

INSTRUCTIONAL TECHNOLOGY GRANT PROPOSAL

Name of Applicant - Wayne Langford

District/School - Gwinnett County/McConnell Middle School

Date - July 14, 2016

Total Cost of Project: - \$21,480

Title of Project: - Chromebook 1:1 Computing Initiative

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

[Donor's Choose, GoFundMe](#)

I. Why is this project important (In 2-3 paragraphs, describe the need for the project.)?

For the past four years McConnell Middle School has worked very hard in an attempt to provide every student with daily access to technology. We have increased the number of computer labs available for teachers, provided a robust BYOD network, provided personalized coaching on technology integration, required web-based content from every teacher, embraced Google Apps for Education (GAFE) and purchased a few devices for each teacher to use to supplement where families can not afford to provide a personal device for their student. We have still not achieved our goal. However, all of this technology expansion has generated a great deal of enthusiasm for technology integration. This rapid growth has also created two problems for our technology department. The first problem is that GAFE (Google Apps for Education) like so many other Web 2.0 services, frequently assume a 1:1 device relationship for accounts and working around this assumption can prove difficult for teachers and students. The other problem is that a significant number of teachers have been infected with a desire for an idealized 1:1 program where we could provide every student with a device. However, we have run into our financial limits in attempting to make this happen.

The data on one to one computing initiatives is inconclusive and there are a large number of educators who would like to see a robust study investigating the benefits of one to one computing implemented in a controlled way. Anecdotally, we have seen an increase in test scores in reading and math after intentional increased use of online materials. However, before we pursue funding to provide a one to one computing environment for all of our students, we feel it would be fiscally responsible to first determine if the gains would be worth the investment.

This project would be critically important to my department's planning as we would be creating a school within a school in which we could study not only the why but also the how involved in a successful 1:1 computing initiative. In this controlled environment we could have one team implement a curriculum designed around one to one computing, receive full training in best practices and collect the data to be used to determine the efficacy of the entire program.

II. What would you like to accomplish (In 2-3 paragraphs, describe the unit or lesson and list instructional objectives.)?

I would like to prove or disprove the usefulness of 1:1 computing as it relates to our unique mix of students and staff within our unique school community. I would further like to focus on a cross-curriculum approach to this question by involving an entire team of teachers. This would prevent the fragmentation that happens when a subset of a student's teachers do not utilize the new technology and the student is forced to straddle two educational paradigms. This would also allow opportunities to redefine the entire nature of the school experience for these students rather than just grafting computers onto an units.

The short term goals for such an initiative would be that all students would be more engaged in their classes, spend more time on school work outside of the classroom, have a higher quality of interactions with the material and their instructor and master more of the content. The long term goals would be no less than a profound reinvention of the school experience for all students and teachers.

Since each device would become the primary means of interaction with the subject matter, there would also be the additional benefit of stored electronic records documenting every exchange between instructor and students and every piece of work and question from every student which could go a long way towards diagnosing misunderstandings and student learning deficiencies. This would also allow for a wide variety of formative assessments for every student at every step.

III. How will you complete the work? (In 1-2 paragraphs for each section, describe how the project will be completed.)

A. Describe how the instructional objectives will be met.

Our objectives will require identifying one academic team to move entirely into a digital curriculum. All of our textbooks are already online as eBooks in the student portal and we have D2L and GAFE as well so the only real hurdle to clear is attitudinal rather logistical. Each of the four teachers on the selected team will have to commit to a significant amount of time as we will need to reconstruct the bulk of their lessons to fully embrace the strengths of 1:1 computing while mitigating the weaknesses. Students will also need time to acclimate to a new way of working. We will need to make some time at the start of the program to educate all students on digital citizenship, time management and productive computer use. This will be imperative to prevent the devices from becoming a distraction.

Teachers will post all lessons online as well as offering them in class and, while flipping will not be an explicit requirement, it will certainly be encouraged as a methodology that would lend itself naturally to 1:1 computing.

The team will be expected to collaborate with me on creating project based lessons with a high level of authenticity wherever possible. In our efforts to wring out every dollar in every device, we will need to be sure we are using them as effectively as possible and not simply as expensive, three-ring notebooks.

B. Describe the time involved (project length including amount of time each day/week).

The project will need to run one full year in order to allow time for orientation and new work habits to be realized. We need to be sure we are measuring the impact of the initiative and not the results of a brief burst of student or teacher enthusiasm, or short storm of uncertainty. If allowed to run for a full year, we should have some solid data to look objectively at 1:1 computing before making further commitments.

Teachers will require extra time for planning as most of their existing plans will not be viable and must be transformed to insure that the Chromebooks are not simply being used as simple substitutes for typewriters and textbooks. Students will also need to commit to spending enough extra time to adapt to working with the Chromebook as naturally as they did with pen and paper.

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

We would identify one team (four teachers) to function as a unique school within a school. Their students will all take the same assessments, surveys and follow the same rules as the rest of our students. However, they will function and meet in a digital equivalent of our school even while in our physical building. They will also require additional instruction in digital citizenship, D2L, Google Apps and time management to maximize their use of the Chromebooks. This instruction will occur in an online classroom during advisement period their first week of school.

D. Describe the materials needed for the project.

We will need 120 student Chromebooks

We will provide 4 Chromebooks for the teachers

We will provide Chromesticks for the projectors in each classroom to allow a shared device for collaborative work

We will provide all training

We will pay for substitutes to allow teachers the extra planning time required

IV. What is the timeline for assessing accomplishments and objectives (In 1-2 paragraphs, describe program evaluation procedure.)?

We will begin collecting data and evaluating as soon as the program goes live as we anticipate needing to modify or make corrections at several major milestones. These will include the end of first semester, Spring break and the end of the year. Short term evaluations will be implemented immediately to help us tweak the program. Mid term evaluations will include surveys, pretest SPGs and student interviews. Long term evaluation will include standardized test scores as well as student and teacher surveys.

V. How will the students be assessed (In 2-3 paragraphs, include details regarding how student progress will be assessed and reported to students, parents, teachers, and others.)?

In the short term all teachers at McConnell Middle are expected to give formative assessments weekly. They are also required to use department-created common assessments twice a semester. These tests are

already available online using All In Learning’s “Engage & Learn” function. I will be watching test results for this group of students in comparison to the other (control) groups from the first test for any unexpected variations.

Assuming there are no unexpected results, the next data point will be the student’s results on the district’s, summative, end of semester tests for semesters one and two. Finally we will also collect the student’s Georgia Milestone results. The parents of students in our test group will get the same regular communications that all of our students receive.

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

- A. Materials/supplies - \$2,200
- B. Equipment - \$21,480
- C. Total Cost of Proposed Project - \$23,680
- D. Additional Funding Sources - MMS PTA and technology budget

V. List your supporting references.

(2013). Why Schools Must Move Beyond One-to-One Computing | November ... Retrieved July 14, 2016, from <http://novemberlearning.com/educational-resources-for-educators/teaching-and-learning-articles/why-schools-must-move-beyond-one-to-one-computing/>.

SAUERS, N. (2012). What does research say about one-to-one computing initiatives. Retrieved from http://www.natickps.org/castlebrief01_laptopprograms.pdf.

INSTRUCTIONAL TECHNOLOGY GRANT PROPOSAL EVALUATION FORM/SCORING RUBRIC

Total Points (out of 200): _____

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

Possible number of points: 40 _____

2. Clearly identifies standards and learning objectives being addressed.

Possible number of points: 40 _____

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

Possible number of points: 40 _____

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

Possible number of points: 40 _____

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

Possible number of points: 40 _____

General Comments