

## Formative Teaching Evaluation Criteria for Student Teachers

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### Abstract

The main purpose of this study was to investigate formative teaching evaluation criteria for student teachers.

This study employed the self-devised "Formative Teaching Evaluation Criteria for Student Teacher Evaluation Questionnaire" and was administered to educational professors of teachers' colleges, principals, grade principals, elementary teachers and teachers' college students. A total of 1,006 of 1,395 questionnaires were returned, for a rate of 72.1%. Descriptive statistics, reliability, item discrimination, and Kendall's W were employed to analyze the data collected.

The findings showed that:

1. There were five areas of teaching performance of formative teaching evaluation criteria for student teachers. The five areas of teaching performance were teaching attitudes, teaching plans, teaching methods, teaching techniques and teaching evaluations.
2. The five areas of teaching performance included twenty teaching behaviors which included twenty-five teaching behavior indicators.
3. The most important area of teaching performance was teaching attitudes. The second was teaching techniques. The third was teaching methods. The fourth was teaching plans. The last was teaching evaluations.
4. The items of formative teaching evaluation criteria for student teachers were rated as important on a Likert scale. The index of

discrimination of those items was generally good.

Keywords: teaching evaluation criteria, formative evaluation, educational practicum

The success or failure of educational practicum affects the future of teacher education. It is the turning point of teacher preparation and is the process for a student teacher to become a professional teacher (Wang & Jao', 1992). As it is the core of professional teacher development, educational practicum is very important for teacher preparation. Wang & Jao' (1992) indicates that since educational practicum helps teachers' college students identify themselves to educational work, it is the most

worthwhile course in the curriculum of teachers' colleges. In addition, the practicum course greatly influences teachers' college students' professional attitudes, knowledge and skills (Tan, 1991). Educational practicum is like quality control in business, and successful educational practicum guarantees those teachers who graduated from teachers' colleges will be good quality (Chang, 1984). Therefore, educational practicum is very important for teacher education. There is a close relationship between upgrading the accountability of educational practicum and the attainment of the goal of teacher education. By careful evaluation a teacher education program can improve the instruction of educational practicum, strengthen the quality of its teaching contents and upgrade the accountability of educational practicum.

The educational goal of teachers' colleges in Taiwan is to prepare well-rounded elementary teachers; Therefore guiding teachers' college students to possess broad knowledge base and to be proficient with professional knowledge and skills is the primary task of the process of teacher preparation. Since, the primary function of the teachers' colleges is to prepare elementary class teachers who can teach ten elementary subjects, namely Chinese Language, Mathematics, Natural Science, Social Studies, Life and Ethics, Health Education, Fine Arts, Music, Songs and Games and Physical Education. Thus, the curriculum of the teachers' colleges should be very generalized. The question of how to prepare teachers' college students to be proficient with the teaching competencies of every elementary subject naturally is very important for the process of teacher preparation. Evaluation helps understand whether the goal of the teachers' colleges is achieved or not because teaching competency evaluation helps teachers' college students understand what are effective teaching competencies. Evaluation encourages teachers' college students to be proficient in professional knowledge and skills, to realize their strengths and weaknesses in teaching competencies and to improve them. Through teaching competencies evaluation, teachers' college professors can implement supplementary teaching and personal guidance by analyzing what the students have gained and lost and by diagnosing learning difficulties. Thus, evaluation can improve the instruction of educational practicum. By implementing a formative teaching evaluation of educational practicum the

quality of teacher preparation can be upgraded as well as the achievement of the goals of the teachers' colleges and the educational ideal. An important factor for educational practicum, is to filter those teachers' college students who are unsuitable to teaching ( Hsieh, 1991) . In order to filter and to prevent unsuitable teachers to come into being, it is necessary to improve the evaluation of teaching competence for educational practicum, and to develop an objective evaluation instrument which can hopefully achieve this goal .

Because the evaluation of educational practicum often lacks complete, concrete and clear and definite evaluation criteria, an inherent weakness in the evaluation of educational practicum is the lack of validity (Hsieh, 1991). In order to make the evaluation of educational practicum possess validity, it is necessary to explore what are effective teaching competences for student teachers and then accordingly adjust the programs for teacher preparation. To identify what competences should be included in the performance stage of practicum, it is necessary to seek the opinions of teachers' college professors, teachers' college students, principals, grade principals and elementary teachers and according to their opinions to develop an objective, representative and standard evaluation instrument. There are five phases for evaluation during teacher preparation and teaching profession, including the measurement of teaching competence. Teaching competence aims at examining teachers' college students' teaching knowledge and skills to see whether the students are qualified to become teachers before their graduation. According to the program of CBTE ( Competence - Based Teacher Education ) of Toledo University, the evaluation at this phase is able to respond to the effectiveness of teacher education, and can precisely evaluate teachers' college students' basic competences (

The Educational Department of Taiwan Province, 1983). Thus, it is necessary to study what teaching evaluation criteria should be established to evaluate teachers' college students' teaching competence before their graduation.

To improve teachers' quality and to increase teachers' responsibility, many universities and colleges established standards for teacher education or educational practicum (Salzman, 1991). There are three key elements for effective teacher evaluation: (1) complete philosophy and goals for evaluation, (2) sound evaluation standards and (3) reasonable evaluation procedure. The above-mentioned means that an ideal teacher evaluation system must be based on the goal of teacher evaluation, must employ appropriate evaluation standards and must decide appropriate evaluation methods and procedures according to the standard of evaluation (Chang, 1992). Therefore, the establishment of evaluation standards is most important. If the establishment of evaluation standards is inappropriate, it can not collect appropriate data for teacher evaluation even if the methods and procedures of evaluation are very good.

The decision regarding evaluation standards should define its scope. The scope for teacher evaluation includes teaching, research and service. This study aims to examine the teachers' college students' teaching knowledge, skills and attitudes to see whether the students are qualified to become

teachers before their graduation. Therefore, the evaluation scope of this study is the area of teaching performance. The area of teaching performance is the major attribute of classroom instruction. Every area of teaching performance includes several specific teaching behaviors, and every teaching behavior has several teaching behavior indicators. The teaching behavior indicator is a specific action. Every action represents one part of the teaching behavior (Harris & Hill, 1982). Therefore, teaching evaluation criteria should include (1) the area of teaching performance, (2) the teaching behavior and (3) the teaching behavior indicator.

The literature reveals several findings of teaching evaluation criteria for student teacher evaluation and teacher evaluation. Based on the findings of Harris & Hill (1982), the teaching evaluation criteria are divided into three hierarchies in this study: (1) the area of teaching performance, (2) the teaching behavior and (3) the teaching behavior indicator. The examination of various documents found that some teaching evaluation criteria were without hierarchies (California State University, 1988; Chang, 1992; David, 1987; Fant, Hill & Landes, 1985; Reynolds, 1992). The classification of other teaching evaluation criteria (Chang, 1979; Chen and others, 1976; Chi & Hsieh', 1993; Ch'iu, 1990; The Educational Department of Taiwan Province, 1983; Millersville University, 1992; Texas educational Agency, 1986-1987) were different from that of Harris & Hill.

