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Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title:
   TCTC 1: World

2. Executive summary: Please limit your responses to no more than three sentences.
   The goal of Trumbull Career and Technical Center's 1:World initiative is to improve student achievement through intensive professional development and a teacher mentor model aimed at changing pedagogy with effective incorporation of tablet technology. The project will focus on helping teachers promote critical thinking, inquiry-based learning, and personalized learning to raise achievement utilizing tablet technology as a learning-teaching tool. The building-wide implementation of tablet technology will also result in a spending reduction in the five-year fiscal forecast.

   *This is an ultra-concise description of the overall project. It should not include anything other than a brief description of the project and the goals it hopes to achieve.*

3. Total Students Impacted:
   932

   *This is the number of students that will be directly impacted by implementation of the project. This does not include students that may be impacted if the project is replicated or scaled up in the future.*

4. Please indicate which of the following grade levels will be impacted:

   - Pre-K Special Education
   - Kindergarten
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10
   - 11
   - 12

5. Lead applicant primary contact: - Provide the following information:

   First Name, last Name of contact for lead applicant
   Mary Flint

   Organizational name of lead applicant
   Trumbull Career & Technical Center

   Address of lead applicant
   528 Educational Highway, Warren, Ohio 44483

   Phone Number of lead applicant
   330-847-0503 Ext 1036

   Email Address of lead applicant
   mary.flint@neomin.org

6. Are you submitting your application as a consortium? - Select one checkbox below

   - Yes
   - No

   *If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.*

   Add Consortium Members

7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below
B) PROJECT DESCRIPTION - Overall description of project and alignment with goals

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. Later questions will address specific outcomes and the measures of success.

The current state or problem to be solved: and

Increased curriculum demands have led to the need for more rigorous, relevant, real-world experiences in a student-centered environment and the need to access technology anytime, anywhere. A 2012 Fact Sheet from the National High School Center at the American Institutes for Research published that "There is a disparity between high school teachers' views of college readiness and student performance. Data shows that only 25% of high school graduates who took the ACT test were ready for college-level work... and there is growing consensus that students entering the workforce must demonstrate similarly high proficiency in academic knowledge and skills as those entering college." Trumbull Career and Technical Center (TCTC) is aware of this disparity. The problem is two-fold. Teachers are not fully prepared to implement curriculum that integrates 21st Century Skills, individualized learning, and critical thinking and neither students nor teachers have consistent access to the technology tools that could be used to accomplish change. Redefining pedagogy using accessible tablet technology as a tool is the basis of this proposal. In 2011 TCTC introduced iPad carts in selected classrooms. Teachers formed a professional learning community of iPad users that has seen shifts in instructional practices, more differentiated learning, and an increase in student engagement. While the introduction of the iPads in limited classrooms, now up to 13, has helped some teachers make a shift in practices, the reach is limited to the school day and to the classrooms with the technology. Research shows that schools with 1:1 technology implementation vs. limited implementation have seen larger gains in student engagement and shifts in instructional practices. The next step is for TCTC to move forward and implement what we will call 1:World since the potential to increase school-wide achievement goes beyond 1:1.

The proposed innovation and how it relates to solving the problem or improving on the current state.

In "Why Schools Must Move Beyond One-to-One Computing," Alan November states, "Adding a digital device to the classroom without a fundamental change in the culture of teaching and learning will not lead to significant improvement" (http://novemberlearning.com). TCTC's 1:World project is aimed at changing pedagogy and providing opportunities for individualized instruction to meet the challenge of rigorous, relevant high school experiences with the everyday use of tablet technology as a tool. By expanding the pilot started three years ago and giving access to technology to all students and teachers, TCTC can impact instructional practices and raise student achievement. More important than deploying 1:1 technology, the project's focus is on intensive teacher professional development, including mentors and demonstration classrooms, to increase the use of inquiry-based learning, strengthen the use of differentiated and personalized learning, and improve the integration of technology to increase student achievement. The major components of the project include the roll-out of tablet technology to staff and students and intensive teacher training. Researchers Jerry Chih-Yuan Sun and Susan E. Metros in their report "The Digital Divide and its Impact on Academic Performance" state that "Learners who can make effective use of technologies will be able to compete successfully in a rapidly changing, technology-driven world economy." Because of the variety of applications, functionality, and battery-life, TCTC is choosing Apple's iPad. While the classroom carts give students an opportunity to use the technology in school, taking the technology home provides all students with necessary research tools, reading, and information literacy tools used in class and their career fields. The iPads will be distributed at the beginning of the year and collected at the end of the year. Loaner iPads will be available for daily use for students whose parents do not agree to have them at home or for students whose iPads are in need of repair. Students will have with a multitude of resources and lessons at their learning level that they can access anytime, anywhere. Although a major component of the grant project is an initiative that would allow students and staff to take an iPad home, an equally important component of the plan includes intensive staff professional development. To assist teachers in incorporating the technology, TCTC will reassign a current staff member who was part of the school's iPad pilot to serve as an Innovative Learning Specialist (ILS). The ILS will be an integral part of the project as research on successful initiatives shows that programs with intensive levels of professional development and individualized support have a greater chance at success. His role will be to work with teachers and teacher leaders to develop inquiry-based lessons and daily activities that incorporate technology at what Ruben Puente Granda, PhD., a leader on transformative classroom technology, calls the modification and redefinition stages - stages that encourage creation and align with the analyzing, evaluating, and creating stages of Bloom's. This will not be a one-time meeting or full-day professional development. Instead, it will be a continuing process with team meetings using the professional learning community model. The ILS will also help with set-up, deployment, and work with parents and families to help them understand how the newly implemented technology can be used to improve learning and student achievement.

