

**Columbia College Chicago – Convergence Academies
Project Narrative – Table of Contents**

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The *Center for Community Arts Partnerships (CCAP) at Columbia College Chicago* proposes to partner with *Chicago Public Schools (CPS)* to develop, implement and evaluate an innovative whole-school reform model over three years that addresses *Absolute Priority 4* and *Competitive Preference Priorities 7 and 10*. The goal of the proposed project, *Convergence Academies*, is to create a whole school instructional model that infuses digital media and technology into learning.

Competitive Preference Priority 7 – College Access & Success

Convergence Academies addresses *Competitive Preference Priority 7* by implementing strategies to enable K-12 students to prepare for, enter and graduate from college through a seamless partnership between an elementary school, a high school and a local college. The project will *(1) address students' preparedness and expectations for college*. Conley (2007) defines college readiness in four aspects: key cognitive strategies such as analysis, interpretation, and problem-solving; academic content knowledge and skills, including writing and research; academic behaviors such as time management, goal setting, and persistence; and contextual skills and awareness, often called "college knowledge."¹ *Convergence Academies'* focus on project-based digital media learning will explicitly target the first three aspects. The project will develop a K-16 learning continuum with digital media skills and knowledge benchmarks to help ensure adequate preparation for college. School projects will be designed to help students build a portfolio of work that can be used for applications at the key transition years (8th and 12th grade). By activating college professors as instructors and curricular coaches in the classroom, students can get a taste of the expectations and rigor of a true college experience. The project will *(2) help students understand issues of college affordability and the financial aid and college application processes*, through quarterly informational workshops for students and parents; high school and college fairs; and annual campus visits to Columbia College and other local colleges. The project will also *(3) provide support to students from peers and knowledgeable adults* by helping students build relationships with and receive mentoring from Columbia College faculty and students. *(Note: all endnotes and references cited in the narrative appear in Appendix D.)*

Competitive Preference Priority 10 – Technology

Although technology is now more accessible within schools, it is still viewed as a supplemental instructional tool and is not yet used to promote more powerful and engaged instruction.² This project addresses *Competitive Preference Priority 10* by creating a high-level technology-infused learning environment designed to improve student achievement and teacher effectiveness through the use of digital tools in curriculum and instruction. The project will use digital media arts as a lens for learning throughout the curriculum, as students use tools, skills and processes similar to that of professional digital media artists. Starting in K-3, students will explore tools and skills in photography, film, video, interactive games, audio, animation and social media. Students in grades 3-5 will shift to more of an “infusion” level of technology integration, where students use tools in sophisticated ways to develop their conceptual understandings and take more ownership for their learning.³ By middle and high school, students will deepen their skills within particular media as they learn required content. At this age, students will be engaged in a cognitive apprenticeship model,⁴ where students take full ownership of their learning. Teachers similarly will be exposed to increasingly sophisticated uses of digital media tools in curriculum design and instruction as they collaborate with professional digital media artists. They will receive high quality sustained and intensive job-embedded professional development to help them use technology to facilitate student-centered learning and become agents of change by adopting new beliefs, increase content knowledge, and develop pedagogical knowledge.⁵

A. Quality of the Project Design**(1) Clear set of goals and explicit strategy aligned with priorities resulting in outcomes**

The *Center for Community Arts Partnerships (CCAP) at Columbia College Chicago*, a nonprofit institution of higher education, proposes to partner with an LEA, *Chicago Public Schools (CPS)*, to implement *Convergence Academies*. Currently 72% of CPS schools are in Federal School Improvement status, and almost 40% of CPS students fail to graduate from high

school.⁶ The project meets *Absolute Priority 4* by developing an innovative learning model to turn around CPS schools that meet the i3 Fund Absolute Priority 4 criteria. This project will work with two neighborhood schools, one high school and a feeder elementary (K-8) school, serving approximately 1,200 students and 50 teachers each year of the 3-year project.

The project's *strategy* is to create a whole-school reform model designed to raise student achievement through a curricular and instructional focus on *digital media and technology*.

“Digital media” refers to technologies that allow users to communicate and create content in digital formats, including photography, film and video, interactive games, audio, animation, and social media. This focus will increase technology and media skills that both teachers and students need to succeed in the 21st century, as well as build students' 21st century competencies and college/career readiness skills such as media literacy, critical thinking, and collaboration. We define “media literacy” as the ability to be a critical consumer of media, a responsible digital citizen in social media, and a powerful producer of original media content. We are calling this combination “Convergence,” borrowing a term from new media theorist Henry Jenkins.⁷

Columbia College Chicago, one of the nation's largest private arts and media colleges, is widely renowned for its media arts specialties. CCAP and CPS are partners on a current U.S.

Department of Education Arts-in-Education Model Development & Dissemination grant in which Columbia faculty and alumni work with classroom teachers to create curriculum that integrates media arts with academic content. This project has been successful in increasing student engagement, and will be scaled up in the proposed Convergence Academies project.

The project's model draws on the Essential Supports framework developed by the Consortium on Chicago School Research at the University of Chicago. By analyzing CPS data over a 20-year period, Bryk et al. (2010) found that five “essential supports” were necessary to significantly improve schools over time: (1) leadership as the driver of change, (2) instructional guidance, (3) professional capacity, (4) student-centered learning climate, and (5) parent and community involvement. We have identified six core elements of digital media that provide a

pedagogical and philosophical framework for the Convergence Academies project – collaboration, authentic participation, play, choice of expression, critical response, and iterative learning. These “pillars” draw from evolving definitions of 21st century skills⁸ and new media literacies, promoted by thinkers such as James Gee⁹ and Henry Jenkins.¹⁰ The pillars not only represent best practices in digital media education, they also map closely to the skills articulated in the Common Core State Standards. These six pillars will inform all aspects of the school and form the basis of strategies to address each essential support: the pillars not only provide *instructional guidance* by providing a common vision of learning throughout the school, they also support the development of a *student-centered learning climate*. The six pillars will inform the structure and content of activities to increase teacher *professional capacity*, and represent a different way of thinking and learning that *strong leadership* will drive across the school. The project will also *involve parents and community* in planning and oversight.

