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**Career Connections to Teaching with Technology (CCTT)**  
**Year 5, Interim Evaluation Report**

**By**

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## APPENDIX B: Active Classroom Quantitative Findings

read any background or other reading materials or lab materials?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	34.3	34.3	34.3
	No	23	65.7	65.7	100.0
	Total	35	100.0	100.0	

complete any surveys to assist your skill level, interests, teaching responsibilities or objectives?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	31.4	32.4	32.4
	No	23	65.7	67.6	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

identify a unit you wanted to develop or other ways you anticipated incorporating project information at your home school?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	91.4	91.4	91.4
	No	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

prepare a project or problem to work on during the course?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	77.1	77.1	77.1
	No	7	20.0	20.0	97.1
	3	1	2.9	2.9	100.0
Total		35	100.0	100.0	

do any other types of activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	65.7	69.7	69.7
	No	10	28.6	30.3	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**did that include incorporating and synthesizing interdisciplinary content?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	42.9	53.6	53.6
	No	13	37.1	46.4	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**teaching methods?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	51.4	64.3	64.3
	No	10	28.6	35.7	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**lab technologies?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	40.0	50.0	50.0
	No	14	40.0	50.0	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**new technologies?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	48.6	60.7	60.7
	No	11	31.4	39.3	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**reading materials**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	11.4	12.1	12.1
	No	29	82.9	87.9	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**lecture notes or other handouts**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	31.4	32.4	32.4
	No	23	65.7	67.6	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**problem sets, problem descriptions or lab exercises**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	25.7	26.5	26.5
	No	25	71.4	73.5	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**other activities**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	11.4	12.9	12.9
	No	26	74.3	83.9	96.8
	3	1	2.9	3.2	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

**reading materials**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed	20	57.1	62.5	62.5
	Needed more work	11	31.4	34.4	96.9
	3	1	2.9	3.1	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**lecture notes or other handouts**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed	19	54.3	59.4	59.4
	Needed more work	11	31.4	34.4	93.8
	3	2	5.7	6.3	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**problem sets, project descriptions or lab exercises**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed	22	62.9	64.7	64.7
	Needed more work	11	31.4	32.4	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**other activities**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed	15	42.9	50.0	50.0
	Needed more work	14	40.0	46.7	96.7
	3	1	2.9	3.3	100.0
	Total	30	85.7	100.0	
Missing	System	5	14.3		
Total		35	100.0		

**Did you participate in one or more formal follow-up sessions at scheduled times?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	22.9	23.5	23.5
	No	26	74.3	76.5	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you participate in one or more informal group get-togethers?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	62.9	64.7	64.7
	No	11	31.4	32.4	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you participate in any online follow-up?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	31.4	32.4	32.4
	No	22	62.9	64.7	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you review or site-test any materials or products developed as part of the workshop?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	54.3	55.9	55.9
	No	14	40.0	41.2	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you receive any technical assistance from the project staff?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	60.0	61.8	61.8
	No	13	37.1	38.2	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you communicate with the staff and/or other participants by telephone?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	28.6	29.4	29.4
	No	23	65.7	67.6	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you communicate with the staff and/or other participants by e-mail?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	71.4	73.5	73.5
	No	8	22.9	23.5	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you collaborate online with any other participants or colleagues?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	25.7	26.5	26.5
	No	24	68.6	70.6	97.1
	3	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Was this communication/collaboration ongoing or sporadic?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.9	4.2	4.2
	Ongoing	5	14.3	20.8	25.0
	Sporadic	18	51.4	75.0	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**increased content knowledge**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	10	28.6	29.4	29.4
	Some	10	28.6	29.4	58.8
	A lot	13	37.1	38.2	97.1
	4	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**new or more in-depth perspectives on teaching and learning**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	9	25.7	26.5	26.5
	Some	13	37.1	38.2	64.7
	A lot	11	31.4	32.4	97.1
	4	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**new or improved skills in teaching**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	11	31.4	32.4	32.4
	Some	13	37.1	38.2	70.6
	A lot	9	25.7	26.5	97.1
	4	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**new or improved experimental lab techniques**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	15	42.9	44.1	44.1
	Some	8	22.9	23.5	67.6
	A lot	11	31.4	32.4	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		