The main purpose of this study was to investigate formative teaching evaluation criteria for student teachers. The research objectives were as follows:

1. To understand what the formative teaching evaluation criteria are for student teachers.
2. To understand the importance and the index of discrimination of the formative teaching evaluation criteria for student teachers.
3. To understand the relative importance of the formative teaching evaluation criteria for student teachers.

## Method

### Subject

The target population of this study was educational professors and senior education students of teachers' colleges, principals, grade principals and elementary teachers. A total of 1,394 educational

professors of teachers' colleges, teacher's college students, principals, grade principals and elementary teachers received questionnaire surveys.

### Procedure

### Construction of the scale

The study involved two stages: in the first stage, a pilot study was conducted to construct the scale. Fifty elementary teachers were randomly selected from an elementary school in Hsinchu, Taiwan. The information collected was used to construct the "Formative Teaching Evaluation Criteria for Student Teacher Evaluation Questionnaire," the instrument used in this study.

#### Formative Teaching Evaluation Criteria for Student Teacher Evaluation Questionnaire

The construction of the scale involved several steps. First, findings of the literature review and semi-structured questionnaire interviews conducted by members of the research team, resulted in the initial draft of the scale. Twenty experts in the field were invited to make suggestions on the content, wording and format of this draft. Based on the experts suggestions, modifications were made and a 73 item scale was produced. The information collected from the pilot study was coded, and then a discussion of the coding was held which included all the professors and research assistants in the project; 73 formative teaching evaluation criteria were identified; including 4 teaching attitude items, 8 teaching plan items, 7 teaching method items, 45 teaching technique items and 9 teaching evaluation items.

After a pilot study, to ensure the internal consistency of the scale, reliability was tested. In this study, Cronbach's alpha Coefficient Test for Consistency was used. The reliability was .98. The reliability was .80 for the sub scale of teaching attitude, .89 for the sub scale of teaching plans, .88 for the sub scale of teaching methods, .98 for the sub scale of teaching techniques and .93 for the sub scale of teaching evaluation.

#### Formal Study

In the second stage of the research, 400 educational professors of teachers' colleges and teachers' college students were randomly selected from four of the teachers' colleges in Taiwan, and 994 principals, grade principals and elementary teachers were selected by stratified random sampling from four of the cities and counties in Taiwan. One thousand three hundred and ninety four questionnaires were distributed. After two weeks, a total of 1,101 of 1,394 questionnaires were returned, for a rate of 79.0%. Descriptive statistics, reliability, item discrimination and Kendall's W were employed to analyze the data collected.

#### Results

##### The Subjects' Opinions toward the Formative Teaching Evaluation Criteria for Student Teachers

The scoring of the "Formative Teaching Evaluation Criteria for Student Teacher Evaluation Questionnaire" was based on the sample's

subjective evaluation of their opinions to the summative teaching evaluation criteria in relation to the items on the scale. For each item, the sample was to select one of five responses: extremely important (5), very important (4), important (3), not very important (2) and not important (1).

### Teaching attitudes

As shown in Table 1,

1. The subjects identified the order of degree of importance of the teaching behavior

indicators as follows.

(1) Exhibits high level of enthusiasm for teaching ( M=4.63 ),

(2) Displays amiability and has a keen sense of responsibility ( M=4.60 ),

(3) Is eager to learn from cooperating teacher ( M=4.41 ),

(4) Is punctual and law-abiding ( M=4.28 ).

The following showed the five groups of subjects' opinions toward teaching attitudes of formative teaching evaluation criteria for student teachers.

1. Teachers' college professors and grade principals considered the most important teaching behavior indicator " Exhibits high level of enthusiasm for teaching. "

However, principals and teachers' college students thought the most important one was " Exhibits high level of enthusiasm for teaching."

2. Generally speaking, the subjects considered that the 4 items of teaching attitudes were " very important " or " extremely important." Thus, the 4 teaching competences were necessary for student teachers.

Table 1

The Result of the Area of Teaching Attitudes of Formative Teaching Evaluation Criteria for Student Teachers

Items Responses N % Mean Rank Order

1. Displays amiability and has a keen sense of responsibility.	1 1 2 2 3 66 4 282	1 2 6.2 26.3	.1 .2 6.2 26.3	4.60	2
2. Exhibits high level of enthusiasm for teaching.	1 0 2 4 3 61 4 260	0 4 5.7 24.2	0 .4 5.7 24.2	4.63	1
3. Is eager to learn from cooperating teacher.	1 2 2 2 3 128	2 2 11.9	.2 .2 11.9	4.41	3
4. Is punctual and law-abiding.	1 4 2 368 3 573	4 34.3 53.4	.4 34.3 53.4	4.28	4

	law-abiding	2	14	1.3
3	197	18.4		
4	311	29.0		
5	538	50.1		

### Teaching Plans

As reported in Table 2,

1. The subjects identified the order of degree of importance of the teaching behavior

indicators as follows.

(1) Selects learning objectives for students individual abilities and needs (M=4.35),

(2) Designs appropriate teaching activities consistent with teaching objectives

(M=4.25),

(3) Uses a variety of instructional resources, materials and equipment effectively

(M=4.23),

(4) Distributes and uses instructional time effectively (M=4.09),

(5) Constructs unit objectives and behavioral objectives according to the subject's

objectives and the teaching units (M=4.04),

(6) Studies the teaching materials and recognizes the status of the unit in the

subject (M=4.01),

(7) Collects or edits supplementary teaching materials according to instructional

needs (M=3.92),

(8) Designs teaching arrangement according to the unit of teaching materials

(M=3.80).

The following showed the five groups of subjects' opinions toward teaching plans of formative teaching evaluation criteria for student teachers.

1. Teachers' college professors and principals considered the most important

teaching behavior indicator " Designs appropriate teaching activities consistent

with teaching objectives." However, grade principals, elementary teachers and

college students thought the most important one was " Selects learning objectives for students individual abilities and needs."

2. Generally speaking, the subjects considered that the 8 teaching competencies of

teaching plans were " very important." Thus, the 8 teaching competence items

were necessary for student teachers.

## Teaching methods

As indicated in Table 3,

1. The subjects identified the order of degree of importance of the teaching

behavior indicators as follows.

(1) Uses appropriate teaching methods or techniques to facilitate students to form

good learning attitudes and habits ( M=4.39 ),

(2) Utilizes a variety of teaching methods with good flexibility ( M=4.34 ),

(3) Utilizes creative expression teaching methods to stimulate students' creative

potentials and willingness to express themselves ( M=4.23 ),

(4) Guides students to study problems with higher order thinking ( M=4.22 ),

(5) Uses demonstration to help students master basic skills ( M=4.15 ),

(6) Gives consideration to affective objectives in the instructional processes of

every subject ( M=4.09 ),

(7) Selects appropriate teaching materials for students to appreciate ( M=3.98 ).

