Katy Blatnick-Gagne
Gregg Caverly
Gigi Mohamad
Antoinette Pinder-Darling
EDTC 815 Assessment 3
Dr. Rabinovich

Technology Implementation

Technology itself is neither good nor bad, nor can it dictate educational goals. Before embracing any new technology, it is important to declare the educational goals or learning targets and to demonstrate how a particular technology can help to achieve them. Therefore, the narrative summary that follows along with the corresponding action plan will map out the implementation of technology to meet the needs of students enrolled in Language Arts classes. The narrative will focus on research that promotes efficacy and that documents how reading and other aspects of literacy can be achieved across grade levels and among diverse student populations within the district.

The International Society for Technology in Education (ISTE), along with the New Jersey common core technology standards have been important elements in researching and developing the action plan to implement technology into Language Arts classrooms. The Common Core State Standards (CCSS) for English Language Arts (ELA) include statements and standards that embed technology into the curriculum. Students need to have the "necessary technology skills outlined in these standards to demonstrate mastery of CCSS for ELA that require them to use technology for a specific purpose" (Kopp, 2015, p. 46). The action plan outlined in this document is aligned to Common Core ELA standards for reading, writing, speaking, and listening that are geared towards reaching regular learners, special-education learners, English language learners, and those learners who are considered at-risk. The action plan will also focus on measuring success in three areas (1) student performance based on district

technology and CCSS standards; (2) improving student exam and SAT scores; (3) evaluate teacher performance and (4) recommend professional development training based on student performance. Feedback from the three areas will be used for revision of and an improved curriculum that focuses on the appropriate integration of technology.

Technological and Curricular needs of the General/Regular Student for ELA

Almost 100 studies conducted during the 1980s and spanning much of the millennium by Roblyer and colleagues, concluded that "computer applications have an undeniable value and important instructional role to play in the classroom" (Picciano, 2011, p. 97; Roblyer & Doering, 2013). The rapid changes in technology combined with the Common Core State Standards that districts are expected to adhere to require the establishment of action plans to review, implement and evaluate the progress of learners in the area of ELA. The intelligent use of advanced technologies seeks to address the district's and school's capabilities to implement various initiatives to integrate technology for the improvement of test scores and the overall personal, academic, and college/career development of students for the Language Arts subject. Defining such a role for the ELA teacher must go beyond student achievement to directly penetrate their teaching ability, content knowledge, and technological competencies through professional development.

The implementation of this action plan will focus on equity, fairness, costs associated with technology selection and use, and will include an evaluation mechanism for how success will be measured. The tools for building literacy (e.g. Blogging, Edmodo, Wordle, Wordsift, Visual Thesaurus and Audacity) will support literacy development for the general student (Glenburg, Goldberg & Zhu 2011; Dalton & Grisham, 2011). At the instructional level, the ASSURE model assist teachers with providing effective instruction as its name suggests and

provides feedback that incorporates Gagne's nine events of instruction (Reiser & Dempsey, 2012, p. 210) - these will be outlined in the action plan for the evaluation phase. A constructivist theoretical approach and Universal Design for Learning for ELA is to be incorporated into the curriculum. Constructivism draws on the vast experiences of the learner. "A constructivist theory of learning that stresses the importance of experiences, experimentation, problem-solving, and the construction of new knowledge" evolved from Dewey, Piaget, Bloom, Gagne, and Vygotsky (Picciano, 2011, p. 97). The traditional approaches to teaching reading and writing are insufficient to meet the Common Core standards. The ISTE and state technology standards are important because the Common Core standards for English Language Arts include statements with regard to technology and digital resources (Kopp, 2015). Each grade level has different standards for English Language Arts that directly mention the words digital, multimedia, and or/technology. See anchor standards below as reported by Kopp (p. 46):

Standard	**Anchor Standard**
Reading Informational text and reading literature	**CCSS 7** – Integrate and evaluate content presented in diverse formats and *media*, including visually and quantitatively, as well as in words.
Writing	**CCSS 6** – Use *technology*, including the Internet, to produce and publish writing and to interact and collaborate with others.
Writing	**CCSS 8** – Gather relevant information from multiple print and *digital* sources, assess the accuracy and credibility of each source, and integrate the information while avoiding plagiarism.
Speaking and listening	**CCSS 5** – Make strategic use of *digital* media and visual displays of data to express information and enhance understanding of presentations.

Table 1: Technology-related Common Core State Standards for English Language Arts

With the implementation of the Common Core State Standards—there is also the need to develop student competencies in the six ELA core areas: reading for meaning, compare and contrast, inductive learning, circle of knowledge and vocabulary's CODE (Silver, 2012). The

student is solely responsible for his own learning. The teacher and the school coach, direct, and support the student so that he knows how to assess and improve his own work. This can also be accomplished by directly fusing individualized learning with 21st century tools and contexts. It is also necessary for the any educator to become familiar with the six levels of Language Proficiency developed by WIDA. The general, as well as exceptional students need to be appropriately measured on "CCSS assessments, the ACT, SAT, and on other respected assessments" (Taylor, Watson, & Nutta, 2014, p. 50). The transition does not take long for the student to move from learning to read and to strive toward reading to learn. If gaps exist, then practical strategies should be adopted and implemented for engaging normal, special-needs, diverse, at-risk and physically-challenged students—and scaffolding them to success with CCSS. According to Kopp (2015) the CCSS document notes this:

> "New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio" (CCSSO 2010, College and Career Readiness Anchor Standards for Speaking and Listening).

However, students are influenced by what they have "access to read", but they also want to have "a choice over what they read" (Calkins, 2012, p 50). Students want some level of independence for how they learn and express themselves, in spite of the structure determined and set by CCSS. For example, many students are fascinated with the word play and social messages conveyed through rap, as a form of modern lyrical poetry. A teacher can begin at that point and see how s/he can bridge such interests to real-world applications.

Even though, CCSS defines what students should know, it doesn't command how teachers should teach. Keeping that perspective in mind, the six goals of this action plan are as follows:

Ensure that students are able to comprehend and critique information as they use technology and digital media strategically and capably through teacher coaching and modeling for grades 4-6. **(CCSS Anchor Standards 5 through 8, ELA W2-5, W7-10 and ISTE Standards for Technology Operations and Concepts; Standards 1-6)**

1. Improve students reading and literacy levels by 2% for at-risk students and help them to utilize visualization as a powerful bridge between experience and abstraction for grades 7-9.
2. Center the curriculum, using technology to promote project-based learning initiatives for grades 10-12 (ELL, at-risk, general and special-needs) that parallel those faced by adults in real-world settings (Gordon, 2000).
3. Student preparation for online testing and college-career readiness (grades 9-12+) for all students (CCSSO, 2010).
4. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the texts as the basis for answers (K-3).
5. Students at all grade levels will reduce spelling errors and increase their awareness of the existence of their errors when preparing text using word processors.

