Compton Unified School District
EdTech Strategic Plan
Infusing Technology in the Classroom
Introduction
Compton Unified is an urban school district in Los Angeles that serves high-poverty students of color including a large African-American population. Like many urban districts, Compton faces challenges in closing the achievement gap. Increasing test scores, boosting college attendance rates, preparing students for careers, and decreasing dropout rates are our primary goals. As we balance our need to meet state and federal standards, the district is focused on increasing student engagement in classrooms, monitoring student progress and providing interventions, and using data to drive instruction while providing authentic learning opportunities.

Compton Unified recognizes globalization’s effects on the demands on the education system. Unlike the industrial model of education of the past century, today all students must be able to think critically, communicate effectively, collaborate with others, and analyze information and sources. Goal 1 in Compton’s Strategic Plan *All students will meet or exceed state academic standards that will prepare them to compete in the global society* reflects the district’s commitment to preparing students to meet new 21st century challenges and increasing overall student achievement. Recognizing this shifting landscape of education, the district is working toward transforming the way students are taught and how they learn. This is being achieved by integrating teacher pedagogy and practice with state-of-the-art technology and emphasizing student-centered classrooms, where students are highly engaged in project based learning to solve real world and complex problems. Additionally, through the use of short cycle formative assessments, computer-adaptive programs collect data on student performance so that teachers can individualize and differentiate for students through small group instruction. Compton Unified is committed to ensuring that all students are college and career-ready to thrive in this new global marketplace.
Compton Unified Vision

Every student learns to develop and demonstrate the knowledge, skills, practices and attitudes necessary to be an engaged, robust 21st century citizen that can compete in the global marketplace

Compton Unified School District recognizes that the global economy and a complex world have changed the demands on the education system. Unlike the industrial model of education of the past century, today all students must be able to think critically, communicate effectively, collaborate with others, and analyze information and sources while meeting rigorous benchmarks, such as those contained in the Common Core State Standards. In fact, in his book, The World is Flat, Thomas Friedman (2006) states that the world we now live in has become flat, an environment with a single global network. People compete and collaborate with others across the world daily using technology and sharing information. To be prepared for this type of work environment, K-12 students need to acquire skills to navigate, sift through, and evaluate an increasing amount of information (Dede, 2005). CUSD is committed to ensure students are college and career-ready to thrive in this new global marketplace.

The purpose of the CUSD Strategic Plan is to provide a living document that guides schools to prepare students to meet these 21st century challenges and increase overall student achievement. We believe this can be achieved by infusing teacher pedagogy and practice with technology and emphasizing student-centered classrooms, where students are highly engaged in solving real world, complex problems. In year one of the grant, teachers are transitioning from a teaching style focused on preparing for state mandated tests and a prescribed curriculum to a pedagogy that is student-centered with rigorous and authentic learning experiences that are driven by the newly adopted Common Core State Standards. Integrating technology into this environment allows for significant redesign of tasks and for the creation of new tasks previously inconceivable without the use of technology. Students are very adept at being consumers of technology but need to move towards being problem solvers as creators and producers with technology. The need for teachers to have the skills and knowledge necessary to transform their teaching drives the first year of implementation.

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Goals

Year 1

- 1.1 Teachers will develop foundational technology skills to manage the use of technology in the classroom
- 1.2 Teachers will understand the different levels of the SAMR model and begin designing lessons in the transformational stages that provoke higher-order thinking in learning.
- 1.3 Students solve real world problems through critical thinking, communication, collaboration, and creativity in at least one project
- 1.4 Increase student engagement measure by student survey discipline reports and attendance
- 1.5 Achievement
- 1.6 50% using technology to develop student-centered learning in a blended learning environment that differentiates learning.

Year 2 Goals

- 2.1 Teachers effectively manage the use of technology in the classroom and
utilize Google Classroom as an LMS

- 2.2 Teachers will understand the different levels of the SAMR model and design one model lesson that utilizes technology in the transformational stages that provoke higher-order thinking in learning
- 2.3 Students solve real-world problems through critical thinking, communication, collaboration, and creativity in at least one project
- 2.4 Increase student engagement measure by student survey discipline reports and attendance
- 2.5 Increase student Achievement in ELA and Math as measured by the school CAASSP goals
- 2.6 50% teachers using technology to develop student-centered learning in a data driven blended learning environment that differentiates learning.

