

Means, F-test and t-values for Pre, Post and Long-term Post-Program Questionnaire Items

(note: for any three group comparison, means that do not share a letter are significantly different at the $p < .05$ level using the Bonferroni procedure. * $p < .05$)

Please rate your <u>confidence</u> in your own ability to use the following technologies:	Pre	Post	Lt. Post	F-value	p-level
1. Water quality sampling kits.	2.84a	4.53b	4.26b	14.28	.0001*
2. Labware, probes, CBLs, and graphing calculators.	2.75a	3.5b	3.65b	8.31	.003*
3. Internet websites for research and support materials.	4.10	4.55	4.45	3.47	.053*
4. Microscopes.	3.95a	4.53b	4.53b	10.55	.001*
5. Videoscopes and/or display monitor.	3.00a	3.58a	4.16b	8.29	.003*
6. Presentation technologies (slides, power point, etc.)	3.30a	3.60a	4.25b	10.34	.001*
7. Digital camera.	3.32a	3.74a	4.11b	7.23	.005*
Please rate your <u>confidence</u> in your own ability to:	XXXX	XXXX	XXXXX	XXXX	XXXXX
8. Use hands-on instructional strategies.	3.80	4.00	4.20	2.50	.110
9. Use inquiry-based teaching strategies.	3.65	3.90	3.75	1.20	.324
10. Address gender and minority equity through instruction.	3.31a	3.68a	3.79b	3.99	.038*
11. Integrate the sciences (physical, life, earth) in teaching.	3.90	4.25	4.15	2.10	.151
12. Integrate science as a subject with other subject areas.	3.45a	4.10b	4.10b	5.57	.013*
Please rate your <u>confidence</u> in your own ability to use the following community resources:	XXXX	XXXX	XXXXX	XXXX	XXXXX
13. Guest speakers (local, university, county, and/or state).	3.30a	4.05b	3.90b	7.60	.004*
14. Natural environment <u>field</u> sites related to watershed studies.	2.65a	4.15b	3.65b	18.58	.0001*
15. Field trips to watershed related community resource sites (Museum, historical society, fish hatchery, farm site, etc.)	2.90a	4.10b	3.75b	7.92	.003*
Please rate your <u>confidence</u> in your own ability to conduct the following field based investigations:	XXXX	XXXX	XXXXX	XXXX	XXXXX
18. Water chemistry	2.90a	4.35b	4.05b	14.37	.0001*
19. Macroinvertebrate study	2.63a	3.94b	3.78b	9.95	.001*
20. Fish study	2.37a	3.47b	3.58b	11.53	.001*
21. Geology study with topo maps	3.05a	4.05b	4.15b	12.36	.0001*
22. Other (List)					
Please rate your <u>confidence</u> in your own ability to teach:	XXXX	XXXX	XXXXX	XXXX	XXXXX
23. about watershed topics.	3.10a	4.20b	4.15b	9.65	.001*
24. about connections between science & real life.	4.10a	4.40a	4.65b	9.00	.002*
25. connections between science & societal issues.	3.80a	4.35b	4.50b	7.30	.005*
26. connections between science & science-related careers.	3.85	4.25	4.25	2.98	.08
Please rate the general enthusiasm of the following groups of students for science:	XXXX	XXXX	XXXXX	XXXX	XXXXX
27. All student in my classes	3.40	3.55	3.60	.326	.726
28. Male students	3.47	3.53	3.65	.266	.770
29. Female students	3.47	3.52	3.41	.196	.824
30. Minority students	3.23	3.31	3.23	.153	.860

31. What percentage of your curriculum do you believe is aligned with the core content for assessment? (1 = 0-10%, 2 = 11-25%, 3 = 26-50%, 4 = 51-75%, 5 = 76-100%)	4.44	4.56	4.57	1.167	.340
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To what extent have you used the following types of technology in and/or for classroom instruction? (1 = never, 2 = 1-2 times a year, 3 = 3-4 times a year, 4 = 5-6 times a year, 5 = over 6 times a year)	Pre	Long-term Post	t-value	p-level
1. Water quality sampling kits.	1.94	2.71	2.75	.014*
2. Labware, probes, CBLs, and graphing calculators.	2.06	2.47	1.13	.275
3. Internet websites for research and support materials.	3.94	4.53	1.9	.08*
4. Microscopes.	3.14	3.71	1.23	.241
5. Videoscopes and/or display monitor.	2.43	2.71	.486	.64
6. Presentation technologies (slides, power point, etc.)	2.71	3.24	1.31	.208
7. Digital camera.	2.06	2.88	2.21	.043*
To what extent do you:	XXXX	XXXX	XXXXXX	XXX
8. Use hands-on instructional strategies.	4.35	4.65	1.57	.136
9. Use inquiry-based teaching strategies.	4.00	4.65	2.281	.037*
10. Address gender and minority equity through instruction.	3.35	3.53	.643	.529
11. Integrate the sciences (physical, life, earth) in teaching.	4.75	4.63	1.0	.333
12. Integrate science as a subject with other subject areas.	3.93	3.87	.292	.774
To what extent do you use the following community resources in your teaching:	XXXX	XXXX	XXXXXX	XXX
13. Guest speakers (local, university, county, and/or state).	1.94	2.59	2.86	.011*
14. Natural environment <u>field</u> sites related to watershed studies.	1.47	2.12	3.40	.004*
15. Field trips to watershed related community resource sites (Museum, historical society, fish hatchery, farm site, etc.)	1.41	1.76	2.4	.029*
To what extent do you incorporate the following types of field-based investigations in your teaching:	XXXX	XXXX	XXXXXX	XXX
18. Water chemistry	1.88	2.38	2.07	.056*
19. Macroinvertebrate study	1.63	2.13	2.45	.027*
20. Fish study	1.63	2.00	2.09	.054*
21. Geology study with topo maps	1.53	2.29	4.75	.0001*
To what extent do you teach: (1 = never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always)				
23. about watershed topics.	2.53	3.11	1.90	.076
24. about connections between science & real life.	4.18	4.47	1.57	.136
25. connections between science & societal issues.	3.65	4.29	4.40	.0001*
26. connections between science & science-related careers.	3.53	3.77	1.07	.229