

**Attachment 5: Comparison of Teacher Post-MWEE Initial vs. Nonresponse Questionnaire Results**

This document compares responses from teachers who responded to the initial post-MWEE questionnaire with the responses from teachers who responded to a follow up non-response post-MWEE questionnaire. For each question, the number of teachers who responded to the respective questionnaires (n), descriptive statistics (frequencies, means/standard deviations), and significant difference test results are reported. Chi square tests were conducted when the response choices were nominal (e.g., yes/no) and independent t-tests were conducted when response choices were ordinal (e.g., 1-5 point Likert-type). P values are reported to indicate if initial and non-respondent teachers' responses are statistically significantly different ( $p < .05$ ).

Note: The numbers in parentheses immediately following the response choices, such as (55), (1), (0), are the values assigned to each response

MPDQ3 Are you currently a PreK-12 teacher or educator?

- No (0)
- Yes (1)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	100%	0%	N/A	1	N/A
Non-response questionnaire	27	100%	0%			

MPDQ5 In what setting do you teach?

- Public school (1)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	95%	5%	1.50	1	0.60
Non-response questionnaire	27	100%	0%			

- Private school (2)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	5%	95%	1.50	1	0.60
Non-response questionnaire	27	0%	100%			

- Non-formal education (e.g., environmental centers, zoos, museums, interpretive programs at local or state level parks, youth organizations) (3)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	0%	100%	N/A	1	N/A
Non-response questionnaire	27	0%	100%			

- Home-school (4)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	0%	100%	N/A	1	N/A
Non-response questionnaire	27	0%	100%			

- Other (88)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	0%	100%	N/A	1	N/A
Non-response questionnaire	27	0%	100%			

MQ9 In the past 12 months, did you implement a Meaningful Watershed Educational Experience (MWEE) with your students? MWEEs are investigative, project-oriented, sustained activities that include one or more outdoor experiences, consider the watershed as a system, and are an integral part of a school instructional program.

- No (0)
- Yes (1)

	n	% yes	% no	Chi Square statistic	df	p value
Initial questionnaire	113	100%	0%	N/A	1	N/A
Non-response questionnaire	27	100%	0%			

MGQ37\_1 How many of your students participated in a MWEE during the most recent school year?  
 (Please provide your best estimate, NOT a range)

About \_\_\_ students (1)

MGQ45 On average, did students participate in a MWEE over the course of:

- One day (1)
- 2-6 days (2)
- One week (3)
- 2-3 weeks (4)
- One month (5)
- 2-3 months (6)
- 4-8 months (7)
- A full school year (about 9 months) (8)
- A full calendar year (9)
- Multiple years (10)

	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	113	5.43	2.63	2.16	0.03
Non-response questionnaire	27	4.26	2.12		

MGQ43 On average during the last school year, about how many hours did a typical student spend involved in MWEE activities? (check one)

- None (0)
- 1-2 hours (1)
- 3-5 hours (2)
- 6-9 hours (3)
- 10-16 hours (4)
- 17-24 hours (5)
- 25-40 hours (6)
- more than 40 hours (7)

	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	113	4.08	1.72	0.22	0.83
Non-response questionnaire	27	4	1.59		

MGQ44 On average during the last school year, about how many hours did a typical student spend outdoors during MWEE activities? (check one)

- None (0)
- 1-2 hours (1)
- 3-5 hours (2)
- 6-9 hours (3)
- 10-16 hours (4)
- 17-24 hours (5)
- 25-40 hours (6)
- more than 40 hours (7)

	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	113	3.13	1.47	1.97	0.05
Non-response questionnaire	27	2.58	1.24		

MGQ52 As a result of participating in MWEEs, students:

	NA (55)	Strongly disagree 1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Know more about watersheds (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value			
Initial questionnaire	111	6.13	1.28	1.02	0.31			
Non-response questionnaire	27	5.85	1.13					
Express greater caring and concern for their local watershed (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard	t-test statistic	p value			

			deviation		
Initial questionnaire	110	5.80	1.27	0.60	0.55
Non-response questionnaire	27	5.67	1.11		
Are more confident in their ability to protect and/or restore watersheds (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	111	5.49	1.37	0.28	0.78
Non-response questionnaire	27	5.41	1.00		
Are more likely to act to protect or restore watersheds (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	110	5.65	1.18	1.37	0.17
Non-response questionnaire	27	5.30	1.35		
Are better able to make informed decisions about how to protect or restore watersheds (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard	t-test statistic	p value

			deviation		
Initial questionnaire	108	5.69	1.18	0.51	0.61
Non-response questionnaire	27	5.56	1.22		
Are better able to conduct scientific investigations (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	112	5.77	1.14	-0.04	0.97
Non-response questionnaire	27	5.78	0.80		
Are better able to understand the nature of scientific research (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value
Initial questionnaire	112	5.77	1.18	-0.35	0.73
Non-response questionnaire	27	5.85	0.86		
Are more likely to express an interest in pursuing science careers (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value
Initial	109	5.55	1.30	2.50	0.01

questionnaire								
Non-response questionnaire	27	4.85	1.29					
Perform better in science (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value			
Initial questionnaire	111	5.66	1.25	0.39	0.70			
Non-response questionnaire	27	5.56	1.05					
Perform better academically (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value			
Initial questionnaire	109	5.35	1.31	2.35	0.02			
Non-response questionnaire	26	4.85	1.19					
Perform better on state standardized tests (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value			
Initial questionnaire	104	4.92	1.54	2.70	0.01			
Non-response questionnaire	26	4.19	1.23					

Are more engaged in their science learning (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	n	Mean	Standard deviation	t-test statistic	p value			
Initial questionnaire	111	6	1.26	-0.14	0.89			
Non-response questionnaire	27	6.04	0.98					