With the appropriate tools, students can become independent readers and writers. Therefore, identifying and understanding goals helps teachers guide students' use of technology

to focus on key priorities. New and modern technologies according to researchers when properly integrated can provide "valuable educational leverage on understanding goals that would be difficult or impossible to achieve otherwise". Acquiring such technologies can be a synergistic educational focus for the teacher to help the student (Wiske, 2005, p. 50). For grades K-3, the technology software package Noodleverse will be employed. This web portal won the "Parents' Choice Award in 2014" for providing interactive multimedia online activities and games to assist K-3 learners to practice core language arts concepts (Maine Learning Innovations, 2014, p. 57; Ash 2013). It assists these students in boosting their confidence as they become more motivated and comfortable with reading, writing and working independently. Other applications for inclusion in the action plan for K-3 will include *Funbrain reading* and *Kidspiration* which are popular concept-mapping software (Roblyer& Doering, 2013; Kopp, 2015). Students can use these programs to generate a hierarchical map of key concepts to be explored for a research paper and link those concepts with labels that demonstrate their conceptual relationship. An intensive reading intervention program designed to meet the needs of students whose reading achievement is below the proficient level. For grades 4-12, Read 180 will be utilized to target at-risk (esp. economically disadvantaged), ELL, diverse, and students with disabilities to assist with improving their literacy levels, exam grades, graduation, readiness for college, and future careers.

Assistive Technologies for Special-Needs Students

In the classroom, there is never a one-size-fits-all approach to educating learners, whether in ELA or another subject. Students, from the gifted, to those who require one-on-one assistance for daily life skills, such as eating or communicating have varied needs. To excel beyond the standard curriculum, teachers must require meaningful, relevant, and challenging projects and

assignments from these students. Technology provides extensive as well as ready access to information and subject content. Kopp (2015) highlights that: “Specialized hardware and software can benefit students with special needs, whether those needs are cognitive, social, physical, behavioral, or in any combination. Devices that aid in computer function and facilitates communication while supporting instructional delivery can and should exist in the classroom at the student’s learning level” (Kopp, 2015, p. 140).

Software tools

We will utilize assistive technology tools for helping students with special needs, disabilities and those with unique learning challenges. These assist special needs students to successfully contribute to class discussions and interact with their peers at the proficiency scales for ELA Common Core State Standards - using technology such as Raz Kids can assist with helping students become comfortable and flexible with reading literature and from informational text” (Marzano, Yanoski, Hoegh & Simms 2013, p. 83). According to literature by the Schwab Foundation for Learning (2000), assistive technology tools are items, equipment, or systems that “work around or compensate for learning difficulties” (p. 4). Research suggests that these tools “can be used to personalize lessons and can provide skills enhancement to each child” (Zorigian & Job, 2010, p. 1). Where or whenever there is a learning need, there is technology that could be made readily available to assist with such a need. Student’s age and grade levels must also be considered as an important factor when implementing technology in the ELL classroom. Special-needs students in kindergarten may have different learning challenges than fourth grade special-needs students (Federicks, 2005). The district wants schools to locate and access more-than-adequate technology tools that can assist such students with reading, writing, listening, speaking and building their critical-thinking skills.

One of the most widely used tools for students with communication challenges is word-processing software. Microsoft Office Suite and Google Drive are recommended. Sweeney (2010) offers strategies for using Internet resources, online forums, word processing, and other technologies to support writing instruction. With texting, social networking, and email as avenues to interact with others, both complex and simple word processing can provide students with speech or writing disabilities a means of sharing written language. Students can also use Google Drive, if they have a Gmail account, this allows them to work interchangeably and share documents, spreadsheets and presentations with the teacher and peers. *Chrome Toolbox AT* and *Google's Accessibility* site provide lots of information about Google-related accessibility, accommodation, tools, and resources for educators and students.

Hardware tools

For students who lack typing skills, teachers may acquire alternative keyboards. According to researchers, whether students need larger key pads, or students who can type with only one finger or hand, such tools are helpful for struggling students to interact effectively with traditional key placements (Lindberg, Flasch Ziegler, & Barczyk, 2009). Different layouts are available such as QWERTY, Dvorak, Colemak, and Maltron (Kopp, 2015). On-screen keyboards allow users to type using their mouse--simply point and click. These keyboards also work with a touch screen or alternative mouse, such as a joystick or electronic pointer. Students with limited mobility may benefit from this kind of typing mechanism. Alarm and alerting technology, infrared communication technology and telephone technology can be acquired for the hearing-impaired student (Hersh & Johnson, 2003). Special devices that will be outlined in the action plan to enhance learning opportunities for students who are visually impaired include

- Screen enlargers - these serve as magnifiers for computer screens

- Screen readers - these ‘read aloud’ everything on the screen, from text to graphics to control options (Kopp, 2015).
- Braille displays - these special keyboards convert on-screen text into Braille text. As each line of Braille is read, the system can be refreshed or programed to read the next line (Kopp, 2015).
- FM or Frequency modulation systems, Infrared, personal amplification combined with closed captioning - can be used for 1:1 communication with by the whole room or by individuals and some tools can be permanently installed states Hersh & Johnson (2003).
- Teachers should have classrooms with “independent student computer workstations, handheld devices, Chromebooks, and interactive whiteboards (IWBs) for students to play and have fun” while reinforcing essential skills, both in the classroom and at home (Kopp, 2013, p. 77).

Reading and Writing problems

Other technologies include speech-to-text devices and portable communicators—that support visual cues—for students with hearing difficulties. Early research indicated that this assistive technology, “helps students with learning disabilities and other struggling writers compensate for problems with basic transcription” (MacArthur, Graham, & Fitzgerald, 2006, p. 255). Technology tools such as light signal alerts and personal FM listening can keep such students more actively involved in the general classroom when instruction is directed or centered on ELA content. Useful apps include *Voicethread* (captures voice and photos during project collaborations) and *SoundingBoard*, which are able to convert Apple products into portable communicators that include pre-loaded options as well as personally created boards with

symbols or pictures to accommodate specific needs (e.g. common expressions, so that students are able to communicate at all levels and to a variety of individuals including their parents and peers). Portable communicators can support students' literacy skills. Teachers can pre-record stories or comprehension questions while students follow along in books, listening and practicing to write independently while completing tasks using material that was prepared for them. Read 180 focuses on helping special-needs students and provides a clear path for focused and targeted instruction for ELA and digital literacy by facilitating whole-group, small-group, modeled and independent learning opportunities.

Technology for English Language Learners

Technology tools and devices not only enhance learning opportunities for students with disabilities, but they also can help non-English speakers learn English. In an article written for the New York State United Teachers (NYSUT) publication, *Educator's Voice,* authors Elizabeth Brozek and Debra Duckworth summarize,

> "English language learners can benefit particularly from the reinforcements of vocabulary and concepts through pictures, graphics and video. They also benefit from being able to use technology to express themselves. BrainPOP and Renaissance Learning are excellent tools that can be used to help ELL students express themselves and build their vocabularies along with video technology such as NBC Learn. These modern technologies helps English language learners find their voice, which can help in easing the transition to a new language" (2011, p. 15).

Digital translators, English-learning software, and interactive reading and language games, suggests Kopp, "can provide substantial support for students whose first language is not English" (Kopp, 2015, p. 134).

The application of Common Core State Standards for ELLs will need to be partnered with language proficiency standards to ensure that ELL students are becoming proficient in and literate in English (Common Core State Standards, n.d). Lafond (2015) states, that the ELL student should be involved in learning and taking part in learning which allows him to have hands-on, student learning experiences. Continuing, Lafond also recognizes that because the CCSS ELAs are written to cross disciplines, a school-wide effort can be given to enhance the learning opportunities for ELL students. In order to challenge students to be active learners, teachers need to create a supportive environment that allows students to take risks, explore real-life situations, and to problem solve (Lafond, 2015). Technology can play an important role in affording English language learners the ability to reach the CCSS; however, based on the number of electronic resources and devices to choose from, teachers may get caught up in using technology for the sake of using technology and forget to direct their attention on the instructional objectives of lesson planning for English language learners. Hurst (2007) asserts that teachers should be careful not to get too caught up by societal pressures to have the latest technology gadgets in their classroom (as fashion accessories) if those gadgets do not support the desired learning outcomes or benefit ELL students (p. 167). Michael Morgan (2008) cautions teachers to not overload students with excessive digital-powered technologies. Morgan recommends a three-step process for implementation of technologies:

1. Investigate the programs and resources to be sure they are suitable for classroom use and are appropriate to the students' English-learning levels.
2. Identify how technology is beneficial for English-language learners.
3. Create English language learning objectives, and use technology as a means to an end, not as an end in itself.

