

### Reading the River 2006/07

Program Questionnaire Measures of the Pre, Post and Long-term Post Likert Responses Assessing the Confidence of the Participants and Constituent Enthusiasm for Science.

Please rate your <u>confidence</u> in your own ability to use the following technologies: <b>Wilks' Lambda (12, 30) = 3.4, p=.003</b>	Pre	Post	Lt. Post	F value	p-level
Water quality sampling kits.	3.5a	4.6b	4.2b	9.7	.006
Labware, probes, CBLs, and graphing calculators.	3.1a	3.3ab	3.7b	9.7	.006
Internet websites for research and support materials.	4.3	4.4	4.6	.95	.ns
Microscopes.	3.4a	3.6ab	4.0b	4.8	.04
Digital Camera	3.9a	3.7a	4.5b	7.1	.014
GPS	2.2a	3.6b	3.1b	5.6	.03
<b>Please rate your <u>confidence</u> in your own ability to:</b> <b>Wilks' Lambda (10, 30) = 1.76, p = .12</b>					
Use hands-on instructional strategies.	4.1a	4.5b	4.6b	6.4	.02
Use inquiry-based teaching strategies.	3.7a	4.2b	4.0b	4.1	.05
Address gender and minority equity through instruction.	3.4	3.6	3.9	1.5	ns
Integrate the sciences (physical, life, earth) in teaching.	3.8	4.0	4.3	2.5	ns
Integrate science as a subject with other subject areas.	3.6	3.8	4.2	1.3	ns
<b>Please rate your <u>confidence</u> in your own ability to use the following community resources:</b> <b>Wilks' Lambda (6, 32) = 1.7, p = .14</b>					
Guest speakers (local, university, county, and/or state).	3.1	3.7	3.6	1.6	ns
Natural environment <u>field</u> sites related to watershed studies.	2.6	3.5	3.8	2.9	ns
Field trips to watershed related community resource sites (Museum, historical society, fish hatchery, farm site, etc.)	2.6a	3.7b	3.8b	3.5	.08
<b>Please rate your <u>confidence</u> in your own ability to conduct the following field based investigations:</b> <b>Wilks' Lambda (12, 26) = 4.7, p = .000</b>					
Water chemistry	3.3a	4.6b	4.5b	12	.003
Macroinvertebrate study	3.1a	4.0b	3.9b	8	.01
Habitat Assessment	3.1	3.7	3.6	2.9	ns
Fish study	2.6	3.0	2.8	.87	ns
Plankton Collection	2.3a	4.1b	3.2c	23	.001
Stream Flow Rate	2.8a	4.2b	3.9b	17	.001
<b>Please rate your <u>confidence</u> in your own ability to teach:</b> <b>Wilks' Lambda (8, 34) = 3.5, p = .004</b>					
About watershed topics.	2.8a	3.8b	3.7b	9.1	.007
About connections between science & real life.	3.6a	4.3b	4.5b	7.4	.013
Connections between science & societal issues.	3.4a	4.1b	4.1b	5.5	.03
Connections between science & science-related careers.	3.4a	4.3b	3.9b	6.7	.015

**Note:** Any means not sharing a letter are significantly different at the  $p < .05$ . Likert items ranged from 1 to 5 with 1=very low and 5=very high.