches		Sum of Squares	df	Mean Square	F	p
CCSF Approach	Between Groups	666.727	2	333.363	7.855***	0.000
	Within Groups	20243.240	477	42.439		
ITTF Approach	Between Groups	69.178	2	34.589	0.34	0.712
	Within Groups	48472.153	477	101.619		

Note. *** Mean difference is significant at the 0.001 level.

ANOVA results showed that there were significant differences between CCSF approach to teaching scale and training courses. But there was no difference in ITTF approach to teaching scale. Therefore, Tukey HSD comparison procedure was again computed from this result. (Table 12)

Table 12 The Results of Tukey HSD Multiple Comparison for Approaches to Teaching by Training Courses

Teaching Approach	I (Training Course)	J (Training Course)	I-J (Mean Difference)	p
CCSF Approach	One	None	4.776***	0.000
	Two or More	None	5.061**	0.001

Note. ** Mean difference is significant at the 0.01 level.

*** Mean difference is significant at the 0.001 level.

It was observed that teachers who had training courses were significantly different from that of teachers with no training course in using conceptual change/ student-focused (CCSF) approach. This finding was quite consistent with the previous research conducted by Pedrosa-de Jesus in 2009 that training courses tend to adopt more CCSF approach in teaching. Hence, it is necessary to give more training courses to teachers.

An analysis of Teachers’ Emotion in Teaching among PAT, JAT and SAT Teachers

Based on the descriptive statistics, the mean and standard deviation of teachers’ emotions in teaching among PAT, JAT and SAT are shown in table 13.

Table 13 Means and Standard Deviations of Teachers’ Emotions in Teaching among PAT, JAT and SAT Teachers

Positions of Teachers	Pride		Motivation		Anxiety		Embarrassment		Frustration	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
PAT	12.45	1.40	13.29	3.60	10.21	3.05	6.38	1.79	4.29	1.25
JAT	12.31	1.65	14.14	3.83	9.60	3.12	6.34	1.65	2.95	1.03
SAT	12.34	1.49	13.21	3.70	10.61	2.95	6.41	2.00	3.49	1.32

According to the table 13, the mean score of JAT teachers' motivation is greater than the other teachers and SAT teachers' anxiety level is higher than the others. The mean score of frustration is greater in PAT teachers. To observe clearly the significant differences in emotions in teaching factors among PAT, JAT and SAT teachers, one way analysis of variance (ANOVA) was computed (Table 14). The ANOVA result showed that, there was significant difference in motivation, anxiety and frustration among PAT, JAT and SAT teachers.

Table 14 ANOVA Results of Mean Comparison for Teachers' Emotions in Teaching Among PAT, JAT and SAT teachers

Emotions in Teaching		Sum of Squares	df	Mean Square	F	p
Pride	Between Groups	1.662	2	0.831	0.360	0.698
	Within Groups	1100.069	477	2.306		
Motivation	Between Groups	85.138	2	42.569	3.095*	0.046
	Within Groups	6559.662	477	13.752		
Anxiety	Between Groups	83.079	2	41.540	4.486*	0.012
	Within Groups	4416.569	477	9.259		
Embarrassment	Between Groups	0.379	2	0.190	0.057	0.944
	Within Groups	1576.612	477	3.305		
Frustration	Between Groups	146.204	2	73.102	50.188***	0.000
	Within Groups	694.787	477	1.457		

Note: * mean difference is significant at the 0.05 level.

*** mean difference is significant at the 0.001 level.

To investigate more specifically how teachers' emotion differed in PAT, JAT and SAT teachers, Tukey HSD comparison procedure was computed (Table 15).

Table 15 The Results of Tukey HSD Multiple Comparison for Teachers' Emotions in Teaching Among PAT, JAT and SAT teachers

Emotions in Teaching	I (Teachers' Positions)	J (Teachers' Positions)	(I-J) Mean Difference	p
Anxiety	SAT	JAT	1.013**	0.009
Frustration	PAT	JAT	1.344***	0.000
		SAT	0.800***	0.000
	SAT	JAT	0.544***	0.000

Note: ** mean difference is significant at the 0.01 level.

