

NALS
The International Organization of Laboratory and University Affiliated Schools
Mini-Grant
Application Cover Sheet

February 5, 2009

Project Title: **Theatre Artist in Residence for Early Childhood Enhancement**

Project Summary: The goal of our project is to hire a Theatre Artist in Residence at the Children's School to strengthen our yearly whole-school arts emphasis and associated thematic unit. The Theatre Artist in Residence would provide staff training in developmentally appropriate theatre arts and guide the design of a theatre arts lesson sequence and whole-school thematic unit on theatre, which will culminate in a Family Theatre Festival. We plan to document both the design process and the resulting classroom experiences via notes, lesson and unit plans, classroom newsletters, photographs, and video recordings. These materials will then be shared with early childhood colleagues via our annual outreach workshops, conference presentations, and web site. The Theatre Artist in Residence also teaches university drama courses; by involving undergraduate drama students in the project, we will also impact their training and subsequent work with educators.

Projected Budget Expenses:

| | |
|-----------------|---|
| Total Request = | \$2,000 |
| \$200 | 2 one-hour sessions with teachers (one August / one March) |
| \$1,600 | 16 one-hour sessions with children (8 biweekly Fall '09 / 8 weekly in Jan-Feb '10) |
| \$200 | Materials for costumes and props |

Budget Period: From August 2009 through February 2010

* Note that the Children's School is budgeting an additional \$2,000 to double the length of the staff sessions and the number of classroom sessions so that morning and afternoon children in preschool and kindergarten (i.e., the whole school) can participate in the project.

Theatre Artist in Residence for Early Childhood Enhancement

Children's School, Carnegie Mellon University

Project's Goal:

The goal of our project is to strengthen our yearly whole-school arts emphasis and associated thematic unit by hiring a Theatre Artist in Residence at the Children's School during the next academic year. The Theatre Artist in Residence will involve undergraduate drama students in the process to strengthen both their drama training and their preparation for working with educators and students in the future. This project aligns with the mission and function of laboratory schools in terms of educational innovations, curriculum development, and clinical teaching experiences.

Relevant Literature:

The early childhood literature emphasizes the importance of dramatic play for enhancing all domains of development, and there is substantial precedent for theatre experiences in elementary school and beyond (including in the NALS journal). The benefits of Artist in Residence programs have been widely touted but typically limited to traditional K-12 contexts. In our region, arts educators have developed curriculum for introducing preschool and kindergarten children to music and visual arts, and there have been some programs involving artists in our local children's museum; but with respect to Theatre Arts, there is little beyond "dress-up" experiences and professional theatre performances for young children. We aim to close this gap by initiating a Theatre Artist in Residence program that will yield curriculum to be used by other educators, a model design process from which other educators can learn, and a clinical teaching experience for drama students that can be shared with other Theatre Arts educators.

Design of the Project:

The Theatre Artist in Residence would provide staff training in developmentally appropriate theatre arts and guide the design of a theatre arts lesson sequence and whole-school thematic unit on theatre, which will culminate in a Family Theatre Festival. The Theatre Artist has worked in other early childhood contexts but will work collaboratively with the Children's School staff to design a project to fit our unique laboratory school context. The Theatre Artist will take the lead in designing the clinical teaching experience for undergraduate drama students, drawing both on our experiences working with pre-service teachers from other colleges and on the experiences of drama professors who have worked with students in the local public and charter schools.

Project Context:

We have been doing whole school thematic units for more than a decade at the Children's School, and, in recent years, we have focused on topics in the arts (Art & Artists in 2008 and Music in 2006 and 2009). Each of these units has been collaboratively planned by the staff, with leadership of the director, to appropriately match the developmental levels of all children in our inclusive, multi-cultural environment. Each has been conducted in February, with introductory activities threaded throughout the preceding fall semester. We have disseminated our plans and experiences via our own August Early Childhood Workshops, local PAEYC conferences, a national NALS conference, and have submitted a proposal for NAEYC '09. We have posted our unit plans and newsletters on our web site in the section "For Educators", and we have been in contact with educators across the country who are using them. We have always involved a variety of artists in the unit, including arts educators from community institutions, but we have never had the resources to collaborate for an extended time with a single artist.

