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Effective professional development for elementary teachers: Integrating technology into the literacy curriculum, instruction, and assessment

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EFFECTIVE PROFESSIONAL DEVELOPMENT FOR ELEMENTARY TEACHERS: INTEGRATING TECHNOLOGY INTO THE LITERACY CURRICULUM, INSTRUCTION, AND ASSESSMENT

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ABSTRACT

Our 21st century children live in a digital media culture. Thus, our schools must be equipped with teachers who have the knowledge and skills to teach 21st century children. In this research project first the author explains the reality and need for improved technology integration in literacy and for high-quality professional development for teachers. Next, ten studies and models are closely examined to search for recurring themes for effective professional development. Additional articles are researched to find successful ways to implement technology into literacy. Finally, the key findings are fused together to creatively craft an effective professional development model for elementary teachers that focuses on the implementation of technology integration into the literacy curriculum, instruction, and assessment.

Key words: literacy, technology integration, elementary, professional development

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INTRODUCTION

Today's children live in a continuously, societal and informational changing era that requires them to be competent, literate citizens. They are faced with the challenge to meet high standards and acquire technical career readiness skills. Society, education, and technology are constantly influencing and transforming each other. Together they determine the characteristics, knowledge, and skills that students need for present jobs and future jobs that have not been conceptualized yet. Educators and the government have an obligation to provide students an education that will prepare them to succeed locally, nationally, and globally.

Basic technical skills and the 3 R's (reading, writing, and arithmetic) are insufficient according to Dugger, Meade, Delany, and Nicholas (2003) and Tim Magner (2011), who is the executive director of the Partnership for 21st Century Skills. Magner proclaims that higher-leveled technology skills and the 4 C's (critical thinking, communication, collaboration, and creativity) need to be fused with the 3 R's. Today's businesses are requiring more than a typed word document. Businesses are expecting their employees to be digitally literate, meaning they need their employers to quickly sort through vast information, specifically define and solve problems, and communicate effectively to an audience using a multimedia presentation (Gordon, 2011).

Currently, schools are not meeting students' digital and educational needs (McLeod, 2010). Many concerns have been raised that teachers are not integrating technology, nor are they prepared to do so effectively (Polly, Mims, Shepherd, & Inan, 2009). According to a 2009(a) national survey of public schools conducted by the

National Center for Education Statistics (NCES) (US Department of Education), 60 percent of teachers reported that they or their students sometimes, rarely, or never used computers during instructional time throughout the school year. Forty percent reported that they often used computers during instructional time. The survey did not clearly indicate the percentage of technology usage for student practice or project productivity. It did, however, state the number of hours teachers spent in professional development for educational technology during a 12-month period. Thirteen percent reported zero hours of professional development, 53 percent for 1 to 8 hours, 18 percent for 9 to 16 hours, 9 percent for 17 to 32 hours, and 7 percent for 33 or more hours. The time spent on educational technology in professional development is meager, and consequently, is not meeting our teachers and students' educational needs.

Time is not the only barrier to effective staff development and technology integration (Hew & Brush, 2007). Many researchers claim lack of resources such as access to technology, technology hardware and software, and technical support are additional barriers to teacher and student learning (Clark, 2006; Norris et al., 2003, as cited by Kopcha, 2010; Varma et al., 2008, as cited by Parker, 2010; Bauer & Kenton, 2005). Hew and Brush (2007) found challenges with teachers lacking technology knowledge and skills. According to Schrum, Galizio, and Ledesme's (2011) irrefutable evidence, lack of administration involvement or strong leadership is a restrictive barrier for advancing forward with literacy and technology. These studies and results imply that technology integration in schools is not occurring at a rigorous rate and teachers are not being trained adequately and substantively to successfully implement technology into their classrooms.