*** mean difference is significant at the 0.001 level.

As the result, SAT teachers felt more anxiety and frustration than JAT teachers. PAT teachers' frustration was significantly higher than JAT and SAT teachers.

Comparison of Emotions in Teaching by Training Courses

To investigate whether there was a significant difference for subscales of emotions in teaching through training courses, descriptive analyses was conducted (Table 16).

Table 16 Means and Standard Deviations of Emotions in Teaching by Training Courses

Emotions in Teaching	Training Courses	Mean	Standard Deviation
Pride	None	10.53	2.50
	One	11.90	2.02
	Two or More	12.21	1.93
Motivation	None	15.57	2.19
	One	16.85	1.87
	Two or More	17.17	1.85
Anxiety	None	9.17	2.25
	One	8.70	2.39
	Two or More	8.21	2.24
Embarrassment	None	5.90	2.01
	One	6.01	2.05
	Two or More	5.64	2.13
Frustration	None	4.57	1.36
	One	4.47	1.58
	Two or More	4.31	1.55

According to table 16, it was observed that the teachers who had training courses received the high mean scores in pride and motivation than teachers who did not have any training course. Moreover, the mean score of anxiety, embarrassment and frustration were highest in teachers with no training course. But it was presented that teachers who had training courses got the lowest mean scores in anxiety, embarrassment and frustration.

To assess if there were significantly differences of emotions in teaching through training courses, further details analyses and computations were undertaken by using one-way analysis of variance (ANOVA). (Table 17)

Table 17 The Results of ANOVA for Emotions in Teaching by Training Courses

Emotions in Teaching	Training Course	Mean Square	<i>F</i>	<i>p</i>
Pride	Between Groups	33.240	8.028***	0.000
	Within Groups	4.140		
Motivation	Between Groups	30.094	8.432***	0.000
	Within Groups	3.569		
Anxiety	Between Groups	14.653	2.656	0.071
	Within Groups	5.517		

Emotions in Teaching	Training Course	Mean Square	F	p
Embarrassment	Between Groups	5.711	1.344	0.262
	Within Groups	4.251		
Frustration	Between Groups	1.278	0.523	0.593
	Within Groups	2.444		

Note. *** Mean difference is significant at the 0.001 level.

ANOVA results showed that there were significant differences in pride and motivation but it was not found the differences in anxiety, embarrassment and frustration. Therefore, Tukey HSD comparison procedure was again computed from this result. (Table 18)

Table 18 The Results of Tukey HSD Multiple Comparison of Emotions in Teaching by Training Courses

Emotions in Teaching	I (Training Course)	J (Training Course)	(I-J) Mean Difference	p
Pride	one	None	1.364**	0.001
	Two or more	None	1.68***	0.000
Motivation	one	None	1.281**	0.001
	Two or more	None	1.6***	0.000

Note: ** Mean difference is significant at the 0.01 level.

*** Mean difference is significant at the 0.001 level.

Specifically, it was observed that teachers who had training courses were significantly high level of pride and motivation than teachers who do not had any training course. It should be noted that teachers who attended training courses had more feeling of positive emotions, especially, pride and motivation than those who had no training course. Therefore, more training courses should be given to teachers in order to lead positive emotions in their teaching.