Procedures / Guidelines:

All of our curriculum and assessment aligns with our developmental objectives for promoting 1) self-esteem and independence, 2) interaction and cooperation, 3) communication, 4) discovery and exploration, 5) physical capabilities, and 6) artistic expression and appreciation, so the Theatre Arts lessons and whole school unit will be designed in the same manner. As part of our recent NAEYC re-accreditation, we developed a unit-planning template that incorporates the key curriculum and assessment standards so that our designs also align with national guidelines. As a laboratory school, we already have policies and procedures for involving visiting educators and undergraduates in our programs, as well as for gaining parent permission for video and photo recording, so those will be followed as well. University grants management procedures are in place for tracking and reporting on grant activities.

Project Assessment:

Though this project is not a formal experiment, we plan to document both the design process and the resulting classroom experiences via notes, lesson and unit plans, classroom newsletters, photographs, and video recordings. Sharon Carver will guide the documentation process in a manner similar to that used in previous whole school thematic units, including collection of staff concepts of Theatre Arts (May, October, and March), lesson / unit plans and photos from preschool, kindergarten and extended day teaching teams, video collected by teachers and undergraduates during experiences, Family Theatre Festival documents, photos,

and video, and child, staff, family, Theatre Artist, and drama students' survey and discussion feedback on the experience (December and March).

Project Significance: This project will enable our dedicated team of educators to try a new process of collaborating with a Theatre Artist in Residence on the design and implementation of a Theatre Arts unit appropriate for an early childhood laboratory school context with significant inclusion of children with special needs (~10%). The unit itself will enhance our children's development in all six areas of our objectives, while building their knowledge base, skills, and interests specifically related to Theatre Arts. Such curriculum and assessment designs are currently not available for preschool and kindergarten children. This process of unit design and collaboration may then become a part of our consistent approach to whole school thematic studies.

Dissemination Plans:

Curriculum and assessment materials, together with our experience and process feedback will be shared with early childhood colleagues via our annual outreach workshops and conference presentations, as well as via our web site (www.psy.cmu.edu/childrenschool section For Educators). We also plan to write a NALS Journal Article to share the experience and point lab school colleagues to our web site for detailed information. The Theatre Artist in Residence can similarly share the process for the clinical teaching experience portion of the project, together with related documentation, with colleagues in drama via their established networks.

Roles of Each Investigator / Detailed Timeline:

Sharon Carver has already contacted a Theatre Artist to explore the possibility of collaborating during the next academic year in the manner described in this proposal and will expand the discussion to include the whole staff in May '09. Sharon, Maggie, and the Theatre Artist will collaborate during the summer of '09 to gather materials for the whole school Theatre Arts unit and plan the lesson sequence that will lead up to it. In August '09, the Theatre Artist will conduct a seminar with the staff in preparation for beginning the lesson sequence in October (after the children have phased into school). Biweekly classroom experiences led by the Theatre Artist and undergraduate drama students during the fall of '09 will introduce Theatre Arts concepts and practices gradually in preparation for the whole school unit in February. Weekly experiences with the Theatre Artist and undergraduate drama students will begin in January and continue through the end of February, including a family experience at the culminating festival. Throughout

this time, teachers will reinforce concepts and practices introduced by the Theatre Artist as appropriate throughout the curriculum, and the teachers will take the lead in teaching the Theatre Arts unit. As described above, everyone contributes to the documentation of the project, but Sharon Carver will coordinate the process.