Text-to-speech technology is of particular benefit to ELLs since they can use it to gain individual support in their studies and to learn proper English pronunciations of English words and phrases (Kurzweil Educational Systems, 2004). Below are examples of technology that are recommended by the researchers for English-language learners.

- Electronic Translators (only requires a headset with a microphone)
- Electronic Dictionaries and Encyclopedias (Encyclopedia Britannica, Gale: Testing & Education Center)
- Digital Learning Media (tools for supporting reading and listening comprehension: smart pens and reading pens)
- BrainPOP supports mobile learning apps for Android, Kindle and Google Chrome users
- Outlining and Graphic Organizers (technology to support ELL instruction)

Hardware, such as interactive whiteboards, document cameras, and software, such as Microsoft Photo Story, Read 180, and social networking such as Edmodo, also support ELLs with devices and programs to help develop English language skills, including reading, writing, speaking, and listening (Brozek & Duckworth, 2011). Teachers should become aware that where there is a need and a technology should be sought out to fulfill it. Students with special needs are no exception, states Kopp (2015) to the technological benefits that schools or a district can offer students (p. 141).

Technology for At-Risk Learners

A student might be defined as at-risk for many different reasons. At-risk students typically experience life problems that cause concern in regards to their success in school (Darling-Hammond, Zielezinski & Goldman, 2014, p. 1). These problems could be

homelessness, teenage pregnancy, health issues, violence, migrant status, learning disabilities or attendance issues. Any combination of these factors could prevent a student in the k-12 system from completing school. Much research has taken place regarding reading levels and at-risk students. According to Ball, Finch and Gettinger (2014), research indicates a connection between reading and behavioral issues in such students. Research from Stanford found that at-risk students learn more when they use technology to create content themselves, rather than just being recipients to content designed by others" (Darling-Hammond, Zielezinski & Goldman, 2014, p. 9). There are a number of approaches that can be used productively by teachers to reach at-risk students. Research as reported by Darling-Hammond et al. (2014) has indicated three important variables relating to at-risk students successfully learning new skills for ELA and improving their digital literacy abilities. These are:

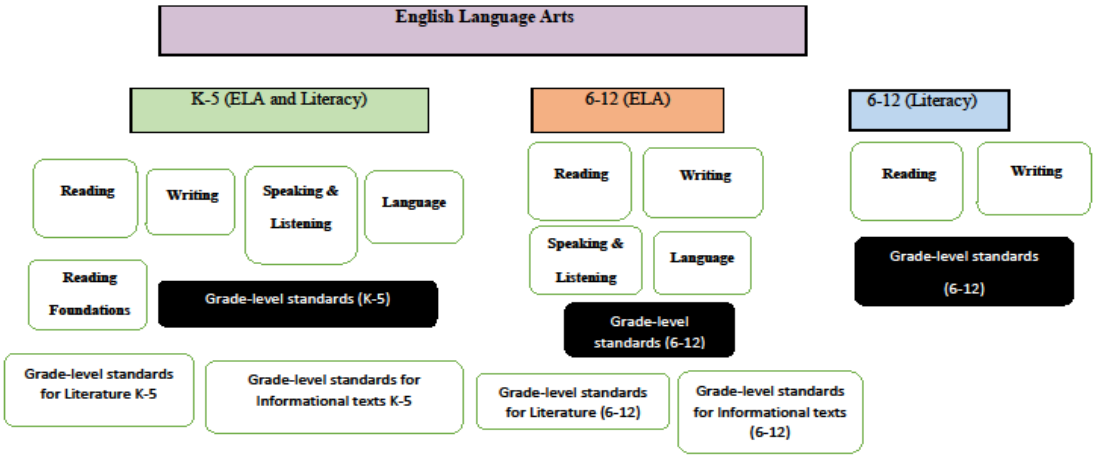
- Interactive learning;
- Use of technology to *explore and create*, rather than to *drill and kill*; and, most importantly,
- The right blends of teachers and technology.

While the authors of the Common Core States Standards (CCSS) in English language arts sought to define what students, even at-risk students, needed to know and be able to do in the 21st Century, it is not clearly evident that they envisioned that technology could be at the center of reaching all learning levels found in a classroom. Some students can be expected to develop relatively concrete knowledge and skills, but how is the success of these competencies effectively measured? All teachers, not just ELA teachers, should have literacy integrated in their content area. Some of these students may not have a particular interest in ELA but that does not mean that they cannot be reached through other content which may interest them. Vicki

Phillips and Carina Wong (2010) provided a biological analogy for that idea: "Think of literacy as a spine; it holds everything together. All branches of learning connect to it; this means that all core content teachers have a responsibility to teach literacy" (p. 41). Marzano, et al. (2013) discusses that the ELA standards were written in two grade-level sets, k-5 and 6-12. The 6-12 standards were then broken down further to cover ELA standards and standards for literacy in history/social studies, science, and technical subjects (See Figure 1). The design of the 6-12 standards was intended to extend ELA lessons throughout the entire school building and to "facilitate a comprehensive school-wide literacy program" (Marzano, et. al. 2013). While the CCSS were written with the "fewer, clearer, higher" philosophy in mind, these internationally benchmarked standards left teachers wondering how they would ensure that the students in their classrooms would be successful with the new grade-level standard expectations. At-risk students were already behind with the old standard evaluation systems across the country, and now with the higher-level learning expectations, they seemed to be at another disadvantage. Surely, at-risk students will benefit from the way the current ELA CCSS are written in regards to schools focusing on building and/or enhancing school-wide literacy programs.

Organization of the ELA CCSS

Figure 1 - Adapted from Marzano et al. (2013)



Research has also shown that technology integration is suitable across the educational plane and therefore can be a tool used to help struggling learners. There are many programs available to help students with ELA deficits; however, educators and parents must remember that these programs partner with classroom lessons, and are not to take the place of the teacher in the classroom or at home. Programs such as Noodleverse Learning for students in kindergarten through third grade help students develop skills in multiple areas of deficiency such as spelling, phonics, writing, comprehension, and vocabulary. This program allows students to review and practice various skills needed to become successful ELA learners. Read 180 focuses on helping students in fourth through twelfth grade. Read 180 follows a foundational, strategic and disciplinary reading strategy which employs adaptive technology that allows at-risk students to begin learning where they are and continue learner at their own pace. The program also supplies students with varied reading texts, and helps teachers with differentiated learning lessons. All of these areas intertwine with each other. Therefore when an at-risk student uses this program, he/she becomes more successful in the ELA area.

Professional Development

Meeting the needs of a diverse student population, teacher preparation will require systematic changes from the traditional approach (Wade, Bohac & Platt, 2013). As stated by Frazier (2012), it is easy for teachers to assume that the way they have been teaching for years is perfectly acceptable. However, with the implementation of the Common Core State Standards, educators should expect to adjust their teaching methods to meet the needs of students and show student knowledge growth assessing the CCCS through the state testing system. The technology coordinator will need to initiate the process of professional development for teachers using hardware and software in their classrooms to engage all students in the learning process.