The project has the following **goals, objectives and outcomes** as follows:

Goal 1: Create a sustainable model for whole-school reform that infuses digital media and technology into all aspects of the school.

Objective 1.1: Develop effective practices for infusing digital media in curriculum, instruction, professional development, student supports, and parent/community engagement.

Objective 1.2: Create and refine a K-16 curricular continuum in digital media learning aligned with Common Core standards.

Objective 1.3: Document the processes and products created through this project.

Actions: The project will create a **whole school reform model** that infuses digital media into all aspects of the school: curriculum, instruction, professional development, student supports, and parent/community engagement. In order to build a model that can be sustained and disseminated, the project will develop and refine 1) a continuum to guide the development of classroom curriculum that integrates digital media in K-12 learning; 2) professional development strategies to effectively increase teachers’ capacity; 3) a set of practices for training digital media

artists to work as coaches and collaborators for teachers; and 4) school policies and structures to support digital media learning in and out of the classroom. The project will undertake a *school selection and planning process* based on research on successful implementation of whole-school reform models¹¹ that includes explicit demonstration of interest and commitment by at least 85% of teachers and demonstration of commitment and leadership by the principal. Schools must serve a majority of high-need students and meet criteria for Investing in Innovation Fund Absolute Priority 4 schools. Once schools have been selected, the project will undertake a thoughtful and inclusive planning process that mobilizes parents, teachers, administrators, and community members; conduct a needs assessment; and set benchmarks for implementation.

In the first eight months of the project, project staff and Columbia College faculty members will work with teachers in multi-grade teams to create a *K-16 digital media learning continuum* that maps a scope and sequence for content and skill development in various digital media. This continuum will be aligned with the Common Core State Standards and be backwards mapped from college graduation requirements in order to prepare students to successfully pursue digital media in college and career. Extra attention will be paid to bridging the gap years between elementary school and high school, and between high school and college/career. The continuum will be refined each year based on data from implementation of curriculum units.

The project will *document* all aspects of the model, including procedures, policies, professional development, unit plans, assessment tools, examples of student work, videotaped lessons, and will create a centralized resource hub for use by teachers, principals, and staff.

Goal 2: Assess the impact of the model on student learning, engagement, and achievement in multiple areas.

Objective 2.1: Increase student achievement in reading and math.

- ***Outcome 2.1.a: Schools will show at least 5% gain in reading and math scores each year, with these gains significantly greater than those of matched comparison schools.***

Objective 2.2: Increase student engagement and satisfaction with school.

- *Outcome 2.2.a: Student engagement and satisfaction with school will increase each year at a significantly greater rate than for matched comparison schools.*

Objective 2.3: Increase students' likelihood to graduate from high school and enroll in college.

- *Outcome 2.3.a: The on-track rate of 9th grade students will be significantly greater than that of matched comparison students. "On-track rate" refers to an algorithm predicting a student's likelihood to graduate on time, based on grades, attendance, and test scores.*
- *Outcome 2.3.b: At least 75% of project students attending college readiness workshops will increase their knowledge of college admissions processes, financial aid, and related topics.*

Objective 2.4: Improve the 21st century literacies of students of color from low-income communities to close the digital divide.

- *Outcome 2.4.a: At least 75% of students each year will show improvement in knowledge and skills in creating digital media content.*
- *Outcome 2.4.b: At least 75% of students each year will improve their understanding and skills in critically analyzing and responding to media and social media.*

Actions: Research on arts integration, digital media, and best practice teaching (see Section B and Appendix D) indicates that the digital media instructional model of this project will engage students more deeply in their learning, increase their achievement in core content, improve their academic college readiness, build their ability to create and analyze media, and develop important 21st century competencies in communication, collaboration, and more. The project's model integrates digital media into *formal classroom curriculum, informal activities outside the classroom, and school-wide learning experiences*. The model will be launched with a one-week **Digital Media Bootcamp** in the summer. Principals, teachers, students and parents will learn together in workshops to increase media literacy and skills, and then hone these skills by working together on real-life projects such as a school media plan and videos for the school blog.

Teachers will use arts integration methodology to collaboratively design **project-based units of study** based on the continuum that integrate technology and digital media with core

academic content. Teachers will collaborate with Columbia College faculty and other digital media artists who will serve as Digital Media Coaches, supported by a Media Specialist and Curriculum Specialist. Content will be individualized based on the teacher's goals and other academic goals within the school curriculum. Based on CCAP's field-tested Arts Integration Learning Spiral, the methodology immerses students in doing, making, and sharing, that in turn engenders new intentions for teaching and learning.¹² Units will help students increase media literacy skills by analyzing the context, purpose, and methods in works of film, video, photography, and digital media; hone critical analysis skills by learning to identify point of view, persuasion, implied values, and social and political consequences of media; and gain skills in media arts production such as scriptwriting, cinematography, photography, writing, graphic design, and software such as Photoshop, InDesign, Dreamweaver, and Final Cut Pro. Some examples of past curriculum created in CCAP media arts integration programs include: a math and photography unit where students use mathematical concepts of scale and ratio to Photoshop images of themselves as tiny humans in a big world; a unit on statistics, photography and social media where students create infographics and photographs to illustrate statistics on gun violence, and share them through social media to rally their community; and a science and animation unit where students create stop motion animation to illustrate the spread of a disease.

In grades K-5, teachers will create two 6-week curriculum units a year. In grades 6-12, teachers and coaches will create cross-curricular project-based units through the *Convergence Colloquium*, in which students choose a Big Idea that has relevance to them and spend a semester exploring it from multiple perspectives. Each week, multi-grade groups of students and teachers will explore a specific aspect of the Big Idea and work to create a media piece that tells a story or delivers a message to a larger audience. At the end of each semester, both schools will come together to share their discoveries, discuss their work, and take action.