There is no collaboration planned with other lab schools. We do, however, participate in an early childhood collaborative with three other centers, including the Cyert Center on Carnegie Mellon's campus and the University Child Development Center at the University of Pittsburgh. We have joint training events each year to promote dialogue among educators. In September of 2008, we shared our Art & Artists unit plans and experience with a group of 45 educators and heard about ways other centers engage young children in the arts, and we anticipate similar dialogue opportunities in future years.

Detailed Budget / External Funding Options:

Projected Budget Expenses:

Total Request = \$2,000

\$200 2 one-hour sessions with teachers (one August / one March)

\$1,600 16 one-hour sessions with children
 (8 biweekly Fall '09 / 8 weekly in Jan-Feb '10)

\$200 Materials for costumes and props (most of which will be
 designed and created by staff, children, and families)

Budget Period: From August 2009 through February 2010

* Note that the Children's School is budgeting an additional \$2,000 to double the length of the staff sessions and the number of classroom sessions so that morning and afternoon children in preschool and kindergarten (i.e., the whole school) can participate in the project.

One of the investigators IS the Lab School Director and is completely supportive of the project, including budgeting for the \$2,000 matching funds.

The International Association of Laboratory Schools

Mini-Grant for Research

Application Cover Sheet

Name: _____ Date: February 3, 2012
 School: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone Number: _____ Email Address: _____

Project Title: *iPads Across the Curriculum*

Project Summary: *iPads Across the Curriculum* evaluates the effectiveness of using iPads to enhance student learning across grades and content areas. The iPads will be incorporated into existing reading, math, and writing curricula. Data will be collected and analyzed to determine the effectiveness of the iPad and specific iPad apps as instructional tools, and results will be disseminated through a web-based evaluation system.

Projected Budget Expenses:

| Item | Total Cost | Funding Source |
|---|------------|--|
| 4 iPads | \$1999.96 | International Association of Laboratory Schools Mini-Grant |
| Apple Care for 4 iPads | \$316.00 | TCS Educational Enrichment Fund |
| iPad Reflex Series Cases (OtterBox) for 4 iPads | \$279.80 | TCS Educational Enrichment Fund |
| VGA Adapters for 4 iPads | \$116.00 | TCS Educational Enrichment Fund |
| Professional Development | \$500.00 | TCS Operating Budget |
| apps | \$200.00 | TCS Educational Enrichment Fund |

Budget Period: From: June 2012 To: August 2013

Please send completed application:

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2. Description of Project

A. Goal:

Develop and implement Integration Plans to incorporate iPads and iPad applications into existing curricula in order to improve academic achievement in reading fluency, math fluency, and vocabulary development; and create a web-based forum for disseminating evaluations of iPad applications in specific content areas, including results of the *iPads Across the Curriculum* research.

B. Literature Review:

Shah, Nirvi. "Special Education Pupils Find Learning Tool in iPad Applications." *Education Week* 30.22 (2011): 16-17. Web.

Summary:

Current research suggests that iPads are useful for students with a variety of learning disabilities. iPads are easily customizable to meet the needs of a wide range of learning challenges. For instance, the touch screen addresses poor fine-motor skills, making technology more accessible than a mouse or a laptop touch pad. The screen size and screen magnification capabilities also easily adjust text for students with vision impairments. Additionally, the iPad incorporates the modalities of sight, sound, and touch, which is essential to the multi-sensory education of students who may be slow learners. The use of the iPad in the classroom "can compensate for the special-needs kids in a way that traditional media cannot compensate" (Shah). This enables students with learning challenges to be independent learners and to control their education, in the same manner as their typical peers. Another benefit of iPads in the education of students with learning challenges is the motivation that technology presents. For example, the touch screen interface offers immediate gratification for students in need of positive reinforcement as a motivator, and many apps present content and practice activities in a non-intimidating, engaging manner.

Murray, Orrin T., and Nicole R. Olcese. "Teaching and Learning with iPads, Ready or Not?" *Tech Trends* 55.6 (2011): 42-48. Print.