**new or improved technological skills**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	4	11.4	12.1	12.1
	Some	10	28.6	30.3	42.4
	A lot	19	54.3	57.6	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**new or more in-depth knowledge of issues regarding females and minority students**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	29	82.9	85.3	85.3
	Some	5	14.3	14.7	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**new information about other resources for use in teaching**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	5	14.3	14.7	14.7
	Some	15	42.9	44.1	58.8
	A lot	13	37.1	38.2	97.1
	4	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**new contacts with colleagues from other institutions**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or none	16	45.7	47.1	47.1
	Some	14	40.0	41.2	88.2
	A lot	3	8.6	8.8	97.1
	4	1	2.9	2.9	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**increased motivation or stimulation for teaching excellence**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	14.3	14.7	14.7
	2	13	37.1	38.2	52.9
	3	16	45.7	47.1	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Did you get any benefit out of the program?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	3	8.6	100.0	100.0
Missing	System	32	91.4		
Total		35	100.0		

**preparation prior to the course**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	29	82.9	87.9	87.9
	Moderate	4	11.4	12.1	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**content of the sessions**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	2	5.7	6.1	6.1
	Moderate	10	28.6	30.3	36.4
	Great	20	57.1	60.6	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**study materials used during the course**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	9	25.7	27.3	27.3
	Moderate	20	57.1	60.6	87.9
	Great	3	8.6	9.1	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**the experience of developing products or materials at the course**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	3	8.6	9.1	9.1
	Moderate	9	25.7	27.3	36.4
	Great	20	57.1	60.6	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**other hands-on learning activities, such as laboratories or computer work**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	7	20.0	21.2	21.2
	Moderate	6	17.1	18.2	39.4
	Great	19	54.3	57.6	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**materials from the course that you used in your school**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	10	28.6	30.3	30.3
	Moderate	8	22.9	24.2	54.5
	Great	14	40.0	42.4	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**presentations or practice lessons that you gave**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	12	34.3	36.4	36.4
	Moderate	12	34.3	36.4	72.7
	Great	8	22.9	24.2	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**interactions with the instructors (both structured and unstructured)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	3	8.6	9.1	9.1
	Moderate	8	22.9	24.2	33.3
	Great	22	62.9	66.7	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**discussions of how participants would use what was learned in their own courses**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	2	5.7	6.1	6.1
	Moderate	12	34.3	36.4	42.4
	Great	18	51.4	54.5	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**informal interactions with other participants**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	4	11.4	12.1	12.1
	Moderate	14	40.0	42.4	54.5
	Great	15	42.9	45.5	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**follow-up activities (formal or informal)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little or no	14	40.0	42.4	42.4
	Moderate	12	34.3	36.4	78.8
	Great	6	17.1	18.2	97.0
	4	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**did you develop or redesign a major or a program of studies?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	48.6	53.1	53.1
	No	15	42.9	46.9	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**did you develop one or more new units?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	54.3	59.4	59.4
	No	13	37.1	40.6	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**did you revise one or more existing units?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	68.6	75.0	75.0
	No	8	22.9	25.0	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**Did you develop one or more proposals requesting permission or funding to revise or develop materials or units?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	14.3	16.1	16.1
	No	26	74.3	83.9	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

**All in all, how many units did you develop and/or revise?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	5	14.3	17.9	17.9
	1.0	3	8.6	10.7	28.6
	2.0	3	8.6	10.7	39.3
	3.0	4	11.4	14.3	53.6
	4.0	6	17.1	21.4	75.0
	5.0	2	5.7	7.1	82.1
	9.0	1	2.9	3.6	85.7
	10.0	2	5.7	7.1	92.9
	20.0	1	2.9	3.6	96.4
	37.0	1	2.9	3.6	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**Did you develop or revise these units in collaboration with one or more colleagues?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	34.3	48.0	48.0
	No	12	34.3	48.0	96.0
	3	1	2.9	4.0	100.0
	Total	25	71.4	100.0	
Missing	System	10	28.6		
Total		35	100.0		

