



QSM Grant Writing Workshop

Participant Packet

November 7, 2020

8:30 am -11:30 am

SAMPLE RESPONSES to EVALUATE

Student Population Description:

Sample 1: I have 25 students in my classroom. Most of my students come from a rural area. None of them qualify for special ed or gifted. They all perform below grade level.

Sample 2: It's a rural town. This would allow all different types of learning styles especially kinesthetic learners. This give students hands on experiences along with educating.

Sample 3: My students have a 25.7% poverty rate with 40% living in single parent homes. One-third of the community population 25 years or older never graduated from high school. Therefore, many students do not have help with homework at home. Because many are in poverty, about 30% of my students work after school in lieu of extracurricular activities.

Sample 4: In my classroom less than 50% are living in a traditional two parent home. The rest of my students are living with single parents.

Goals and Objectives: (250 word max)-10 points

Sample 1: The project goal is to purchase microscopes so students can be exposed to hands on learning. Students will be able to identify parts of a cell with a microscope by the end of the first semester.

Sample 2: The goal of my project is to provide the technology necessary to raise the mathematical performance of students at all levels. Technology must be provided in order for students to achieve maximum learning capacity, opening the door to many more opportunities beyond the high school math classroom. Louisiana standards for mathematics state, "Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations." For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator.

Sample 3: The project goal is to improve my students' algebraic concepts at a deep, conceptual level by engaging them in multi-sensory manipulative based activities aligned to CCSSM. By May 2017, Algebra II students will increase their proficiency in solving systems of linear equations and inequalities by 10% based on pre and post district assessment.

Abstract: (300 word max)-10 points

Sample 1: I plan to mix different substances to see how they react to each other. I plan on comparing different types of cells and cell parts with a microscope.

Sample 2: The goal of this project is to deepen my students' understanding of the concepts of force and motion. Utilizing the resources purchased in this grant, my students will investigate constant velocity and acceleration, as well as measure and analyze forces, in order to develop models for fundamental physics ideas. Activities will be conducted in small groups using center stations and then the whole group will come together to share their results and

knowledge gained. Using diagrams, graphs, and data, students will better understand relationships between forces and deepen their understanding of fundamental Newton's Laws.

Sample 3: The goal of my project is to provide the technology necessary to raise the mathematical performance of students at all levels. I plan to purchase 6 TI-84 plus graphing calculators to complete a classroom set of calculators. All my students will have daily access to the calculators in my classroom. Each calculator will also be loaded with ACT programs that will enable students to increase their ACT mathematics subscores which will in turn allow them more opportunities after high school.

Rationale (300 word max)-15 points

Sample 1: An analysis of my 4th grade scores on the district pretest given last month indicate that 50% of my students do not understand measurement, which is a fundamental skill. The classroom sets of various measurement tools and ways to use them will provide my students the experiences necessary to better understand measurement and improve their performance.

Sample 2: Science manipulatives will address my kinesthetic learners and provide hands-on experiences for all my students in science.

Sample 3: My students show a general weakness in the area of multiplication fact fluency. When I gave the group a timed multiplication test, the scores ranged from 31 to 0 with an average of 14 facts within a one-minute time. Most of the facts that students successfully completed were from the easier quadrant of factors including 0, 1 and 2. This content is of specific importance to my students because this fluency is a basis for many other standards within fourth grade. Some of the standards including 4NBT5 and 4NBT6 relating to multi-digit multiplication and division as well as standards in strand relating to fractions such as 4NF1. Without this basis of general fluency, students will continue to struggle with more difficult concepts.

DESCRIPTION (650 word max) 20 points

Sample 1: Science as Inquiry Electricity Unit:

The unit pretest identified my students' misconceptions about electricity. To help them learn how electricity flows through a circuit, I will have my students participate in a variety of activities that illustrate this concept. Their curiosities will be piqued and problem-solving skills honed when they 1) discover how and why the Energy Ball lights and makes noise under certain conditions; 2) determine what they have to do to make their Snap Circuit bell ring; and 3) explain why the buzzer on their hand-made aluminum foil/cardboard circuit doesn't work, and how they can make it work.

Sample 2: It is the mission of the faculty and staff of this school to provide students of diverse backgrounds with an education they can use after graduation. Students exposed to an education using technology have a better chance at making quality decisions in an increasingly technological age. In order to accommodate this need for learning technology, students must use modern equipment. The equipment needed to implement the objectives of this project are Texas Instrument 83 Plus Graphing Calculators, Texas Instruments Calculator Based Laboratory, and probes used to measure pH, conductivity, temperature, voltage, and

light. In addition to the equipment, workbooks containing directed lab activities supplement students' learning, while rechargeable batteries provide a renewable source of power for the equipment in the future. As the activities of the project are completed, students have an organized, more rapid tactile approach to learning. This approach provides students with a means of doing while they learn. During the activities, students will make discoveries, as scientists, by manipulating variables, testing, and interpreting their results. The technology provides students with an organized method of obtaining and interpreting data more quickly. Once the data is collected, the technology can be used to construct and interpret graphs much more rapidly. This allows students a greater opportunity to understand the scientific principles behind each activity.

Sample 3: The digital world has changed the classroom. Students are more interactive and are engaged in learning. Virtual presences and digital representation of content allow students to take more ownership of their learning. However, this does not come without costs. Students are so immersed in the digital world, they often lose sight of those tangible things around us. This document camera would allow for a bridge between the tactility of our world and the digital representations we have become so used to. This camera will allow students to present materials to the class without deep computer knowledge and then manipulate that material using intuitive computer tools.