## Table 2

The Result of the Area of Teaching Plans of Formative Teaching Evaluation  
Criteria for Student Teachers

Items Responses N % Mean Rank

Order

1. Constructs unit objectives and behavioral objectives according to the subject's objectives and the teaching units.
 

1	6	.6	4.04	5
2	35	3.3		
3	246	22.9		
4	411	38.3		
5	373	34.8		
  
2. Selects learning objectives for students individual abilities and needs.
 

1	1	.1	4.35	1
2	7	7.7		
3	130	12.1		
4	14	38.6		
5	20	48.5		
  
3. Designs appropriate teaching activities consistent with teaching objectives.
 

1	004	.252		
2	10	9		
3	177	16.5		
4	233	9.4		
5	459	42.8		
  
4. Studies the teaching materials and recognizes the status of the unit in the subject
 

1	2	24	.016	
2	40	3.7		
3	264	24.6		
4	405	37.7		

- 5360 33.6
5. Distributes and uses instructional time 10 04.094  
effectively.219 1.8  
3 2523.4  
441138.3  
539036.3
6. Designs teaching arrangement according14 .43.808  
to the unit of teaching materials.2 65 6.1  
materials.3 35433.0  
4 36233.7  
5 28626.7  
( continued)

Items	Responses	N	%	Mean	Rank
7. Collects or edits supplementary teaching materials according to instructional needs.	1 5	53	.927	363.4	330928.8
		441638.8			530528.4
8. Uses a variety of instructional resources, materials and equipment effectively.	1 3	34	.233	518.2	4408 38.0
	2 5		.5		545742.6

The following showed the five groups of subjects' opinions toward teaching methods of formative teaching evaluation criteria for student teachers.

- Teachers' college professors, principals and grade principals considered that the most important teaching behavior indicator " Utilizes a variety of teaching methods with good flexibility." However, elementary teachers and teacher' college students thought the most important one " Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits."
- Generally speaking, the subjects considered that the 7 teaching competencies of teaching methods were " very important." Thus, the 7 teaching competences were necessary for student teachers.

Teaching techniques  
As displayed in Table 4,

1. The subjects identified the order of degree of importance of the teaching

behaviors as follows.

- (1) classroom management (Item 36-44, M=4.38),
- (2) interaction (Item 21-23, M=4.31),
- (3) sums up teaching (Item 45, M=4.29),
- (4) teaching preparation (Item 1-4, M=4.27),
- (5) raises a question (Item 7-10, M=4.22),
- (6) attracts and maintains students' attention (Item 18-20, M=4.18),
- (7) stimulates students' learning motivation (Item 5-6, M=4.18)..,

Table 3

The Result of the Area of Teaching Methods of Formative Teaching  
Evaluation Criteria for Student Teachers

Items	Responses	N	%Mean	Rank
1. Utilizes a variety of teaching methods with good flexibility.	1 2 2 6	14713.7 438435.8 553449.8	.24.342 .6	
2. Guides students to study problems with higher order thinking.	1 1 2 10	17316.1 45542.4 43440.4	.14.224 .9	
3. Gives consideration to affective objectives in the instructional processes of every subject.	1 2 2 23	324222.6 441939.0 538636.0	.24.096 2.1	
4. Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits.	1 4 2 5	313412.5 435933.5 557053.1	.44.391 .5	
5. Selects appropriate teaching materials for students to appreciate.	1 4 2 15	328926.9 445442.3 531028.9	.43.987 1.4	

( continued )

Items	Responses	N	%	Mean	Rank
6. Uses demonstration to help students master basic skills.	14	4	.44	1.155	
7. Utilizes creative expression teaching methods to stimulate students' creative potentials and willingness to express themselves.	14	4	.44	1.233	

- (8) guides exercises (Item 32-35, M=4.17),
- (9) communication and expression (Item 24-27, M=4.14),
- (10) applies teaching media (Item 16-17, M=4.12),
- (11) teaching feedback (Item 28-31, M=4.11),
- (12) proceeds grouping activities (Item 13-15, M=4.05),
- (13) writes on the blackboard (Item 11-12, M=3.90).

The subjects considered that the top ten most important teaching behavior indicators were in the following:

- (1) Implements effective classroom management (Item 36, M=4.52),
- (2) Encourages students to prepare lessons in advance (Item 2, M=4.17),
- (3) Prepares teaching (contents, methods, resources and situation) fully in advance (Item 1, M=4.46),
- (4) Maintains the order and discipline of the classroom (Item 37, M=4.43),
- (5) Keeps an enthusiastic, warm, supporting and respecting classroom climate (Item 38, M=4.41),
- (6) Gives every student equal attention and care (Item 21, M=4.39),
- (7) Encourages students to concentrate on listening to what the teacher says and praises or rewards appropriately (Item 40, M=4.36),
- (8) Uses reward and punishment well and rewards and punishes clearly (Item 41, M=4.34),
- (9) Provides the opportunity of teacher-student interaction and uses positive

means of communication (Item 22, M=4.34),  
(10) Is familiar with teaching materials and connects them  
systematically (Item 3,  
M=4.31).

The following showed the five groups of subjects' opinions toward  
teaching techniques of formative teaching evaluation criteria for  
student teachers.

1. Teachers' college professors and elementary teachers thought that  
the most important teaching behavior indicators " Sets a good example with one's own  
conduct." However, principals, grade principals and teachers' college  
students considered the most important one to be " Implements effective  
classroom management."
2. Generally speaking, the subjects considered that the 45 teaching  
behavior indicators were "very important." Thus, the 45 teaching  
competencies were necessary for student teachers.
3. Among the 5 kinds of subjects, 3 or more kinds considered that Item  
36 and Item 44 were "extremely important."
4. Among the 45 formative teaching evaluation criteria, the subjects  
considered the least important the following 5 items:
  - (1) Writes on the blackboard briefly and  
systematically (Item 12, M=3.89),
  - (2) Divides students into appropriate groups according

to the nature of

activities or discussion models (Item 13,  
M=3.91)

- (3) Writes on the blackboard properly, neatly and  
appropriately (Item 11,  
M=3.91),
- (4) Provides feedback to homework at the right moment  
(Item 29, M=3.94),
- (5) Uses movement to facilitate expression (Item 27,  
M=4.01).

Table 4  
The Result of the Area of Teaching Techniques of Formative Teaching  
Evaluation Criteria for Student Teachers

Items	Responses	N	%Mean	Rank
Order				
1. Prepares teaching (contents, methods, resources and situation ) fully in advance.	2	2	.2	
	3108	10.1		
	4343	32.0		
	5617	57.5		
2. Encourages students to prepare lessons in advance.	1	1.14.1728		
	3211	19.7		
	4420	39.1		
	5426	39.7		
3. Is familiar with teaching materials and connects them systematically.	1	1.14.3110		
	3150	14.0		
	4408	38.0		
	5506	47.2		
4. Uses textbooks and teacher guides in good ways.	1	4.44.1531		
	3215	20.0		
	4411	38.3		
	5423	39.4		
5. Connects the contents or activities of the last lesson in sequence.	13	.34.0539		
	3236	22.0		
	4454	42.3		
	5354	43.0		
6. Utilizes a variety of motivation stimulating strategies raise students learning interests.	14	.44.3113		
	3	14813.8		
	4	40838.0		
	5	50547.1		

( continued)