Changing the way teachers teach and use materials will require buy-in from the teachers and administrators, along with providing adequate resources for teachers to learn about proper technology implementation. Because this plan focuses on some specific software programs, it is encouraged that the district seeks out professional development opportunities provided by some of those vendors. For example, works with school districts to customize on-going learning opportunities for teachers (Scholastic, 2015). Haslam, White, and Klinge (2006) reported a statistically significant effect of READ 180 on the Texas Assessment of Knowledge and Skills Reading Test. White, Haslam, & Hewes (2006) reported similar results in Phoenix. They also work side-by-side with educators introducing them to the program, differentiating lessons, and providing them with the opportunity to dive into the teacher resources available not only through the Read 180 program, but also other resources available by Scholastic. While companies will offer professional learning opportunities for districts that purchase their products, the majority of professional development will take place at the school level.

There are four recommended phases to technology professional development creation. Phase 1- Establishing needs and creating a plan for professional development implementation (allows for a base-line knowledge assessment of current teacher technology skills); Phase 2: Professional Development Workshops (allows for teachers to explore the new technology); Phase 3: On-going reflections and support (allows for teachers to reflect on uses of technology along with continual planning/adjustments to implementation to enhance learning); and Phase 4: Reflective discussion (allows teachers to acknowledge their adjustments to teaching with technology) (Chikasanda, Otrel-Cass, Williams, & Jones, 2013). Overall, professional development should allow for teachers to use technology as a natural part of the curriculum

(Frazier, 2012). It is the district and school building's responsibilities to make sure all teachers are receiving proper professional development to ensure successful technology implementation.

Technology Action Plan Chart

The following Action Plan chart provides an in-depth look at the goals, objectives and action steps needed to successfully implement software and hardware technology that will be used to enhance student learning for English Language Arts.

Action Plan							
School:		**Principal:**				**Date Submitted**:	
Section A –Describe your goal, target audience, and identify which need(s) the goal addresses. (Refer to prior data analysis regarding needs)							
Goal #1		Ensure that students are able to comprehend and critique information as they use technology and digital media strategically and capably through teacher coaching and modeling for grades 4-6.					
Target Audience		Students in general education, English Language Learners and students with special needs					
Identified Needs		This goal aligns with the following CCSS for English Language Arts for grades 4-6: CCSS.ELA-LITERACY.CCRAR.4: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone. CCSS.ELA-LITERACY.CCRAR.5: Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole. CCSS.ELA-LITERACY.CCRAR.6: Assess how point of view or purpose shapes the content and style of a text.					
Outcomes/Objectives **Section B-** **The outcomes must be measureable and directly aligned to Goal. <u>This outcome/objective must be one of your technology related outcomes/objectives from Project #4 for this Goal</u>**	**ACTION STEPS** – Section C – Descriptively list the action to ensure progress toward your goal. Action steps are strategies and interventions which should be research-based where possible and may *include professional development, technology, communication, and parent and community involvement initiatives within the action steps.* *(Use as many steps as you need for each Outcome)*	**IMPLEMENTATION INFORMATION** Section D– For each of the Action Steps you list, give timeline, person(s) responsible (for management, coordination and monitoring), required resources (infrastructure- services, physical and human resources), projected cost(s)/funding sources, evaluation data source with identified instrument/methodology, and principal strategies and responsibilities. (For Evaluation Strategy, define how you will evaluate the action step.)					
		Timeline (begin-end date for each step)	Person Responsible for coordination and reporting – point person	Required Resources (People, technology, furniture, etc.)	Estimated Projected Cost(s) and Funding Sources	Evaluation Data Source and Instruments used	Principal's Strategies and Responsibilities to insure success for each step
Outcome/Objective #1- IN THIS BOX - this outcome is only related to Goal 1	Technology Coordinator and the members of the technology committee will purchase **Read 180 Next Generation program** grade-wide license for grades 4-6	August 2016	Technology Coordinator	60 laptop computers and two computer carts	Read 180 Next Generation grade-wide license (unlimited teachers per student) $2000 Total for grades	Tech Coordinator and committee consulted published research about the	TC will insure that the IT staff has connected the computers to the district's network and installed all the necessary software

					4-6 = $6000 30 laptop computer at $300 each. Total = $9000 Two laptop carts at $2000 each. Total = $4000 For Special Education: 20 tablets $500 each Total = $10000 Tablet cart for $900 **Grand Total = $29900** Funding will derive from district's technology budget, E-rate discounts and Technology grants http://www.edutopia.org/grants-and-resources	effectiveness of such programs. They also consulted with other districts utilizing the program for similar goals.	
	Provide professional development training for English teachers for grade 4-6	September, 2016 (during in-service days)	Professional training by Read 180 Next Generation representatives provided as a complementary with the purchase of the program	2 computer labs in the Middle School	n/a	Questions and observation during the training and teacher's feedback questionnaires	TC and Department Supervisor will insure attendance and visit the training site. Then evaluate teachers' feedback on the training and the program in general.
	Develop lesson plans that incorporate Read 180 Next Generation utilizing the program's embedded text-based comprehension questions that help students build higher order thinking. ELL teachers will incorporate the program's	September-October 2016	Department Supervisor and teaching staff	Department meeting, teachers planning time and PLC meetings	n/a	Instructional materials created by teachers that show alignment of Read 180 Next Generation program with	Instructional material will incorporate Read 180 Next Generation in a way that will not overwhelm students or distract them with the new technology but help increase their engagement and

	grammar practice and oral summaries to enhance listening and speaking skills of ELL students. Special Education teachers will utilize the program's App on tablets that uses touch screen technology for the speech impaired.					the instruction objectives.	comprehension. The strategy emphasized in this objective is to make sure that technology use is aligned with the lesson objectives and formative assessment strategies are used.
	Implement instruction that incorporate Read 180 Next Generation program	November 2016 - April 2017	English language Arts teachers in grades 4-6	Library computer lab and shared laptop carts	n/a	Students benchmark exams and performance portfolios	The principal and the Dept. Supervisor will evaluate instruction material and give feedback to teachers and examine effectiveness via students' achievement data.
	Provide on-going PD in forms of Lunch & Learn opportunities or after school workshops to address any gaps in utilizing the program to its full potential, and share best practices. Teachers will earn PD hours for those times.	November 2016 - April 2017	School Library Media Specialist, TC and English staff members	Library computer lab	n/a	Teachers feedback questionnaires and comments	Sharing best practices and address gaps in utilization of the program will encourage teachers to use it and feel comfortable with it especially those who are hesitant to incorporate technology.
	Evaluate the program and its effectiveness in attaining the learning goal and modify instructional materials for various groups	Summer 2017	English Language Arts teachers and Department Supervisor	Library computer lab	Stipend for teachers coming to summer meetings and helping with modifying the instructional materials. $25/hour x10 hours= $250/teacher	Modified instructional materials and evidence of effectiveness	The principal and Dept. Supervisor will acknowledge staff members who worked to evaluate the program and ensure compensation for their time

Action Plan

School:	**Principal:**	**Date Submitted**:

Section A –Describe your goal, target audience, and identify which need(s) the goal addresses. (Refer to prior data analysis regarding needs)