A Technology Perspective

According to a collaborative report written by the State Educational Technology Directors Association (SETDA), International Society for Technology in Education (ISTE), and Partnership of the 21st Century Skills (www.setda.org) entitled *Maximizing the Impact* (n.d.), it is imperative for our schools and nation to have a clear vision of technology's role in education, reliable access to technology, commensurable and effective professional development, and exceptional leadership. Several organizations and studies have shown evidence of student achievement in literacy with the use of technology (Arora, 2010; Brown, 2007; International Society for Technology Education [ISTE], 2010; Lei and Zhao, 2007; Machin et al., 2007). This evidence raises the question, why is technology not being integrated into literacy more routinely. Often schools make substantial purchases in technology without having a long-term vision (Gordon, 2011) of when and how to train their staff. This leads to technology underusage due to lack of knowledge and self-efficacy. What research is discovering is that self-motivated teachers act upon themselves to independently learn the technologies (Gordon, 2011). In fact, 78 percent of teachers considered themselves as autodidacts when utilizing educational technology effectively during instruction (U.S. Department of Education, 2010a). However, not all teachers are self-motivated or have the additional time outside of contract hours to invest in learning new digital tools and integrations. When some teachers are utilizing technology and some are not, this creates gaps and diverse levels of students' learning and skills (U.S. Department of Education, 2010b; Hew & Brush, 2007). For example, in a technology-rich classroom you might find a student writing and designing an animated storybook, another student listening, viewing, and interacting with

phonics and language games on the computer, and another student reading background information on robotics on the computer and creating a program to operate a robot. In a classroom where no technology is used you might find a student writing in a notebook, another student matching picture cards to letters, and another student reading an informational book. In technology-rich classrooms students have an opportunity to challenge their thinking, to use a variety of different learning styles due to the multisensory integration in technology, and to receive instant feedback from interactive games. In classrooms and schools that lack technology-rich opportunities, students are unable to practice basic and advanced technology skills on a daily or weekly basis. Consequently, this causes gaps in students' technology skills when compared to their peers in technology-rich classrooms. Schools can remedy this variance in learning with technology by taking the initiative to adequately teach their staff and exhibit high expectations for teachers to integrate technology into their classrooms.

A Literacy Perspective

Leading professional development directors and literacy leaders, such as former International Reading Association (IRA) President Timothy Shanahan (IRA, 2007), attest that one of the main focuses of staff development should be literacy. With some minor exceptions, all subjects revolve around literacy. Literacy establishes the foundational knowledge for extensive learning (Askew, 1991). When teachers teach students to use literacy strategies and tools, they provide students the foundational knowledge of print and patterns in text (Clay, 1993; Fountas & Pinnell, 1996). The foundational knowledge empowers students by building their self-efficacy, becoming independent readers and

writers, and allowing them to read new knowledge in cross-curricular areas (Allington & Cunningham, 1996; Bergeron & Bradbury-Wolff, 2002).

Foundational literacy skills, such as comprehending text and writing a complete thought, permit students to function at many levels; however, additional literacy skills, known as new literacies and multiliteracies, have evolved from technological advances (Anstey & Bull, 2006). According to Anstey & Bull, the multiliteracies emerged from online reading and encompass print text, electronic text, live text, oral language, and written contexts. Through the past decade society has been shifting from print to online reading, and the new literacies, such as skimming, browsing, blogging, and recording of podcasts, have been manifesting (Anstey & Bull, 2006). In the last few years society's shift has transferred rapidly, but statistics show schools are not shifting as quickly (U.S. Department of Education, 2010a).

A Professional Development Perspective

Teachers are instrumental in school reformation and student academic achievement (American Educational Research Association [AERA], 2005). Hence, staff development is key to education reformation (Martin, Strother, Beglau, Bates, Reitzes, & Culp, 2010). According to the AERA (2005), "Good teachers form the foundation of good schools, and improving teachers' skills and knowledge is one of the most important investments of time and money that local, state, and national leaders make in education" (p. 1). Educating our teachers plays an important role for schools to stay abreast of revolutionary teaching and technology advancements. Proponents proclaim that staff development needs to be rigorous, relevant, and hold teachers accountable for their learning and teaching (National Council Staff Development, n.d.). [see Appendix A to

refer to the National Staff Development Council's (NSDC) professional development definition.]

In summary, these three perspectives on technology, literacy, and professional development suggest there are three areas educators must embark on in order to successfully lead future students into the digital world. First, schools need to be aggressive in technology integration (U.S. Department of Education, 2010b). Second, literacy needs to be one of the main focuses in professional development (Shanahan, IRA, 2007; Anstey & Bull, 2006). Third, professional development needs to be rigorous, relevant, and hold teachers accountable for the teachers' learning and classroom teaching (NSDC, n.d.). Three important questions arise: What does rigorous and relevant look like? How are teachers held accountable? How do professional development directors reach resistant teachers and expand their practices and pedagogy?

