

Effectiveness of Teacher Education Programs: A Descriptive Aggregation of Supervisor Ratings of Teachers Trained by The Renaissance Group (TRG) and the Teacher Education Council of State Colleges and Universities (TECSCU) Institutions

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Abstract

This study aggregated supervisor's ratings of teachers trained at The Renaissance Group (TRG) and the Teacher Education Council of State Colleges and Universities (TECSCU) institutions. Fourteen studies conducted by 12 universities or states were gathered, and 12 that met inclusion criteria were included in this analysis. The total number of survey items in all studies (N = 374) was coded into 13 variables. Frequencies of the percentages of ratings falling into below average, average, and above average for those variables were tabled. Supervisors consistently gave teachers very high ratings.

Background

Of paramount importance to P-12 education in this country is the quality of its teachers. Not only are public and private schools concerned with hiring the best teachers available, but schools and departments of education at universities are fully cognizant that their own credibility rests on the performance of the teachers they train. Research has demonstrated over and again that teachers do have a great impact on the education of the students they teach. The ratings supervisors give teachers about their knowledge and skills have often been used as indicators of teaching effectiveness, and by extension, of the effectiveness of university education programs.

Although numerous universities routinely conduct internal studies by surveying principals or other teacher supervisors, these studies are not well disseminated, and the results are largely unknown. In contrast, a conservative group is currently using a single study which purportedly found that a large proportion of teacher supervisors are highly unsatisfied with their teachers because their university training was lacking. The overt agenda of this message is that university education programs are ineffective.

Purpose

Therefore, the purpose of this study was to aggregate the results of studies conducted by The Renaissance Group and TECSCU university education programs to determine how supervisors rate the teachers trained at these universities.

Methods

<u>Study Design</u>. Typically, when researchers want to determine the global effect of a phenomenon, they combine individual studies that examined the topic of concern. This type of design is called meta-analysis, which is generally presents effect sizes in terms of a standardized difference between the means for two groups or correlation coefficients.

The data that is available for aggregation does not conform to the requirements for a meta-analysis. However, it was possible to combine this data in with *descriptive aggregation* technique that is described below.

Studies Included. The Director of The Renaissance Group solicited studies and reports of supervisor ratings of teachers and teacher ratings of their training. Fourteen studies were submitted in a timeframe that enabled them to be included in this aggregation study. Each study was considered a separate study if it was send as a separate file, although some studies have multiple parts and some universities send separate files for their various studies. Ultimately, the aggregation of the data will make these distinctions irrelevant. The universities and states represented in this sample of studies follow:

Table 1
Description of the studies available for this descriptive aggregation report

University	Study Components	N	Rating Scale	N of Items	Study Included
1 Eastern Kentucky Univ	Principals eval teachers, Superintendents eval principals, Graduates eval education program	193	5 pt scale: Poor, Below aver, Aver, Above aver, Outstanding	27	Yes
2 Montana State Univ Billings	Employers eval teachers	85	5 pt scale: Strongly disagree, Disagree, Neutral, Agree, Strongly agree	11	Yes
3 Montana State Univ Billings	Teachers eval education program	Not available	3 pt scale: Low preparation, Moderate preparation, High preparation	6	No
4 Ball State Univ	Employers eval teachers	29	3 pt scale: Disagree, Agree, Strongly Agree	4	Yes
5Emporia State Univ	Administrators eval teachers, Graduates eval education program	Not available	2 pt scale: Need help or not prepared, Acceptable level of preparation	1	Yes
6California State Univ System	Supervisors eval teachers, Graduates eval education program	3781	1 pt scale: Well or adequately prepared	15	Yes
7Kean Univ	Employers eval teachers	Not available	5 pt scale: Insufficient, Beginning, Adequate, Competent, Strong	72	Yes
8Univ of Mary Washington	Employers eval teachers	75	5 pt scale: Not satisfactory, Needs improvement, Satisfactory, Good, Excellent	35	Yes
9Radford Univ	Principals eval teachers	25	5 pt scale: Poor, Below aver, Aver, Above aver, Outstanding	23	Yes
10 Public & Private Univ, State of Illinois	Supervising employers eval teachers	8144	2 pt scale: Other, Mostly or extremely prepared by teacher education program to be a successful teacher	108	Yes