Goal #2	Improve students reading and literacy levels by 2% for at-risk students and help them to utilize visualization as a powerful bridge between experience and abstraction for grades 7-9.
Target Audience	At-risk students and Students with special needs
Identified Needs	This goal aligns with the following CCSS for English Language Arts for grades 7-9: CCSS.ELA-LITERACY.CCRAR.7: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively as well as words. CCSS.ELA-LITERACY.CCRAR.8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. CCSS.ELA-LITERACY.CCRAR.9: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Outcomes/Objectives **Section B-** **The outcomes must be measureable and directly aligned to Goal. <u>This outcome/objective must be one of your technology related outcomes/objectives from Project #4 for this Goal</u>**	**ACTION STEPS** – Section C – Descriptively list the action to ensure progress toward your goal. Action steps are strategies and interventions which should be research-based where possible and may *include professional development, technology, communication, and parent and community involvement initiatives within the action steps.* *(Use as many steps as you need for each Outcome)*	**IMPLEMENTATION INFORMATION** Section D– For each of the Action Steps you list, give timeline, person(s) responsible (for management, coordination and monitoring), required resources (infrastructure- services, physical and human resources), projected cost(s)/funding sources, evaluation data source with identified instrument/methodology, and principal strategies and responsibilities. (For Evaluation Strategy, define how you will evaluate the action step.)					
		Timeline (begin-end date for each step)	Person Responsible for coordination and reporting	Required Resources (People, technology, furniture, etc.)	Estimated Projected Cost(s) & Funding Sources	Evaluation Data Source and Instruments used	Principal Strategies and Responsibilities to insure success
Outcome/Objective #1- IN THIS BOX – this outcome is only related to Goal 2	Technology Coordinator and the members of the technology committee will purchase **BrainPOP**, **Digital Media and Graphic Organizers** grade-wide license for grades 7-9 Software for purchase will include Voice Thread and Sounding Board.	August 2016	Technology Coordinator	Library computer lab and shared laptop carts Electronic translators, dictionaries and encyclopedias.	$18/student x 200 students = $3600 Funding will derive from district's technology budget, E-rate discounts and Technology grants http://www.edutopia.org/grants-and-resources	Tech Coordinator and committee consulted published research about the effectiveness of such programs. They also consulted with other districts utilizing the program for similar goals	TC will insure that the tech staff has installed all the necessary software on the computers in the library lab and the laptop carts.

	Provide professional development training for SE English teachers, Media Specialists and support teachers for grade 7-9	September, 2016 (during in-service days)	Professional training by BrainPOP representatives provided as a complementary with the purchase of the program	4 computer labs in the High School	n/a	Questions and observation during the training and teacher's feedback questionnaires	TC and Department Supervisor will insure attendance and visit the training site. Then evaluate teachers' feedback on the training and the program in general.
	Develop lesson plans that incorporate BrainPOP utilizing the program's short videos and games to engage SE and at-risk students. Teachers will incorporate the program's tests and interactive worksheets to evaluate understanding. These test can be modified to accommodate students with special needs. Special Education teachers will utilize the program's App on tablets that uses touch screen technology for the speech impaired.	September-October 2016	Department Supervisor and teaching staff	Department meeting, teachers planning time and PLC meetings	n/a	Instructional materials created by teachers that show alignment of BrainPOP program with the instruction objectives.	Instructional material will incorporate BrainPOP program in a way that will engage students and not make them passive recipients of the new technology, but help increase their involvement and comprehension. The strategy emphasized in this objective is to make sure that technology use is aligned with the lesson objectives and formative assessment strategies are used.
	Implement instruction that incorporate BrainPOP videos, games and online/offline worksheets	November 2016 - April 2017	Special Education English teachers, Media Specialists and support teachers in grades 7-9	Library computer lab and shared laptop carts	n/a	Students benchmark exams and performance portfolios	The principal and the Dept. Supervisor will evaluate instruction material and give feedback to teachers and examine effectiveness via students achievement data
	Provide on-going PD in forms of Lunch & Learn opportunities or after school workshops to address any gaps in utilizing the program to its full potential, and share best practices. Teachers will earn PD hours for those times.	November 2016 - April 2017	School Library Media Specialist and TC and English staff members	Library computer lab	n/a	Teachers feedback questionnaires and comments	Sharing best practices and address gaps in utilizing the program will encourage teachers to use it and feel comfortable with it especially those who are apprehensive about using technology.

	Evaluate the program and its effectiveness in achieving the designated learning goal and modify instructional materials for targeted groups	Summer 2017	Special Education English teachers, Support teachers for grades 7-9. Media Specialists and Department Supervisor	Library computer lab	Stipend for teachers coming to summer meetings and helping with modifying the instructional materials. $25/hour x10 hours= $250	Modified instructional materials and evidence of effectiveness	The principal and Dept. Supervisor will acknowledge staff members who worked to evaluate the program and ensure compensation for their time.

Action Plan

School:	**Principal:**	**Date Submitted**:

Section A –Describe your goal, target audience, and identify which need(s) the goal addresses. (Refer to prior data analysis regarding needs)

Goal #3	Center the curriculum, using technology to promote project-based learning initiatives for grades 10-12 (ELL, at-risk, general and special-needs) that parallel those faced by adults in real-world settings
Target Audience	All students in grades 10-12 in English Language Arts classes.
Identified Needs	The Common Core State Standards prepare students to become college and career ready when they graduate from high school. By providing students with project –based learning initiatives we are preparing them for the next step. Standard CCSS.ELA-LITERACY.CCRAL.3, Knowledge of Language, will prepare the students to function in a different context when it comes to working on projects they are not familiar with.

Outcomes/Objectives **Section B-** **The outcomes must be measureable and directly aligned to Goal. <u>This outcome/objective must be one of your technology related outcomes/objectives from Project #4 for this Goal</u>**	**ACTION STEPS** – Section C – Descriptively list the action to ensure progress toward your goal. Action steps are strategies and interventions which should be research-based where possible and may *include professional development, technology, communication, and parent and community involvement initiatives within the action steps.* *(Use as many steps as you need for each Outcome)*	**IMPLEMENTATION INFORMATION** Section D– For each of the Action Steps you list, give timeline, person(s) responsible (for management, coordination and monitoring), required resources (infrastructure- services, physical and human resources),projected cost(s)/funding sources, evaluation data source with identified instrument/methodology, and principal strategies and responsibilities. (For Evaluation Strategy, define how you will evaluate the action step.)					
		Timeline (begin-end date for each step)	Person Responsible for coordination and reporting – point person	Required Resources (People, technology, furniture, etc.)	Estimated Projected Cost(s) and Funding Sources	Evaluation Data Source and Instruments used	Principal's Strategies and Responsibilities to insure success for each step
Outcome/Objective #1- IN THIS BOX - this outcome is only related to Goal 3	Technology Coordinator and the members of the committee will purchase 2 computer carts of 30 laptops for classroom use along with 20 iPads	August 2016	Technology Coordinator	2 computer carts of 30 laptops for classroom use along with 20 iPads	60 computers @ $300 each 2 carts @ $2,000 each 20 iPads @$500 each 1 iPad cart @ $900 each Total cost: $32,900 Funding will	Invoices Paid Purchase Orders	TC will insure that the IT staff has connected the computers to the district's network and installed all the necessary software

