INSTRUCTIONAL TECHNOLOGY GRANT PROPOSAL

Name of Applicant: Jonathan Sabo

District/School: Hall County Schools/ North Hall High School

Date: April 22, 2019

Total Cost of Project: One-year classroom license for 50 students is $599

Title of Project: IXL learning for the Mathematics classroom

To what organization will you submit this grant application in the future? Clipper Petroleum Foundation

I. Why is this project important (In 2-3 paragraphs, describe the need for the project and its relevance to the shared vision for instructional technology)?

Over the past ten years, textbooks and resources have become scarce in mathematics classrooms. This leaves individual teachers responsible for searching for or creating resources for their classroom. Since these resources are coming from a variety of sources and teachers are sometimes creating these resources it is difficult to provide extra practice or differentiation for students. Many students are not able to receive an adequate amount of practice and feedback in order to master the standards. Online resources have emerged that will solve both of these issues. These online resources are excellent as they provide students with immediate feedback and sometimes an unlimited number of practice problems.

One of the best online learning experiences is IXL. IXL provides online practice for Math, Language Arts, Science, Social Studies, and Foreign Language. These resources are all aligned to Georgia Standards. This resource provides unlimited practice, immediate feedback, and clear explanations. Students who are unprepared for the current assignment will also receive recommendations for pre requisite skills that they can work on. There are several ways that this recourse could be implemented. Teachers could use this resource in order to give students specific skills to work on or use the diagnostic tools and allow IXL to recommend skills that need to be practiced. Through the diagnostic students are given personalized skill recommendations. Students are then continuously diagnosed and given a unique action plan that will allow them to either review prerequisites or move ahead. Teachers are immediately able to identify trouble spots with the real time analytics.

II. What would you like to accomplish (In 2-3 paragraphs, describe the project and list instructional objectives/project outcomes.)?

One common frustration of many math teachers is that students are lacking prerequisites for the course that they are currently taking. This project will address this as one if its major objectives. Students will begin the course by taking a diagnostic assessment. This diagnostic assessment will rate students on a grade level proficiency on several topics. IXL will then recommend certain skills for students to practice in order to bring students up to the current grade level proficiency. All of this data is demonstrated clearly to the teacher in real time, which quickly allows students in need to be identified.

Another objective is for students to prepare for state testing at the end of the school year. Activities within IXL are aligned to state standards. Students are able to work through an interactive review of the course at the end of the year. As they work though the course material, they are able to move at their own pace. Students will also gain a much higher level of confidence in their math skills. As they work through content, they will continuously receive positive feedback.

III. In what ways is this project an example of exemplary technology integration (In 2-3 paragraphs discuss your project regarding one or more of the following: LoTi, SAMR, TPACK, TIM, etc.)?

This project will lay the foundation for a much more technology rich classroom that will reach a high LoTi level. The main objective of this project is to build a strong mathematical foundation for all students. By using IXL, all pre requisites should be mastered and misconceptions should be cleared up. Building this strong foundation for all students will set the path for them to take their learning to the next level. Within the IXL software, the classroom would be considered a LoTi Level 4. Many of the problems that are solved within the software are based on applying mathematical concepts in order to solve real world problems.

When students are able to build a strong mathematical foundation, the possibilities are endless. Students will begin to have the necessary confidence to start collaborating and sharing with their own classmates. After mastering the process of communicating, they will begin working with peers throughout the school or community members. This collaboration will lead to them sharing a meaningful product with peers throughout the school or community. This project has the potential of taking struggling math students and providing them with necessary tools to confidently create and share their products with others.

IV. How will you complete the work? (Describe how the project will be completed.)

A. Describe how the instructional objectives/project outcomes will be met (2-3 paragraphs).

- Students will complete a pre-assessment of the standards that should be learned throughout the course.
- Students will complete the IXL diagnostic assessment and determine their current standing of course pre-requisites.
- One day of class each week (52 minutes) will be used for students to either remediate necessary pre-requisites or accelerate if they are proficient. Students are able to spend additional time working from home if they would like.

- Mid-term assessment will be used to gauge student progress on the course standards.
- Students will participate in an intensive state test review. Students will work on recommended skills three days each week for two weeks leading up to the state assessment. Students are encouraged to spend additional time working from home.
- Post-test will be given for measuring effectiveness of this program throughout the year.