**How many of the units that you developed-revised were interdisciplinary?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	7	20.0	41.2	41.2
	1	1	2.9	5.9	47.1
	2	2	5.7	11.8	58.8
	3	1	2.9	5.9	64.7
	4	2	5.7	11.8	76.5
	5	1	2.9	5.9	82.4
	10	1	2.9	5.9	88.2
	12	1	2.9	5.9	94.1
	37	1	2.9	5.9	100.0
	Total	17	48.6	100.0	
Missing	System	18	51.4		
Total		35	100.0		

**Were the units that you developed or revised interdisciplinary?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	22.9	61.5	61.5
	No	5	14.3	38.5	100.0
	Total	13	37.1	100.0	
Missing	System	22	62.9		
Total		35	100.0		

**Did these units receive formal departmental or program approval?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	17.1	25.0	25.0
	Some did and some did not	1	2.9	4.2	29.2
	No or not applicable	17	48.6	70.8	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Did you introduce new content that you learned?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	48.6	65.4	65.4
	No	9	25.7	34.6	100.0
	Total	26	74.3	100.0	
Missing	System	9	25.7		
Total		35	100.0		

**How important was the change in content to the courses?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Of little or no importance	1	2.9	5.9	5.9
	Of moderate importance	10	28.6	58.8	64.7
	Of major importance	6	17.1	35.3	100.0
	Total	17	48.6	100.0	
Missing	System	18	51.4		
Total		35	100.0		

**Did you change the content to focus on key issues or "big ideas"?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	40.0	53.8	53.8
	No	12	34.3	46.2	100.0
	Total	26	74.3	100.0	
Missing	System	9	25.7		
Total		35	100.0		

**How important was new focus to the courses?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Of little or no importance	2	5.7	14.3	14.3
	Of moderate importance	6	17.1	42.9	57.1
	Of major importance	6	17.1	42.9	100.0
	Total	14	40.0	100.0	
Missing	System	21	60.0		
Total		35	100.0		

**Did you introduce new experimental or lab techniques?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	48.6	68.0	68.0
	No	8	22.9	32.0	100.0
	Total	25	71.4	100.0	
Missing	System	10	28.6		
Total		35	100.0		



**How important were the new techniques to the courses?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Of little or no importance	2	5.7	11.8	11.8
	Of moderate importance	6	17.1	35.3	47.1
	Of major importance	9	25.7	52.9	100.0
	Total	17	48.6	100.0	
Missing	System	18	51.4		
Total		35	100.0		

**Did you introduce new equipment, materials or computer software that you learned?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	51.4	69.2	69.2
	No	8	22.9	30.8	100.0
	Total	26	74.3	100.0	
Missing	System	9	25.7		
Total		35	100.0		

**How important was the equipment, materials or software to the courses?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Of little or no importance	2	5.7	11.1	11.1
	Of moderate importance	6	17.1	33.3	44.4
	Of major importance	10	28.6	55.6	100.0
	Total	18	51.4	100.0	
Missing	System	17	48.6		
Total		35	100.0		

**Did you change teaching methods in any other way?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	54.3	73.1	73.1
	No	7	20.0	26.9	100.0
	Total	26	74.3	100.0	
Missing	System	9	25.7		
Total		35	100.0		

**How important was the change in teaching methods to the courses?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Of little or no importance	1	2.9	5.3	5.3
	Of moderate importance	8	22.9	42.1	47.4
	Of major importance	10	28.6	52.6	100.0
	Total	19	54.3	100.0	
Missing	System	16	45.7		
Total		35	100.0		

**Have you taught one or more of the courses or units you developed or revised as a result of your participation?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	57.1	87.0	87.0
	No	3	8.6	13.0	100.0
	Total	23	65.7	100.0	
Missing	System	12	34.3		
Total		35	100.0		

**How many?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	2	5.7	11.1	11.1
	2.0	3	8.6	16.7	27.8
	3.0	4	11.4	22.2	50.0
	4.0	4	11.4	22.2	72.2
	5.0	2	5.7	11.1	83.3
	20.0	1	2.9	5.6	88.9
	25.0	1	2.9	5.6	94.4
	37.0	1	2.9	5.6	100.0
	Total	18	51.4	100.0	
Missing	System	17	48.6		
Total		35	100.0		

**Have you team taught this material?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	20.0	35.0	35.0
	No	11	31.4	55.0	90.0
	3	2	5.7	10.0	100.0
	Total	20	57.1	100.0	
Missing	System	15	42.9		
Total		35	100.0		