Relation of Emotions in Teaching and Approaches to Teaching

Pearson product-moment correlations were computed to examine the relationships between emotions in teaching and approaches to teaching, and the criterion $p < 0.05$ was used to determine statistically significant correlations. (Table 19)

Table 19 Inter-Correlations Between Emotions in Teaching and Approaches to Teaching

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) CCSF	1.00	-0.34**	0.388***	0.297***	-0.151**	-0.170***	-0.201***
(2) ITTF		1.00	-0.231***	-0.259***	0.320***	0.311***	0.229***
(3) Pride			1.00	0.134**	-0.127**	-0.123**	-0.294***
(4) Motivation				1.00	-0.140**	-0.173***	-0.171***
(5) Anxiety					1.00	0.321***	0.285***
(6) Embarrassment						1.00	0.092*
(7) Frustration							1.00

Note. * Mean difference is significant at the 0.05 level.

** Mean difference is significant at the 0.01 level.

*** Mean difference is significant at the 0.001 level.

Similar to the research of Keith Trigwell (2011), CCSF was positively and significantly correlated with pride and motivation subscales of positive emotions in teaching ($r = 0.388$ and 0.297 , respectively). But anxiety, frustration and embarrassment emotions scales were statistically significant negative correlated with CCSF approach. It means that positive emotion is being correlated with CCSF approaches to teaching scale.

In addition, the results of bivariate correlations showed that there was a statistically significant negative correlation between ITTF approach and pride and motivation. However, ITTF approach was positively and significantly correlated with anxiety, embarrassment and frustration subscales of emotion in teaching ($r = 0.32$, $r = 0.311$ and $r = 0.299$, respectively). So, it can be said that negative emotion is being correlated with ITTF approaches.

Again, pride and motivation emotions scales were found to have significantly negative correlations with anxiety, frustration and embarrassment emotion scales. These results were quite consistency of the previous research of conducted by Keith Trigwell in 2011.

Comparison of Three Different Clusters for Teachers' Approaches to Teaching Scales and Emotions in Teaching Scales

As mentioned above, there were significantly relationship between CCSF approach of teaching scale and positive emotions; pride and motivation, and between ITTF approach of teaching scale and negative emotions; anxiety, embarrassment and frustration. A slightly different picture of these relations is obtained using a cluster analysis of the 480 teachers. In order to analyze the relation between emotions in teaching and approaches to teaching for the sample teacher, a cluster analysis was computed with the aim of identifying subgroups of teachers where the common responses to the sets of variables are maximized in one cluster and maximally differentiated from other common sets of responses (in other clusters).

Using Ward's method, Hierarchical Cluster analysis was conducted by the seven variables; CCSF, ITTF, pride, motivation, anxiety, embarrassment, and frustration. According to the increasing value of the Square Euclidean Distance between clusters, Hierarchical Cluster analysis reported in three clusters. And then, to compare variables mean, an ANOVA used to determine the significant of between groups contrasts (see table 20). The first cluster (cluster 1) was found the more characteristics of teacher-focused, cluster 2 showed the characteristics of student-focused and then cluster 3 involved both characteristics of teacher-focused and student-focused.

Table 20 Summary Statistics of the Three-Clusters Solution for Emotions in Teaching and Approaches to Teaching Variables (N=480)

Variables (Scales)	Cluster 1 (N = 163)		Cluster 2 (N = 145)		Cluster 3 (N = 172)		F	p
	M	SD	M	SD	M	SD		
CCSF	32.69	10.58	39.66	9.07	33.91	9.17	22.610***	0.000
ITTF	46.13	4.31	40.28	7.81	44.68	6.07	37.138***	0.000
Pride	11.73	1.73	13.06	1.28	12.44	1.14	34.702***	0.000
Motivation	12.54	3.34	14.48	3.88	13.73	3.72	11.119***	0.000

Variables (Scales)	Cluster 1 (N = 163)		Cluster 2 (N = 145)		Cluster 3 (N = 172)		F	p
	M	SD	M	SD	M	SD		
Anxiety	11.59	3.59	8.46	2.48	10.19	2.13	48.024***	0.000
Embarrassment	7.51	0.96	4.36	1.39	6.98	1.28	294.786***	0.000
Frustration	4.95	0.85	2.85	0.74	2.9	1.08	294.350***	0.000

Note. *** Mean difference is significant at the 0.001 level.