Students will have time to expand on classroom learning and explore media for their own interests during unstructured time each week in the *Digital Atelier*. This concept comes from the

Reggio Emilia model of arts-based early childhood learning,¹³ and will be a space with computers, software, and art materials that serves as a physical manifestation of the values of play, exploration, and autonomy. Students will also document new skills and competencies on the *school blog*. The blog will serve as the public face and digital commons for the school, sharing and celebrating the best work from students and teachers.

Goal 3: Assess the impact of the model on teachers’ instructional practices and their capacity to integrate digital media and technology.

Objective 3.1: Increase teachers’ knowledge and skills in technology and digital media.

- *Outcome 3.1.a: At least 75% of teachers will improve their level or maintain a high level of knowledge and skills in technology and digital media use.*

Objective 3.2: Increase teachers’ skills and capacity to integrate digital media into curriculum.

- *Outcome 3.2.a: At least 75% of teachers will create a digital media integrated curriculum unit working collaboratively with coaches and other teachers.*
- *Outcome 3.2.b: At least 50% of teachers participating in professional development will report increased confidence and capacity to integrate digital media into curriculum.*

Actions: The project will strive to increase the capacity of teachers to understand and use digital media integrated curriculum in their classrooms. The project also has the hypothesis that creating project-based digital media integrated curriculum will increase teachers’ student-centered learning practices that are experiential, holistic, authentic, challenging, developmental, constructivist, expressive, reflective, collaborative, and democratic.¹⁴ In order to change teacher attitudes, knowledge, and behavior, the project will provide high quality professional development (PD) based on research (see Appendix D) and principles for high quality PD set out by the U.S. Department of Education.¹⁵ Teachers will have approximately 100 hours/year of PD (60 formal learning hours and 40 hours of additional informal learning) that will focus on strengthening their abilities in project-based learning units, deepening their grasp of digital media, and learning the process of integrating digital media with subject matter.

PD formats will include: **(1) Summer Institute** (5 days at 6 hours = 30 hours total): This will provide an overview of skills and concepts, as well as build the professional learning community as teachers and Digital Media Coaches from both schools learn and work together. **(2) Monthly Learning Session** (4 Saturdays at 4 hours = 16 hours total): A modified lesson study model¹⁶ will be used to frame these sessions, helping teachers to critically analyze their teaching practice. Teachers will work in their grade band team with Digital Media Coaches to co-plan a unit, observe each other teaching the unit, and solve problems with each iteration. **(3) Grade Level Learning Community Meetings** (90 minutes every month = 18 hours total): The project takes a school-based coaching approach that involves experts in a particular subject area working with small groups of teachers to improve classroom practice, and ultimately, student achievement.¹⁷ These professional learning community sessions will provide an opportunity to focus on learning and not just teaching.¹⁸ In these 90-minute sessions, grade band teachers and Digital Media Coaches will collaboratively analyze student work from their co-developed units. **(4) One-on-One Coaching:** Coaches will work closely with teachers, providing personalized support and modeling. CCAP's past experience with arts integration shows that the teacher-artist partnership is often the most transformative aspect for teacher practice.

(2) Estimated cost of the project, and costs to reach 100,000, 250,000, and 500,000 students

Approximately 1,200 students and 50 teachers will be served each year of the project, at a cost of approximately \$850 per student per year. This is calculated based on the total start-up and operating costs for each year, including project staff salaries and benefits, stipends for digital media coaches and graduate students, stipends to teachers, professional development expenses, classroom supplies, technology equipment and software, travel, evaluation, and indirect costs at 8% of total costs. Exact costs are detailed in the budget narrative. A significant amount of the costs are directed to activities that directly impact the teaching and learning process. In order to reach 100,000, 250,000, and 500,000 students, costs per student per year are estimated to be significantly lower, at \$437. At scale-up, the following expenses can be eliminated or reduced:

full-time project staff, stipends for digital media coaches, stipends to teachers and substitutes, independent evaluation, and travel. The estimated costs are \$43,700,000 for 100,000 students, \$109,250,000 for 250,000 students, and \$218,500,000 for 500,000 students.

(3) The extent to which costs are reasonable

Most research on the costs of whole school reform models focuses on implementation of already-developed models. Odden (2000) estimates that implementation in a school with 500 students would cost \$535,000 for salaries of instructional facilitators, education specialists, intervention strategies, professional development, and parent outreach, or \$1,070/student. This is higher than the proposed project's cost of \$850 per student per year. The project costs also include the development and testing of a completely new model, rather than implementation of an already-developed model, so compared to Odden's figure, the project costs seem reasonable.

(4) Incorporation of project activities into ongoing work

Columbia College and CPS will work with project schools to plan for sustainability of the model beyond the end of the i3 grant. The project will build capacity at the schools among principals, teachers and staff to maintain a level of digital media integrated curriculum and activities in and out of the classroom. The project will also work to identify and nurture teacher leaders who can serve as mentors to other teachers. In order to sustain school-based staff support for the model at each project school, CCAP, CPS and school leadership will go through a sustainability planning process to identify assets and resources within the district and the community. The whole school model developed through this project will also be considered for wider dissemination and implementation at other sites, with the last few months of the project period dedicated to creating materials to support this effort. The digital media learning continuum will be added by CPS to its *Chicago Guide for Teaching and Learning in the Arts* (2010), which currently outlines a scope and sequence for learning in dance, music, theater, and visual arts. Media arts is a prominent missing piece in that document, and the continuum created through this project will fill a big gap.