					derive from district's technology budget, E-rate discounts and Technology grants http://www.edutopia.org/grants-and-resources		
	Provide Professional Development for English teachers grades 10-12 on Problem Based Learning	September 2016 (during in-service days)	English Department Supervisor	Interactive Whiteboard, Projector, Conference Room	n/a	Questions and observation during the training and teacher's feedback questionnaires	Provide time for teachers and supervisor to continue working together throughout the start of the year on an as needed basis. Evaluation of teacher survey
	Curriculum planning time	September – October 2016	English Department Supervisor and English Teachers	Conference Room	n/a	Lesson Plans, Curriculum Maps	Provide release time from non-instructional duties and meetings to allow for planning of Problem Based Learning into the classroom
	Implementation of Problem Based Learning Tasks for all students along with modified assignments for Special Education and ELL students.	October 2016 – April 2017	Grade 10-12 English Teachers, Special Education Teachers and ELL Teachers	Classrooms, Computer Carts, Tablet Carts	n/a	Instructional materials created by teachers that show alignment to instruction objectives and student performance portfolios	The principal and the Dept. Supervisor will evaluate instruction material and give feedback to teachers and examine effectiveness via student's achievement data.
	Review of current curriculum and guidelines to help with future implementation of Problem Based Learning tasks	Summer 2017	English Department Supervisor, Teachers	Computers for teachers to update documents	Stipend for teachers coming to summer meetings and helping with modifying the instructional materials. $25/hour x10	Modified instructional materials and evidence of effectiveness	The principal and Dept. Supervisor will acknowledge staff members who worked to evaluate the program and ensure compensation for their time

					hours= $250/teacher		

Action Plan

School:	**Principal:**	**Date Submitted**:

Section A –Describe your goal, target audience, and identify which need(s) the goal addresses. (Refer to prior data analysis regarding needs)

Goal #4	Student preparation for online testing and college-career readiness (grades 9 -12+) for all students.
Target Audience	Students in general education and English Language Learners
Identified Needs	This goal aligns with CCSS Anchor Standards for College and Career Readiness for Reading, Writing, Speaking and Listening and for Language http://www.corestandards.org/ELA-Literacy/CCRA/R/#CCSS.ELA-Literacy.CCRA.R.4

Outcomes/Objectives **Section B-** **The outcomes must be measureable and directly aligned to Goal. <u>This outcome/objective must be one of your technology related outcomes/objectives from Project #4 for this Goal</u>**	**ACTION STEPS** – Section C – Descriptively list the action to ensure progress toward your goal. Action steps are strategies and interventions which should be research-based where possible and may *include professional development, technology, communication, and parent and community involvement initiatives within the action steps.*(*Use as many steps as you need for each Outcome)*	**IMPLEMENTATION INFORMATION** Section D– For each of the Action Steps you list, give timeline, person(s) responsible (for management, coordination and monitoring), required resources (infrastructure- services, physical and human resources), projected cost(s)/funding sources, evaluation data source with identified instrument/methodology, and principal strategies and responsibilities. (For Evaluation Strategy, define how you will evaluate the action step.)					
		Timeline (begin-end date for each step)	Person Responsible for coordination and reporting – point person	Required Resources (People, technology, furniture, etc.)	Estimated Projected Cost(s) and Funding Sources	Evaluation Data Source and Instruments used	Principal's Strategies and Responsibilities to insure success for each step
Outcome/Objective #1- IN THIS BOX - this outcome is only related to Goal 4	Technology Coordinator and the members of the technology committee will purchase a subscription to Gale Database Testing & Education Reference Center for grades 7-12 with home access. Media Specialist will prepare student and teacher handouts.	August 2016	Technology Coordinator	Library computer lab and home personal computers	$1500 per school. District will need access for High School. **Total: $1500** Funding will derive from district's technology budget, E-rate discounts and Technology grants http://www.edutopia.org/grants-and-resources	Tech Coordinator and committee consulted published research about the effectiveness of such programs. They also consulted with other districts utilizing the program for similar goals	TC will insure that the IT staff has installed all the necessary software on the computers in the library lab and contacted vendor's IT Dept. to ensure access from home via the school website.
	Introduction of the database to grades 9- 12 classes and their teachers during library orientation classes. Students will create their	September-October 2016	School Library Media Specialist	Library computer lab and individual classes using laptop carts	Copy machine to produce copies of handouts.	Questions and observation during orientation classes	School Library Media Specialist will make sure that students have created accounts and can access various

	accounts during class. A teacher handout detailing how to create accounts and access student progress reports. A handout for students will also be given with instructions on how to access various tests and the eBook guide. Both handouts will be available electronically on individual teacher's website on Homeworknow.com and a copy will be sent home.						tests and study guides.
	Teachers will incorporate the database in their lesson plans utilizing features like Resume Builder and Virtual Career Library that feature two- and four-year institutions across US. Teachers will direct their student to practice tests such as AP subject tests, SAT, ACT TOEFL and US Citizenship for ELLs.	November 2016 – April 2017	English Language Arts, AP and ELL teachers and School Library Media Specialist	Library computer lab and shared laptop carts	n/a	Instructional materials created by teachers that show the incorporation of Testing and Education Reference Center Database aligned with the instruction objectives.	Promoting the Database in the school newsletter and send a letter home to the parents will encourage them to take part in their children's education. School principal will periodically check the usage report of the database and report feedback to teachers.
	Promoting Testing & Education Reference Center to students during study hall at the library and give instructions 1:1 on how to access various features and utilize online diagnostic and practice tests and personalized study plans.	November 2016 – April 2017	School Library Media Specialist	Library Computer lab	n/a	Database usage reports and AP students' benchmark exams.	Working with students 1:1 to promote the usage of database reinforce instructions by classroom teachers and give students especially ELLs the opportunity to understand the program and the various ways to utilize it to enhance learning
	Evaluate the database usage and its effectiveness in achieving the designated learning goal and modify instruction for targeted groups. Compare student's scores on SAT, ACT and AP exams to the previous	Summer 2017	English Language Arts, AP and ELL teachers and School Library Media Specialist	Library Computer lab	Stipend for teachers who attend summer meetings and helping with modifying the instructional materials.	Students SAT, ACT and AP scores that show growth from previous year.	The principal and Dept. Supervisor will acknowledge staff members who worked to evaluate the program and ensure compensation for their time.

	year to check for growth.				$25/hour x10 hours= $250/teacher		

Action Plan

School:	**Principal:**	**Date Submitted**:

Section A –Describe your goal, target audience, and identify which need(s) the goal addresses. (Refer to prior data analysis regarding needs)

Goal #5	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the texts as the basis for answers (K-3).
Target Audience	All students in grades K-3.
Identified Needs	Being able to demonstrate that a student understands what they are reading and then formulate questions in response to what was read is critical in their development in English Language Arts. The development of the student from grades K-3 will meet the CCSS.ELA-LITERACY.RLK.1, CCSS.ELA-LITERACY.RL1.1, CCSS.ELA-LITERACY.RL2.1, and CCSS.ELA-LITERACY.RL3.1 standards for Key Ideas and Details.