Items	Responses	N	%Mean	Rank
Order				
7. Brings up questions to stimulate students' thinking.	1	2	.24.3113	
	3147	13.7		
	4404	43.7		
	5508	47.3		
8. Is aware of waiting time for students to think fully.	1	3	.34.1432	
	3230	21.4		
	4398	37.1		
	5426	39.7		
9. Changes questioning subjects and	1	2	.2 4.2221	

techniques.2 18 1.7  
 320018.6  
 437835.2  
 547544.3  
 10. Provides appropriate feedback to 1 2 .24.1922  
     students' answer.2 9 .8  
 319017.7  
 445041.9  
 542039.1  
 11. Writes on the blackboard properly, 1 4 .43.9143  
     neatly and appropriately.2 31 2.9  
 333130.8  
 440137.4  
 530628.5  
 12. Writes on the blackboard briefly1 2 .23.8945  
     and systematically.2 28 3.5  
 332430.2  
 442239.3  
 528726.7  
 ( continued)

Items	Responses	N	%Mean	Rank
	Order			
13. Divides students into appropriate groups according to the nature of activities or discussion models.	1 2	0 33	03.9144 3.1	
				331329.2
				444841.8
				527725.8
14. Controls group activities to proceed smoothly, including theme, time and order.	1 2	1 19	.14.0638 1.8	
				325323.6
				444241.2
				535833.4
15. Shares and concretely presents the outcome of group activities to the class, or sums up and integrates them.	1 2	2 13	.24.1925 1.2	
				319117.8
				444541.5
				542239.3
16. Selects appropriate instructional media based on teaching needs.	1 2	1 10	.14.1433 .9	
				322320.8
				444241.2
				539636.9
17. Uses every kind of teaching media proficiently.	1 2	1 17	.14.1035 1.6	
				324222.6

442739.8  
538535.9

18. Uses language, movement or 1 2 .24.2518  
expression to attract students' attention.2 9 .8  
319017.7  
438936.3  
548244.9  
( continued)

Items	Responses	N	%	Mean	Rank
19. Uses teaching media to attract students' attention.	19	2	1.8	.24.1234	
	322320.8				
	443640.6				
	539236.5				
20. Uses humor when appropriate to attract students' attention.	17	3	1.6	.34.1728	
	321319.9				
	439937.2				
	543940.9				
21. Gives every student equal attention and care.	8	3	.7	.34.396	
	312511.6				
	437234.7				
	556352.5				
22. Provides the opportunity for teacher-student interaction and uses positive means of communication.	5	1	.5	.14.349	
	440938.1				
	551548.0				
23. Accepts different opinions and explains them.	8	2	.7	.24.1924	
	320318.9				
	443140.2				
	542839.9				
24. Listens, accepts and explores students' questions and communicates clearly and patiently.	11	2	1.0	.24.3111	
	439937.2				
	551247.7				

( continued)

Items	Responses	N	%Mean	Rank
Order				
25. Uses appropriate vocabulary and language level.	1.2	5	.54	1.730
	2	16		1.5
	3	20		19.4
	4	41		1038.2
	5	54		3340.4
26. Speaks clearly and with appropriate speed, volume or intonation.	1.2	2	.24	.0837
	2	22		2.1
	3	23		722.1
	4	44		3640.6
	5	53		7534.9
27. Uses movement to facilitate expression.	1	2	.24	.0141
	2	28		2.6
	3	26		224.4
	4	44		241.2
	5	53		3831.5
28. Provides immediate and appropriate feedback to students on performance.	1.2	1	.14	.2320
	2	9		.8
	3	19		017.7
	4	41		839.0
	5	54		5342.2
29. Provides feedback for homework at the right moment.	1.2	8	.73	.9442
	2	30		2.8
	3	32		9327.3
	4	44		2539.6
	5	53		1629.5
30. Explores further incorrect response to provide the opportunity for students to learn again.	1.2	7	.74	.0936
	2	13		1.2
	3	32		3822.2
	4	44		2739.8
	5	53		8636.0

( continued)

Items	Responses	N	%Mean	Rank
Order				
31. Makes supplementary teaching timely and appropriate.	1.2	1	.14	.1827
	2	9		.8
	3	20		419.0
	4	44		3740.7
	5	54		2039.1

32. Plans and guides every kind of1	3	.34.0440
exercise appropriately.2	19	1.8
325223.5		
446042.9		
533631.3		
33. Comments on and corrects students' 1	3	.34.2618
exercises accurately and conscientiously.2	11	1.0
319017.7		
436433.9550346.9		
34. Provides suggestions for improvement 1	2	.24.1826
after commenting on and correcting 2	18	1.7
students' exercises.318817.5		
443640.6		
542739.8		
35. Improves teaching according to the 1	2	.24.1923
results of commenting on and 2	20	1.9
correcting students' exercises.318016.8		
443840.8		
543140.2		
36. Implements effective classroom 1	2	.24.521
managment.2	8	.7
3	96	8.9
428826.8		
567763.1		
( continued)		

Items	Responses	N	%Mean	Rank
Order				
37. Maintains order and discipline in 1	0	04.434		
the classroom.2	14	1.3		
312011.2				
433331.0				
560356.2				
38. Keeps an enthusiastic, warm, supporting 1	2	.24.415		
and respectful classroom climate.2	7	.7		
312211.4				
436133.6				
557954.0				
39. Observes students' behaviors keenly 1	4	.44.2717		
and guides them randomly.2	11	1.0		
315814.7				
441738.9				
548144.8				
40. Encourages students to concentrate on 1	3	.34.367		
listening to what the teacher says and 2	8	.7		

praises or rewards appropriately.312912.0  
 439036.3  
 554150.4  
 41. Uses reward and punishment well and 1 1 .14.348  
     rewards and punishes clearly.2 13 1.2  
 315114.1  
 435833.4  
 554851.1  
 42. Has control over students' attendance 1 4 .44.2915  
     and absence at every period.2 23 2.1  
 318116.9  
 431129.0  
 555251.4  
 ( continued)

Items	Responses	N	%	Mean	Rank
Order					
43. Takes care of accidental events.	1	2	.24	.3112	
	2	11	1.0		
	3	16	14.9		
	4	37	43.9		
	5	52	24.8		
44. Sets a good example with one's own	. 1	2	.24	.502	
conduct	2	6	.6		
	3	10	9.5		
	4	30	12.8		
	5	65	96.1		
45. Sums up the main points of a period or	1	5	.54	.2916	
an unit.	2	9	.8		
	3	14	13.0		
	4	43	54.0		
	5	54	76.4		

#### Teaching evaluations

As showned in Table 5,

1. The subjects identified the order of degree of importance of the teaching behaviors as follows.

(1) Utilizes assessment data for future planning and reteaching (M=4.32),

(2) Employs assessment data to reward or guide students at the right moment (M=4.29),

- (3) Assesses students' performance fairly and accurately (M=4.24),
- (4) Employs a variety of assessment methods to understand students' performances regarding the teaching objectives (M=4.23),
- (5) Utilizes a variety of teaching methods with good flexibility (M=4.22),
- (6) Evaluates students' performances in terms of teaching objectives (M=4.17),
- (7) Assesses students' behaviors and thinking to see whether they are right during daily behaviors and conversation (M=4.17),
- (7) Assesses students' degree of mastery or skill in the learning activities (M=4.17),
- (8) Explains the outcomes of every assessment (M=4.01).