PURPOSE

The purpose of this research project was to find and devise an effective approach to adequately train teachers to implement technology integration into the literacy curriculum, instruction, and assessment that includes best-practices of how to integrate technology into literacy. It was hoped to find supportive research to overcome the barriers that affect the success of professional development, technology integration, and literacy learning.

RESEARCH QUESTIONS

Based on the purpose, two research questions were formed. The questions guided the study and laid the foundation for the professional development model.

a) What makes professional development effective?

b) How do school leaders enable teachers to integrate technology into the literacy curriculum, instruction, and assessment with fidelity?

In order to answer these two questions, the literature was collected and researched. Findings from the research were synthesized to create an effective professional development model for elementary teachers that focuses on technology integration in the literacy curriculum, instruction, and assessment.

METHODOLOGY

The methodology of this research project focuses on three key sections: the data collection, data analysis, and the themes and standards. The data collection describes what data was collected and how it was analyzed. The data analysis explains the findings of the data and the challenges of professional development and technology integration. In the themes and standards section the recurring themes found in the research are disclosed and compared to the national standards for professional development.

Data Collection

There was a two-phase approach to collecting data. The first approach focused on answering the first research question: what makes professional development effective? This approach consisted of collecting ten models and studies of effective professional development and collecting national staff development standards from federal organizations. The ten models and studies were cross-analyzed and coded to find common themes of effective professional development. After the common themes were found, an analysis was performed with the standards and themes. The analysis involved finding commonalities and differences between the standards and themes. The second phase was adding supplementary research to the original accumulation in order to thoroughly answer the second research question: how do school leaders enable teachers to integrate technology into the literacy curriculum, instruction, and assessment with fidelity? From the last three years information was compiled from a plethora of websites, articles from two teacher magazines, *Tech and Learning* and *Technology Integration for Teachers,* and articles from one journal, *The Journal of Technology and Teacher*

Education. Additional peer-reviewed articles were collected using search keywords *literacy* and *technology integration.* These articles were examined to find essential ideas on how to effectively integrate technology into literacy. Some articles contained information on both effective professional development and integrating technology or digital literacy.

Data Analysis

There were 12 recurring themes discovered in the research articles (see Table 1 and 2). Two major components of what was found to be effective in the articles' research were Theme 1: Instructional Focus as defined by pedagogy, content knowledge, researched-based inquiry, modeling new technologies and literacy strategies, and a reform approach; and Theme 2: Teacher Support as defined by on-going support, mentoring, and response to teachers' needs. Out of the ten articles, nine articles reported Theme 1 and eight reported Theme 2 as being essential components to their effective staff development. Theme 3: Relevancy and Connections as defined by relevancy to the teachers' teaching, alignment or making connections to pedagogy, curriculum, instruction, assessments, standards, and district goals and Theme 4: Active Learning and Collaboration with Peers were identified in six of the ten articles. The following themes were evident in four of the ten articles: Theme 5: Sufficient Time; Theme 6: Administrator Support; Theme 7: Clear Goals, Expectations, and Visions; Theme 8: Teacher Reflection; Theme 9: Teacher Involvement in Professional Development Design, Definitions, or Vision; Theme 10: University Sponsored, Supported, or Involved; and Theme 11: Teacher Shared Lessons of what they implemented. Theme 12: Collective Participation was only found in two articles as a component of their staff development.