Summary:

As iPads and other similar tablet computers become more popular, questions remain about their effectiveness in the classroom. Historically, "the actual use of technology in schools typically falls well below the expectations" (Murray 42). At the same time, the world is increasingly more global and thus increasingly revolves around technology. The challenge facing educators is to prepare students for a technologically dependent world while maintaining a high quality of education. Some iPad apps have been designed to do just that. For example, *Letter Lab* employs kinesthetics as students practice tracing letters, and *ABC Phonics* is similar to traditional flashcards, with the inclusion of audio and phonetic pictorial representations of words being learned (Murray 46). iPad apps, such as *Shakespeare in Bits* and *OmniGraph Sketcher* support the study of challenging academic concepts and the application of those ideas and skills to daily life. While it is evident that there are some potentially useful iPad apps available to support education in schools, there are many other apps that replicate what can easily be done with more traditional classroom materials. Critical evaluation of available iPad apps is necessary to ensure that technology is utilized in a manner to further the learning of students.

C. Project Design:

In order to achieve maximum success, *iPads Across the Curriculum* will be implemented in three stages. The first stage involves professional development for The College School staff. Teachers and Instructors will receive inservice training on iPads, relevant applications, and integration practices. This training, provided by the *Office of Educational Technology* at the University of Delaware, will include use and maintenance of the equipment, and locating and evaluating appropriate applications. Teachers and instructors will then use this information to develop Integration Plans to incorporate iPads and iPad applications into existing academic curricula.

The second stage of *iPads Across the Curriculum* is the implementation of the Integration Plans. The integration plans vary across grade levels.

*Students in the primary grades (reading levels 1 – 4) will use iPads to develop reading fluency or automaticity skills. “Fluency is not an end to itself but a critical gateway to comprehension. Fluent reading frees resources to process meaning” (“Accuracy”). Reading fluency instruction, including iPad use, will occur predominately in Multi-Sensory Reading Tutoring sessions (MSRT). These classes, taught by certified instructors, contain a maximum of four students, and focus specifically on the development of reading decoding skills, including phonemic awareness, alphabetic principle, accuracy, and fluency. MSRT instruction will be reinforced through the utilization of predetermined iPad applications in small group reading classes, taught by University of Delaware clinical faculty members, and in one-to-one settings with University of Delaware pre-service teachers tutoring students at The College School. Development of fluent reading skills are essential for students to become fluent readers, which then allows for the development of comprehension skills, and available iPad applications will enhance instruction in this area.

*Students in the intermediate grades (grades 4 – 6) will use iPads to develop fluency in mathematics. “According to the 2003 National Assessment of Educational Progress (NAEP) results, 23 percent of fourth graders and 32 percent of eighth graders performed at below basic levels in mathematics. Many of these struggling students lack fluency in basic math facts. . . . Developing fluent recall of the basic facts allows students to focus on more complex computations, problem solving, and higher order math concepts” (“Research” 2). Fluency in math facts will be developed, practiced, and reinforced during Math Skills class, a daily ½ hour session designed to review previously learned skills, introduce problem solving skills, and develop mathematical fluency. Classroom teachers will utilize iPad technology to develop and practice math fluency skills in the areas of addition, subtraction, multiplication, and division facts in small group and individual settings. iPads and certain iPad applications will also be available for University of Delaware pre-service teachers to use in individual tutoring sessions in the area of Mathematics.

*Students in the upper grades (grades 6 – 8) will use iPads to develop vocabulary necessary for sophisticated reading and writing. “Successful comprehension is, in some significant part, dependent on the reader's knowledge of word meanings in a given passage” (Kinsella). Anecdotally, classroom teachers in grades 6 – 8 Literacy classes report that vocabulary achievement has improved through the incorporation of interactive

vocabulary activities in the SMART Board. To further this improvement in vocabulary development, classroom teachers in grades 6 - 8 will integrate iPads and iPad applications into the existing vocabulary curricula derived from classroom novels. This will provide students with additional interactive technological experiences. iPads and specific iPad applications will also be available for University of Delaware pre-service teachers to use in individual tutoring sessions in the area of Literacy, specifically vocabulary development.