**Stakeholders**

In order to ensure that this strategic plan becomes a true guiding document, it is pivotal that district stakeholders are identified. In addition, the collaboration and cohesiveness of district departments and schools is essential in the implementation of an effective instructional technology program. As a result, a district-wide system has been developed to easily and effectively identify the roles of active stakeholders. Ongoing articulation and reflection by all parties will continue to enhance and improve district-wide support systems.
Building a Framework for Innovation

*PBL- Data Driven Blended Instructional Model*

CUSD schools are committed to building differentiated classroom settings that support Project Based Learning (PBL) while ensuring students’ individual learning needs are met. In order to do this, Compton Unified has developed a blended learning classroom model that combines personalized learning using adaptive computer programs with real world authentic learning opportunities through problem solving found in PBL. The instructional design integrates three components in a rotating station model: PBL, blended learning and small group instruction. Focusing on short cycle assessments for continuous growth, students use adaptive software that differentiates content for students and provides data for teachers to develop small group instruction. Teachers use the data collected by the adaptive learning program to individualize student learning experiences. Meanwhile, students work in their PBL cooperative groups to solve inquiry-based projects.

This flexible learning environment meets district RTI intervention goals, provides opportunities for enrichment and creates multiple modalities to demonstrate mastery of content.

**Shifts in Pedagogical Framework**

As we launch into our first year of implementation, there are systems and structures that are in place in order to facilitate the infusion of technology in the classroom. The CUSD Edtech Strategic Plan is grounded on three pedagogical shifts: the SAMR model, Student-Centered Learning, and the 4 C’s (communication, collaboration, critical thinking, and creativity) that are aligned to the district instructional goals. Within the three shifts, there are six essential components that guide the implementation; goals, instructional practices, tech tools and applications, professional development and teacher/student milestones.

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More importantly these shifts support our vision of a graduate from Compton Unified School District.

**Compton Graduates**

- **Mastery of the core knowledge, critical thinking skills, and competencies outlined by the Common Core State Standards**
- **The knowledge, skills, and experience to navigate the "real world" and think creatively to solve problems that arise in everyday life and in the workplace.**
- **The ability to engage and communicate in a 21st century global society that is more inclusive and interconnected.**
- **Strong interpersonal skills and the ability to positively influence and collaborate with others.**
- **Integrate technology as an ongoing learning tool to gather and process information in order to construct and display new knowledge in novel ways.**
SAMR Model
The strategic plan includes preparing students to solve real-world problems with creative solutions. The district has adopted the SAMR model to measure how effectively teachers use technology in the classroom to support instruction. As instruction shifts to include technology, it is important to understand that technology is not merely a substitute for traditional textbook learning but a tool that is essential to learning outcomes and problem solving. Researchers have determined that technology integration typically moves through specific levels; the higher the level of an activity, the greater the educational benefit. SAMR is a model of tech integration designed by Dr. Ruben R. PuenteDura, Ph.D. that defines different levels of technology integration.

SAMR is an acronym for Substitution, Augmentation, Modification and Redefinition as levels of integration of technology in the classroom. The SAMR model is a tool to help teachers think about effective tech use as they begin to make shifts in the design and implementation of technology driven learning experiences to move to transformational levels. Teachers in the Substitution and Augmentation phases can use technology to accomplish traditional tasks. However, the real learning gains result from engaging students in learning experiences that could not be accomplished without technology. At the Modification and Redefinition levels the task changes and extends the walls of the classroom.
It is important for teachers to understand the SAMR model in order to effectively use technology to redefine teaching and learning.

**Student-Centered Learning Environments**

Student-centered instruction focuses on the needs, abilities, and learning styles of individual students. It is personalized, engaging, and rigorous. While learner-centered instruction does not require digital learning, it is enabled and enhanced by it, and digital learning expands the opportunities and options for teachers and students. As ConnectEd teachers transition to this new paradigm and the use of technology, they must develop both pedagogy and skills to create a technology infused student-centered environment. No longer should the norm be teachers standing at the front of the classroom delivering the same information to all students at the same time.

As ConnectEd teachers begin utilizing technology to gather more formative data from student assessments in an ongoing way to understand the abilities and learning style of individual students and to measure targets toward student learning goals. While meeting high standards, students take a more active role in and have more ownership of their learning. Students should develop content and collaborate with others to build and share knowledge, and they need opportunities to engage in meaningful and authentic learning experiences and to apply what they learn. Teachers in this initiative will create learning experiences in which students are held accountable for directing and

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developing their own products and knowledge which fosters self-direction and motivation. Understanding how technology can be used to help students construct viable arguments and critique the reasoning of others, make sense of problems and persevere in solving them, and use appropriate tools strategically, is changing the teaching paradigm in CUSD.