Outcomes/Objectives **Section B-** **The outcomes must be measureable and directly aligned to Goal. <u>This outcome/objective must be one of your technology related outcomes/objectives from Project #4 for this Goal</u>**	**ACTION STEPS** – Section C – Descriptively list the action to ensure progress toward your goal. Action steps are strategies and interventions which should be research-based where possible and may *include professional development, technology, communication, and parent and community involvement initiatives within the action steps.* *(Use as many steps as you need for each Outcome)*	**IMPLEMENTATION INFORMATION** Section D– For each of the Action Steps you list, give timeline, person(s) responsible (for management, coordination and monitoring), required resources (infrastructure- services, physical and human resources),projected cost(s)/funding sources, evaluation data source with identified instrument/methodology, and principal strategies and responsibilities. (For Evaluation Strategy, define how you will evaluate the action step.)					
		Timeline (begin-end date for each step)	Person Responsible for coordination and reporting	Required Resources (People, technology, furniture, etc.)	Estimated Projected Cost(s) & Funding Sources	Evaluation Data Source and Instruments used	Principal Strategies and Responsibilities to insure success
Outcome/Objective #1- IN THIS BOX – this outcome is only related to Goal 5	Technology Coordinator and the members of the committee will purchase 2 computer carts of 30 laptops for classroom use along with 20 iPads	August 2016	Technology Coordinator	n/a	60 computers @ $300 each 2 carts @ $2,000 each 20 iPads @$500 each 1 iPad cart @ $900 each Total cost: $32,900 Funding will derive from district's	Invoices Paid Purchase Orders	TC will insure that the IT staff has connected the computers to the district's network and installed all the necessary software

					technology budget, E-rate discounts and Technology grants http://www.edutopia.org/grants-and-resources		
	Training for K-3 teachers on Noodleverse	September 2016 (during in-service days)	Professional training by Noodleverse representatives provided as a complementary with the purchase of the program	Computer Lab	n/a	Questions and observation during the training and teacher's feedback questionnaires	TC and Department Supervisor will insure attendance and visit the training site. Then evaluate teachers' feedback on the training and the program in general.
	Develop lesson plans that incorporate Noodleverse utilizing reading and comprehension skills	September – October 2016	Department Supervisor and K-3 Teachers	Department meeting, teachers planning time and PLC meetings	n/a	Instructional materials created by teachers that show alignment of Noodleverse program with the instruction objectives.	Instructional material will incorporate Noodleverse program in a way that will engage students and not make them passive recipients of the new technology, but help increase their involvement and comprehension.
	Provide on-going PD in forms of Lunch & Learn opportunities or after school workshops to address any gaps in utilizing the program to its full potential, and share best practices. Teachers will earn PD hours for those times.	November 2016 – April 2017	English Department Supervisor, Technology Coordinator, and teaching staff	Classrooms, Conference Room	n/a	Teacher feedback questionnaires and comments	Sharing best practices and address gaps in utilizing the program will encourage teachers to use it and feel comfortable with it especially those who are apprehensive about using technology.
	Training for K-3 teachers, Special Education Teachers, and Child Study Team Members on Raz-Kids	September 2016 (during in-service days)	Professional training by Raz-Kids representatives provided as a complementary with the purchase of the program	Classroom with iPads available for Special Education students	n/a	Questions and observation during the training and teacher's feedback questionnaires	TC and Department Supervisor will insure attendance and visit the training site. Then evaluate teachers' feedback on the training and the program in general.

	Implementation of Raz-Kids for Special Education and ELL students who struggle with reading comprehension	September 2016 – June 2017	Special Education and ESL teachers	Classroom with iPads available for Special Education students	n/a	Teacher feedback questionnaires and comments	Sharing best practices and address gaps in utilizing the program will encourage teachers to use it and feel comfortable with it especially those who are apprehensive about using technology.
	Evaluate the program and its effectiveness in achieving the designated learning goal and modify instructional materials for targeted groups	Summer 2017	Special Education English teachers, Support teachers for grades 7-9. Media Specialists and Department Supervisor	Library computer lab	Stipend for teachers coming to summer meetings and helping with modifying the instructional materials. $25/hour x10 hours= $250	Modified instructional materials and evidence of effectiveness	The principal and Dept. Supervisor will acknowledge staff members who worked to evaluate the program and ensure compensation for their time.

Action Plan

School:	**Principal:**	**Date Submitted**:

Section A –Describe your goal, target audience, and identify which need(s) the goal addresses. (Refer to prior data analysis regarding needs)

Goal #6	Students at all grade levels will reduce spelling errors and increase their awareness of the existence of their errors when preparing text using word processors.
Target Audience	All students in grades K-12 in English Language Arts classes.
Identified Needs	Students will work on developing their foundational skills as outlined in the Common Core State Standards. Being able to recognize and eliminate spelling errors is important to their development.

Outcomes/Objectives **Section B-** **The outcomes must be measureable and directly aligned to Goal. <u>This outcome/objective must be one of your technology related outcomes/objectives from Project #4 for this Goal</u>**	**ACTION STEPS** – Section C – Descriptively list the action to ensure progress toward your goal. Action steps are strategies and interventions which should be research-based where possible and may *include professional development, technology, communication, and parent and community involvement initiatives within the action steps.* *(Use as many steps as you need for each Outcome)*	**IMPLEMENTATION INFORMATION** Section D– For each of the Action Steps you list, give timeline, person(s) responsible (for management, coordination and monitoring), required resources (infrastructure- services, physical and human resources),projected cost(s)/funding sources, evaluation data source with identified instrument/methodology, and principal strategies and responsibilities. (For Evaluation Strategy, define how you will evaluate the action step.)					
		Timeline (begin-end date for each step)	Person Responsible for coordination and reporting	Required Resources (People, technology, furniture, etc.)	Estimated Projected Cost(s) & Funding Sources	Evaluation Data Source and Instruments used	Principal Strategies and Responsibilities to insure success
Outcome/Objective #1- IN THIS BOX – this outcome is only related to Goal 6	Technology Coordinator and the members of the committee will purchase 2 computer carts of 30 laptops for classroom use along with 20 iPads	August 2016	Technology Coordinator	2 computer carts of 30 laptops for classroom use along with 20 iPads	60 computers @ $300 each 2 carts @ $2,000 each 20 iPads @$500 each 1 iPad cart @ $900 each Total cost: $32,900 Funding will derive from district's technology budget, E-rate	Invoices Paid Purchase Orders	TC will insure that the IT staff has connected the computers to the district's network and installed all the necessary software

					discounts and Technology grants http://www.edutopia.org/grants-and-resources		
	Purchase and installation of assistive technology for Special Education and ELL students including Voicethread and JAWS.	August 2016	Technology Coordinator, Special Education Supervisor, Child Study Team	n/a	Voicethread Software Program @ $450 site license JAWS screen reader software @ $1,295 / computer	Invoices Paid Purchase Orders	Principal will coordinate to ensure budget funds are available. Supervisors, Teachers, and Case Managers will be make sure items are available for students to use
	Training of staff on assistive software (Voicethread, JAWS, and screen magnification)	September 2016	Director of Instructional Technology	n/a	Substitute Teachers @$100/day, as needed	Teacher survey on software	Time for teachers to attend PD Session Review of survey results
	Provide on-going PD in forms of Lunch & Learn opportunities or after school workshops to address any gaps in utilizing the program to its full potential, and share best practices. Teachers will earn PD hours for those times.	October 2016 – April 2017	English Department Supervisor, Technology Coordinator, and teaching staff	Classrooms, Conference Room	n/a	Teacher feedback questionnaires and comments	Sharing best practices and address gaps in utilizing the program will encourage teachers to use it and feel comfortable with it especially those who are apprehensive about using technology.
	Training and setup of teacher Google Apps for Education	September 2016	Director of Instructional Technology	n/a	Substitute Teachers @$100/day/sub, as needed	Teacher survey on software	Time for teachers to attend PD Session Review of survey results
	Introduction of Google Apps for Education for students in Grades 6-12.	September 2016	Teachers	n/a	n/a	Student survey on software	Review of survey results
	Incorporate Google Apps for Education into current classes for submission of assignments and reports.	September 2016 – June 2017	Teachers	n/a	n/a	Lesson Plans Student work and assignments completed using Google Apps for	Review of student and teacher work on Google Apps for Education

						Education	
	Evaluate the program and its effectiveness in achieving the designated learning goal and modify instructional materials for targeted groups	Summer 2017	Special Education English teachers, Support teachers for grades 7-9. Media Specialists and Department Supervisor	Library computer lab	Stipend for teachers coming to summer meetings and helping with modifying the instructional materials. $25/hour x10 hours= $250/teacher	Modified instructional materials and evidence of effectiveness	The principal and Dept. Supervisor will acknowledge staff members who worked to evaluate the program and ensure compensation for their time.