The final stage of *iPads Across the Curriculum* involves creating a forum for sharing information about iPad applications in multiple content areas. A web-based forum, such as a wiki or another collaborative document, will allow all project investigators to document evaluations of iPad applications and support that information with data collected during the research project. This information will be available to all interested parties, including pre-service teachers and laboratory schools, with the potential for the collaboration among schools conducting similar research.

D. Project Context:

Mission Statement of The College School

- to provide an enhanced and caring learning environment that fosters academic success for children with learning differences.
- to serve as a laboratory school for University students and faculty, while capitalizing on the unique opportunities and resources afforded by our location on the University of Delaware campus

The College School is a financially self-supporting laboratory school on the University of Delaware campus. It serves students in grades 1 – 8 diagnosed with a variety of learning challenges. Students typically have average or above average intelligence as measured by a standard IQ test but have not found learning success in a typical classroom environment due to a variety of challenges. These challenges include learning, attention, anxiety, mild social/emotional, and/or mild behavioral issues that may impact school success.

At The College School, children flourish in a kind and supportive environment. By providing small class sizes and an individualized, highly structured program of instruction, teachers guide students to narrow the gap between potential and achievement. Students are afforded opportunities to acquire academic and social skills similar to those acquired by students in traditional schools. Our goal is to return each student to a mainstream academic environment in an average of two to three years.

Students diagnosed with reading disabilities (dyslexia) have been particularly successful at The College School. This success is attributable to the systematic, multisensory, approaches utilized by teaching staff, as well as to the frequency of daily reading instruction these students receive. During Multisensory Reading Tutoring (MSRT) sessions, students progress at their own rate through a sequential, systematic program that is primarily based on the Reading ASSIST and/or the Wilson Reading System curricula. In individual and small group sessions, the instructor incorporates a variety of multisensory activities and takes a phonetic approach to reading instruction. What makes the approach unique is its multisensory focus. Incorporating iPads into the existing MSRT scope and sequence provides students with an additional opportunity to practice phonetic skills in a manner that capitalizes on the connections between sight, sound, and kinesthetics.

The College School's primary mathematics program for grades 1-5 students is Trailblazers. This stimulating, process oriented curriculum meets National Council of Teachers of Mathematics and Delaware state math standards. Students work independently, as well as in small cooperative groups to enhance mathematical thinking and problem solving skills. They share solution sets through writing and/or oral discussions. Additionally, students are encouraged to develop fact fluency in addition, subtraction, multiplication, and division. Fluency in these computational areas allows students to reach higher-level mathematics with greater ease. Utilizing iPads and available applications reinforces facts first conceptualized through the Trailblazers curriculum and aids students in increasing fact fluency.

Vocabulary instruction is integrated into all Literacy classes. In grades 6 – 8, vocabulary words are derived from literature students are reading in class. Students participate in word activities that help them with word usage, parts of speech, word forms, and word parts, among others. The students create flashcards, which enable the students to expand their oral and written vocabulary. Vocabulary is assessed on a weekly basis through curriculum-based assessments and comprehension is evaluated through *Accelerated Reader* quizzes at the conclusion of each reading selection.

E. Procedures:

iPad integration will occur during MSRT instruction, Math instruction, and Literacy instruction (vocabulary). MSRT classes for students in grades 1 – 3 typically meet either 2 or 4 days a week for 30-45 minute sessions. In $\frac{1}{2}$ of the classes, students will have the opportunity to work with iPads according to the integration plan, approximately $\frac{1}{2}$ of the time, for a total of about $\frac{1}{4}$ of the MSRT time available for iPad integration. Math classes for students in grades 4 – 5 meets $1\frac{1}{2}$ hours daily. iPad integration for math fluency will occur 2 – 3 days each week for approximately 10 – 15 minutes a session. Finally, students in grades 6 – 8 spend an average of 15 minutes a day on vocabulary development. They will have the opportunity to independently interact with iPads for 4 – 5 minutes each day, implementing the iPad integration plan for this particular content area.