University	Study Components	N	Rating Scale	N of Items	Study Included
11 Lamar Univ at Beaumont	Supervisors eval teachers	28	4 pt scale: Not at all prepared, Not sufficiently prepared, Sufficiently prepared, Well prepared	30	Yes
12 Lamar Univ at Beaumont	Teachers eval education program	4484	4 pt scale: Not at all prepared, Not sufficiently prepared, Sufficiently prepared, Well prepared	30	No
13 Longwood Univ	Supervisors eval teachers	201	5 pt scale: 1 Not prepared at all, 2, 3, 4, 5 Outstanding	15	Yes
14 Longwood Univ	Supervisors eval teachers	58	3 pt scale: Below aver, Aver, Above aver	39	Yes

The majority of these studies report supervisor ratings of teachers after their initial teacher training, and only those study results are combined here. Some studies report teacher ratings of their teacher education programs or supervisor ratings of teachers receiving graduate training in counseling, leadership, special education, and those results are not combined here. Of the 14 studies, 2 studies and parts of other studies were not included, and 12 studies are combined.

<u>Variables Coded</u>. A wide variety of survey items examining teacher competence were included in these 12 studies, and no two surveys were even closely similar in these items. The number of items per survey ranged from 1 to 108. In an effort to code survey items into consistent variables, the following 13 items were developed:

- 1. Dispositions personal characteristics or tendencies of teachers, not necessarily affected by teacher education programs,
- 2. Knowledge Base Content knowledge demonstrated by teachers,
- 3. Pedagogy Knowledge of and ability to apply the methods and principles of teaching,
- 4. Classroom Management/Environment Knowledge of students and ability to effectively manage classroom environment and activities,
- 5. Technology Knowledge of and ability to teach effectively using technology,
- 6. Assessment Ability to correctly ascertain student knowledge and learning,
- 7. Reflective Practice Continuous self-examination of one's teaching practices in an effort to improve,
- 8. Diversity/Equity Cultural competence and ability to teach so all students are treated in an equitable manner,

- 9. Disabilities Knowledge of and ability to teach students with disabilities effectively,
- 10. Professional Workplace/Relations Ability to act in a professional manner and to have good relationships with co-workers,
- 11. Parents/Guardians/Community Ability to have good relationships with parents and the community,
- 12. Enhancing teacher quality Processes that encourage and support teacher quality,
- 13. Overall Effectiveness Comprehensive evaluation of teaching effectiveness.

<u>Reliability</u>. The author coded all items into the variables described above. In an effort to ascertain reliability, the Director of The Renaissance Group, the dean and associate dean from CSU Fresno, were also asked to rate 2 to 5 studies. After discussion of the meanings of the 13 variables, the inter-rater reliability as a percent of agreement of 93% was achieved. This was deemed to be acceptable for this aggregation study.

Rating Scales. As can be seen in Table 1, a wide variety of rating scales were chosen in the individual studies. Reported scales ranged from 1 to 5 points. In many studies, only part of the entire scale was reported. One study did not report a below average rating, one study did not report an average or midpoint rating, and one did not report a high rating. Another reported a combined the midpoint and high rating, while still another reported only an "other" rating in addition to the high rating. The only commonality is that most studies reported at least one above average point and most studies reported a midpoint rating, so those will be reported in the summary over all studies. Finally, the graph only reports the high ratings.

Data Collection Procedures

The following procedures were done for each individual study. Each survey item was coded into one of the 13 variables listed above. A data set consisting of each survey item, the rating scale for that study, and the variable code was developed. Also input into that data set were the sample sizes, the frequencies of all responses, the percentages of all responses, and means as were available. Studies rarely had all that information reported.

Analysis

After the data set was compiled, it needed to be put into a format that allowed for aggregation. A set of consistent collapsing of ratings was developed. Each study's ratings were combined into below average, average and above average categories. AS discussed in the Ratings section, not all studies had all these categories, so only the ones that were available were compiled. When only frequencies were available, percentages were calculated.

Once each study had a percentage of responses for each item in below average, average and above average categories, those percentages were tallied for each of the 13 variables. The aggregate ranges of those percentages were reported by study for each of the variables when the number of studies combined was 1 to 5. When more than 5

studies were aggregated per variable, the lowest and highest percentages were eliminated and the resulting ranges were reported. The reason for this is that a percentage can be calculated on a very few number of supervisor ratings so it is possible to greatly skew the results with only a few items.

Results

Tables 2 through 13 present the ranges of percentages of variables in rating categories over the individual studies. Table 14 presents the ranges of percentages for the average and the above average categories aggregated over all studies. The number of items combined to produce these results was 374.

