

STEM Active Learning Community Partners
September, 2015 DoS Professional Development Workshops

Results of Rubric to Measure Change in STEM Pre-Workshop Lesson Plans Compared to STEM Post-Workshop Revised Lesson Plans:

A) How reliable were the workshop facilitators in scoring the DoS Evaluation Rubric?

- Evaluating 12 Dimensions plus a STEM Learning Goal = 13 categories
- With more than two point variance for each category, reviewers differed on **34** out of **494** scoring points (7%)
- With more than three points variance, reviewers differed on **14** out of **494** scoring points (3%)
 - Items with more than one dimension with 3+ points of variance:
 #4, #7, #9, #14, #19

B) What improvements were evident in the Revised Lesson Plans?

	Dimension of Success	Pre-Workshop STEM Lesson Plan	Post-Workshop STEM Lesson Plan	% of Improvement	Average % of Improvement Per Dimension
Setting a STEM Goal	STEM Learning Goal	2.24	3.84	71%	71%
Features of Learning Environment	Organization	1.31	4.47	241%	153%
	Materials	3.34	4.68	40%	
	Space Utilization	1.21	3.39	180%	
Activity Engagement	Participation	2.53	4.05	60%	50%
	Purposeful Activities	2.68	4.11	53%	
	Engagement with STEM	2.87	3.95	38%	
STEM Knowledge & Practices	STEM Content Learning	2.79	3.55	27%	52%
	Inquiry	3.17	3.96	25%	
	Reflection	2.1	4.29	104%	
Youth Development in STEM	Relationships	1.43	3.37	136%	95%
	Relevance	2.18	4.05	86%	
	Youth Voice	2.34	3.79	62%	
Total Lesson Plan Change		2.32	3.96	71%	

**STEM Active Learning Community Partners
2016 DoS Professional Development Workshops**

Results of Rubric to Measure Change in STEM Pre-Workshop Lesson Plans Compared to STEM Post-Workshop Revised Lesson Plans:

A) How reliable were the workshop facilitators in scoring the DoS Evaluation Rubric?

- Evaluating 12 Dimensions plus a STEM Learning Goal = 13 categories
- With more than two point variance for each category, reviewers differed on **111** out of **546** scoring points (20%)
- With more than three points variance, reviewers differed on **31** out of **546** scoring points (6%)
 - Items with more than one dimension with 3+ points of variance:
#1, #13, #18

B) What improvements were evident in the Revised Lesson Plans?

	Dimension of Success	Pre-Workshop STEM Lesson Plan	Post-Workshop STEM Lesson Plan	% of Improvement	Average % of Improvement Per Dimension
Setting a STEM Goal	STEM Learning Goal	2.17	4.26	96%	96%
Features of Learning Environment	Organization	1.98	3.86	95%	84%
	Materials	3.21	4.31	34%	
	Space Utilization	1.6	3.57	123%	
Activity Engagement	Participation	3.26	4.43	36%	38%
	Purposeful Activities	2.90	4.31	49%	
	Engagement with STEM	3.24	4.17	29%	
STEM Knowledge & Practices	STEM Content Learning	2.81	4.1	46%	49%
	Inquiry	3.24	4.02	24%	
	Reflection	2.29	4.02	76%	
Youth Development in STEM	Relationships	2.45	4.21	72%	65%
	Relevance	1.95	3.57	83%	
	Youth Voice	2.74	3.8	39%	
Total Lesson Plan Change		2.60	4.05	56%	56%