The 4 C’s: Preparing 21st Century Students for a Global Society
To succeed in the 21st century, all students will need to perform to high standards and acquire mastery of rigorous core-subject material. All students also will need to gain the cognitive and social skills that enable them to deal with the complex challenges of our age. Business leaders have called for students to graduate with more than the ability to regurgitate material; they need an innovative workforce that can solve problems. As CUSD incorporates the CCSS into the curriculum, the 4C’s, critical thinking and problem solving, collaboration, communication and creativity, must be clearly articulated to teachers and professional development to ensure students are adequately prepared for college and career.

The 4 C’s are embedded across the disciplines: mathematics, language arts, social studies and science. These subjects are content areas that are inherently aligned with the 4Cs. Solving problems that haven’t been solved before, finding proofs, puzzling, understanding patterns and finding meaning in statistics all require critical thinking, creativity, innovation and information literacy.

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iPad Initiative are garnering the skills and knowledge to incorporate these standards with a pedagogy that uses technology to incorporate the “4 C’s”. To prepare students for the demand 21st century workforce they must be to think critically, solve problems, collaborate, and communicate effectively.

**Instructional Strategies**

The pedagogical shifts support CUSD instructional strategies and promote an increase in student achievement. The district is working with Bill Daggett and the International Center for Leadership in Education to implement the Rigor-Relevance Framework. Teachers receive professional development to create and deliver lessons that require higher level thinking (rigor) and are more grounded in real world applications (relevance). The goal of this collaboration is to promote more “Quad D” type lessons, where students are asked to solve real world, complex and unpredictable problems.

In addition, CUSD has embraced and adopted DOK (Depth of Knowledge) framework in order to understand the complexity of questions and the depth of understanding required to respond to higher-level questions. By studying associated verbs and question stems, teachers increase their level of understanding; hence the increase of higher-level questions during direct instruction, guided practice, and assessments.

Regular practice with complex texts is an additional district focus. Strategies such as close reading and marking the text are used to deepen comprehension and strengthen student analysis of cross curricular text.

Cooperative learning strategies are also promoted throughout the district. Teachers utilize these techniques for students to engage in all four language domains: reading, writing, listening, and speaking. This is especially important for the district’s many English Learners. The widespread use of sentence frames and a focus on academic discourse within classrooms are also related cooperative learning efforts within the district.

An increase in conceptual understanding in math is a widely addressed district focus. Teachers support students in accessing concepts from a number of perspectives and understand key concepts to develop a math mindset as problem solvers based on the CCSS Mathematical Practices.
Developing Technology Tools to Support Teaching and Learning

These shifts in pedagogy and Instructional practices are supported with a variety of high-leverage applications and websites. Best practices include app smashing: the merging of a variety of apps to complete a specific goal or process, and utilizing apps across the disciplines to support core subjects. Although apps and websites can be used to meet specific needs, apps tend to lack in a specific area that can be improved by another. As teachers prepare new rigorous learning experiences, they will identify high leverage apps that meet CUSD curricular outcomes.

<table>
<thead>
<tr>
<th>Instructional Strategies</th>
<th>Pedagogical shifts</th>
<th>Exemplar High-Leverage Apps</th>
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<tbody>
<tr>
<td>Rigor and Relevance Framework</td>
<td>&quot;Blended Learning&quot;</td>
<td>iMovie, Book Creator, Explain Everything</td>
</tr>
<tr>
<td>Depth of Knowledge</td>
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<td>Complex texts</td>
<td>&quot;4 C’s&quot;</td>
<td>Socrative, Nearpod, Google Apps</td>
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<tr>
<td>Cooperative learning</td>
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<tr>
<td>Conceptual Understanding in Math</td>
<td></td>
<td>Numbers, Google Drawings, Explain Everything, Buzz Math</td>
</tr>
</tbody>
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The Educational Technology Department will continue to explore, update, and revise the list of high-leverage apps, keeping teachers updated on the best apps and current uses.

Professional Development

The cornerstone to the successful implementation of any new educational initiative is professional development. In order for teachers to be prepared to develop rigorous and technology-ready lessons, it is imperative that professional learning is collaborative, embedded in teacher practice and focused on student outcomes. To prepare teachers to meet the identified shifts in practice and pedagogy, the Edtech department will work with the schools and Apple Professional Development team to provide quality and consistent professional development that meets the needs of teachers and administrators. Also, the
principals of the ConnectEd feel so strongly about the significance of professional development that four of the elementary schools hired a full time 21st Century Learning coach and the middle school has an identified technology coordinator.

**Summer 2015 - Bootcamps**
In order to help teachers integrate technology into the classroom these first year teachers participated in a 3 day ipad Bootcamps over the summer of 2015, which immersed them in a technology-rich, hands-on experience with iPads and Mac Airbooks. In addition to helping teachers become comfortable using the technology, a goal of this summer iPad Bootcamp was to introduce teachers to the pedagogical shifts supported by technology. The SAMR Model of Technology Integration, designed to help teachers integrate technology into teaching and learning in meaningful and transformative ways.