Figure 1 presents a graph of the above average categories aggregated over all studies. Except for the Disability variable, the ranges of above average percentages for all other variables have a low of 49.3% to 100.0% indicating substantial percentages of supervisors believe that their teachers are highly competent. The ranges for the average or competent category are also high, and the vast majority of ratings fall into those two categories. The range for the Disability variable is 21.4% to 87.0%.

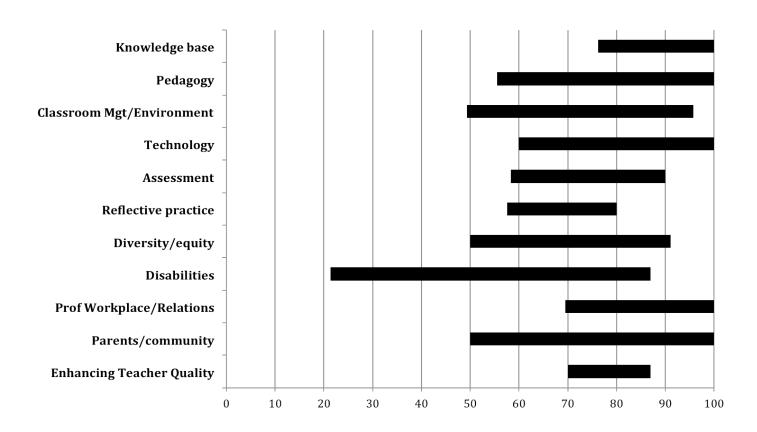


Figure 1. Ranges of Percentages for Above Average Supervisor Ratings of Teachers on Items from 12 Studies from TRG and TECSCU Institutions.

Conclusions

In general, supervisors give their teachers high marks. Most of teachers are rated as either average or above average. Only a small percentage of teachers are not considered to be competent.

Recommendations

The value of aggregating the evaluations supervisors give teachers over teacher education institutions cannot be overemphasized. This information would allow the public, school districts and researchers to assess the institutions that train the teachers their schools hire. In order to accomplish this goal, some recommendations follow. These recommendations are not meant as criticism of the studies whose results are reported here. Although many education programs at universities conduct their own research studies, combining their studies is difficult due to the plethora of methods and instruments used.

- 1. A common instrument should be developed. Such an instrument could have some questions that are the same for all institutions and also allow for institutions to ask additional questions to address their individual research interests.
- 2. A common rating scale should be agreed upon. This scale should have at least 3 ratings: below expectation, meets expectation, and above expectation.
- 3. Common definitions or rubrics for the ratings should be written so evaluating supervisors can approach a common understanding of what the ratings mean. Most notably, what is truly considered above average is often defined in numerous ways: some believing that a teacher has to reach an outstanding level of performance much like that of a veteran teacher to be considered above average, while others view anything above the minimal acceptable level of performance to be above average.
- 4. Instruments should be administered at a similar time during the academic year.
- 5. Supervisors, principals or other persons who rate teachers should be very familiar with their teaching practices.
- 6. Data should be input into a common data template that asks for items, codes, frequencies, and percentages.
- 7. A format for presenting the aggregation of the results should be agreed upon.

Table 2
Results for Eastern Kentucky University (Study #1)

	Ra			
Codes for Variables	Poor or Below Average	<u>Average</u>	Outstanding or Above Average	N of Items Combined
1 Dispositions				0
2 Knowledge Base	2.6	21.2	76.2	1
3 Pedagogy	2.6-11.5	24.1-34.7	55.5-72.3	9
4 Classroom Mgt/Environment	2.6-5.1	23.8-31.3	63.6-73	3
5 Technology	3.6-5.3	32.5-34.7	60.0-63.9	2
6 Assessment	3.1-6.2	26.6-41.9	52.3-69.7	5
7 Reflective Practice	3.8-6.8	33.5-38.6	57.6-59.7	2
8 Diversity/Equity	5.9	33.9	60.2	1
9 Disabilities				0
10 Prof Workplace/ Relations	1-2	23.4-28.5	69.5-75.5	3
11 Parents/Guardians/Community	2.6	32.8	64.6	1
12 Enhancing Teacher Quality				0
13 Overall Effectiveness				0

Study Citation: Principals' Perceptions of Eastern Kentucky University (EKU) Teacher

Table 3
Results for University Montana State University Billings (Study #2)