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

Applicants should select any and all goals the proposal aims to achieve. The description of how the goals will be met should provide the reader with a clear understanding of what the project will look like when implemented, with a clear connection between the components of the project and the stated goals of the fund. If partnerships/consortia are part of the project, this section should describe briefly how the various entities will work together in the project. More detailed descriptions of the roles and activities will be addressed in Question 16.

☑ Student achievement (Describe the specific changes in student achievement you anticipate as a result of this innovation (include grade levels, content areas as appropriate) in the box below.)

When fully implemented, the availability of the iPads will help teachers focus on designing assignments that are more engaging to students in a learning community with access to a multitude of resources and 24 hour support. The access to technology will allow teachers to differentiate both in terms of how they teach and how the students are expected to demonstrate their learning. The instructional shift in the classroom will impact student achievement with the goal of creating a student-centered environment where the student owns the learning.
C) SUSTAINABILITY

10. Which of the following best describes the proposed project? - (Select one)
- New - never before implemented
- Existing: Never implemented in your community school or school district but proven successful in other educational environments
- Mixed Concept: Incorporates new and existing elements
- Established: Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

C) SUSTAINABILITY - Planning for ongoing funding of the project, cost breakdown

11. Financial Documentation: All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 11-14.

* Enter a project budget in CCIP (by clicking the link below)

Enter Budget

* If applicable, upload the Consortium Budget Worksheet (by clicking the link below)

* Upload the Financial Impact Table (by clicking the link below)

* Upload the Supplemental Financial Reporting Metrics (by clicking the link below)

Upload Documents

For applicants without an ODE Report Card for 2012-2013, provide a brief narrative explanation of the impact of your grant project on per pupil expenditures or why this metric does not apply to your grant project instead of uploading the Supplemental Financial Reporting Metric.

The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab. Applicants must submit one Financial Impact Table with each application. For consortium applications, each consortium member must add an additional tab on the Financial Impact Tables. Partners are not required to submit a Financial Impact Table.

Applicants with an "Ohio School Report Card" for the 2012-2013 school year must upload the Supplemental Financial Reporting Metrics to provide additional information about cost savings and sustainability. Directions for the Supplemental Financial Reporting Metrics are located on the first tab of the document. If your organization does not have an "Ohio School Report Card" for the 2012-2013 school year, please provide an explanation in the text box about how your grant project will impact expenditures per pupil or why expenditure per pupil data does not apply to your grant project.

Educational service center, county boards of developmental disabilities, and institutions of higher education seeking to achieve positive performance on other approved fiscal measures should submit the budget information approved by an executive board or its equivalent on the appropriate tabs of
For educational service centers and county boards of developmental disabilities that are members of a consortium, any increased ongoing spending increased ongoing costs.

If increased ongoing spending has not been offset for at least five years after June 30th of your grant year. For applications increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance sustainability costs include any ongoing spending related to the grant project after June 30th of your grant year. Applications with sustainability costs include annual professional development, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in the narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.

if yes, provide a narrative explanation of your sustainability costs as detailed in the Financial Impact Table in the box below.

The annual costs for maintaining the program will be $21,600 for software licenses that will allow us to wirelessly manage and monitor each iPad. The software is necessary because it will enable our technology department to work efficiently to distribute settings, information, and apps necessary to enable students to be productive and safe. The annual cost of the project is $123,512, which when compared to the projected annual savings of $157,350, yields an annual savings of $33,838, which provides evidence of a cost-neutral, sustainable model.

If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.