An ANOVA result showed that cluster 1 contained 163 teachers who described a relatively low mean score on the positive emotions: pride and motivation, a relatively high mean score on the negative emotions: anxiety, embarrassment and frustration; who also tend to adopt more characteristics of ITTF approach and less of CCSF approach.

Comparatively with cluster 1 and cluster 3, cluster 2 reported that a relatively high mean score on the CCSF approach to teaching scale and a relatively low mean ITTF scale score, a relatively high mean scores on pride and motivation scales of positive emotions and low mean scores of anxiety, embarrassment and frustration scales of negative emotions for 145 teachers in that cluster. Therefore, these cluster can be labeled as CCSF approach was adopting in their teaching.

Cluster 3 included 172 teachers who had relatively high mean scores on CCSF approach and ITTF approach, and also relatively high scores on pride and motivation in cluster 3 although, mean score of anxiety, embarrassment and frustration were lower than mean score in cluster 1. Teachers in these cluster tended to adopt both CCSF and ITTF approaches in their teaching.

These results suggested that when teachers described a higher ITTF approach to teaching (Cluster 1), their emotions were more tendencies in anxiety, embarrassment and frustration. And teachers, who express a higher CCSF approach than ITTF approach to teaching, were more pride and motivation in their teaching.

Discussion

The primary purpose of the study was to investigate the teaching approaches that teachers adopt and to explore the differences in teachers' emotions in teaching among PAT, JAT and SAT teachers. This study investigated the correlation between teachers' emotions in teaching and their approaches to teaching. Descriptive statistics indicated that sample teachers tended to adopt more characteristics of information transmission/ teacher-focused (ITTF) approach. However, junior assistant teachers (JAT) used more CCSF approach in their teaching than primary assistant teachers (PAT) and senior assistant teachers (SAT). SAT teachers were teaching their students mainly to pass the examination and they also taught many contents in higher education. Components of a teacher-focused approach include a focus on helping students to pass examinations, helping students to get a reliable record of the key issues, presenting the facts so that students know what they have to learn, and feeling that questions asked by students should be answerable by the teacher (Trigwell, 2022). So, they missed to use CCSF approach in their teaching. Moreover, in primary level, the ratio of teacher and students were not sufficient. This may lead to choose ITTF approach in teaching students.

Lortie (1975) said that teachers tend to adopt more ITTF approach in their teaching because of having much curriculum. Teachers only afforded to accomplish the curriculum and they missed to use CCSF approach in teaching. Aim to achieve these ends using transmission-based strategies, with the focus being on the content being taught. From this perceptive the teachers accepted responsibility for the success of the action undertaken. With this responsibility, in combination with the nature of the strategies employed it is not difficult to see why this approach was likely to be more stress including (Trigwell, 2002). Conceptual change/ student-focused approach was found to relate positively with students' deep approaches to learning (Trigwell et al., 1999) and with perceptions of a manageable workload, some control over what is being taught, a manageable class size and small variation in student characteristics (Prosser and Trigwell, 1997) and with teacher learning (Trigwell, 2002).

In teaching subjects, JAT teachers more used CCSF approach in Myanmar and Science subjects. But in History and Geography, teachers mainly used ITTF approach in their teaching. This may be the facts that teachers do not master in teaching content about History and Geography and they did not interest in this content themselves. The finding from this study pointed out that teaching services of 10-25 years were significantly difference in CCSF approach to teaching scale with most services and less services teachers. This result was unique and contrast with the previous research conducted by Postareff, Lindblom-Ylanne and Nevgi in 2008 that teachers who had more teaching services tend to adopt more CCSF approach in their teaching. This study was observed that teachers who had training courses were more using in CCSF approach in teaching than that of teachers with no training course. Consistently with the research of Postareff, Lindblom-Ylanne and Nevgi in 2007 that the more training courses the teacher have, the more they implement the CCSF approach in teaching.