EVALUATION (650 word max) 20 points

Sample 1: The assessment will be completed in three phases consisting of pretest, posttest and retest for retention based on the third grade CCSSM for measurement. The goal is to have each student's scores sustain a minimum increase of 10%. A rubric will be used to evaluate students' abilities to explain how they would measure various objects accurately.

Sample 2: In order to evaluate the success of the project, results of student scores on laboratory assessments will be maintained. Students will be observed during the laboratory assignment and evaluated upon their ability to complete the assignment with a minimum proficiency. The minimum proficiency expected of the students will be based upon a laboratory rubric that evaluates completeness, correctness, cooperative effort, and conclusion. In addition to laboratory evaluation, students will be expected to complete individual assignments such as quizzes and tests using the technology used during the laboratory assignments. Students will be expected to use the correct procedures for the graphing calculator and probes to obtain a sample of data. Also, students will take a pre-test to determine prior knowledge and a post-test at the end of the semester to determine their overall improvement of using technology. Along with the post-test, students will complete a survey to determine interest in the course and the use of technology. Finally, standardized test scores will be used as a determining factor to evaluate students' success. The results of exposure to authentic assessment and critical thinking questions during laboratory activities will be compared to students' scores on standardized tests.

Sample 3: To evaluate this project, I will compare student scores with those from previous years. I will also give pretests to gauge student understanding followed by a post test to determine what they have learned. In the long run, I will be able to see how students perform in future science courses both in high school and college.

QUALIFICATIONS (200 word max) 10 points

Sample 1: In June 2014, I participated in a 12-hour workshop which focused on the behavior of light. The workshop began with a simple particle model. We used prisms, laser lights, flashlights, slinkies and other materials in groups to develop ideas of wavelength, electromagnetic spectrum, diffraction, frequency, period, and amplitude. The workshop ended by examining how phenomena such as the photoelectric effect lead to a photon model.

Named topic, contact hours, and year of training. Described what they did which implies how it helps with project implementation. (Needs a second PD.)

Sample 2: The most recent professional training experience was the attending of LaSIP in 2000. Eighteen days, from 8:00 am to 3:00 pm, were used to complete the workshop for a total of 108 hours. The majority of the training experience received was using the Texas Instrument 83 Plus calculator, Calculator-Based Laboratory (CBL), and various probes that tested temperature, pH, conductivity, dissolve oxygen, and others.

Named topic, contact hours, and year of training. (However, was over 20+ years ago.) Described what they did which implies how it helps with project implementation. (Needs a second PD.)

Sample 3: I have attended many professional developments on technology and the use of such technologies within the classroom. In the past I attended week-long Intech trainings where I was able to learn about implementing more technology-based lessons in the classroom. I also have attended all Louisiana teacher leader events throughout the past four years. I report back to school on the most current changes to curriculum, instruction, and technology throughout the year. During the school year, I attend weekly school professional developments focused on mini-tech sessions to supplement classroom instruction.

PDs qualify teacher to implement a technology-based proposal. Contact hours not mentioned. Year of trainings implied, not stated.

Sample 4: -Teacher Leader Institute technology sessions- 2018 & 2019-6 hours
-LATM state conference-2019-3 hours-math sessions

No descriptions included.

Budget (excel file) 10 points

Sample 1:

Item	Name of Item	Vendor	# of item	Item Cost	Total Cost
1	Open SciEd non-consumable kit: Forces at a Distance	OpensciEd.org	1	\$480	\$480
2	Open SciEd non-consumable kit: Contact Forces	OpensciEd.org	1	\$480	\$480
3					
				TOTAL	\$960

Sample 2:

Item	Name of Item	Vendor	# of item	Item Cost	Total Cost
1	Google Chrome pads		2	\$400	\$800
2	Subscription to Explore Learning for Gizmos		1	\$249	\$249
3					
				Total shipping cost	\$80
				TOTAL	\$1129

Sample 3:

Item	Name of Item	Vendor	# of item	Item Cost	Total Cost
1	SmartMicroScope iGO with backlit stand	Smart School Systems	1	\$399	\$399
2	SmartmicroScope iGO	Smart School Systems	1	\$349	\$349
3	Lab Notebooks	Amazon	30	\$2	\$60
				taxes	\$72
				TOTAL	\$880

QSM Grant 2020

Helpful Links

QSM website:

<https://lsu.edu/caincenter/programs/qsm.php>

Grant Application:

https://my.reviewr.com/s1/site//QSMGrantProgram_2020

Populations:

<https://nces.ed.gov/ccd/schoolsearch/>

Goals and Objectives:

[Difference Between Goals and Objectives | Difference Between <http://www.differencebetween.net/business/difference-between-goals-and-objectives/#ixzz6NZ8ky94s>](http://www.differencebetween.net/business/difference-between-goals-and-objectives/#ixzz6NZ8ky94s)

https://www.youtube.com/watch?v=IS5wMv_ILXE&ab_channel=TeachingsinEducation

Standards:

Science- Louisiana Student Standards for Science (Science and Engineering practices embedded in standards)

<https://www.louisianabelieves.com/resources/library/k-12-science-resources>

Math- Louisiana Student Standards for Math OR Standards of Mathematical Practice

https://www.louisianabelieves.com/docs/default-source/teacher-toolbox-resources/louisiana-student-standards-for-k-12-math.pdf?sfvrsn=86bb8a1f_62