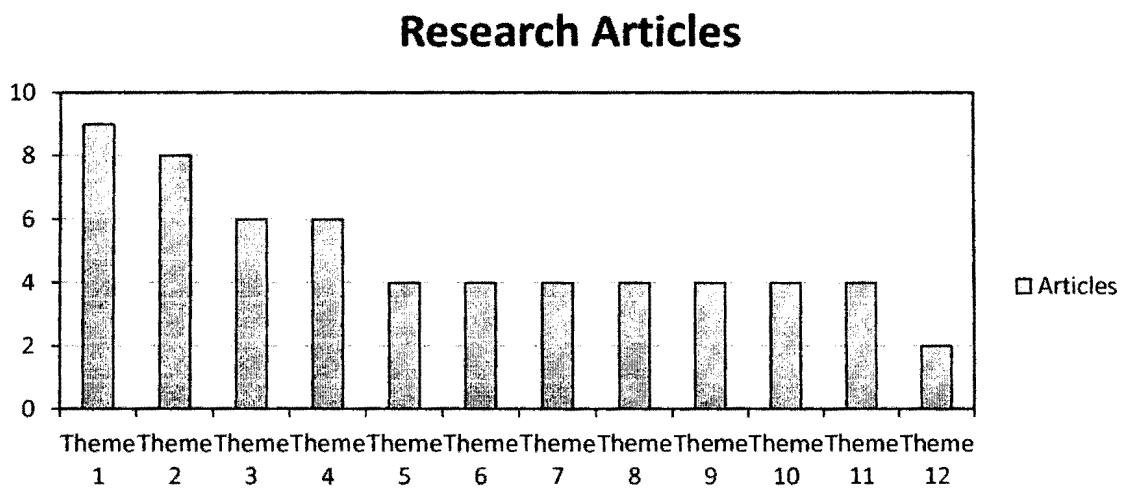
Table 1

The Recurring Themes Found in the Research Articles

Themes	Theme Topics
Theme 1	Instructional Focus
Theme 2	Teacher Support
Theme 3	Relevancy and Connections
Theme 4	Active Learning and Collaboration with Peers
Theme 5	Sufficient Time
Theme 6	Administrator Support
Theme 7	Clear Goals, Expectations, and a Vision
Theme 8	Teacher Reflection
Theme 9	Teacher Involvement in Professional Development Design, Definitions, or Vision
Theme 10	University Sponsored, Supported, or Involved
Theme 11	Teacher Shared Lessons
Theme 12	Collective Participation

Table 2

The Number of Articles Containing the Recurring Themes



Many of the articles stated the role of the teachers as that of a selected group or as volunteers during their professional development.

Challenges of professional development and technology integration. Many of the articles disclosed several oft-cited barriers in their literature reviews; however, only three articles exhibited their own challenges that they faced while conducting their study (Parker, Stylinski, Darrah, McAuliffe, & Gupta, 2010; Parsons, Metzger, Askew, & Carswell, 2011; Polly, Mims, Shephard, & Fethi, 2010). The following challenges of staff development and technology integration were found in these three studies:

- Sufficient time (Parker et al., 2010)
- Support (Parker et al., 2010)
- Lack of administration support (Parker et al. 2010; Polly et al., 2010)
- Teacher interest, reluctancy, and follow through (Parker et al. 2010; Parsons et al. 2011; Polly et al., 2010)
- Lack of technology (Polly et al., 2010)
- Lack of alignment to district goals and lack of alignment to technology and how to integrate it into their education program (Polly et al., 2010)

Parker et al. claims the three most critical challenges for their study were (a) time, (b) administration support, and (c) teacher interest and follow through. All of these challenges have hindered the adequate technology training for teachers and the use of technology in the classroom and literacy instruction.

Themes and Standards

In the following section the recurring themes and standards were analyzed. The recurring themes were examined to understand why selective themes were more prevalent in the research findings and why other themes were not. Next, the recurring themes were vetted with the national standards to compare what research states is effective and if the effective themes were included in the standards.

Recurring themes. The data suggests that, with on-going support, expanding a teacher's pedagogy, content knowledge, and inquiry leads to changing a teacher's practice. In addition, relevancy, alignment, and collaboration with peers are vital to a top-quality professional development design. In 60% of the articles Themes 5-7 (time, administrative support, and clear goals) and Themes 8, 9, and 11 (teacher reflection, teacher involvement, and teacher shared lessons) were not stated explicitly as part of their professional development program. However, these themes can be inferred that they were part of their professional development program by the collaboration that took place and the success of their program. Theme 10 (university sponsored, supportive, or involved) is an important component of staff development since it provides the staff with individuals who have an expertise in a particular field of study. Albeit, there is a disadvantage to this component, because not every school district will have the opportunity to engage in a university partnership due to distant locations between school districts and universities. Even though Theme 12 (collective participation) had the lowest prevalence, it may be the most critical finding from this study. There could be a correlation between the lack of collective participation and why only 40% of teachers claim they usually utilize computers during instructional time (U.S. Department of Education, 2010a) and why

low-leveled technology skills are taught more often than high-leveled technology skills (Becker, 2000, as cited by Parker et al., 2010). It is important to analyze these themes while developing professional development so a high-quality design can be created.