	Ran			
Codes for Variables	Disagree or Strongly Disagree	<u>Neutral</u>	Agree or Strongly Agree	N of Items Combined
1 Dispositions				0
2 Knowledge Base	7.0	14.0	79.0	1
3 Pedagogy	6.0-9.0	16.0-18.0	74.0-76.0	3
4 Classroom Mgt/Environment	4.0	26.0	69.0	1
5 Technology	7.0	18.0	75.0	1
6 Assessment				1
7 Reflective Practice	8.0	23.0	69.0	1
8 Diversity/Equity	8.0-12.0	20.0-42.0	50.0-69.0	2
9 Disabilities				0
10 Prof Workplace/ Relations				0
11 Parents/Guardians/Community	5.0	29.0	66.0	1
12 Enhancing Teacher Quality				0
13 Overall Effectiveness				0

Study Citation: Follow-Up Studies of Graduates and Employers **Comments:** * Data entered incorrectly for this item. Only beginning teachers evaluated by supervisors are reported. Evaluations for teachers and counselors who received advanced degrees are not reported here.

Table 4
Results for Ball State University (Study #4)

	Range	N of Itams	
<u>Variables</u>	<u>Disagree</u>	Agree or Strongly Agree	N of Items Combined
1 Dispositions			0
2 Knowledge Base	0.0	100.0	1
3 Pedagogy	3.6	96.4	1
4 Classroom Mgt/Environment			0
5 Technology	0.0	100.0	1
6 Assessment			0
7 Reflective Practice			0
8 Diversity/Equity	3.4	96.6	1
9 Disabilities			0
10 Prof Workplace/ Relations			0
11 Parents/Guardians/Community			0
12 Enhancing Teacher Quality			0
13 Overall Effectiveness			0

Study Citation: Ball State University Teacher Fair Survey Summary

Table 5
Results for University Emporia State University (Study #5)

	Range of	N of Items	
<u>Variables</u>	Need Help or Not Prepared	Acceptable Level of Preparation	Combined
1 Dispositions			0
2 Knowledge Base			0
3 Pedagogy			0
4 Classroom Mgt/Environment			0
5 Technology			0
6 Assessment			0
7 Reflective Practice			0
8 Diversity/Equity			0
9 Disabilities			0
10 Prof Workplace/ Relations			0
11 Parents/Guardians/ Community			0
12 Enhancing Teacher Quality			0
13 Overall Effectiveness	3.8-5.0	96.2-95.0	3

Study Citation: Follow-up Study of Graduates and Employers, Emporia State

University

Comments: Data presented for 6 years from 2000 to 2006

Table 6
Results for California State University System (Study #6)

Variables	Range of % for Items Adequately and Well Prepared	N of Items Combined
1 Dispositions		0
2 Knowledge Base	81.5-85.0	3
3 Pedagogy	81.5-84.3	5
4 Classroom Mgt/Environment	84.2	1
5 Technology	81.4	1
6 Assessment	81.1	1
7 Reflective Practice		0
8 Diversity/Equity	78.6-80.5	2
9 Disabilities	78.6	1
10 Prof Workplace/ Relations		0
11 Parents/Guardians/Community		0
12 Enhancing Teacher Quality		0
13 Overall Effectiveness	81.3	1

Study Citation: Learning to Teach: Comparing the effectiveness of three pathways **Comments:** Data presented for 6 years from 2006 to 2011

Table 7 Results for Kean University (Study #7)

	Rang			
Codes for Variables	Insufficient or Beginning	Adequate	Competent or Strong	N of Items Combined
1 Dispositions	0	0-20	80-100	9
2 Knowledge Base	0	7.7-20	80-92.3	3
3 Pedagogy	0.0-20.0	0.0-20.0	69.3-100.0	21
4 Classroom Mgt/Environment	0.0-10.0	0.0-20.0	70.0-100.0	6
5 Technology	0.0-10.0	15.4-20.0	70.0-84.6	3
6 Assessment	0.0-10.0	10.0-30.8	60.0-90.0	9
7 Reflective Practice	0.0	7.7-30.0	70.0-92.3	3
8 Diversity/Equity	0.0-10.0	10.0-30.8	69.3-80.0	3
9 Disabilities				0
10 Prof Workplace/ Relations	0.0	0.0	100.0	3
11 Parents/Guardians/Community	00.0-200.	0.0-30.0	50.0-100.0	9
12 Enhancing Teacher Quality				0
13 Overall Effectiveness	0.0	0.0	100.0	3

Study Citation: Survey of Employers **Comments:** Just tables are provided for this study.