The following showed the five groupss of subjects' opinions toward teaching evaluations of formative teaching evaluation criteria for student teachers.

1. Teachers' college professors considered that the most important teaching behavior indicator " Utilizes a variety of teaching methods with good flexibility." However, to principals and grade principals the most important one " Evaluates students' performances in terms of teaching objective." To elementary teachers, the most important one "Employs assessment data to reward or guide students at the right moment." To teachers' college students, the most important one was "Utilizes assessment data for future planning and reteaching."
2. Generally speaking, the subjects considered that the 9 teaching competencies were "very important." Thus, the 9 teaching competencies were necessary for student teachers.

Table 5

The Result of the Area of Teaching Evaluations of Formative Teaching Evaluation Criteria for Student Teachers

Items	Responses	N	%	Mean	Rank
1. Evaluates students' performances in terms of teaching objectives.	1	3	.34	2.06	
	2	21	2.0		
		3186	17.3		
		4415	38.7		
		5444	41.4		
2. Utilizes a variety of teaching methods with good flexibility.	1	0	04.225		
	2	16	1.5		
		3164	15.3		
		4456	42.5		
		5434	40.4		
3. Employs a variety of assessment	1	0	04.234		

methods to understand student 2 15 1.4  
performance regarding the 318116.9  
teaching objectives.441438.6  
546042.9

(continued)

Items	Responses	N	%	Mean	Rank
4. Assesses students' performance fairly and accurately.	1 2	3 12	.34	.243	1.1
				317716.5	
				441138.3	
				546843.6	
5. Assesses students' degree of mastery or skill in the learning activities.	1 2	5 14	.54	.177	1.3
				318217.0	
				446343.2	
				540737.9	
6. Assesses students' behaviors and thinking to see whether they are right during daily behaviors and conversation.	1 2	2 11	.24	.177	1.0
				321920.4	
				440938.1	
				542839.9	
7. Explains the outcomes of every assessment.	1 2	2 22	.24	.019	2.1
				326224.4	
				445942.8	
				532430.2	
8. Utilizes assessment data for future planning and reteaching.	1 2	1 11	.14	.321	1.0
				314713.7	
				439837.1	
				551247.7	
9. Employs assessment data to reward or guide students at the right moment.	1 2	2 13	.24	.292	1.2
				315214.2	
				441238.4	

The relative importance of teaching behaviors and teaching behavior

indicators

1. The subjects considered the following the top ten most important teaching behaviors :

- (1) teaching attitudes (M=4.48),
- (2) classroom management (M=4.38)
- (3) interaction (M=4.31),
- (4) sums up teaching (M=4.29),
- (5) makes use of teaching methods of the cognitive domain (M=4.28),
- (6) teaching preparation (M=4.27),
- (7) raises a question (M=4.22),
- (8) evaluates teaching effectiveness (M=4.21),
- (9) makes use of the result of evaluations (M=4.21),
- (10) specifies teaching objectives (M=4.20).

2. The subjects considered the following the top ten most important teaching behavior indicators:

- (1) Exhibits high level of enthusiasm for teaching (M=4.63),
- (2) Displays amiability and having a keen sense of responsibility (M=4.60),
- (3) Implements effective classroom management (=4.52),
- (4) Is eager to learn from cooperating teacher (M=4.41),
- (5) Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits (M=4.39),
- (6) Designs teaching arrangement according to the unit of teaching materials (M=4.35),
- (7) Utilizes a variety of teaching methods with good flexibility (M=4.34),
- (8) Evaluates students' performances in terms of teaching objectives (M=4.32),
- (9) Employs assessment data to reward or guide students at the right moment (4.29),
- (10) Is punctual and law-abiding (M=4.28).

Item Analysis for Formative Teaching Evaluation Criteria for Student Teachers

The importance of the criteria was the first priority of item analysis for formative teaching evaluation criteria for student teachers. The second priority was the index of discrimination of the criteria.

The Mean of the criteria represented the importance of the criteria. The larger the Mean, the higher the importance. The smaller the Mean, the lower the importance. The larger the index of discrimination of

the criteria, the better the discrimination. This represented a good item. However, the worse the index of discrimination, the smaller the discrimination. This represented a poor item. The relationships between the index of discrimination and good or poor items are shown in Table 6.

Table 6  
 The Index of Discrimination of Items and the Evaluation of Its Goodness and Poorness

Index of Discrimination	Item Evaluation
.40 over	and above excellent
.30~.39	good, modify it to be better.
.20~.29	fair, should be revised.
.19 below	poor, should be eliminated.

As shown in Table 7, most of the subjects considered the most important items to be (1) Displays amiability and having a keen sense of responsibility ( M=4.60 ); (2) Exhibits high level of enthusiasm for teaching ( M=4.63 ) Since the 2 items were the most important, the index of discrimination of the items were low naturally. According to the criteria of item analysis in this study, the priority of item reservation was the importance of the criteria. Therefore, the 2 items should be reserved. The importance of the other 2 items were also good ( M=4.41 & M=4.28 ). The index of discrimination of the criteria were "fair." Thus, we can see the summative teaching evaluation criteria for student teachers was a good evaluation instrument. It revealed that the 2 items were very important. Although their index of discrimination were "fair", they should be reserved.

Table 7  
 Item Analysis of Teaching Attitudes of Formative Teaching Evaluation Criteria for Student Teachers

Items	Mean	Index of	Discrimination
1. Displays amiability and having a keen sense of responsibility.	4.60	.15	
2. Exhibits high level of enthusiasm for teaching.	4.63	.15	
3. Is eager to learn from cooperating teacher.	4.41	.21	
4. Is punctual and law-abiding.	4.28	.25	

Table 8  
 Item Analysis of Teaching Plans of Formative Teaching Evaluation Criteria for Student Teachers

Items	Mean	Index of	Discrimination
1. Constructs unit objectives and behavioral objectives according to the subject's objectives and the teaching units.	4.04	.27	
2. Selects learning objectives for students individual abilities and needs.	4.35	.23	

3. Designs appropriate teaching activities consistent with teaching objectives.4.25.26
4. Studies the teaching materials and recognizes 4.01.31 the status of the unit in the subject.
5. Distributes and uses instructional time effectively.4.09.26
6. Designs teaching arrangement according to the unit of teaching materials.3.80.30
7. Collects or edits supplementary teaching materials needs. according to instructional 3.92.29
8. Uses a variety of instructional resources, materials and equipment effectively.4.23.25

Table 9

Item Analysis of Teaching Methods of Formative Teaching Evaluation  
Criteria for Student Teachers

Items	Mean	Index of	Discrimination
1. Utilizes a variety of teaching methods with good flexibility.	4.34	23	
2. Guides students to study problems with higher order thinking.	4.22	25	
3. Gives consideration to affective objectives in the subject. instructional processes of every	4.09	29	
4. Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits.	4.39	.24	
5. Selects appropriate teaching materials for students to appreciate.	3.98	29	
6. Uses demonstration to help students master basic skills.	4.15	28	
7. Utilizes creative expression teaching methods to stimulate students' creative potentials and willingness to express themselves.	4.23	28	

Table10

Item Analysis of Teaching Techniques of Formative Teaching Evaluation  
Criteria for Student Teachers