**In all, approximately how many students have completed this material?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	26.00	1	2.9	5.0	5.0
	32.00	1	2.9	5.0	10.0
	47.00	1	2.9	5.0	15.0
	50.00	1	2.9	5.0	20.0
	52.00	2	5.7	10.0	30.0
	60.00	1	2.9	5.0	35.0
	62.00	1	2.9	5.0	40.0
	100.00	1	2.9	5.0	45.0
	115.00	1	2.9	5.0	50.0
	120.00	1	2.9	5.0	55.0
	142.00	1	2.9	5.0	60.0
	150.00	3	8.6	15.0	75.0
	300.00	2	5.7	10.0	85.0
	500.00	1	2.9	5.0	90.0
	750.00	1	2.9	5.0	95.0
	999.00	1	2.9	5.0	100.0
	Total	20	57.1	100.0	
Missing	System	15	42.9		
Total		35	100.0		

**Approximately what percentage of these students are female?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4.00	1	2.9	5.0	5.0
	15.00	1	2.9	5.0	10.0
	45.00	1	2.9	5.0	15.0
	49.00	1	2.9	5.0	20.0
	50.00	7	20.0	35.0	55.0
	53.00	1	2.9	5.0	60.0
	55.00	2	5.7	10.0	70.0
	60.00	3	8.6	15.0	85.0
	62.00	1	2.9	5.0	90.0
	65.00	1	2.9	5.0	95.0
	70.00	1	2.9	5.0	100.0
	Total	20	57.1	100.0	
Missing	System	15	42.9		
Total		35	100.0		

**Are these courses or units still being offered?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	57.1	87.0	87.0
	No	3	8.6	13.0	100.0
	Total	23	65.7	100.0	
Missing	System	12	34.3		
Total		35	100.0		

**In-depth knowledge of subject area**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Substantially worse	1	2.9	4.2	4.2
	No difference	3	8.6	12.5	16.7
	Somewhat better	11	31.4	45.8	62.5
	Substantially better	6	17.1	25.0	87.5
	No valid comparison possible	3	8.6	12.5	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Problem solving skills**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difference	1	2.9	4.2	4.2
	Somewhat better	14	40.0	58.3	62.5
	Substantially better	5	14.3	20.8	83.3
	No valid comparison possible	4	11.4	16.7	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Communication skills**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difference	4	11.4	16.7	16.7
	Somewhat better	8	22.9	33.3	50.0
	Substantially better	7	20.0	29.2	79.2
	No valid comparison possible	5	14.3	20.8	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Ability to apply new knowledge**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difference	1	2.9	4.2	4.2
	Somewhat better	16	45.7	66.7	70.8
	Substantially better	5	14.3	20.8	91.7
	No valid comparison possible	2	5.7	8.3	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Critical thinking skills**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difference	3	8.6	12.5	12.5
	Somewhat better	12	34.3	50.0	62.5
	Substantially better	5	14.3	20.8	83.3
	No valid comparison possible	4	11.4	16.7	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Ability to collaborate with others**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difference	6	17.1	25.0	25.0
	Somewhat better	6	17.1	25.0	50.0
	Substantially better	7	20.0	29.2	79.2
	No valid comparison possible	5	14.3	20.8	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Ability to use advanced technology**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat better	5	14.3	20.8	20.8
	Substantially better	15	42.9	62.5	83.3
	No valid comparison possible	4	11.4	16.7	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Understanding of the scientific method**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difference	3	8.6	12.5	12.5
	Somewhat better	4	11.4	16.7	29.2
	Substantially better	4	11.4	16.7	45.8
	No valid comparison possible	13	37.1	54.2	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**Have you participated in any further professional development activities or workshops designed to change the content of courses or units or to improve instruction?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	74.3	81.3	81.3
	No	6	17.1	18.8	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**Amount of impact**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	9	25.7	34.6	34.6
	A little	3	8.6	11.5	46.2
	Moderate	8	22.9	30.8	76.9
	Great	6	17.1	23.1	100.0
	Total	26	74.3	100.0	
Missing	System	9	25.7		
Total		35	100.0		