B. Significance

(1) The extent to which the project represents an exceptional approach to the priorities

A) Making teaching and learning relevant to the 21st century: The proposed Convergence Academies project represents an exceptional approach to Absolute Priority 4 because of its *cutting-edge focus on digital media*. Because of the growing omnipresence of technology, the content, life skills, and teaching methodology imparted through the project have the potential to connect deeply with students and make their learning relevant. **First**, educational policy is increasingly recognizing the urgency and importance of addressing students' skills in technology and media in order to prepare them for college and careers.¹⁹ Proficiency in technology has become a requirement to succeed in the 21st century workforce.²⁰ **Second**, media literacy is an increasingly critical skill for both youth and adults. In a rapidly changing technological environment where media is proliferating and the ability to create media is increasingly more accessible, educators are recognizing the need to incorporate media literacy into all students' education.²¹ Some argue that educators have an ethical responsibility to help young people gain social competencies for participation in new media.²² **Third**, business leaders and educators agree that today's knowledge-based economy requires skills in problem solving and analysis; strong communication and interpersonal skills; flexibility, creativity, and innovation; and teamwork and collaboration.²³ These are all skills that are nurtured by learning in and through the arts, including digital media arts.²⁴ Through the process of working on complex digital media projects individually and in groups, in and out of class time, students in this project will improve listening, communication, teamwork, planning, presentation, and project management. **Fourth**, even two decades after the term "digital divide" was coined, low-income and minority populations still have less access to technology at home and at school.²⁵ This project will work to eliminate the digital divide by serving predominantly low-income African American and Latino students, creating a pipeline of diverse young people who are skilled in technology and media. **Fifth**, the project's emphasis on digital learning makes learning relevant through its teaching

methodology. Teachers are increasingly being encouraged to embed technology and digital media into all aspects of their teaching and school presence.²⁶ However, technology by itself is not a transformative presence in the school, and its potential is only realized when teachers and principals are willing and able to use it meaningfully in curriculum and instruction.²⁷ This project trains teachers to effectively use technology and digital media with distinct, tailored PD based on research in effective teacher PD.²⁸ **Finally**, learning through digital media, especially through project-based learning, lends itself naturally to student-centered teaching practices²⁹ and has the potential to transform teachers' instructional practices in other areas as well.

B) Creating a new whole school reform model: The project's focus on digital media as the thematic basis for curriculum and instruction is an exceptional approach to whole school reform. There are only a few models of media-centered schools, and these are for the most part new schools or charter schools, not intended to turn around existing schools struggling with performance (see Appendix D for descriptions). Using digital media to revitalize an existing school, working with current leadership and teachers, is an exceptional approach. CPS has developed Technology Academies, which in four years have shown promise in increasing student achievement (see Appendix D), but these elementary schools embed various kinds of technology that are not centered around a theme and the level of student use is determined by teacher comfort level. The Convergence Academies model focuses specifically on digital media, provides expectations and support to teachers, and is meant to increase critical thinking in addition to technical skills.

(C) Engaging teachers and digital media artists in whole school professional learning communities to turn around low-performing schools: The professional development (PD) provided in this project is also exceptional. **First**, the project does not provide a top down form of PD but instead creates professional learning communities at each school, a structure that has been shown to be effective in enhancing teachers' effectiveness, increasing teachers' satisfaction and morale, contributing to greater likelihood of systemic change, and ultimately having an

impact on student achievement.³⁰ The project's focus on grade level teams is a method which helps schools to sustain improved teaching practice beyond the life of PD services.³¹ **Second**, the project engages a cadre of digital media experts through the network of Columbia College, drawing on the talents of creative professionals who are at the cutting edge of innovation in their fields. The project provides opportunities for artists and teachers to work side-by-side to support students' learning, which includes collaborative planning, coaching, group reflection sessions, observations by coaches and peers. **Third**, the project's PD model has considerable intensity in that all teachers participate in a minimum of 100 hours of PD each year.

(2) The potential contribution to the advancement of theory, knowledge, and practices

A) Whole school reform: The Alliance for Excellent Education (2012) advocates for the use of technology and digital learning in whole-school reform, yet there are currently few whole school reform models that focus on technology and digital media.³² There have been a few whole school reform models focused on the arts³³ but none that have integrated digital media arts specifically. By comparing the impact of the proposed model on students, teachers, staff and parents at treatment and comparison schools in a quasi-experimental design, the project will contribute to theory and knowledge about whole school reform based on digital media arts. The research of this project will add to past studies on arts integration as a school improvement focus, as well as contribute new knowledge about the effects of a model that infuses digital media arts. By thoroughly documenting activities, the project will also contribute to practices in the field by creating a new model based on digital media integration that can be implemented elsewhere.

B) Student achievement through the arts: Researchers have compiled a compelling body of evidence on the positive impact of arts learning on academic achievement, student engagement, higher order thinking skills, social/emotional development, 21st century skills, and brain development.³⁴ This project would extend this theory and knowledge to include the impact of media arts, as well as the effects of integrating digital media arts in a whole school environment. In addition, the national standards for arts education and many state standards only

address dance, drama, music, and visual arts. This project will make a valuable contribution to practice through the creation of a digital media learning continuum, which will create a scope and sequence for digital media arts. This continuum will be particularly relevant due to its alignment with Common Core standards, currently being implemented across the country.

C) Use of technology in teaching and learning: The field of educational technology is developing rapidly, but theory and knowledge on the impact of new media and digital learning has far to go.³⁵ The use of technology and digital media has the built-in potential to make teaching student-centered, cognitive, and social, recognized as what makes for good teaching³⁶ and how people learn,³⁷ but teachers are often intimidated by or unable to take full advantage of new technologies.³⁸ This project will contribute to theory and knowledge of the impact of technology on student learning and teaching practice, and contribute to practice by testing a model of supporting teachers in technology integration through a school-based coaching method.