Table 8
Results for University of Mary Washington (Study #8)

	Rang			
Codes for Variables	Needs Improvement or Not Satisfactory ^a	Satisfactory ^b	Excellent or Good ^c	N of Items Combined
1 Dispositions	3.57-4.65	4.3-14.3	82.1-95.5	2
2 Knowledge Base	0.0	13.0-24.1	75.9- 100.0	3
3 Pedagogy	0.0-3.57	8.7-17.9	82.1- 100.0	6
4 Classroom Mgt/Environment	3.6-8.3	4.3-17.9	78.6-95.8	6
5 Technology	0.0-10.7	13.0-14.3	75.0- 100.0	3
6 Assessment	0.0-4.2	17.4-17.9	78.6-95.8	3
7 Reflective Practice				0
8 Diversity/Equity	0.0-7.1	13.0-21.4	75.0- 100.0	6
9 Disabilities				0
10 Prof Workplace/ Relations	0.0	0.0	100.0	1
11 Parents/Guardians/Community	0.0-4.3	8.7-10.7	85.7- 100.0	3
12 Enhancing Teacher Quality	0.0-7.4	7.4-13.0	85.2-87.0	2
13 Overall Effectiveness				0

Study Citation: University of Mary Washington, Mary Washington College, Education Department, Employer Satisfaction Survey

Comments: Data for this study was collected between 2009 and 2011.

a for part of this study, this category was labeled Not Very Effective or Ineffective.

b for part of this study, there was no middle category.

c for part of this study, this category was labeled Effective or Highly Effective.

Table 9
Results for Radford University (Study #9)

	Ra			
Codes for Variables	Poor or Below Average	Average	Above Average or Outstanding	N of Items Combined
1 Dispositions				0
2 Knowledge Base				0
3 Pedagogy	0.0-4.2	24.0-50.0	50.0-76.0	8
4 Classroom Mgt/Environment	0.0	20.0-40.0	60.0-80.0	5
5 Technology	0.0	8.0	92.0	1
6 Assessment	0.0	25.0-41.7	58.3-75.0	3
7 Reflective Practice				0
8 Diversity/Equity	0.0	23.8-41.7	58.3-76.2	2
9 Disabilities				0
10 Prof Workplace/ Relations	0.0-4.0	12.0-20.0	80.0-84.0	2
11 Parents/Guardians/Community	9.1	36.4	54.6	1
12 Enhancing Teacher Quality	0.0	15.0	85.0	1
13 Overall Effectiveness				0

Study Citation: Radford University Survey of Program Graduates and Principals **Comments:** Data for this study was collected in 2010.

Table 10
Results for 12 Public and 3 Private Universities in Illinois (Study #10)

	Ra	nge of % for Items	
Variables	Other*	"Mostly" / "Extremely" prepared by teacher educ prog to be successful new teacher	N of Items Combined
1 Dispositions			0
2 Knowledge Base			0
3 Pedagogy	4-20	80-96	18
4 Classroom Mgt/Environment	14-20	80-86	12
5 Technology	10-19	81-90	6
6 Assessment	10-14	86-90	6
7 Reflective Practice			0
8 Diversity/Equity	9-32	68-91	18
9 Disabilities	13-17	83-87	6
10 Prof Workplace/ Relations	7-15	85-93	24
11 Parents/Guardians/ Community	11-32	68-89	18
12 Enhancing Teacher Quality			0
13 Overall Effectiveness			0

Study Citation: Teacher Graduate Assessment: A Statewide Assessment of Professional Teacher Education Programs in Illinois. Illinois Association of Deans of Public Colleges of Education

Comments: *Categories for responses other than "Mostly" or "Extremely" prepared by teacher education program to be a successful new teacher are not reported.

$$N_{2006}\!=1454,\,N_{2007}\!=1501,\,N_{2008}\!=1564,\,N_{2009}\!=1433,\,N_{2010}\!=1352,\,N_{2011}\!=840$$

Table 11
Results for Lamar University at Beaumont (Study #11)

	Ran			
Codes for Variables	Not Sufficiently Prepared or Not At All Prepared	Sufficiently Prepared	<u>Well</u> <u>Prepared</u>	N of Items Combined
1 Dispositions				0
2 Knowledge Base				0
3 Pedagogy				0
4 Classroom Mgt/Environment	3.6-7.1	28.6-46.4	46.4-67.9	4
5 Technology	0.0-3.9	37.0-80.8	15.4-59.3	10
6 Assessment				0
7 Reflective Practice				0
8 Diversity/Equity	10.7-36.4	50.0-63.6	13.6-30.4	7
9 Disabilities	14.3-28.6	35.7-64.3	21.4-42.9	7
10 Prof Workplace/ Relations				0
11 Parents/Guardians/Community	7.1	42.9	50.0	1
12 Enhancing Teacher Quality				0
13 Overall Effectiveness				0

Study Citation: Texas Education Agency SB 174 Principal Pilot Survey **Comments:** Data collected in 20010. Unusual rating categories with 2 categories for below average with only 1 category for above average may possibly have skewed the results.