**Have you begun any new communication or continued existing communication with experts in one or more disciplines?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	51.4	56.3	56.3
	No	14	40.0	43.8	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**Amount of impact**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	3	8.6	16.7	16.7
	A little	4	11.4	22.2	38.9
	Moderate	9	25.7	50.0	88.9
	Great	2	5.7	11.1	100.0
	Total	18	51.4	100.0	
Missing	System	17	48.6		
Total		35	100.0		

**Have you established any new research or teaching collaborations with colleagues?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	40.0	45.2	45.2
	No	17	48.6	54.8	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

**Amount of impact**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	3	8.6	21.4	21.4
	A little	2	5.7	14.3	35.7
	Moderate	7	20.0	50.0	85.7
	Great	2	5.7	14.3	100.0
	Total	14	40.0	100.0	
Missing	System	21	60.0		
Total		35	100.0		

**Have you attended any professional meetings, seminars or workshops?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	29	82.9	90.6	90.6
	No	3	8.6	9.4	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**Amount of impact**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	9	25.7	31.0	31.0
	A little	5	14.3	17.2	48.3
	Moderate	10	28.6	34.5	82.8
	Great	5	14.3	17.2	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**Have you delivered one or more papers at a professional meeting?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	14.3	15.6	15.6
	No	27	77.1	84.4	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**Amount of impact**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	1	2.9	20.0	20.0
	Moderate	2	5.7	40.0	60.0
	Great	2	5.7	40.0	100.0
	Total	5	14.3	100.0	
Missing	System	30	85.7		
Total		35	100.0		



**Have you made one or more presentations to local campuses or community organizations?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	31.4	34.4	34.4
	No	21	60.0	65.6	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**Amount of impact**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	1	2.9	9.1	9.1
	Moderate	3	8.6	27.3	36.4
	Great	7	20.0	63.6	100.0
	Total	11	31.4	100.0	
Missing	System	24	68.6		
Total		35	100.0		

**Have you shared any information or skills you learned with colleagues either in your institution or in other institutions?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	74.3	92.9	92.9
	No	2	5.7	7.1	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**Have you shared any information or skills you learned through informal discussions with one or more colleagues?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	80.0	93.3	93.3
	No	2	5.7	6.7	100.0
	Total	30	85.7	100.0	
Missing	System	5	14.3		
Total		35	100.0		

**Have you shared any information or skills you learned through presentations to one more colleagues?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	40.0	48.3	48.3
	No	15	42.9	51.7	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**Have you shared any information or skills you learned through observation of your class or laboratory by one or more colleagues?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	37.1	46.4	46.4
	No	15	42.9	53.6	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**Have you shared any information or skills you learned through participation in any department or school committees on curricular change and or reform?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	51.4	62.1	62.1
	No	11	31.4	37.9	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**Have you shared any information or skills you learned through any other activities?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	22.9	29.6	29.6
	No	19	54.3	70.4	100.0
	Total	27	77.1	100.0	
Missing	System	8	22.9		
Total		35	100.0		

**As a result of what you shared, have any of your colleagues modified the content of a unit or program of study?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	34.3	41.4	41.4
	No	17	48.6	58.6	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**As a result of what you shared, have any of your colleagues developed a new unit or program of study?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	25.7	31.0	31.0
	No	20	57.1	69.0	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**As a result of what you shared, have any of your colleagues attended or joined the project?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	54.3	65.5	65.5
	No	10	28.6	34.5	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**As a result of what you shared, have any of your colleagues made any other changes?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	14.3	17.2	17.2
	No	24	68.6	82.8	100.0
	Total	29	82.9	100.0	
Missing	System	6	17.1		
Total		35	100.0		

**Did you encounter any barriers to implementing what you learned from your involvement with this course?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	62.9	71.0	71.0
	No	9	25.7	29.0	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

**When you took the program, did you INTEND to develop any new materials-units or modify any existing materials or units?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	60.0	70.0	70.0
	No	9	25.7	30.0	100.0
	Total	30	85.7	100.0	
Missing	System	5	14.3		
Total		35	100.0		

**Number of hours in preparation before the course**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	24	68.6	85.7	85.7
	1.0	1	2.9	3.6	89.3
	2.0	1	2.9	3.6	92.9
	3.0	2	5.7	7.1	100.0
	Total	28	80.0	100.0	
Missing	System	7	20.0		
Total		35	100.0		