F. Data Collection and Analysis:

As a laboratory school serving students with numerous learning challenges, instruction is data driven. The effectiveness of incorporating iPads into the curriculum will also be evaluated with student data. Data collected across the content areas will be compared to data collected in years prior to the acquisition of iPads.

*Reading fluency is assessed three times a year with the *Dynamic Indicator of Basic Early Literacy Skills (DIBELS)* assessment (<https://dibels.uoregon.edu/>). More frequent Progress Monitoring data is also available as needed. Fluency skills are also assessed with the *Diagnostic Decoding Surveys – Beginning Decoding Survey & Advanced Decoding Survey* (www.DecodingSurveys.com). Reading comprehension is assessed through curriculum-based assessments and with the *Accelerated Reader* program (<http://www.renlearn.com/ar/>). Comprehension progress is displayed on a bulletin board in the hall, which allows students to visualize progress towards individual goals.

*Math fluency is assessed through weekly fact assessments. Results are charted monthly so students can self-monitor progress. Math progress is also assessed with the *easyCBM Math* assessment (<https://dibels.uoregon.edu/>). These results are shared with parents and used to guide instruction.

*Vocabulary development is assessed in multiple manners. Weekly vocabulary quizzes assess short-term vocabulary development and *Accelerated Reader* evaluates reading comprehension skills. Additionally, 8th grade students receive ½ of daily test prep instruction. These test prep materials include vocabulary sections, including analogies and cloze activities. Scores on practice tests also indicate growth in vocabulary development.

G. Significance of Project:

iPads Across the Curriculum offers a significant contribution to laboratory school education. Evaluating the effectiveness of iPads across grades and across the curriculum provides information about sound educational practice to the academic community. Additionally, pre-service teachers will also have opportunities to observe and participate in technology integration in a classroom setting.

H. Findings:

After receiving professional development on iPads and associated apps, staff members at The College School will incorporate this technology into the existing curricula in the areas of reading fluency, math fluency, and vocabulary development. Based on this professional training and these classroom experiences, as well as relevant assessment data, staff members will develop a categorical evaluation system for critiquing iPad apps. Once developed, this system will be deployed in a collaborative environment, such as a wiki or google docs. This will permit all staff members to easily participate in and contribute to the evaluation of iPad applications across grade levels and content areas. Once established, this evaluation system will be made available to other interested parties, such as laboratory schools and other schools implementing similar projects. The collaborative nature of the evaluation system will promote sharing of information between schools, which will lead to maximized academic growth through experience with iPads in the classroom.

References:

- "Accuracy and Fluency." *Dibels Data System*. University of Oregon, n.d. Web. 20 Jan. 2012. <https://dibels.uoregon.edu/resources/big_ideas/accuracy_and_fluency.php>.
- Kinsella, Kate, Colleen Shea Stump, and Kevin Feldman. "Pearson Prentice Hall: eTeach: Strategies for Vocabulary Development." *Prentice Hall eTeach*. Pearson Education. Web. 9 Jan. 2012. <http://www.phschool.com/eteach/language_arts/2002_03/essay.html>.
- Murray, Orrin T., and Nicole R. Olcese. "Teaching and Learning with iPads, Ready or Not?" *Tech Trends* 55.6 (2011): 42-48. Print.
- "Research Foundation & Evidence of Effectiveness for FASTT Math." *Scholastic Research & Results* (2005): 1-19. Print.
- Shah, Nirvi. "Special Education Pupils Find Learning Tool in iPad Applications." *Education Week* 30.22 (2011): 16-17. Web.