Items	Mean	Index of	Discrimination
1. Prepares teaching (contents, methods, resources and situation) fully in advance.	4.46	22	
2. Encourages students to prepare lessons in advance.	4.17	27	
3. Is familiar with teaching materials and connects them systematically.	4.31	27	
4. Uses textbooks and teacher guides in good ways.	4.15	27	
5. Connects the contents or activities of the last lesson in sequence.	4.05	30	
6. Utilizes a variety of motivation stimulating strategies raise students learning interests.	4.31	27	
7. Brings up questions to stimulate students' thinking.	4.31	27	
8. Is aware of waiting time for students to think fully.	4.14	30	

9. Changes questioning subjects and techniques.4.22.29
10. Provides appropriate feedback to students' answer.4.19.28
11. Writes on the blackboard properly, neatly and appropriately. 3.91  
.28
12. Writes on the blackboard briefly and systematically.3.89.29
13. Divides students into appropriate groups according to the  
nature of activities or discussion models.3.91.31
14. Controls group activities to proceed smoothly,  
including theme, time and order.4.06.30
15. Shares and concretely presents the outcome of group  
activities to the class, or sums up and integrates them.4.19.28
16. Selects appropriate instructional media based on  
teaching needs.4.14.29
17. Uses every kind of teaching media proficiently.4.10.30
18. Uses language, movement or expression to attract  
students' attention.4.25.28
19. Uses teaching media to attract students' attention.4.12.31
20. Uses humor when appropriate to attract students' attention.4.17.27
21. Gives every student equal attention and care.4.39.21
22. Provides the opportunity for teacher-student interaction  
and uses positive means of communication.4.34.24
23. Accepts different opinions and explains them.4.19.27

(continued)

- | Items | Mean                                                                                             | Index of | Discrimination |
|-------|--------------------------------------------------------------------------------------------------|----------|----------------|
| 24.   | Listens, accepts and explores students' questions and communicates clearly and patiently.        | 4.31.26  |                |
| 25.   | Uses appropriate vocabulary and language level.                                                  | 4.17.27  |                |
| 26.   | Speaks clearly and with appropriate speed, volume or intonation.                                 | 4.08.30  |                |
| 27.   | Uses movement to facilitate expression.                                                          | 4.01.31  |                |
| 28.   | Provides immediate and appropriate feedback to students on performance.                          | 4.23.29  |                |
| 29.   | Provides feedback for homework at the right moment.                                              | 3.94.34  |                |
| 30.   | Explores further the incorrect responses to provide the opportunity for students to learn again. | 4.09.31  |                |
| 31.   | Makes supplementary teaching timely and appropriate.                                             | 4.18.28  |                |
| 32.   | Plans and guides every kind of exercise appropriately.                                           | 4.04.30  |                |
| 33.   | Comments on and corrects students' exercises accurately and conscientiously.                     | 4.26.27  |                |
| 34.   | Provides suggestions for improvement after commenting students' exercises.                       | 4.18.28  |                |
| 35.   | Improves teaching according to the results of commenting on and correcting students' exercises.  | 4.19.28  |                |
| 36.   | Implements effective classroom management.                                                       | 4.52.20  |                |
| 37.   | Maintains the order and discipline of the classroom.                                             | 4.43.22  |                |
| 38.   | Keeps an enthusiastic, warm, supporting and respectful classroom climate.                        | 4.41.23  |                |
| 39.   | Observes students' behaviors keenly and guides them                                              |          |                |

- randomly.4.27.28
40. Encourages students to concentrate on listening to what the teacher says and praises or rewards appropriately.4.36.24
  41. Uses reward and punishment well and rewards and punishes clearly.4.34.24
  42. Has control over students' attendance and absence at every period.4.29.26
  43. Takes care of accidental events.4.31.26
  44. Sets a good example with one's own conduct. 4.50.21
  45. Sums up the main points of a period or an unit.4.29.27

Table 11

Item Analysis of Teaching Evaluations of Formative Teaching Evaluation  
Criteria for Student Teachers

Items	Mean	Index of	Discrimination
1. Evaluates students' performances in terms of teaching objectives.	4.20	0.29	
2. Utilizes a variety of teaching methods with good flexibility.	4.22	0.29	
3. Employs a variety of assessment methods to understand student performance regarding the teaching objectives.	4.23	0.29	
4. Assesses students' performance fairly and accurately.	4.24	0.30	
5. Assesses students' degree of mastery or skill in the learning activities.	4.17	0.30	
6. Assesses students' behaviors and thinking to see whether they are right during daily behaviors and conversation.	4.17	0.29	
7. Explains the outcomes of every assessment.	4.01	0.31	
8. Utilizes assessment data for future planning and reteaching.	4.32	0.27	
9. Employs assessment data to reward or guide students at the right moment.	4.29	0.28	

By the same token the items in Table 8 ~ 11, we can see the the importance of these items was very good. The index of discrimination of the criteria ranged from "good" to "fair." Thus, as we can see the formative teaching evaluation criteria for student teachers was a good evaluation instrument.

The Relative Importance of Formative Teaching Evaluation Criteria for Student Teachers

There were five areas of teaching performance of summative teaching evaluation criteria for student teachers. The five areas of teaching performance were teaching attitudes, teaching plans, teaching methods, teaching techniques and teaching evaluation. As indicated in Table 12, the most important area of teaching performance was teaching attitudes. The second was teaching techniques. The third was teaching methods. The fourth was teaching plans. The last was teaching evaluations.

Table 12

The Result of the Relative Importance of Formative Teaching Evaluation  
Criteria for Student Teachers

Areas	Responses	N	%	Mean	Rank	Order
Teaching Attitudes	1	56	5.2	4.281		
	2	77	7.2			
	3	91	8.5			
	4	124	11.6			
	5	171	16.2			
Teaching Plans	1	114	13.53	0.24		
	2	28	2.6			
	3	20	1.8			
	4	26	2.4			
	5	16	1.5			
Teaching Methods	1	81	7.53	3.63		
	2	16	1.5			
	3	29	2.7			
	4	33	3.0			
	5	18	1.7			
Teaching Techniques	1	56	5.23	5.22		
	2	15	1.4			
	3	25	2.3			
	4	36	3.3			

	5	22	2.1			
Teaching Evaluations	1	152	14.8	7.2	1.65	
	2	19	1.8			
	3	11	1.0			
	4	99	9.2			
	5	12	1.1			

As reported in Table 13, all the subjects considered the most important area of teaching performance of summative teaching evaluation criteria for student teachers to be "teaching attitudes."

Table 14 indicates that the result of the subjects' assessment of the importance of the five areas of teaching performance. The Kendall's W was statistically significant ( $p < .05$ ). Thus, as we can see the subjects' opinions toward the rank order of the importance of the areas of teaching performance was in agreement.