Table 12
Results for Longwood University (Study #13)

Range of % for Items

Codes for Variables	Insufficient or Beginning	Adequate	Competent or Strong	N of Items Combined
1 Dispositions	15.9	0.0	84.8	1
2 Knowledge Base	0.0	0.0	100.0	1
3 Pedagogy	0.0	2.0-27.4	72.6-98.0	6
4 Classroom Mgt/Environment	0.0-18.9	25.9-43.8	49.3-74.1	3
5 Technology	0.0	23.4	76.6	1
6 Assessment	0.0	25.9	74.1	1
7 Reflective Practice	0.0	35.8	64.2	1
8 Diversity/Equity				0
9 Disabilities				0
10 Prof Workplace/ Relations				0
11 Parents/Guardians/Community	1.5	47.8	50.7	1
12 Enhancing Teacher Quality				0
13 Overall Effectiveness				0

Study Citation: Longwood University Professional Educational Unit Employer Survey

2010-2011

Comments: Data collected in 2009.

Table 13
Results for Longwood University (Study #14)

	Ran			
Codes for Variables	Below Average ^a	<u>Average</u> ^a	Above Average ^a	N of Items Combined
1 Dispositions	0.0-4.0	19.0-35.0	66.0-81.1	10
2 Knowledge Base				0
3 Pedagogy	0.0	20.0-38.0	61.0-80.0	10
4 Classroom Mgt/Environment	0.0	31.0-50.0	50.0-70.0	5
5 Technology	0.0	27.0	73.0	1
6 Assessment	0.0	27.0-31.0	69.0-73.0	3
7 Reflective Practice	0.0	31.0	69.0	1
8 Diversity/Equity	0.0	31.1-42.0	58.0-69.0	3
9 Disabilities	0.0	35.0	65.0	1
10 Prof Workplace/ Relations	0.0	31.0	69.0-70.0	2
11 Parents/Guardians/Community	0.0	38.0	62.0	1
12 Enhancing Teacher Quality	0.0	27.0-31.0	70.0-74.0	2
13 Overall Effectiveness				0

Study Citation: Longwood University Professional Educational Unit Employer Survey 2010-2011

Comments: Data collected in 2010-2011.

a Ratings were reported on a 5 point scale, but descriptors for those numbers were not reported.

Table 14
Ranges of Average and Above Average Percentages for All Items and All Variables
Aggregated Over 12 Studies

	Range o		
Codes for Variables	<u>Average</u> <u>Min – Max</u>	Above Average Min - Max	N of Items Combined
1 Dispositions	0.0 - 35.0	66.0 - 100.0	22
2 Knowledge Base	0.0 - 21.2	76.2 - 100.0	22
3 Pedagogy	2.0 - 38.0	55.5 - 100.0	82
4 Classroom Mgt/Environment	4.3 - 46.4	49.3 - 95.8	42
5 Technology	13.0 - 34.2	60.0 - 100.0	32
6 Assessment	17.4 - 41.7	58.3 - 90.0	20
7 Reflective Practice	7.7 - 38.6	57.6 - 80.0	32
8 Diversity/Equity	13.0 - 42.0	50.0 - 91.1	32
9 Disabilities	35.0 - 64.3	21.4 - 87.0	32
10 Prof Workplace/ Relations	0.0 - 31.0	69.5 - 100.0	28
11 Parents/Guardians/Community	8.7 - 42.9	50.0 - 100.0	18
12 Enhancing Teacher Quality	7.4 - 31.0	70.0 - 87.0	5
13 Overall Effectiveness*	0.0 - 95.0 a	81.3 ^b - 100.0	7

^{*}The interpretability of this item is difficult as only three studies had items in this category. One of these studies had low, middle and high ratings, one only had one category of "adequately and well prepared," and the last one only had two ratings "not prepared" and "acceptable level of preparation."

prepared.

a Based on only one study which combined only had "acceptable level of preparation." b Based on only one study which one category that combined adequately and well