(3) The likely impact of the project on improving student achievement or student growth

The proposed project is likely to have a positive impact on improving student achievement, based on research findings of similar program designs. (See Appendix D for details of studies cited below.) *A) Evidence of the impact of digital media whole school models on student*

achievement: The Science Leadership Academy in Philadelphia, a 1:1 project-based laptop school, has achieved scores substantially above the city and state averages on all areas of the Pennsylvania System of School Assessment (PSSA) since 2009. SLA students have also increased achievement in math and science at higher rates than the city and state average.³⁹

Digital Youth Network (DYN) is a digital media program that combines in-school and after school classes in five Chicago schools to help youth develop critical 21st century new media skills. DYN reported that 40% of eighth-graders in 2009 were accepted to selective enrollment high schools, compared to the district average of 5 percent, and test scores consistently outperformed city and state scores.⁴⁰ CPS Technology Academies, designed to integrate technology and digital media throughout the curriculum, increased standardized test scores by 11

points and in a few cases by over 20 points over four years of the program’s implementation.⁴¹

B) Evidence of the impact of arts-based whole school models on student achievement:

Different Ways of Knowing, a whole school arts integrated model in Kentucky employing treatment and comparison groups as part of a quasi-experimental design, showed statistically significant improvement in reading scores on standardized tests when contrasted with comparison schools.⁴² Evaluation of the Mississippi Whole Schools Initiative, another arts integration whole school model, found that the achievement gap was closed at treatment schools, and students outperformed their counterparts when the model was implemented at higher levels.⁴³ Students in Oklahoma A+ Schools consistently outperformed counterparts within their districts and the state on standardized tests at statistically significant levels.⁴⁴

C) Evidence of the impact of arts integration on student achievement: A three-year quasi-experimental study performed in Canadian schools showed that arts learning had a positive impact on students, with higher engagement correlated to higher performance in mathematics.⁴⁵ An evaluation of the arts integration work of Chicago Arts Partnerships in Education (CAPE) in the 1990s found that schools with CAPE programs averaged 12 percentage points higher than the district average in math, and 14 percentage points higher in reading.⁴⁶ Evaluation of the Arts for Academic Achievement program in Minneapolis found that not only did arts integration boost student achievement, but that greater use of arts integration in the classroom contributed to higher scores than lower use, with even greater impact for low income students.⁴⁷

C. Quality of the Management Plan and Personnel

(1) The adequacy of the management plan to achieve the objectives of the project

The management plan has been designed so that that the project’s objectives will be achieved on time and within budget, with clearly defined responsibilities, timelines, and milestones for project tasks (see Table 1 below). The overall management of the project will be undertaken by the ***Project Management Team*** composed of: Principal Investigator (CCAP Executive Director),

CCAP Project Director, CPS Project Director, and the CCAP Director of School Partnerships.

This management group will meet bi-weekly during the first four months of the grant and monthly thereafter to: (1) monitor timelines and milestones; (2) coordinate and supervise the activities of project staff; (3) monitor the budget, (4) modify the activities of the project based on feedback received from the project's staff, (5) collaborate with the External Evaluator, and (8) review evaluation reports and make recommendations for program changes. As described in Section D, a wide range of formative evaluation methods will be used to examine the effectiveness of the project's management strategies and provide on-going feedback to the Management Team for decision-making and continuous monitoring of the effectiveness of the implementation. Planning and management at each school will be undertaken by the school's **Steering Committee**, comprised of the principal, teachers, parents, community members, and Curriculum Specialist and Media Specialist. These committees will meet quarterly, and provide feedback to the Project Management Team. The **Project Advisory Council**, comprised of leaders in the field of digital media and education including Columbia College faculty, CPS representatives, and digital media scholars and funders, will meet once a year to review project progress, provide context for project results, and give advice on project directions and goals.

Tasks related to sustainability and scalability: A special work group, composed of representatives from the Management Team and Advisory Council, will focus on tasks related to sustain the project after federal funding ends as well as to plan for the project's scalability. This work group will undertake the following tasks: review the initial budget necessary to sustain the project and undertake the scale-up of the project; review research on the best strategies for undertaking scale-up of exemplary projects; review and analyze the extent of documentation of the model; construct a website with appropriate documentation; and plan for the publication of manuals and tool kits. The section on replication in Section D below will also serve as an initial plan for documenting and planning how to sustain and scale-up the project through an analysis of implementation problems addressed and lessons learned.

TABLE 1: Management Plan Organized by Goals

Goals, Activities, and Milestones	Timelines	Responsible
Goal 1: Create a sustainable model for whole school reform focusing on digital media and technology		
Activity: Recruit and hire qualified project staff and coaches, and establish Management Team Milestones: Effective supervision & management procedures are in place	Jan. - May 2013	PI, DSP, CPS-EdTech
Activity: Select project schools and plan for implementation with school stakeholders Milestones: Schools meeting criteria are selected and matched with comparison schools	Jan. - Mar. 2013	PI, DSP, CPS-EdTech
Activity: Create and refine a K-16 digital media learning continuum aligned to Common Core standards Milestones: Draft continuum is created, with revisions each year based on program data & assessment of student work	Jan. 2013 committee established, Aug. 2013 first draft, Aug. 2014 & Dec. 2015 revisions	PDs, DCM
Activity: Document project procedures, activities, curriculum units, student products, etc. Milestones: Artifacts and reports documenting model for future implementation are created	Mar. 2013 - Dec. 2015	PDs, EE, CT
Goal 2: Assess the impact of the model on student learning, engagement, and achievement in multiple areas		
Activity: Project-based digital media integrated curriculum units/Convergence Colloquium Milestones: Effect size for student performance each year Yr. 1: 25; Yr. 2: 25; Yr. 3: 25	Jan. – June and Oct. – Dec. each year	DCM, CS, MS, CT
Activity: Out-of-classroom digital media learning activities (Boot Camp, Digital Atelier, blog) Milestones: % of students engaged in activities Yr. 1: 75%; Yr. 2: 80%; Yr. 3: 85%	Jan. – June and Oct. – Dec. each year	DCM, CS, MS, CT
Activity: College readiness workshops, mentoring and campus visits for students Milestones: Assessment of student knowledge of readiness Yr. 1: 65%; Yr. 2: 70%; Yr. 3: 75%	Quarterly Jan.-June & Oct. – Dec. each year	PDs, CS, DCM
Goal 3: Assess the impact of the model on teachers’ instructional practices and capacity to integrate digital media & technology		
<ul style="list-style-type: none"> Activity: Summer Institute for teacher and digital media artists Milestones: Increase in teacher knowledge and skills Yr. 1: 65%; Yr. 2: 70%; Yr. 3: 75% 	June/July each year for 5 days	PDs, CS, MS, DCM
<ul style="list-style-type: none"> Activity: Quarterly workshops for teachers and grade level meetings Milestones: Increase in teacher knowledge and skills Yr. 1: 65%; Yr. 2: 70%; Yr. 3: 75% 	Jan. – June and Oct. – Dec. each year	PDs, CS, MS, DCM
<ul style="list-style-type: none"> Activity: One-on-one coaching and modeling for teachers Milestones: Effectiveness ratings of follow-up support Yr. 1: 75% ; Yr. 2: 80%; Yr. 3: 85% 	Jan. – June and Oct. – Dec. each year	PDs, CS, MS, DCM