Will there be any expected savings as a result of implementing the project?

Yes

No

Applicants with sustainability costs in question 13 or seeking to achieve significant advancement in spending reductions in the five-year forecast must address this response. Expected savings should match the information provided by the applicant in the Financial Impact Table. All spending reductions must be verifiable, permanent, and credible. Applicants may only respond "No" if the project will not incur any increased costs as a result of maintaining and sustaining the project after June 30th of your grant year. The Governing Board will use the cost savings as a tiebreaker between applications with similar scores during its final selection process. Cost savings will be calculated as the amount of expected cost savings less sustainability costs relative to the project budget.

If yes, specify the amount of annual expected savings. If no, enter 0.

Paper = $8000 Textbooks=$50,000 Copier costs=$9000 Computer lab and computer replacement=$30,000 Annual iPad purchase=$50,000 Student Handbooks=$4000 Student workbooks=$1350 Electricity=$5000 The use of iPads by every student in every class will allow our district to reduce our paper usage by 80% compared to our current usage levels. The reduction of 80% is the percentage of reduction reported by the Eanes Independent School District in Austin, TX and the Hillbrook School in Los Gatos, CA. The greatest savings will come from not buying textbooks. Our teaching staff will either author their own textbooks using iBooks Author software or will choose a free textbook from iTunes U. We expect a 70% reduction in the number of copies being run since all materials will be distributed by our teachers electronically via an iTunes U course or locally over our network to the students' iPads. We will have further paper related savings by distributing only electronic copies of our student handbooks and workbooks used by our students in their Career-Tech fields. Instead, we will use electronic workbook materials. Our equipment savings will be the result of not having to replace the computers in our school because students will have no use for them since all tasks that were previously done on the computers can and will be done on the iPad. We will also not be purchasing any iPads for the exclusive use in classrooms under a shared cart model. Consequently, we also expect a savings in electricity since we will no longer be using approximately 80 PCs which draw electricity even when they are turned off.

Provide a brief explanation of how the project is self-sustaining.

All Straight A Fund grant projects must be expenditure neutral. For applications with increased ongoing spending as documented in question 11-14, this spending must be offset by expected savings or reallocation of existing resources. These spending reductions must be verifiable, permanent, and credible. This information must match the information provided in your Financial Impact Table. Projected additional income may not be used to offset increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance fees when considering whether increased ongoing spending has been offset for at least five years after June 30th of your grant year. For applications without increased ongoing spending as documented in questions 11-14, please demonstrate how you can sustain the project without incurring any increased ongoing costs.
D) IMPLEMENTATION - Timeline, scope of work and contingency planning

16. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members and/or partners.

This response should include a list of qualifications for the applicant and others associated with the grant. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members’ qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Team information by clicking the link below:

Add Implementation Team

For Questions 17-19 please describe each phase of your project, including its timeline, scope of work, and anticipated barriers to success.

A complete response to these questions will demonstrate specific awareness of the context in which the project will be implemented, the major barriers that need to be overcome and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be outlined, including coordination and communication in and amongst members of the consortium or partnership (if applicable). It is recognized that specific action steps may not be included, but the outline of the major implementation steps should demonstrate a thoughtful plan for achieving the goals of the project. The time line should reflect significant and important milestones in an appropriate and reasonable time frame.

17. Planning - Activities prior to the grant implementation

* Date Range Spring 2011-May 2014

In the spring of 2011, TCTC’s Technology Team created a technology proposal for teachers to write requesting specific technology. The writing was scored on a rubric and high scorers were awarded the technology requested. Intended for any technology request, the majority of requests have been for iPad carts containing a class set of iPads. During the spring of 2011, 11 teachers applied for iPad carts with six being awarded. This group of iPad pioneers created a Professional Learning Community that met weekly during the 2011-2012 school year to discuss technology issues and challenges in the classroom, evaluate and recommend apps, establish usage procedures and the disciplinary repercussions of students violating them and brainstorm best practices with this specific technology. These teachers pursued additional iPad PD. One of our initial iPad pilot classroom teachers gained recognition as an Apple Distinguished Educator, with others recognized as innovative teachers in the classroom. Three carts were awarded in 2012-2013 and four more were provided in 2013-2014 for a total of 13 iPad carts currently in use. An iPad hub for student use was added in the cafeteria in 2013-2014. There are also iPads available in the school's Media Center. Those with experience with iPads serve as mentors to those who are not as seasoned in the PLC. The group still meets to discuss and monitor this technology usage. This year, site visits were made to three 1:1 schools to investigate their usage and procedures with iPads. In addition to our own ADE, we have worked closely with an Apple representative to understand the financial and technical side of going 1:World. In addition, we completed a cost analysis of going 1:World and found there to be a significant financial savings to our district, especially in the category of paper/copying costs. Finally, we evaluated other technology options for our 1:World initiative but found iPads to be the best option for TCTC.