Table 13

The Result of Areas of Teaching Performance of Formative Teaching  
Evaluation Criteria

Items	Responses	Subjects	Teachers'	College	Professors	Principals
N	%	Mean	Rank	N	%	Mean
Rank	Order	Rank	Order	Rank	Order	Rank
Teaching	149	33	5	5	5	5

Attitudes 249.335.5  
 36 14.059.1  
 42 4.74.02159.14.351  
 527 62.8399.1  
 Teaching 15 11.69 16.4  
 Plans 211 25.612 21.8  
 34 9.39 16.4  
 417 39.53.19313 23.63.134  
 5 6 14.012 21.8  
 Teaching 14 9.31 1.8  
 Methods29 20.99 16.4  
 312 27.915 27.3  
 414 32.63.12421 38.23.512  
 5 4 9.3 9 16.4  
 Teaching 14 9.36 10.9  
 Techniques 26 14.09 16.4  
 315 34.913 23.6  
 412 27.93.23214 25.53.353  
 5 6 14.013 23.6  
 Teaching 122 51.227 49.1  
 Evaluations210 23.312 21.8  
 34 9.36 10.9  
 42 4.72.02547.32.095  
 55 11.66 10.9

### Subjects

Grade Principals Elementary Teachers

N%MeanRank N%MeanRank N% Mean Rank

OrderOrder Order

126.8 24 4.7 124.4

18 10.2 35 6.9 176.2

179.7 42 8.3 196.9

21 11.94.101 55 10.84.321 38 13.84.351

10660.2345 68.5 185 67.3

27 15.3 79 15.5 238.4

42 23.9 148 29.1 70 24.5

34 19.3 86 16.9 67 24.4

29 16.53.104 122 24.02.904 75 27.33.113

4223.9 66 13.0 36 13.1

137.4 30 5.9 33 12.0

Teachers' College Student

24	13.6	65	12.8	54	19.6				
38	21.6	148	29.1	82	29.8				
61	34.73	503	169	33.23	443	60	21.83	094	
	382	1.6	89	17.5	42	15.3			
7	4.0	19	3.7	196.9					
25	14.2	77	15.1	36	13.1				
43	24.4	126	24.8	57	20.7				
50	28.43	632	176	34.63	532	103	37.53	522	
	492	7.8	103	20.2	56	20.4			
80	45.5	255	50.1	135	49.1				
33	18.8	85	16.7	52	18.9				
23	13.1	56	11.0	24	8.7				
11	6.32	265	49	9.62	135	28	10.22	145	
	27	15.3							56
			31	11.3					11.0

Table 14

The Kendall's W of Formative Teaching Evaluation Criteria for Student Teachers

AreasRank of Mean

Teaching Attitudes 4.05

Teaching Plans 2.72

Teaching Methods 3.11

Teaching Techniques 3.27

Teaching Evaluation 1.86

N=993 W=.29\* D.F.=4

\*p<.05

## Conclusion

This study revealed that formative teaching evaluation criteria for student teachers included five areas of teaching performance which included 22 teaching behaviors which included 73 teaching behavior indicators. The areas of teaching performance, teaching behaviors and teaching behavior indicators were as follows.

### Formative Teaching Evaluation Criteria for Student Teachers

#### A. Teaching attitudes

##### a. teaching attitudes

1. Displays amiability and has a keen sense of responsibility.
2. Exhibits high level of enthusiasm for teaching.
3. Is eager to learn from cooperating teacher.
4. Is punctual and law-abiding

## B. Teaching plans

### b. specifies teaching objectives

1. Constructs unit objectives and behavioral objectives according to the

subject's objectives and the teaching units.

2. Selects learning objectives for students individual abilities and needs.

### c. analyzes teaching situations

3. Designs appropriate teaching activities consistent with teaching objectives.

4. Studies the teaching materials and recognizes the status of the unit in the subject.

5. Distributes and uses instructional time effectively.

6. Designs teaching arrangement according to the unit of teaching materia

### d. collects and utilizes teaching resources

7. Collects or edits supplementary teaching materials according to instructional needs.

8. Uses a variety of instructional resources, materials and equipment effectively.

## C. Teaching methods

### e. makes use of teaching methods of the cognitive domain

1. Utilizes a variety of teaching methods with good flexibility.

2. Guides students to study problems with higher order thinking.

### f. makes use of teaching methods of the affective domain

3. Gives consideration to affective objectives in the instructional processes of every subject.

4. Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits.

5. Selects appropriate teaching materials for students to appreciate.

### g. makes use of teaching methods of the psychomotor domain

6. Uses demonstration to help students master basic skills.

7. Utilizes creative expression teaching methods to stimulate students' creative potentials and willingness to express themselves.

D. Teaching techniques

h. teaching preparation

1. Prepares teaching (contents, methods, resources and situation )  
fully in

advance.

2. Encourages students to prepare lessons in advance.

3. Is familiar with teaching materials and connects  
them systematically.

4. Uses textbooks and teacher guides in good ways.

i. stimulates students' learning motivation

5. Connects the contents or activities of the last  
lesson in sequence.

6. Utilizes a variety of motivation stimulating  
strategies raise student

learning interests.

j. raises a question

7. Brings up questions to stimulate students' thinking.

8. Is aware of waiting time for students to think fully.

9. Changes questioning subjects and techniques.

10. Provides appropriate feedback to students' answer.

k. writes on the blackboard

11. Writes on the blackboard properly, neatly and  
appropriately.

12. Writes on the blackboard briefly and  
systematically.

l. proceeds grouping activities

13. Divides students into appropriate groups according  
to the nature of

activities or discussion models.

14. Controls group activities to proceed smoothly,  
including theme, time and  
order.

15. Shares and concretely presents the outcome of group  
activities to the

class, or sums up and integrates them.

m. applies teaching media

16. Selects appropriate instructional media based on  
teaching needs.

17. Uses every kind of teaching media proficiently.

n. attracts and maintains students' attention

18. Uses language, movement or expression to attract  
students' attention 19. Uses teaching media to attract students'  
attention

20. Uses humor when appropriate to attract students'  
attention.

o. interaction

21. Gives every student equal attention and care.

22. Provides the opportunity for teacher-student

interaction and uses

positive means of communication.

23. Accepts different opinions and explains them.

p. communication and expression

24. Listens, accepts and explores students' questions  
and communicates

clearly and patiently.

25. Uses appropriate vocabulary and language level.

26. Speaks clearly and with appropriate speed, volume  
or intonation.

27. Uses movement to facilitate expression.

q. teaching feedback

28. Provides immediate and appropriate feedback to  
students on

performance.

29. Provides feedback for homework at the right moment.

30. Explores further the incorrect responses to provide  
the opportunity for

students to learn again.

31. Makes supplementary teaching timely and  
appropriate.

r. guides exercises

32. Plans and guides every kind of exercise  
appropriately.

33. Comments on and corrects students' exercises  
accurately and

conscientiously.

34. Provides suggestions for improvement after  
commenting on and

correcting students' exercises.

35. Improves teaching according to the results of

commenting on and

correcting students' exercises.

s. classroom management

36. Implements effective classroom management.

37. Maintains the order and discipline of the  
classroom.

38. Keeps an enthusiastic, warm, supporting and  
respectful classroom

climate.

39. Observes students' behaviors keenly and guides them  
randomly.

40. Encourages students to concentrate on listening to  
what the teacher

says and praises or rewards appropriately.

41. Uses reward and punishment well and rewards and  
punishes clearly.

42. Has control over students' attendance and absence

at every period.