Personnel Glossary: PMT (Project Management Team), PI (Principal Investigator), DSP (Director of School Partnerships), CSP-EdTech (CPS Director of Educational Technology), CCAP-PD (CCAP Project Director), CPS-PD (CPS Project Director), DCM (Digital Media Coaches), CS (Curriculum Specialist), MS (Media Specialist), CT (Classroom Teachers), EE (External Evaluator)

(2) The qualifications of the project director and key project personnel

David Flatley, CCAP Executive Director (20%) will serve as *Principal Investigator* for the project. He has over fifteen years of experience in developing and implementing educational and intercultural initiatives designed to improve teacher practice and student achievement and affect whole-school change. Prior to joining CCAP, Mr. Flatley managed an initiative that utilized the arts as a vehicle for learning across the curriculum in city schools, a curriculum that was ultimately replicated throughout the country of Scotland. He has an M.A. in Arts Administration from the University of Wisconsin-Madison and a B.S. in Business Administration from the University of Illinois-Champaign. *Joanne Vena, Director of School Partnerships (25%)* will serve as *the direct supervisor* for the CCAP Project Director. For ten years, Ms. Vena has directed partnerships with schools and supervised professional development of teachers and teaching artists at CCAP, including several Department of Education grants. She holds a BFA in printmaking and sculpture from the Rhode Island School of Design and an MFA from the School of the Art Institute of Chicago. *Cynthia Weiss, Director of Teaching Artist Development (20%),* will serve as *Project Advisor*. Ms. Weiss has directed CCAP's arts integration programming since 2001, directing three federal grants during that time. She is co-editor with Gail Burnaford and Arnold Aprill of *Renaissance in the Classroom; Arts Integration and Meaningful Learning* (2001) and co-edited *AIMprint: New Relationships in the Arts and Learning* with Amanda Lichtenstein (2008). Ms. Weiss holds an MFA from the University of Illinois at Chicago.

The *CCAP Project Director (100%)* will be hired at the start of the project and will be responsible for serving as a liaison between the schools and Columbia College; providing leadership and vision for PD, curriculum, and project implementation; ensuring adherence to grant mandates, including evaluation and reporting; hiring and supervising Media Specialists and Digital Media Coaches; and coordinating the Digital Media Learning Continuum committee. Desired qualifications include at least 7 years of experience in arts education and arts administration. The *CPS Project Director (100%)* will be hired at the start of the project and will

be responsible for serving as a liaison between CPS central office and project schools; providing leadership and vision for PD, curriculum and project implementation; coordinating evaluation efforts within CPS; hiring and supervising Curriculum Specialists at the schools; and determining technology capacity at schools. Desired qualifications include at least 7 years in education leadership, with a focus on curriculum design and professional development. The **Curriculum Specialist (100%)** will be hired jointly by the Project Directors and school principals and will be responsible for leading curriculum design, coaching teachers, and facilitating PD. Desired qualifications include at least 5 years of classroom teaching and 2 years providing leadership and professional development for teachers. The **Media Specialists (100%)** will be hired by the Project Directors with input from school principals and will be responsible for leading curriculum design with a focus on digital media integration; coordinating Digital Media Coaches; and facilitating PD in media. Desired qualifications include 5 years of working with youth media, and 2 years of providing training for teaching artists or other instructors.

Columbia College Chicago has a long and successful history of implementing large and complex projects with sound programmatic and fiscal oversight. The college has implemented federal grants from the U.S. Department of Education (USDE), U.S. Department of Health and Human Services, U.S. Army Research Laboratory, the National Endowment for the Arts and National Endowment for the Humanities. Specifically, CCAP has administered a number of USDE grants over the last 14 years, most of them serving thousands of students. A few of these grants include: GEAR-UP 1999-2005: \$4,165,243 over 6 years serving 3 schools and 4,702 students; Arts in Education Model Development and Dissemination grant (AEMDD) 2005-2008: \$952,523 over 3 years serving 5 schools, 1,945 students, and 55 teachers; AEMDD 2008-2012: \$1,099,999 over 4 years serving 5 schools, 2,858 students, and 50 teachers; AEMDD 2010-2014: \$1,119,495 over 4 years serving 5 schools, 780 students, and 24 teachers as of July 2012; and a Parent Information Resource Center grant 2006-2011: \$2,975,559 over 5 years serving 8 schools and 3,493 parents. All of these projects have had extensive evaluation designs, which are

reported on in detail in Appendix C. CCAP has strong administrative and fiscal systems in place to effectively manage large federal grants and achieve project goals on time and within budgets.