**Number of hours during the course**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	2	5.7	6.5	6.5
	3.0	2	5.7	6.5	12.9
	5.0	1	2.9	3.2	16.1
	6.0	5	14.3	16.1	32.3
	8.0	3	8.6	9.7	41.9
	9.0	1	2.9	3.2	45.2
	12.0	2	5.7	6.5	51.6
	14.0	2	5.7	6.5	58.1
	16.0	1	2.9	3.2	61.3
	17.0	1	2.9	3.2	64.5
	18.0	2	5.7	6.5	71.0
	21.0	1	2.9	3.2	74.2
	23.0	1	2.9	3.2	77.4
	24.0	2	5.7	6.5	83.9
	30.0	1	2.9	3.2	87.1
	36.0	1	2.9	3.2	90.3
	40.0	2	5.7	6.5	96.8
	50.0	1	2.9	3.2	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

**Number of hours after the course developing**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	2	5.7	7.4	7.4
	2.0	1	2.9	3.7	11.1
	3.0	2	5.7	7.4	18.5
	4.0	1	2.9	3.7	22.2
	5.0	1	2.9	3.7	25.9
	6.0	1	2.9	3.7	29.6
	8.0	1	2.9	3.7	33.3
	10.0	4	11.4	14.8	48.1
	12.0	1	2.9	3.7	51.9
	15.0	1	2.9	3.7	55.6
	17.0	1	2.9	3.7	59.3
	20.0	1	2.9	3.7	63.0
	25.0	1	2.9	3.7	66.7
	30.0	3	8.6	11.1	77.8
	80.0	1	2.9	3.7	81.5
	99.0	5	14.3	18.5	100.0
	Total	27	77.1	100.0	
Missing	System	8	22.9		
Total		35	100.0		

**Number of hours after the course implementing**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	2	5.7	14.3	14.3
	3.0	1	2.9	7.1	21.4
	5.0	1	2.9	7.1	28.6
	10.0	1	2.9	7.1	35.7
	15.0	1	2.9	7.1	42.9
	20.0	1	2.9	7.1	50.0
	25.0	1	2.9	7.1	57.1
	30.0	2	5.7	14.3	71.4
	35.0	1	2.9	7.1	78.6
	40.0	1	2.9	7.1	85.7
	50.0	1	2.9	7.1	92.9
	99.0	1	2.9	7.1	100.0
	Total	14	40.0	100.0	
Missing	System	21	60.0		
Total		35	100.0		

**Number of hours after the course - other?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	3	8.6	33.3	33.3
	1.0	1	2.9	11.1	44.4
	2.0	1	2.9	11.1	55.6
	5.0	1	2.9	11.1	66.7
	10.0	2	5.7	22.2	88.9
	40.0	1	2.9	11.1	100.0
	Total	9	25.7	100.0	
Missing	System	26	74.3		
Total		35	100.0		

**Approximate total number of hours**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	1	2.9	4.2	4.2
	6.0	2	5.7	8.3	12.5
	14.0	2	5.7	8.3	20.8
	25.0	1	2.9	4.2	25.0
	27.0	1	2.9	4.2	29.2
	30.0	2	5.7	8.3	37.5
	34.0	1	2.9	4.2	41.7
	40.0	1	2.9	4.2	45.8
	42.0	1	2.9	4.2	50.0
	60.0	1	2.9	4.2	54.2
	78.0	1	2.9	4.2	58.3
	83.0	1	2.9	4.2	62.5
	99.0	9	25.7	37.5	100.0
	Total	24	68.6	100.0	
Missing	System	11	31.4		
Total		35	100.0		

