

Instructional Practices Among Alternatively Certified Elementary Teachers

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The subjects of this study are Teaching Fellows who graduated from an alternative certification MAT program in June of 2003 and 2004. Sixty-seven Teaching Fellows completed the survey. This study evaluates one group of questions contained under the heading Domain Specific Instruction that concerns teaching methodology utilized by the respondents in the major elementary school curriculum areas. Respondents were asked the following questions:

1. What percentage of the time and in which subjects do you use direct instruction (i.e., you the teacher direct all classroom activities)?
2. What percentage of the time and in which subjects do you use scripted lessons?
3. What percentage of the time and in which subject areas do you base your classroom instruction on your student's own experiences either inside or outside of school?
4. What percentage of the time and in which subject areas do you allow the students to come up with their own questions and base your classroom instruction on these student questions?

The choices under percentage of class time are 0-20%, 30-40% 50-60% 70-80% and 90-100%. The subject matter choices are the major curriculum areas in elementary schools; language arts, math, science and social studies.

The purpose of the questions is to determine the extent to which new alternatively certified teachers engage in constructivist teaching practices. These practices are stressed in their methods courses for certification. Generally constructivist teaching practices focus on the creation of understandings by students based on an interaction between what they already know and believe and ideas and knowledge with which they come into contact (Resnick, 1989).

The last two questions are designed to determine if the respondents base instruction on what the students know and what they want to know. The first question which concerns direct instruction does not exclude constructivist pedagogy. Direct instruction which includes lectures and non-interactive media such as television can help students build meaning (Richardson, 2003). It seems likely however that if teachers spend a high percentage of their time with direct instruction they are probably using a transmission model of instruction. In this model the teacher decides and delivers content and the student absorbs the information. Scripted lessons as well may provide opportunities for the teacher to determine student's knowledge and interests. The programs being used in the New York City schools at this time however do not appear to follow this model. The expectation is often that a teacher will be at a specific place in the script at a specific time of day. This requirement indicates that there is little time for interaction with students that may not be contained in a specific time limit.

Use of Direct Instruction

Percentage of Instructional Time	Frequency	Percent	Cumulative Percent
0-20	6	9.0	9.0
30-40	38	56.7	65.7
50-60	19	28.4	94.0
70-80	2	3.0	97.0
90-100	2	3.0	100.0
Total	67	100.0	

The largest percentage of the respondents (56.7%, n=38) said that they used direct instruction during 30-40% of their instructional time.

The second largest percentage (28.4%, n= 19) said that they used direct instruction over half of their classroom instructional time or 50-60%. Only 6% (n= 4) used direct instruction over 70 % of their time and only 9% (n=6) used direct instruction 20 % of their time or less.

Subject	Subject for Direct Instruction		
	Frequency	Percent	Cumulative Percent
Language Arts	5	7.5	7.9
Math	4	6.0	14.3
Social Studies	1	1.5	15.9
Language Arts & Math	2	3.0	19.0
Math & Science	4	6.0	25.4
Math & Social Studies	3	4.5	30.2
Science & Social Studies	1	1.5	31.7
Language Arts, Math & Science	1	1.5	33.3
Language Arts, Math & Social Studies	5	7.5	41.3
Language Arts, Science & Social Studies	1	1.5	42.9
Language Arts, Math, Science & Social Studies	36	53.7	100.0
Total	63	94.0	
Missing	4	6.0	
	67	100.0	

Over half of the respondents (53%, n=36) said that they used direct instruction in all four of the major subject areas of the elementary curriculum; language arts, math, science and social studies. A significantly smaller percentage (7.5%, n=5) use direct instruction in all subjects except science or used direct instruction only in language arts (6%, n=4) or used direct instruction only in math or only in math and science.

Subject for Direct Instruction Cross Tabulated with Use of Direct Instruction

Subject	% of Instructional Time				Total
	0-20	30-40	50-60	70-80	
Language Arts	1	2	1	1	5
Math	1	3			4
Social Studies		1			1
Language Arts & Math		1	1		2
Math & Science		3	1		4
Math & Social Studies		2	1		3
Science & Social Studies	1				1
Language Arts, Math & Science		1			1
Language Arts, Math & Social Studies	2		3		5
Language Arts, Science & Social Studies			1		1
Language Arts, Math, Science & Social Studies	1	24	11		36
Total	6	37	19	1	63

For those respondents (n=19) who use direct instruction over half of their instructional time (50-60%), 58% (n=11) use direct instruction in all four of the major elementary curriculum areas. For those respondents (n=37) who use direct instruction for 30 to 40 % of their instructional time, 65% (n=24) use direct instruction in all four of the major curriculum areas.