D. Quality of Project Evaluation

(1) The extent to which the evaluation provides high-quality implementation and feedback

Evaluation Questions: The project’s evaluation design will address three major research questions: (1) To what extent do students in the treatment schools make significantly greater achievement gains in reading and mathematics and show improvement in knowledge and skills in creating and responding to digital media content? (2) To what extent do teachers in the treatment schools increase their capacity to deliver high quality instruction that integrates technology and digital media into curricula and practices that promote student-centered learning? and (3) To what extent do students in the project’s treatment schools demonstrate increased readiness for college and careers than those students in the project’s comparison schools?

Methods to Address the Evaluation Questions and GPRA Performance Measures: An independent evaluator and a team of internal evaluators at CCAP will conduct a comprehensive summative and formative evaluation of the project to determine the level of impact the program components have had on teachers, students, school administrators, parents, community members. A *quasi-experimental design*, with two treatment schools and two comparison schools (with approximately 500 students and 20 teachers at an elementary feeder school and 700 students and 30 teachers at the receiving high school) coupled with longitudinal measures will be employed in this project. Moreover, as described below, this evaluation design will respond to the i3 GPRA performance measures established in the FY2012 NIAs, especially fidelity, promise in improving student outcomes, performance feedback, and key elements to facilitate replication.

Logic Model to Guide the Development of the Evaluation: The logic model that has guided the development of the evaluation methods is provided below, including inputs, intermediate outcomes, and final outcomes.

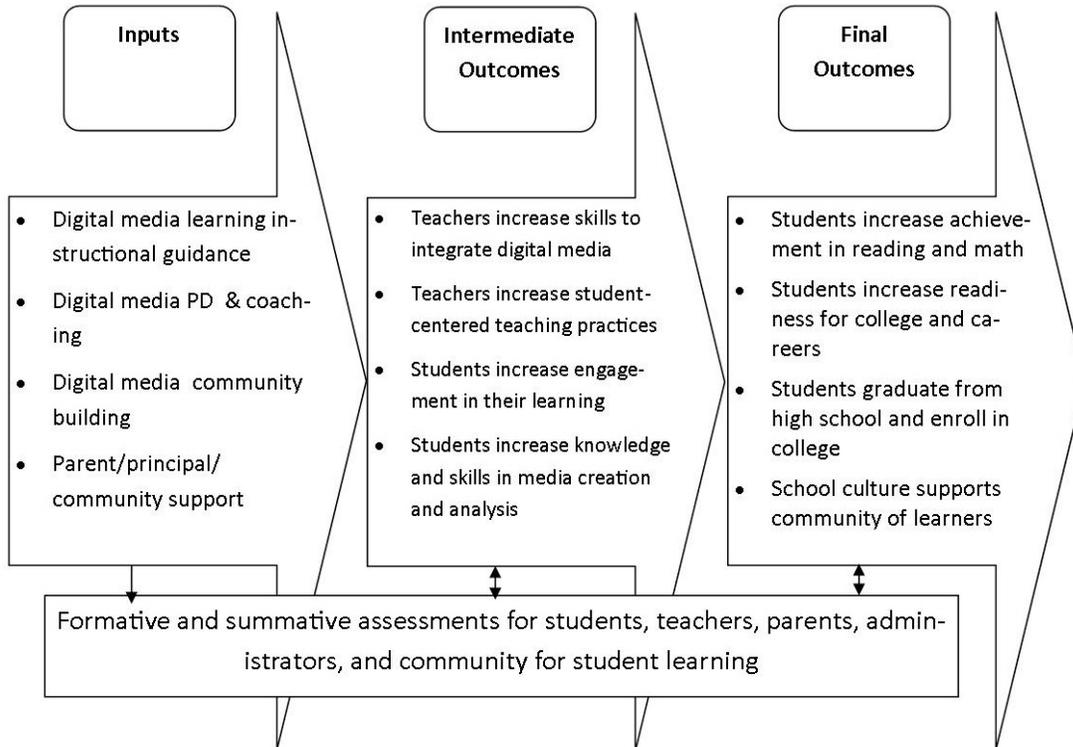


Figure 1: Convergence Logic Model

School Selection and Random Assignment for a Quasi-Experimental Design: In order to choose two treatment and comparison schools so that they are likely to be truly equivalent at the baseline, the project will identify two pairs of elementary and high schools that have the following characteristics: a strong principal, similar student demographics, a high degree of teacher “buy-in” and commitment as indicated on a survey of teachers, being a high need/low-performing school, a feeder elementary school with at least 500 students and a receiving high school with 700 students, parental “buy-in” as indicated on a survey of parents, a school with no restrictions on new curricula, a memo of understanding on the part of CCAP and the school, a school having an up-to-date infrastructure (recent E-Rate internet upgrade, reliable wireless access, computer lab, electric grid must be able to sustain computer labs and other equipment), and having the project being part of a school improvement plan.

Once the two pairs of school candidates have been identified (one elementary feeder school and one receiving high school in each set), one of the two pairs will be randomly assigned

to the treatment group and the other will be randomly assigned to the comparison group. While assigning a single pair of schools to each condition necessarily confounds the treatment condition, by selecting schools that are as similar as possible in demographic composition and prior achievement scores the project hopes to mitigate this confounding to a great degree.

Power Analysis for School Sample Size: The power analysis for this study is based on having 50 teachers and approximately 1,200 students in the set of treatment schools and the same number of teachers and students in the comparison schools. Assuming that the teacher is the unit of analysis, along with an expected effect size of .25SD and an alpha level of .05, the power is .99 for regression analyses, conducted from the beginning to the end of the first year of the study. Assuming the constraints above, and a yearly attrition rate of 10%, the power drops to .98 and .96, respectively, for regression analyses from the beginning of the first to the end of the second and third years of the study. The values were obtained from a statistical power calculator (www.danielsoper.com.)