3. Investigators and Timeline

Laurie Drumm, Clinical Faculty – organize professional development with Office of Educational Technology, attend professional development, develop and implement Math Fluency integration plan, collect data through weekly/monthly timed assessments and *CBM* assessment, develop iPad application electronic evaluation format, contribute to evaluation of iPad apps

Christine Chapman, MSRT Instructor – attend professional development, develop and implement Reading Fluency integration plan, collect data through *DIBELS* assessment and *Diagnostic Decoding Surveys*, contribute to evaluation of iPad apps

Debbie Seador, Clinical Faculty – attend professional development, develop and implement Reading Fluency integration plan, collect data through *DIBELS* assessment and *Diagnostic Decoding Surveys*, contribute to evaluation of iPad apps

Gillian Guadanino, Classroom Instructor – attend professional development, develop and implement Math Fluency integration plan, collect data through weekly/monthly timed assessments and *CBM* assessment, contribute to evaluation of iPad apps

Stacy Poplos Connor, Clinical Faculty - attend professional development, develop and implement Vocabulary Development integration plan, collect data through weekly vocabulary assessments and *CBM* assessment and *AR* assessments, contribute to evaluation of iPad apps

Kathleen Krause, Clinical Faculty - attend professional development, develop and implement Vocabulary Development integration plan, collect data through weekly vocabulary assessments and *CBM* assessment and *AR* assessments, contribute to evaluation of iPad apps

Kellie Wise, Classroom Instructor - attend professional development, develop and implement Vocabulary Development integration plan, collect data through test prep materials, contribute to evaluation of iPad apps

Timeline:

June 11 – 15, 2012 – iPad professional development – use, maintenance, syncing, apps, etc.

Summer 2012 – independent investigation of apps relevant to specific content areas

September 4 - 7, 2012 – pre-testing in content areas

September – December 2012 - implementation of integration plans in multiple content areas

January 14 – 18, 2013 – progress monitoring testing in content areas

February 2013 – basic analysis of testing results to determine if changes need to be made in integration plans

February – May 2013 – continued implementation of integration plans

June 3 – 7, 2013 – post-testing in content areas

June 10 – 14, 2013 – evaluation of testing results

June 2013 – August 2013 – evaluation of apps in relation to anecdotal experiences as well as testing data; information input into evaluation format

2013 – 2014 School Year – continued evaluation of iPad apps, information input into evaluation format, evaluation format shared with relevant parties

4. Collaboration

Initial research will be conducted at The College School. As iPad apps are analyzed and evaluated, and information is input into the electronic evaluation format, opportunities will become available for collaboration. Interested schools and other organizations will be permitted to access the evaluations and contribute their own evaluations, thus building a more comprehensive library of iPad apps that provide productive educational opportunities that will allow students to succeed.

5. Budget

| Item | Total Cost | Funding Source |
|---|------------|--|
| 4 iPads | \$1999.96 | International Association of Laboratory Schools Mini-Grant |
| Apple Care for 4 iPads | \$316.00 | TCS Educational Enrichment Fund |
| iPad Reflex Series Cases (OtterBox) for 4 iPads | \$279.80 | TCS Educational Enrichment Fund |
| VGA Adapters for 4 iPads | \$116.00 | TCS Educational Enrichment Fund |
| Professional Development | \$500.00 | TCS Operating Budget |
| apps | \$200.00 | TCS Educational Enrichment Fund |

6. External Funding Options

External funding options include several possibilities. As a laboratory school on the University of Delaware campus, we are committed to bringing the best education to both our elementary school students as well as the approximately 300 university pre-service students we work with each year. In order to maintain our commitment to the highest level of education and preparation, we are currently working with the University Development Office to devise a fundraising campaign and to create an advisement board to direct future fund raising activities. Additionally, we are in the planning stages of expanding our program to serve the needs of 8-10 additional students in the 2012-2013 school year, and 8-10 more students in the following year. This additional enrollment will provide a greater revenues stream for technology spending. And finally, we have the support of a strong parent group (tcsalliance.org), some of who are willing to donate funds to specific projects to advance technology education at TCS.