Percentage of Instructional Time	Use of Scripted Lessons		Cumulative Percent
	Frequency	Percent	
0-20	26	38.8	39.4
30-40	16	23.9	63.6
50-60	11	16.4	80.3
70-80	8	11.9	92.4
90-100	5	7.5	100.0
Total	66	98.5	
Missing	1	1.5	
Total	67	100.0	

The highest percent of respondents (63%, n=42) used scripted lessons less than half of their instructional time (0-40%) and almost 40% of the total respondents used scripted lessons one fifth or less of their instructional time (n=26). In contrast, over one-third of the respondents (35.8%, n=24) used scripted lessons one half or more of their instructional time and five respondents (7.5%) used scripted lessons between 90 and 100% of their instructional time.

Subject for Scripted Lesson

Subject	Frequency	Percent	Cumulative Percent
Language Arts	6	9.0	10.9
Math	10	14.9	29.1
Science	3	4.5	34.5
Social Studies	1	1.5	36.4
Language Arts & Math	7	10.4	49.1
Language Arts and Science	2	3.0	52.7
Math & Science	3	4.5	58.2
Science & Social Studies	1	1.5	60.0
Language Arts, Math & Science	2	3.0	63.6
Language Arts, Math & Social Studies	4	6.0	70.9
Language Arts, Science & Social Studies	1	1.5	72.7
Math, Science & Social Studies	1	1.5	74.5
Language Arts, Math, Science & Social Studies	14	20.9	100.0
Total	55	82.1	
Missing	12	17.9	
Total	67	100.0	

Approximately twenty percentage of respondents (20.9 %, n=14) use scripted lessons in all four major curriculum areas. Almost fifteen percentage (14.9%, n=10) use scripted lessons only in math. Approximately ten percent (10.4 %, n=7) use scripted lessons in both language arts and math and nine percentage use scripted lessons only in language arts (9%, n=6).

Subject for Scripted Lessons Cross Tabulated with Use of Instructional Time for Scripted Lessons

Subject	% of Instructional Time					Total
	0-20	30-40	50-60	70-80	90-100	
Language Arts	2		2		2	6
Math	6	4				10
Science	2	1				3
Social Studies	1					1
Language Arts & Math		1	1	4	1	7
Language Arts and Science	1		1			2
Math & Science	2		1			3
Science & Social Studies				1		1
Language Arts, Math & Science			2			2
Language Arts, Math & Social Studies		2		2		4
Language Arts, Science & Social Studies	1					1
Math, Science & Social Studies	1					1
Language Arts, Math, Science & Social Studies	3	4	4	1	2	14
Total	19	12	11	8	5	55

Of the fourteen respondents who use scripted lessons in all four curriculum areas, half (n=7) use the lessons over 50% of the time and half (n=7) use the lessons less than 50% of the time. Of the ten respondents who use scripted lessons only in math, they use the lessons less than 40% of their instructional time. The six respondents who use scripted lessons only in language arts varied in the amount of instructional time used from 0 to 100 % of instructional time. The majority of respondents (n=6 of 7) who used scripted lessons in math and language arts used the lessons over half (50 – 100%) of their instructional time.

Class Instruction Based on Student Experiences

Percentage of Instructional Time	Frequency	Percent	Cumulative Percent
0-20	2	3.0	3.0
30-40	9	13.4	16.4
50-60	27	40.3	56.7
70-80	25	37.3	94.0
90-100	4	6.0	100.0
Total	67	100.0	

A substantial majority of the respondents (83.6%, n=56) said that they based half or more of their instructional time on student experiences. Only eleven respondents (16.4%) based instruction on student experiences less than half of instructional time.

Subject for Class Instruction Based on Student Experiences

	Frequency	Percent	Cumulative Percent
Language Arts	4	6.0	6.3
Math	1	1.5	7.9
Language Arts & Math	3	4.5	12.7
Language Arts & Social Studies	2	3.0	15.9
Math and Science	3	4.5	20.6
Language Arts, Math & Social Studies	16	23.9	46.0
Language Arts, Math, Science & Social Studies	34	50.7	100.0
Total	63	94.0	
Missing	4	6.0	
	67	100.0	

Over half the respondents (50.7%, n=34) use student experiences as a basis of instruction in all subject areas. Almost a fourth of the respondents (23.9%, n=16) use this type of instruction in all subject areas except science.