Validity and Reliability of Assessment Instruments: Previously established validity and reliability coefficients for standardized instruments used in the study will be reported. It is expected that all standardized instruments and those developed by the project will possess validity coefficients of .70 or above and reliability coefficients of at least .80. Internal consistency reliability coefficients for scores obtained from instruments administered during the study will be calculated, reported and also expected to be at least .80.

Student Assessment Measures: Student assessments will include: the Illinois Standards Achievement Test (ISAT) for elementary schools and Prairie State Achievement Examination (PSAE) for high schools for reading and mathematics; periodic student surveys assessing competence in technology and digital media, school engagement, and college and career readiness; *Student Achievement Snapshot (SAS)*, a standardized instrument (Slavin, Madden, Chambers & Haxby, 2008), and the annual CPS-wide *My Voice, My School* survey, will be used to measure student engagement in learning; and data on high school graduation rates.

Teacher and Other Assessment Measures: Teacher assessment measures include: pre-post survey assessments of technology and digital media integrated teaching skills and student-centered learning strategies acquired by teachers; observation protocols to assess the quality of teaching and learning against national and state standards in reading, mathematics, arts, and digital media learning; and self-assessment feedback questionnaires (with 5 point Likert scales) administered after PD sessions and workshops for teachers, school administrators and community members. Finally, a periodic survey assessing the degree of teacher, administrator, parent, and community member collaboration supporting student learning will be administered.

Administration of Measures: The above measures will be administered quarterly (with base lines established at the beginning of each project year and post-tests in June), and student standardized achievement assessments will be administered in the spring and analyzed in the fall of each project year.

Formative Assessments and Implementation Fidelity: To provide regular performance feedback on periodic progress in meeting the project's intended outcomes, a variety of formative methods of analysis will be employed to assess the fidelity of project implementation. Formative assessments include: interviews, focus groups, case studies of schools, teachers, students and parents, teacher and student journals, videotapes of classroom teaching practices, observation protocols, feedback satisfaction surveys (with Likert scales), lesson and unit plans, attendance logs; data on website use; meeting agendas and minutes, attendance logs, and reports from the project's staff. One of the instruments that will be used to measure the fidelity of program implementation in the elementary grade will be an adaptation of the *School Achievement Snapshot* (Slavin, Madden, Chambers & Haxby, 2008), identifying the presence or absence of school-wide structures associated with faithfully implementing programs.

Data Collection and Analysis: The magnitude and significance of the difference between the treatment and comparison groups regarding the students' achievement test scores, their technology and digital media competencies, their engagement in learning, and their college and

career readiness will be determined by the use of linear regression. The alpha level for tests of significance will be set at .05 for all of the analyses. The first set of predictors to be entered in the regression equation will be: (a) group membership (treatment vs. comparison) and (b) the teacher's degree of program implementation. The second set of predictors to be entered will be: (c) the students' pretest scores and (d) any variables for which there is a significant difference between the treatment and comparison groups. Post-test scores of students' achievement test scores, their engagement in learning, and their college readiness will be the dependent variables.

Both regression and Hierarchical Linear Models (HLM) were considered as analysis methods for this study. The principal differences between regression and HLM are the assumptions regarding the statistical independence of the units in the model. Because a single school pair is assigned to each quasi-experimental condition, it is impossible to model the distinct contributions of schools as units. Thus, regression was chosen as the analysis approach.

Procedures for Addressing Participant Attrition: If the attrition rate in the study does not exceed the criteria specified by the Institute of Educational Sciences in the i3 webinar presentation of April 25, 2012, the study will meet the evidence standards with reservations. If the attrition rate does exceed the criteria, investigators will compare the remaining participants in the treatment and comparison groups with regard to all pretest scores. T-tests will be used to make these comparisons. If there are no statistically significant differences between the remaining participants in the treatment and control groups, then the study will meet evidence standards with reservations. If any statistically significant differences are found, evidence standards will not be met.

Independent Evaluator: The project's Independent Evaluator will be Silicon Valley-based SRI International, a nonprofit organization that performs research and development for governments, businesses, and foundations. SRI leads large-scale evaluation research on the use of educational technology, K-12 education reform, and out-of-school learning environments. Larry Gallagher, a Senior Social Scientist at SRI with a Ph.D. in Education from Stanford

University, will lead the Convergence Academies project evaluation. He has extensive experience in evaluating school reform initiatives using multi-method approaches that include hierarchical linear modeling, creating youth outcome assessments for digital media programs, and conceptualizing assessment frameworks for 21st century capacities (resume in Appendix).

(2) The extent to which the evaluation will provide sufficient information for replication

This project will employ a two-dimensional approach to providing guidance about effective strategies suitable for replication in other settings. The first dimension will involve extensively documenting the processes used in developing the project's implementation strategies and the whole school model for scale-up. In this regard, documentation will describe the steps that were involved in implementing a particular strategy, what problems were encountered, and how those problems were overcome. In this way, the project will be able to document how it was able to achieve its various outcomes. The second dimension will involve determining which strategies had the most impact on students. To undertake this task, the project will conduct a more rigorous quasi-experimental evaluation of the project's components. This type of more in-depth analysis will enable the project to sort out which variables within each project component (using appropriate statistical controls) explain a larger percent of the variance, and, therefore, to determine which components are most significant candidates for the replication of the treatment.

(3) The extent to which to which the evaluation plan includes sufficient resources

The project budget provides sufficient resources to carry out the project's evaluation. About 12% of the total budget will be devoted to evaluation. This includes \$100,000 in year 1 and \$110,000 each in years 2 and 3 for the Independent Evaluator. An additional \$18,000/year will be allocated to graduate student research assistants who will provide internal evaluation support for data collection and administration of assessments. Also, \$29,000 is allocated over the 3-year project to document project activities for the purpose of formative assessment to determine fidelity of project implementation.