* Anticipated barriers to successful completion of the planning phase

The initial barriers faced with iPad usage in the classroom are that with only a class set, all work that is iPad dependent must be completed in school, and some student work stays on the iPad. Following our current model, students are not permitted to take iPads home. The resources available on the iPad are limited as well; most teachers choose to use apps and resources that can also be accessed on a personal computer to allow students to do homework and projects outside of class. An additional barrier to our current iPad practice is that we are still purchasing textbooks and using paper to best accommodate all students. Overall, the three year pilot phase with iPads in the classroom, and the additional research and planning conducted this school year regarding 1:1 has made us more aware than most of the rewards and potential barriers we face with implementing our 1:World initiative.

18. Implementation - Process to achieve project goals

* Date Range July 1, 2014 - April 30, 2015

To make 1:World a success, first teachers will be provided with an iPad for summer break to become familiar with this tool. In August 2014, TCTC will offer specific iPad PD Apple Workshops for staff. We will have a new teacher leader position called an Innovative Learning Specialist. Our ILS will provide whole staff, small group and individual in house PD. The ILS will also organize how our iPad PLC staff members will serve as mentors to others. Our ILS will coordinate graduate credit options for staff members completing 1:World PD/ coursework. These staff members will serve as a PLC in itself and will aid in assessing our progress during this implementation phase. In mid September equipment will be rolled out to students. Parents and the community will need to be informed of our 1:World initiative. The
ILS will give info to these individuals via a monthly communication piece regarding 1:World that parents can access. The ILS will also offer workshops for parents and others during open houses and P/T conferences. By midyear, staff members should be comfortable with the iPads to a degree. This will range from using iPads rarely/out of necessity to using to supplement/enhance regular teaching practices to full implementation and shift to innovative teaching. At this time, PD will shift; teachers fully engaged in 1:World will be Demo Classrooms for others to observe excellent usage. Specific teacher needs can also be grouped into appropriate PLCs for differentiated PD. Whole school and small group iPad initiatives will begin to be implemented with the help of the ILS and teachers specifically assigned to our Senior Project and Advance Placement programs. Assessment of each phase of these PD opportunities, and usage, will be the responsibility of the ILS to implement and oversee. The ILS will also help to assess financial savings during this first year. By going 1:World at TCTC, classrooms will be able to go paperless and textbooks will not be purchased.

* Anticipated barriers to successful completion of the implementation phase.
There are several anticipated barriers to successful completion of the implementation phase. One of these is student error which includes not bringing the iPad to school, losing or breaking the iPad, having the wrong iPad, etc. It will be important to review and establish iPad usage procedures and expectations almost to the point of annoyance when the technology is first rolled out to help avoid student error. Clear disciplinary consequences must also be reviewed and reinforced school wide so that students are consistent in their practices with the iPads. Another barrier will be teacher insecurity. As mentioned above, it is anticipated that teachers will fall into one of three categories during the first year of implementation. Due to school wide initiatives and number of teachers students have during a day, no student will not be engaged with the iPad. However, some classes/projects will use it more than others. Teachers will have to know the expectations for implementation and daily usage, and this must be reflected in both informal and formal evaluations from administrators and the ILS. A final barrier that will be faced is potential technology issues. Our building is already set up to support this 1:1 initiative, however, undoubtedly, there will be network issues, update issues, security issues, programming issues, etc. that we will face. Having an ILS, Apple connections, and an equipped technology staff will help to prevent these potential issues from being huge problems during this implementation phase.

19. Summative Evaluation - Plans to analyze the results of the project
* Date Range: May 1, 2015–June 30, 2015.

* List of scope of work (activities and/or events, including quantitative and qualitative benchmarks and other project milestones).
At the end of our implementation school year, many forms of assessment will be reviewed to analyze the success of our 1:World implementation at TCTC. Again, our Innovative Learning Specialist (ILS) will be the individual most responsible for distributing, collecting and analyzing this data. Surveys from parents, students and staff members regarding our 1:World program will provide some qualitative data regarding overall acceptance (or not) and usage of this technology and its effect on classroom instruction and whole school programs. The ILS and administrators, during formal and informal observations, will also assess student work and teacher lessons to see how iPads have or have not enhanced both. The Professional Learning Community comprised of those teachers earning graduate credit through the 1:World implementation can serve as a core group for summative assessment results to gauge student learning. As a whole staff, each teacher can be responsible for providing quantitative data regarding student GPA and completion/failure rates, attendance, homework/assignment completion and, to an extent, student preparedness and time on task/student engagement. In addition to these ‘in house’ ways of assessing the project’s results, our students are often actively engaged with community members for various pursuits such as volunteering and employment. Our annual survey to these individuals can also give some insight to the effectiveness of our program in a less direct way. For example, a survey question could ask, ‘compared to year’s past, did your student employee demonstrate better soft skills?’ If yes, this could be a result of our whole school employability workshop offerings due to our 1:World initiative.