43. Takes care of accidental events.

44. Sets a good example with one's own conduct.

t. sums up teaching

45. Sums up the main points of a period or an unit.

E. Teaching evaluations

u. evaluates teaching effectiveness

1. Evaluates students' performances in terms of teaching objectives.

2. Utilizes a variety of teaching methods with good flexibility.

3. Employs a variety of assessment methods to understand student

performance regarding the teaching objectives.

4. Assesses students' performance fairly and accurately.

5. Assesses students' degree of mastery or skill in the learning activities.

6. Assesses students' behaviors and thinking to see whether they are right

during daily behaviors and conversation.

v. makes use of the result of evaluations

7. Explains the outcomes of every assessment.

8. Utilizes assessment data for future planning and reteaching.

9. Employs assessment data to reward or guide students at the right

moment.

Item Analysis for Formative Teaching Evaluation Criteria for Student Teachers

Among the items of formative teaching evaluation criteria, the highest index of discrimination was .34, and the lowest was 1.5 . There were 4 good items in the items of summative teaching evaluation criteria, since their index of discrimination was between .30 to .39. There were 3 items of poor discrimination with an index of discrimination below .19; however, since the Mean of the 3 items was very high, it revealed the 3 items had very high importance. According to the criteria of item analysis in this study, only the items with low Means and discrimination should be deleted. Thus, the 3 items should be reserved. Therefore the summative teaching evaluation criteria for student teachers was a good evaluation instrument.

The Relative Importance of the Formative Teaching Evaluation Criteria for Student Teachers

## The Areas of Teaching Performance

The most important area of teaching performance was teaching attitudes.

The second was teaching techniques. The third was teaching methods.

The fourth was teaching plans. The last was teaching evaluations.

The rank order of the importance of the areas of teaching performance were in agreement and concordance.

## Teaching Behaviors

The top ten most important teaching behaviors were as follows:

- (1) teaching attitudes,
- (2) classroom management,
- (3) interaction ,
- (4) sums up teaching,
- (5) makes use of teaching methods of the cognitive domain,
- (6) teaching preparation,
- (7) raises a question,
- (8) evaluates teaching effectiveness,
- (9) makes use of the result of evaluations,
- (10) specifies teaching objectives.

2. The subjects considered the following the top ten most important teaching behavior indicators were in the following:

- (1) Exhibits high level of enthusiasm for teaching,
- (2) Displays amiability and having a keen sense of responsibility,
- (3) Implements effective classroom management,
- (4) Is eager to learn from cooperating teacher,
- (5) Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits,
- (6) Designs teaching arrangement according to the unit of teaching materials,
- (7) Utilizes a variety of teaching methods with good flexibility
- (8) Evaluates students' performances in terms of teaching objectives,
- (9) Employs assessment data to reward or guide students at the right moment,
- (10) Is punctual and law-abiding.

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Table 3-1

1. Displays amiability and has a keen sense of responsibility.
  2. Exhibits high level of enthusiasm for teaching.
  3. Is eager to learn from cooperating teacher.
  4. Is punctual and law-abiding
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1. Constructs unit objectives and behavioral objectives according to the subject's objectives and the teaching units.
2. Selects learning objectives for students individual abilities and needs.
3. Designs appropriate teaching activities consistent with teaching objectives.
4. Studies the teaching materials and recognizes the status of the unit in the subject.

5. Distributes and uses instructional time effectively.
  6. Designs teaching arrangement according to the unit of teaching materials.
  7. Collects or edits supplementary teaching materials according to instructional needs.
  8. Uses a variety of instructional resources, materials and equipment effectively.
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1. Utilizes a variety of teaching methods with good flexibility.
  2. Guides students to study problems with higher order thinking.
  3. Gives consideration to affective objectives in the instructional processes of every subject.
  4. Uses appropriate teaching methods or techniques to facilitate students to form good learning attitudes and habits.
  5. Selects appropriate teaching materials for students to appreciate.
  6. Uses demonstration to help students master basic skills.
  7. Utilizes creative expression teaching methods to stimulate students' creative potentials and willingness to express themselves.
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1. Prepares teaching (contents, methods, resources and situation ) fully in advance.
  2. Encourages students to prepare lessons in advance.
  3. Is familiar with teaching materials and connects them systematically.
  4. Uses textbooks and teacher guides in good ways.
  5. Connects the contents or activities of the last lesson in sequence.
  6. Utilizes a variety of motivation stimulating strategies raise students learning interests.
  7. Brings up questions to stimulate students' thinking.
  8. Is aware of waiting time for students to think fully.
  9. Changes questioning subjects and techniques.
  10. Provides appropriate feedback to students' answer.
  11. Writes on the blackboard properly, neatly and appropriately.
  12. Writes on the blackboard briefly and systematically.
  13. Divides students into appropriate groups according to the nature of activities or  
discussion models.
  14. Controls group activities to proceed smoothly, including theme, time and order.
  15. Shares and concretely presents the outcome of group activities to the class, or sums up and integrates them.
  16. Selects appropriate instructional media based on teaching needs.
  17. Uses every kind of teaching media proficiently.
  18. Uses language , movement or expression to attract students' attention.
  19. Uses teaching media to attract students' attention
  20. Uses humor when appropriate to attract students' attention.
  21. Gives every student equal attention and care.
  22. Provides the opportunity for teacher-student interaction and uses positive means of communication.
  23. Accepts different opinions and explains them.
  24. Listens, accepts and explores students' questions and communicates clearly and patiently.
  25. Uses appropriate vocabulary and language level.
  26. Speaks clearly and with appropriate speed, volume or intonation.
  27. Uses movement to facilitate expression.
  28. Provides immediate and appropriate feedback to students on performance.
  29. Provides feedback for homework at the right moment.
  30. Explores further the incorrect responses to provide the opportunity for students to learn again.
  31. Makes supplementary teaching timely and appropriate.
  32. Plans and guides every kind of exercise appropriately.
  33. Comments on and corrects students' exercises accurately and conscientiously.
  34. Provides suggestions for improvement after commenting on and

correcting students' exercises.

35. Improves teaching according to the results of commenting on and correcting students' exercises.

36. Implements effective classroom management.

37. Maintains the order and discipline of the classroom.

38. Keeps an enthusiastic , warm, supporting and respectful classroom climate.

39. Observes students' behaviors keenly and guides them randomly.

40. Encourages students to concentrate on listening to what the teacher says and praises or rewards appropriately.

41. Uses reward and punishment well and rewards and punishes clearly.

42. Has control over students' attendance and absence at every period.

43. Takes care of accidental events.

44. Sets a good example with one's own conduct.

45. Sums up the main points of a period or an unit.

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1. Evaluates students' performances in terms of teaching objectives.

2. Utilizes a variety of teaching methods with good flexibility.

3. Employs a variety of assessment methods to understand student performance regarding the teaching objectives.

4. Assesses students' performance fairly and accurately.

5. Assesses students' degree of mastery or skill in the learning activities.

6. Assesses students' behaviors and thinking to see whether they are right during daily behaviors and conversation.

7. Explains the outcomes of every assessment.

8. Utilizes assessment data for future planning and reteaching.

9. Employs assessment data to reward or guide students at the right moment.