Subject for Instruction Based on Student Experience Cross Tabulated with Class Instruction Time based on Student Experience

Subject	% of Instructional Time					Total
	0-20	30-40	50-60	70-80	90-100	
Language Arts		1	1	2		4
Math			1			1
Language Arts & Math			2	1		3
Language Arts & Social Studies		1	1			2
Math and Science			2		1	3
Language Arts, Math & Social Studies		3	8	5		16
Language Arts, Math, Science & Social Studies	1	4	11	17	1	34
Total	1	9	26	25	2	63

Of the thirty-four respondents who use instruction based on student experience in all major subject areas, a substantial majority (85%, n=29) use this type of instruction between half and one hundred percent of the time. Of the sixteen respondents who use instruction based on student experience in all major subject areas except science, eighty-one percent (n= 13) use this type of instruction from half to one hundred percent of the time.

Use of Class Instruction Based on Student Questions

Percentage of Instructional Time	Frequency	Percent	Cumulative Percent
0-20	19	28.4	28.4
30-40	19	28.4	56.7
50-60	18	26.9	83.6
70-80	10	14.9	98.5
90-100	1	1.5	100.0
Total	67	100.0	

Over half of the respondents (56.7%, n=38), based their instruction on student questions between 0 and 40% of their instructional time. Over a quarter of the respondents (26.9%, n=18) based their instruction on student questions between fifty and sixty percent of instructional time. A far lesser percentage (16.4%, n=11) used this type of instruction over seventy percent of the time.

Subject for Class Instruction Based on Student Questions

Subject	Frequency	Percent	Cumulative Percent
Language Arts	4	6.0	6.6
Math	2	3.0	9.8
Science	2	3.0	13.1
Language Arts & Math	4	6.0	19.7
Language Arts and Science	2	3.0	23.0
Language Arts & Social Studies	3	4.5	27.9
Math & Science	4	6.0	34.4
Science and Social Studies	1	1.5	36.1
Language Arts, Math and Social Studies	4	6.0	42.6
Language Arts, Science & Social Studies	7	10.4	54.1
Math, Science & Social Studies	1	1.5	55.7
Language Arts, Math, Science & Social Studies	27	40.3	100.0
Total	61	91.0	
Missing	6	9.0	
Total	67	100.0	

Approximately forty percent of respondents (40.3%, n=27) use instruction based on student questions in all of the major curriculum areas. The second largest percentage (10.4%, n=7) use this type of instruction in all subject areas except math.

Subject for Class Instruction based on Student Questions Cross Tabulated with Class Instruction Time based on Student Questions

Subject	% of Instructional Time				Total	
	0-20	30-40	50-60	70-80		
Language Arts	1	1	1	1	4	
Math	1	1			2	
Science	1		1		2	
Language Arts & Math	2	1	1		4	
Language Arts and Science	1	1			2	
Language Arts & Social Studies		1	1	1	3	
Math & Science	1	1		2	4	
Science and Social Studies		1			1	
Language Arts, Math and Social Studies	2	1		1	4	
Language Arts, Science & Social Studies	3	3	1		7	
Math, Science & Social Studies			1		1	
Language Arts, Math, Science & Social Studies	3	7	11	5	1	27
Total	15	18	17	10	1	61

Of the twenty seven respondents who said they used instruction based on student questions in all of the major subject areas, seventeen (63%) reported using this type of instruction from one half to one hundred percent of their instructional time. In contrast, of the seven respondents who reported using this type of instruction in all major instructional areas except math, eighty-six percent (n=6) used the instruction less than forty percent of their time.

Discussion

The survey findings show that when teachers can choose their own instructional methods they appear to favor constructivist pedagogy. A substantial number of the respondents said that they base their instruction on student experiences. A lesser amount however based their instruction on student questions. Reliance on direct instruction was less than the use of instruction based on student experiences. The use of scripted lessons was less than the use of direct instruction.

The information from this study is helpful in evaluating the quality of the teacher education program that is used for alternative certification. Some of the areas for evaluation include how the methods introduced in graduate courses translate into classroom instructional practices, the differences in methodology used by alternatively certified teachers as they begin their teaching experience and as they exit the program after two years of full time teaching and how their teaching methodologies meet the needs of diverse student populations.

References

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