* Anticipated barriers to successful completion of the summative evaluation phase.
At the end of our implementation school year, many forms of assessment will be reviewed to analyze the success of our 1:World implementation at TCTC. Again, our Innovative Learning Specialist (ILS) will be the individual most responsible for distributing, collecting and analyzing this data. Surveys from parents, students and staff members regarding our 1:World program will provide some qualitative data regarding overall acceptance (or not) and usage of this technology and its effect on classroom instruction and whole school programs. The ILS and administrators, during formal and informal observations, will also assess student work and teacher lessons to see how iPads have or have not enhanced both. The Professional Learning Community comprised of those teachers earning graduate credit through the 1:World implementation can serve as a core group for summative assessment results to gauge student learning. As a whole staff, each teacher can be responsible for providing quantitative data regarding student GPA and completion/failure rates, attendance, homework/assignment completion and, to an extent, student preparedness and time on task/student engagement. In addition to these ‘in house’ ways of assessing the project’s results, our students are often actively engaged with community members for various pursuits such as volunteering and employment. Our annual survey to these individuals can also give some insight to the effectiveness of our program in a less direct way. For example, a survey question could ask, ‘compared to year’s past, did your student employee demonstrate better soft skills?’ If yes, this could be a result of our whole school employability workshop offerings due to our 1:World initiative.

20. Describe the expected changes to the instructional and/or organizational practices in your institution.

The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant or duplicative processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

Overall Goal: To deploy a student-centered personalized instructional approach to learning where technology is utilized in meaningful ways. This project's goal is to improve student achievement, student engagement, collaboration, and communication. Changes for staff: - Adding a digital device to the classroom without a change in the culture of teaching and learning is counter productive. Staff training will be focused on designing assignments that are more engaging to students in a learning community with 24 hour support, away from training on how to use the technology. The instructional shift in the classroom focuses on a student-centered environment making sure that the student owns the learning and conversations about what kind of methodologies can be used effectively in the classroom. - To institute differentiated instruction. 1:1 World provides teachers with the ability to construct a more personalized learning experience. 1:1 technology allows teachers to differentiate...
both in terms of how they teach and how the students are expected to demonstrate their learning. Changes for students: - To improve equity of access to technology. Access to the Internet connects kids to all kinds of information - and for low-income students especially, that access has the power to change their social structure by allowing them to become empowered and engaged, said Michael Mills, a professor of Teaching and Learning at the University of Central Arkansas. - To institute and support best practice in technology integration. The changes in student literacy should become more evident. These changes include, but are not limited to, an increase in proper digital citizenship practices, personalized learning through differentiation, the acquisition of critical literacy skills, and opportunities to collaborate in local and global communities. - To improve student ability to become lifelong learners. Through the 1:World initiative we want to reshape and redefine learning experiences beyond the textbook and teacher-centered information. We strive to provide students with a set of skills needed to find, retrieve, analyze, use and create information. These changes also include an increase in proper digital citizenship practices and opportunities to collaborate in local and global communities. - To prepare students for the world of work or higher education. To prepare students for this world we need to establish equitable access to quality learning tools and technologies that enable students to learn, develop, team work and increase competence. (Hathaway 1997, Spouse 2000, Clynes 2008, Plakht et al 2012).

E) SUBSTANTIAL IMPACT AND LASTING VALUE - Impact, evaluation and replication

The responses in this section are focused on the ability to design a method for evaluating the project's capacity for long-term sustainable results. Therefore, the questions focus on the method of defining the problem(s) the project hopes to solve and the measures that will determine if the problem(s) have been solved.

21. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of resources in the classroom.

The response should provide a concise explanation of items which provide rationale that will support the probability of successfully achieving the goals of the project. Answers may differ based on the various levels of development that are possible. If the proposal is for a new, never before implemented project, the response should provide logical, coherent explanations of the anticipated results based on some past experience or rationale. For projects that have been implemented on a smaller scale or successfully in other organizations, the response should provide the tangible results of the other projects. If available, relevant research in support of this particular proposal should also be included.