B. Describe the time involved (project length including amount of time each day/week; include a timeline for planning and implementation).

- Length of project: One school year
    - Pre-assessment given during the first week of school
    - Diagnostic assessment will be completed during the first week of school.
        - One full class period each week (52 minutes) for the entire fall semester.
    - Mid-term assessment will be given in mid-December
        - Continue one full class period per week through the end of March.
        - Intensive review three days per week for 2 weeks in April.
    - Students will complete the state assessment at the end of April.
    - Students will apply learning to create a meaningful presentation in May
    - Post-assessment for measuring effectiveness of the program at the end of May.

C. Describe the people involved (grade level/subject & # of students, teachers and/or staff, other stakeholders).

- Grade Level: 9 – 10th Grade
- Subject: Analytic Geometry
- Number of students involved: One full class of 30
- Number of teachers involved: One

D. Describe any professional development that you or others will complete prior to implementing the grant.

- Virtual professional learning session provided by IXL.

E. Describe the materials needed for the project (provide links to relevant websites; include a written description of how the technology/ies will benefit students).

- A classroom subscription to IXL.com for 30 students at $359
    - Allows student access to the content for a full calendar year.
- A set of 10 TI-30XS MultiView Calculators at $145.99
    - Many students have their own calculator and bring them to class every day. These will help create equity for students are not able to get their own calculator.

- A class set or Chromebooks – Already provided
    - These will allow students to access the content during class periods.

IV. What is the timeline for assessing accomplishments and objectives/project outcomes (In 2-3 paragraphs, describe the program evaluation procedure. Explain how each objective will be measured and how success will be determined.)?

One objective is for students to master all necessary pre requisites that are needed to succeed in this class. This objective will be measured based on a three-part assessment. Students will complete a pre assessment during the first week of school in order to measure where they stand as they walk in the door. They will complete a midterm assessment in order to determine if any adjustments to the program are necessary. They will complete a post assessment at the end of the school year in order to determine if the program was effective in helping students master all pre requisites. This objective will be considered successfully met if all students show significant growth throughout the school year.

The other objective is to prepare students for their End of Course Test that is provided by the state. This objective will be measured by a student survey and actual data from the End of Course Test. Students will be asked if they felt that the resources adequately prepared them. The objective will be considered to be successfully met if 80% of the class shows growth on their End of Course Test.

V. How will the students be impacted by the project (In 2-3 paragraphs, include details regarding how the impact on students will be assessed and reported to students, parents, teachers, and others.)?

One impact that will be made on students is that they will master pre requisite skills that they were missing before the course. This impact will be measured through the pre, mid and post assessment. A detailed report will be given to the students and their parents that will demonstrate their growth at each of these checkpoints.

Another impact on students will be an increase in confidence in their math abilities. Students will be able to create a product that demonstrates their ability to use math to solve a real world problem that interests them. They will have the opportunity to present this product to other students, parents, and teachers at a gallery walk through at the end of the year.

VI. What is the proposed budget? Include information on the following:

A. Materials/supplies - A classroom subscription to IXL.com for 30 students at $359

B. Equipment - A set of 10 TI-30XS MultiView Calculators at $145.99
- A class set or Chromebooks – Already provided

C. Total Cost of Proposed Project - $504.99

V. List your supporting references.

Hall County Schools Technology Department. (2018). About *Technology*. Retrieved from https://www.hallco.org/web/technology/

IXL. (2018). *Measuring the Impact of IXL Math and IXL Language Arts in Georgia Schools.* Retrieved from https://www.ixl.com/research/Impact-of-IXL-in-Georgia.pdf

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EVALUATION FORM/SCORING RUBRIC

Total Points (out of 300): _____

1. Impacts a variety of skill levels and/or learning styles or impacts an important target population.

   Possible number of points: 60 _____

2. Clearly identifies standards and learning objectives/project outcomes being addressed.

   Possible number of points: 60 _____

3. Pedagogically sound, based on research and/or best practices.

   Possible number of points: 60 _____

4. Clear plan for assessment of project and goals with examples of implementation methods.

   Possible number of points: 60 _____

5. Impacts large number of students and/or can be recycled/reused.

   Possible number of points: 60 _____

General Comments:

Adapted from: The Education Foundation of Oconee County, Inc.