Descriptive statistics result for the interest of teachers' emotions showed that the teachers were in the desire to reveal positive rather than negative emotions. This result was quite consistent with the previous research conducted by Baron in 1993 that teachers were more favorably to express the positive emotions than negative emotions. The finding was observed that SAT teachers were significantly higher than that of JAT teachers in anxiety and frustration whereas PAT teachers were significantly higher than that of JAT and SAT teachers for frustration. This result supported that having much curriculum can cause teachers overloaded in their teaching and which lead to negative emotions; anxiety, embarrassment and frustration (Lortie, 1975).

The result highlighted that teachers' experiences of positive emotions (motivation and pride) were positively associated with the adoption of more of a conceptual change/ student-focused (CCSF) approach to teaching. Likely, the experiences of negative emotions (anxiety and embarrassment) were positively associated with the adoption of more of an information transmission/ teacher-focused (ITTF) approach to teaching. This result was consistent with the research of Trigwell (2011) in which the teachers who experienced the positive emotions and who implied characteristics of CCSF approach, can enhance the deeper learning of students. And the negative emotions the teachers experienced were associated with characteristics of ITTF approach the teacher adopted.

Moreover, Hierarchical cluster analysis revealed that there were three clusters: cluster 1 which adopted more characteristics of ITTF approach and highest mean score in negative emotions (anxiety, embarrassment and frustration), cluster 2 which showed the more

characteristics of CCSF approach and highest mean score in positive emotions (pride and motivation), and cluster 3 which showed high mean scores in ITTF and CCSF and relatively low mean scores in positive emotions compared with cluster 2 and relatively low mean scores in negative emotions compared with cluster 1.

Limitations and Future Research

Practical and methodological issues were sources of limitations in this study. First, in the case of a study of emotions in teaching and approaches to teaching, quantitative design was only applied. It may be restricted in interpretation only from the self-reported questionnaires. It was believed that a follow up qualitative research was conducted to make confirmation to the exploration of emotions in teaching and approaches to teaching of teachers. Second, the research area was only two regions: Yangon region and Bago region and the participants were drawn from ten selected schools. Though ten schools were already drawn from different regions to enhance validity, the generalizability of the findings remains speculative. Since only 480 teachers from ten schools were administered, the results may not represent all populations in Myanmar. Third, schools using CCSF approach to teaching scale can be found in other part of the country. This result would be better by including these schools. Fourth, the sample of this study comprised only state teachers, did not include University teachers.

Next, one limitation was the use of small sample size. A larger and more representative sample should be used. Furthermore, this study would have benefited from the greater male-teachers participation. The same number of male and female teachers would be more comparative between their emotions in teaching and approaches to teaching. Despite these limitations, this study would seem to hold promise for helping to elucidate the processes by which educators and teachers aware of the teaching approaches and emotions in teaching were affected on the quality of students in Myanmar. The finding from this research may help educators and academic developers and teachers understand the complex reasons underlying the limited success of even well design programs and the reason new teaching strategies are often not adopted or even attempted.

Future studies of qualitative research design are necessary to observe teachers' emotions in teaching and which approach will be used while they are teaching. More research is required which investigated in tertiary education if teachers' emotions which appear while teaching and how to use teaching approaches in their subjects. It is necessary to do more research on the study of emotions in teaching scales and approaches to teaching scales with academic achievement and students' learning approaches.

Conclusion

To sum up, this study highlighted the better understanding of the relationship between teachers' emotions in teaching and their approaches to teaching. Training courses were more effective adopting CCSF approach in teaching and tend to more positive emotions. This fact pointed out that teachers' training courses play a vital role in teaching and training classes are needed to provide more from the Ministry of Education. Moreover, students' perception questionnaire should be used to investigate teachers' emotions and using approaches in teaching to get a sufficient information about this study.

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