Please enter your response below.

College and career readiness now means that students must be proficient in mobile technologies and adept at using these technologies to do critical thinking, problem-solving, collaboration, and multi-media research. Studies show that employers now expect students to have digital literacy skills before they enter the workplace according to Partnership for 21st Century Skills which promotes and encourages 21st Century readiness for all students. Research states 1:1 iPad use: Benefits for Teachers include: more Student-Centered Strategies (Bebell & Kay, 2010), Individualized Curriculum to meet Diverse Student Needs (Weber, 2009; Silvernail & Lane, 2004), Movement toward Constructivist Teaching, Student-led Inquiry, and Collaborative Work (Rockman, 2000; Muir et al., 2004; Ross & Strahl, 2005), More Creative, Customized, and Collaborative Lessons (Holcomb, 2009), More Collaborative and Project-Based Instruction (Bebell & Kay, 2010; Gulek & Demirtas, 2005). Benefits for Students include: Increased Interest in Learning (Bebell & Kay, 2010; Lowther, Ross, Strahl, Inan, & Pollard, 2005), Increased Engagement and Reduced Behavior Referral (Bebell & Kay, 2010; Bebell & O'Dwyer, 2010), Better Organized, More Efficient (Weber, 2009; Silvernail & Lane, 2004), Decrease in Absentee Rate (Holcomb, 2009; Lemke & Martine, 2003), Higher Test Scores for Writing and Higher Quality of Writing (Suhr, 2010; Metri Group, 2006). In Euclid, Ohio data showed the data from both standardized/benchmark assessments and students’ self reporting indicates that iPads played a statistically significant role in increased student achievement in the area of literacy. (http://www.throughstudentseyes.org/ipads/Unlocking_Literacy_with_iPad) There is a great deal of research that supports the fact that student engagement greatly affects student learning. One of the most cited results related to student achievement is “that the addition of technology positively affects student engagement (Metri Group, 2006), motivation, attendance and behavior.” When reviewing the literature, the majority of articles tend to indicate that the implementation of iPad 1:1 programs have led to positive benefits on teaching and learning. iPads are able to deliver content in an interactive way, offer access to the web and the applications work as instructional material (Bennet 2011). Students involved in 1:1 programs demonstrated a high demand for the iPad use to be extended further and became more motivated when using iPads (Webb 2012). Learning experiences were enhanced by the use of the iPad which provided opportunities for collaboration and engagement (Henderson and Yeow 2012), personalized and individual learning (Melhuish and Fallon 2010) and the development of 21st Century skills (Murray and Olcice 2011). More specific benefits include improvements in reading (McClanahan, Williams, Kennedy, Tate 2012) Literacy (Harmon 2012) and enhanced experiences in Maths, Science, Art, Geography and Music (Webb 2012). Teachers involved in the studies identified significant benefits for their workload and the majority of participants use iPad regularly in their lessons (Webb 2012, Harmon 2012). Teachers incorporated the iPad into their lesson design and used the device in innovative ways to enhance the learning experience of students (Bennet 2012). While searching for evidence of possible fiscal savings by implementing 1:World, “School districts across the country with 1:1 computing programs have reported savings in costs associated with copying, textbooks, disciplinary actions, online professional development, electricity bills, facilities and the processing of student data.” (Dr. Tammy Stephens). In our discussions with various school districts (Vermillion Local Schools, OH; Prince George's County Schools, MD; and Eanes ISD, Austin, TX; who have implemented 1:1, all reported significant cost savings, iPads are not designed to be shared. It should be a place where students can store their work.

22. Describe the overall plan to evaluate the impact of the concept, strategy or approaches used in the project.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project’s progress, success or failure. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio.
23. Describe the substantial value and lasting impact which the project hopes to achieve.

The response should provide specific quantifiable measures of the grant outcomes and how the project will lead to successful attainment of the project goals. Applicants should describe how the program or project will continue after the grant period has expired.

Please enter your response below.

Through the implementation of the 1:World initiative based on both research and past successes, expected benefits to both staff and students are numerous. Quantifiable measures for students include increased motivation which leads to higher student attendance, fewer missed or incomplete homework assignments, and increased passage of standardized tests, including college entrance exams and industry certification tests. The lasting impact for staff is the shift in pedagogy from teacher to student directed learning and increased use of technology as a tool for learning. Fiscally, the cost of paper, textbooks, and computer equipment will be greatly reduced as a result of this project. Overall, through 1:World all students, gifted and disabled, financially comfortable and indigent, tech savvy and tech challenged, will be more prepared to enter both post secondary or career placements equipped with the 21st century skills of critical and creative thinking, problem solving, and collaboration.