**Year 1: 2015-16**
A key goal for this first year of the Compton Edtech Initiative is to, not only, assist teachers in becoming comfortable with the technology, but also, help them integrate this new technology into their classroom in meaningful and innovative ways. It is important that teachers understand the major pedagogical shifts and instructional strategies that are enriched with the use of technology. Our plan is to provide high quality professional development to assist these first year teachers to create student centered classrooms where students collaborate and use technology to solve real world problems. We have set milestones and goals to monitor and measure progress. By the end of the year, our teachers should produce one project that achieves the highest level of the SAMR Model, Redefinition, whereby the technology enables the teacher and students to create new tasks that were previously inconceivable. Overall, we strive for teachers to use this new technology to achieve new levels of student engagement and understanding.

**Milestones**
As we develop our Strategic Plan, it is important to set milestones to mark the implementation progress. We have identified four categories to measure the success of our Strategic Plan. These include infrastructure, professional development, and curricular milestones.

**Technology and Professional Development**
- Teachers receive Apple Devices - July-Aug
- Parents attend and sign up for Apple IDs- Sept-Oct
- Students device rollout- Oct
- School infrastructure refresh- Aug-Sept
- Teachers attend professional development boot camp - Aug
- Schools receive on going APD support with Apple Coaches- Fall/Spring
• Teachers attend follow up professional development boot camp- June 2016

Understanding SAMR

Teacher

Fall / Winter: Teachers implement technology at the Substitution level by revisiting lesson plans and identifying entry points. Teachers identify high leverage apps that facilitate SAMR levels.

Example: Teachers will be able to lesson plan and create documents using Google Docs and Slides.

Winter: Teachers integrate identified high-leverage apps and allow student practice. Teachers design a short-term activity that ascends from Substitution to Modification.

Teachers will be able to use Google Apps to plan and Google Slides to present ideas, adding sound and visuals

Spring: Teachers facilitate and guide Quad-D lessons that require collaboration and higher-order thinking. Teachers plan/design project-based lessons for their students and serve as facilitators by guiding student learning.

Teachers will be able to develop projects that require app smashing and student choice to complete the final product using the iPads.

Student

Fall: Students complete short-term tasks/activities, implementing specific learning targets as they relate to Substitution and Augmentation

Winter: Students collaborate and complete a group project that demonstrates higher-order thinking: analyzing, evaluating, and creating.

Spring: Students follow provided guidelines —rubrics that target to complete a final project that displays novel ways to present using technology and apps

Integrating the 4C’s

Teacher

Fall: Teachers integrate the 4 C’s by incorporating learning tasks in the classroom that
depend on communication, collaboration, critical thinking, and creativity.

Winter: Teachers use the 4 C’s to plan and design a rigorous lesson across the disciplines that incorporate high-leverage apps.

Spring: Teachers revise and evaluate previous lessons and bolster the rigor by providing students with challenging and authentic projects that embed the 4 C’s. Teachers provide rubrics that incorporate technology usage to guide student work.

**Student**

Fall: Students engage in lessons that promote the 4 C’s

Winter: Students follow 4 C’s systems and guidelines to enhance the productivity and outcomes of assignments

Spring: Using high-leverage apps, students participate in creating and presenting projects that include the 4 C’s

**Creating Student Centered Classrooms**

**Teacher**

Fall / Winter: Teachers use high leverage apps and websites to gather and share assessment data and provide feedback to students instantly.

Winter: Teachers use apps and websites to analyze data to develop authentic, personalized learning activities.

Spring: Teachers develop and facilitate student-led activities that include choice and opportunities for diverse responses.

**Student**

Fall: Students use high leverage apps and websites to assess their learning and reflect on results to increase achievement.

Winter: Students use apps and websites to monitor and evaluate results. Based on the results, students plan and personalize specific goals to increase achievement.

Spring: Students use content knowledge and creativity to participate in student-led activities that include choice and opportunities for diverse responses.
Success Tracking

- Students demonstrate creativity, critical thinking, collaboration and communication through technology infused lessons
- Students demonstrate effective utilization of technology and media to support 21st century skills and career and college readiness
- Teachers are prepared to integrate technology to teach to the levels of rigor and depth required by the CCSS.
- Educators implement exemplary lessons aligned to the CCSS and integrate grade-level technology skills.

Measurement (Data):

- Observations
  - classroom observation
- Units of Study samples
- Student Surveys
- Teacher Surveys
- benchmark assessments
- program usage data
- student work
- ePortfolio
- Student demonstrations and exhibitions
- Coaching logs
- Professional development agendas and sign in sheets
NOTES

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