**At the time you participated in the project, how many years had you been at the school where you were teaching at that time?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	1	2.9	3.0	3.0
	1.0	5	14.3	15.2	18.2
	2.0	2	5.7	6.1	24.2
	3.0	4	11.4	12.1	36.4
	4.0	4	11.4	12.1	48.5
	5.0	1	2.9	3.0	51.5
	6.0	2	5.7	6.1	57.6
	7.0	1	2.9	3.0	60.6
	8.0	2	5.7	6.1	66.7
	9.0	2	5.7	6.1	72.7
	10.0	1	2.9	3.0	75.8
	11.0	1	2.9	3.0	78.8
	12.0	2	5.7	6.1	84.8
	13.0	1	2.9	3.0	87.9
	14.0	1	2.9	3.0	90.9
	20.0	1	2.9	3.0	93.9
	21.0	1	2.9	3.0	97.0
	23.0	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**Which of the following best describes the school where you were employed when you took the course?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Elementary school	6	17.1	17.6	17.6
	Middle school	2	5.7	5.9	23.5
	High school	26	74.3	76.5	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**What is your gender?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	5	14.3	14.7	14.7
	Female	29	82.9	85.3	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		



**What is your birth month?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	January	3	8.6	9.4	9.4
	February	1	2.9	3.1	12.5
	June	5	14.3	15.6	28.1
	July	2	5.7	6.3	34.4
	August	3	8.6	9.4	43.8
	September	2	5.7	6.3	50.0
	October	6	17.1	18.8	68.8
	November	3	8.6	9.4	78.1
	December	7	20.0	21.9	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**What is your birth day?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	2.9	3.1	3.1
	2.0	1	2.9	3.1	6.3
	3.0	1	2.9	3.1	9.4
	4.0	1	2.9	3.1	12.5
	7.0	4	11.4	12.5	25.0
	8.0	2	5.7	6.3	31.3
	10.0	1	2.9	3.1	34.4
	11.0	1	2.9	3.1	37.5
	13.0	1	2.9	3.1	40.6
	14.0	2	5.7	6.3	46.9
	15.0	1	2.9	3.1	50.0
	17.0	1	2.9	3.1	53.1
	20.0	4	11.4	12.5	65.6
	21.0	1	2.9	3.1	68.8
	22.0	1	2.9	3.1	71.9
	24.0	1	2.9	3.1	75.0
	25.0	1	2.9	3.1	78.1
	27.0	2	5.7	6.3	84.4
	28.0	1	2.9	3.1	87.5
	29.0	1	2.9	3.1	90.6
	30.0	2	5.7	6.3	96.9
31.0	1	2.9	3.1	100.0	
Total	32	91.4	100.0		
Missing	System	3	8.6		
Total		35	100.0		

**What is your birth year?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	44.0	1	2.9	3.0	3.0
	45.0	1	2.9	3.0	6.1
	48.0	1	2.9	3.0	9.1
	50.0	2	5.7	6.1	15.2
	51.0	4	11.4	12.1	27.3
	52.0	3	8.6	9.1	36.4
	53.0	2	5.7	6.1	42.4
	55.0	1	2.9	3.0	45.5
	56.0	1	2.9	3.0	48.5
	57.0	1	2.9	3.0	51.5
	58.0	2	5.7	6.1	57.6
	59.0	1	2.9	3.0	60.6
	60.0	1	2.9	3.0	63.6
	63.0	1	2.9	3.0	66.7
	66.0	1	2.9	3.0	69.7
	67.0	2	5.7	6.1	75.8
	69.0	1	2.9	3.0	78.8
	70.0	1	2.9	3.0	81.8
	71.0	2	5.7	6.1	87.9
	74.0	1	2.9	3.0	90.9
	76.0	2	5.7	6.1	97.0
	77.0	1	2.9	3.0	100.0
	Total	33	94.3	100.0	
Missing	System	2	5.7		
Total		35	100.0		

**Are you Hispanic or Latino or NOT Hispanic or Latino?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hispanic or Latino	2	5.7	5.9	5.9
	Not Hispanic or Latino	32	91.4	94.1	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		

**Please choose one or more categories that best indicate your race**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Black or African American	1	2.9	3.1	3.1
	Caucasian	30	85.7	93.8	96.9
	9	1	2.9	3.1	100.0
	Total	32	91.4	100.0	
Missing	System	3	8.6		
Total		35	100.0		

**What was your citizenship when you participated in the project?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	U.S. citizen	34	97.1	100.0	100.0
Missing	System	1	2.9		
Total		35	100.0		

**Do you have an impairment or some other type of disability?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other impairment	1	2.9	2.9	2.9
	No impairment or disability	33	94.3	97.1	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		