24. Describe the specific benchmarks, by goal as answered in question 9, which the project aims to achieve in five years. Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

The applicant should provide details on the quantifiable measures of short- and long-term objectives that will be tracked and the source of benchmark comparative data points. Responses should include specified measurement periods and preliminary success points that will be used to validate successful implementation of the project. If a similar project has been successfully implemented in other districts or schools, identification of these comparable benchmarks should be included.

* Student Achievement

The continuous professional development and use of professional learning communities to integrate the use of the iPads are expected to raise student achievement. Goals are both short term and long term. To measure success of the overall goal to increase student achievement, we will use a variety of benchmarks. Objectives that will be tracked include: Increase in student engagement and increase proper digital citizenship practices: What immediate changes in engagement do teachers observe? How has the implementation changed the classroom year one, year two …? This will be measured by observing students’ time-on-task and classroom disruption from down-time. Teachers who currently have iPads in their classrooms have seen students’ use of class time improve. Other districts have reported fewer classroom behavior referrals and improved student discipline - a long-term goal that will be tracked by comparing the number current and future office referrals for class disruptions. Have more students participating in inquiry-based projects and move to a more student-centered, personalized instructional approach: The ILS will use teachers’ lesson plans and activities teachers are implementing and compare how concept or project was approached before integrating technology and after integrating technology. Higher classroom test scores and higher scores on ACT and industry certification exams (class of 2016 after full year of implementation): Teachers will track students’ classroom test scores in the short and long term. Guidance department will track changes in ACT scores and industry certification exam scores long term over the course of five years. Decrease in course failures and missing assignments: Guidance department will track changes in course failures, short and long term. Teachers will track number of missing assignments.

* Spending Reduction in the five-year fiscal forecast

To measure our short-term spending reduction objectives we will review the annual expenditures for the district in December and May of each year to determine if we are achieving the actual spending reductions we have anticipated that we will have. A further review method for our
short-term goals will be the review and update of the 5-year forecast to ensure that the spending reductions are being realized and reflected in the planning of future spending. Measuring long-term objectives will come from an annual review of the annual expenditures of the district in late-May. We will then use this data to guide, adjust, and update our future spending in the five-year forecast to allow for unrealized savings and costs. During an Apple 1:1 site visit to the Vermillion Local School District, we discussed the significant cost savings their district has experienced in the areas of paper, copying costs, textbooks, computer replacements, and electricity.

* Utilization of a greater share of resources in the classroom

* Implementation of a shared services delivery model

* Other Anticipated Outcomes

- To improve student ability to become lifelong learners. Through the 1:World initiative we want to reshape and redefine learning experiences beyond the textbook and teacher-centered information. We strive to provide students with a set of skills needed to find, retrieve, analyze, use and create information. These changes also include an increase in proper digital citizenship practices and opportunities to collaborate in local and global communities.
- To prepare students for the world of work or higher education. To prepare students for this world we need to establish equitable access to quality learning tools and technologies that enable students to learn in relevant, real world contexts. Making effective use of technology to support teaching and learning is essential in the modern world. The Framework for 21st Century Learning recognizes that technology proficiency is vital to both college and career readiness.

25. Is this project able to be replicated in other districts in Ohio?

Yes

If the applicant selects "Yes" to the first part of the question, the response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from the proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be included here.

* Explain your response

This project is able to be replicated in other districts in Ohio. It would be up to the individual district how they would want to pursue implementation. If they want to phase iPads into the district slowly, we would recommend they adopt our Technology Proposal Request/Rubric practice and allow individual teachers and students to start to develop an iPad community within their own district/school. This was three years leading up to full implementation at TCTC, but the schedule could be adapted to any timeline a school/district wanted to follow. The most valuable piece with this slower 1:1 implementation is the Professional Learning Community that forms as a result. It also gives schools/districts an opportunity to experience problems regarding the technology and its usage on a smaller scale in preparation for full implementation down the road. If a school/district desired, it could adapt our plan for full implementation right away. What would be lacking here, however, would be the 'in house' staff mentors. Part of our ILS's job description will include offering professional development services and resources for other districts wanting to pursue 1:World. The ILS will have a site accessible to anyone which will contain information regarding TCTC's pursuit of 1:1 and a database of effective teacher lessons and tools with iPads that have proven to be successful in our building and elsewhere. The site will also recommend specific apps and programs available for usage. Basically, the ILS can serve as a consultant to districts regarding all things iPad and 1:1. In addition to these 'teaching' level support services, TCTC will gladly offer our financial findings so that schools/districts can use our methods for conducting a cost analysis for their own.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