References

Ash, K. (2013, February 7). Virtual courses feature gaming to raise interactivity: Virtual education providers want to build greater interactivity. *Education Week, Digital Directions*. Retrieved from http://www.edweek.org/dd/articles/2013/02/06/02games.h06.html

Ball, C. R., Finch, W. H., Gettinger, M. (2014). Classroom-level effects on the reading and behavior of at-risk kindergarteners. *Preventing School Failure, 58*(2), 80-89. doi:10.1080/1045988X.2013.777895

Brozek, E., & Duckworth, D. (2011). Supporting English language learners through technology. *Educator's Voice 4*, 10-15. Retrieved from https://www.nysut.org/~/media/Files/NYSUT/Resources/2011/March/Educators%20Voice%204%20Technology/edvoiceIV_ch2.pdf

Calkins, L. (2012). *Pathways to the Common Core: Accelerating achievement*. Portsmouth, NH: Heinemann.

Chikasanda, V., Otrel-Cass, K., Williams, J., & Jones, A. (2013). Enhancing teachers' technological pedagogical knowledge and practices: A professional development model for technology teachers in Malawi. *International Journal of Technology & Design Education, 23*(3), 597-622. doi:10.1007/s10798-012-9206-8

Common Core State Standards (2010). Common Core State Standards for English language arts & literacy in history/social studies, science and technical subjects. Retrieved from http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf

Common Core State Standards. (n.d). *Application of common core state standards for English language learners.* Retrieved from http://www.corestandards.org/assets/application-for-english-learners.pdf

Dalton, B., & Grisham, D. (2011). EVoc strategies: 10 ways to use technology to build vocabulary. *The Reading Teacher, 64*(5), 306-317.

Darling-Hammond, L., Zielezinski, M. B., & Goldman, S. (2014, September). *Using technology to support at-risk students' learning.* Retrieved from https://edpolicy.stanford.edu/sites/default/files/scope-pub-using-technology-report.pdf

Federicks, A. D. (2005). Teaching students with special needs, In *The complete idiot's guide to success as a teacher*. USA: Alpha Books (pp. 55-58).

Frazier, M. (2012). *The technology coordinator's handbook* (2nd ed.). Eugene, OR: ISTE.

Glenburg, A., Goldberg, A., & Zhu, X. (2011). Improving early reading comprehension using embodied CAI. *Instructional Science, 39*(1), 27-39.

Gordon, D. T. (2000). *The digital classroom: How technology is changing the way we teach and learn.* Cambridge, MA: Harvard College.

Haslam, M. B., White, R. N., & Klinge, A. (2006). *Improving student literacy: READ 180 in the Austin Independent School District, 2004–05.* Washington, DC: Policy Studies Associates.

Hersh, M.A., & Johnson, M. A. (2003). *Assistive technology for the hearing-impaired, deaf, and deaf-blind.* Boston, MA: Springer.

Hurst, M. (2007). *Bit Literacy*. New York, NY: Good Experience, Inc.

Kopp, K. (2015). *Integrating technology into the curriculum* (2nd ed.). Huntington Beach, CA: Shell Education.

Kopp, K. (2013). *Using interactive whiteboards in the classroom*. Huntington Beach, CA: Shell Education.

Kurzweil Educational Systems (2004). *Using technology as a solution for English language learners in higher education.* Retrieved from https://www.kurzweiledu.com/files/kurzweil-3000-ell-higher-ed.pdf

Lafond, S. (2015). *Common core and ELLs: Key shifts in language arts and literacy (part II)*. Retrieved from http://www.colorincolorado.org/article/common-core-and-ells-key-shifts-language-arts-and-literacy-part-ii

Lindberg, J., Flasch Ziegler, M., & Barczyk, L. (2009). *Common-sense classroom management: Techniques for working with students with disabilities.* Thousand Oaks, CA: Corwin Press.

MacArthur, C., Graham, S., & Fitzgerald, J. (2006). *Handbook of writing research*. New York, NY: The Guilford Press.

Maine Learning Innovations (2014). Maine Virtual Academy. Retrieved from http://www.maine.gov/csc/requests/MaineVirtualAcademyApplication.pdf

Marzano, R. J., Yanoski, D. C., Hoegh, J. K., & Simms, J. A. (2013). *Using Common Core Standards to enhance classroom instruction and assessment.* Bloomington, IN: Marzano Research Laboratory.

Morgan, M. (2008). More productive use of technology in the ESL/EFL classroom. *The Internet TESOL Journal 14*(7), Retrieved from http://iteslj.org/Articles/Morgan-Technology.html

Noodleverse (2015). *Noodleverse language arts*. Retrieved from http://www.k12.com/early-learning-programs/noodleverse-language-arts.html

Picciano, A. G. (2011). *Educational leadership and planning technology* (5th ed). Boston, MA: Pearson.

Reiser, R. A., & Dempsey, J. V. (2012). *Trends and issues in instructional design and technology* (3rd ed.). Boston, MA: Pearson.

Roblyer, M. D., & Doering, A. H. (2013). *Integrating educational technology into teaching* (6th ed). Upper Saddle River, NJ: Pearson.

Scholastic. (2015). *Read 180: Professional learning.* Retrieved from http://www.scholastic.com/read180/professional-learning/comprehensive-support.htm

Schwab Foundation for Learning (2000). Assistive technology for children with learning difficulties. In *Bridges to Reading* (2nd ed). San Mateo, CA: Schwab Foundation for Learning.

Silver, H. F. (2012). *The core six: Essential strategies for achieving excellence with the common core.* Alexandria, VA: ASCD.

Sweeney, S. (2010). Writing for the instant messaging and text messaging generation: Using new literacies to support writing instruction. *Journal of Adolescent and Adult Literacy, 54*(2), 121-130.

Taylor, R., Watson, R., & Nutta, J. (2014). *Leading, teaching and learning the Common Core Standards: Rigorous expectations for all students.* New York, NY: Rowman & Littlefield.

Wade, W., Bohac, P., & Platt, J. S. (2013). Technology-based induction: Professional development strategies for correctional education. *Journal of Correctional Education, 64*(3), 22-36.

White, R. N., Haslam, M. B., & Hewes, G. M. (2006). *Improving student literacy: READ 180 in the Phoenix Union High School District, 2003–04 and 2004–05.* Washington, DC: Policy Studies Associates.

Wiske, M. S. (2005). *Teaching for understanding with technology*. San Francisco, CA: John Wiley & Sons.

Zorigan, K., & Job, J. (2010). How do special education students benefit from technology? *UNC School of Education, Learn NC*. Retrieved from http://www.learnnc.org/lp/pages/6917?ref=search