I Accept* Mary Flint, Director Trumbull Career and Technical Center 4/17/2014
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No partners added yet. Please add a new partner by using the form below.
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<tr>
<td>Patti</td>
<td>Krivosh</td>
<td>Instructor</td>
<td>Patti will assist with curriculum development, implementation, and staff mentoring. She will also provide professional development sessions in a small group setting for less experienced career/technical teachers.</td>
<td>Patti Krivosh is a National Board Certified Teacher with 43 years of experience.</td>
<td>Mrs. Krivosh serves as a mentor for new staff members, and is also instrumental in curriculum development and promoting the use of technology in the classroom. Patti is a charter member of the TCTC's original iPad pilot project, and is a member of the iPad professional learning community.</td>
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<td>Paula</td>
<td>Baco</td>
<td>Program Supervisor</td>
<td>Paula will be directly responsible for professional development activities associated with the grant. She will collaborate with the district Innovative Learning Specialist to provide learning opportunities for classroom teachers.</td>
<td>Paula Baco is a National Board Certified Teacher in Library Media Science and has a strong background with the integration of classroom technology. She has been an educator for 19 years. Mrs. Baco is an experienced grant writer with expertise in project planning and implementation.</td>
<td>She served on the committee to develop TCTC original iPad pilot project and is a member of the iPad professional learning community. Paula currently teaches graduate courses in classroom technology at Ashland and Hiram Universities including courses on the use of the iPad in the classroom.</td>
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<tr>
<td>Brian</td>
<td>Foutty</td>
<td>Innovative Learning Specialist</td>
<td>Brian's role will be to work with teachers and teacher leaders to develop inquiry-based lessons and daily activities that incorporate technology. Brian will also help with set-up, deployment, and work with parents and families to help them understand how the newly implemented technology can be used to improve learning and student achievement. Other responsibilities will include collecting and analyzing data to measure the effectiveness of the project.</td>
<td>Brian Foutty has been a math teacher and special educator for 19 years. He earned the prestigious recognition as an Apple Distinguished Educator in 2013. Apple Distinguished Educators are part of a global community of education leaders recognized for doing amazing things with Apple technology in and out of the classroom. They explore new ideas, seek new paths, and embrace new opportunities. That includes working with each other - and with Apple - to bring the freshest, most innovative ideas to students everywhere.</td>
<td>Mr. Foutty has been developing apps since January 2011 and currently has 9 education apps in the iOS App Store and 4 education apps in the Google Play store that have been downloaded over 22,000 times internationally. He also authored an iBooks interactive mathematics textbook for the math class he teaches.</td>
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<td>Cara</td>
<td>Detoro</td>
<td>Career Development Coordinator</td>
<td>Cara will assist with curriculum development, implementation, and staff mentoring. She will also provide professional development sessions in a small group setting for less experienced academic teachers.</td>
<td>Cara Detoro is a National Board Certified Teacher with 9 years of experience.</td>
<td>Mrs. Detoro serves as the district's Career Development Coordinator, and has also taught high school English. Cara has been instrumental in incorporating the new Common Core standards in the English Department, and has also assumed a leadership role in curriculum development. Mrs. Detoro is a member of the TCTC's original iPad pilot project, and is a member of the iPad professional learning community.</td>
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<td>Gary</td>
<td>Ghizzoni</td>
<td>Treasurer</td>
<td>Gary Ghizzoni will oversee all financial aspects of the funds</td>
<td>Gary Ghizzoni has served as a school treasurer for 23 years in</td>
<td>Mr. Ghizzoni is responsible for preparing the district's 5 year financial plan.</td>
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<td>Mary</td>
<td>Flint Director</td>
<td>Mary Flint will oversee all aspects of the grant. She will be responsible for approving all grant related expenditures, coordinating professional development activities with members of the implementation team, arranging parent implementation meetings and providing regular updates on the 1:1 initiative to all members of the school community. Mary Flint is the High School Director, and has been an educator for 30 years. Mary is an experienced grant writer with expertise in grant management.</td>
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<td>Mary</td>
<td>Flint Director</td>
<td>Mrs. Flint is responsible for creating, maintaining and managing the district’s Comprehensive Continuous Improvement Plan (CCIP), and managing the Carl Perkins grant. Mary has also been responsible for Project Lead the Way and College Tech Prep Regional grants. These funding sources, along with local funding have provided supplies and equipment for the creation of new Career Tech programs and the expansion of existing programs at satellite locations in our Vocational Education Planning District (VEPD).</td>
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