Comparing the themes to national standards. The themes were compared to the National Staff Development Council (NSDC) Standards ("http://leaningforward.org") (see Appendix B to refer to the NSDC Standards) and the Advancing Excellence in Technological Literacy: Student Assessment, Professional Development and Program Standards (AETL) (2003). NSDC Standards contained nine themes: instructional focus (Theme 1), teacher support (Theme 2), relevancy to teachers' practice (Theme 3), collaboration with peers (Theme 4), sufficient time (Theme 5), administration support and leadership (Theme 6), clear goals and a specific plan (Theme 7), the option to use external assistance (Theme 10), and collective responsibility (Theme 12). The AETL Standards contained two themes: instructional focus (Theme 1) and relevancy to teachers' practice (Theme 3). Therefore, 75% of the themes from the gathered articles were in the NSDC Standards and three of the themes were excluded or not explicitly stated. Only 17% of the themes were in the AETL Standards and ten of the themes were excluded or not explicitly stated. Based on this data and the challenges schools encounter with professional development and technology integration, it appears there is a discrepancy between what research suggests needs to be occurring in staff development and what the reality of staff development is.

LIMITATIONS

There were two limitations in the first phase of the data collection of this study. One limitation is the possibility that some of the aforementioned themes were a component of some of the models in the studies, and the studies could have failed to include them. Hence, if the themes were not listed in the study as an important element, then it was not assumed and considered as part of the staff development. If further inquiry was needed, the researchers and authors of the articles could be contacted for more information. The second limitation to the study is the reliability factor. Since one person coded the articles, it reduced the reliability factor. If another researcher or team reanalyzed the original articles to see if the results were conclusive to this research, the reliability factor would increase.

LITERATURE REVIEW

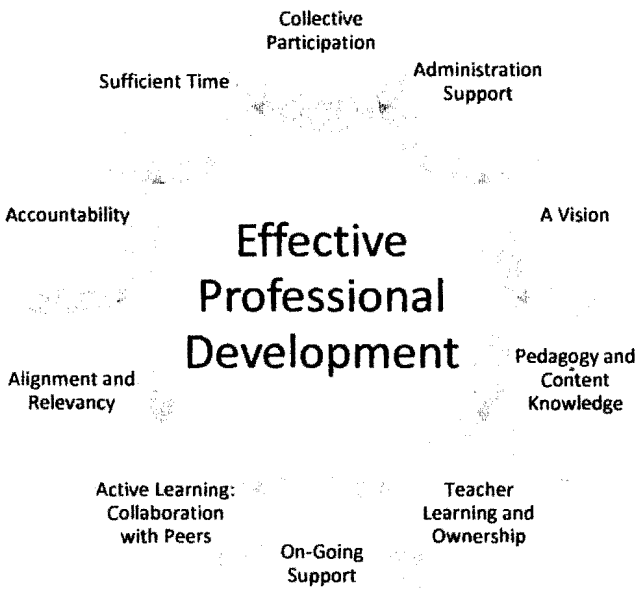
The first part of the literature review responds to the first research question, what makes professional development effective. The ten components of effective professional development are identified, and each component is detailed with the findings from the literature. The remaining review of the literature correlates with the second research question, how do school leaders enable teachers to integrate technology into the literacy curriculum, instruction, and assessment with fidelity. The literature reveals the research on technology and literacy learning, and on the curriculum, the instruction, and the assessment used to fuse technology and literacy learning. The curriculum, instruction, and assessment address these areas for teachers and for students.

Components of Effective Professional Development

After synthesizing the findings of successes and challenges of professional development models, ten components were found to foster effective professional development. They were (1) collective participation, (2) administration support, (3) a vision, (4) teacher learning and ownership, (5) pedagogy and content knowledge, (6) alignment and relevancy, (7) active learning: collaboration with peers, (8) on-going support, (9) accountability, and (10) sufficient time (See Figure 1).

Collective participation. Successful implementation of improving learning and teaching involves the entire certified staff and if financially possible, para educators, or any other staff members who work with students (Martin et al., 2010; Parker et al. 2010). The more collective participation, meaning all non-certified staff and certified staff from all departments, the greater the effectiveness of the professional development (Martin et

Figure 1. The Ten Components of Effective Professional Development



al., 2010). Martin et al. (2010) proclaims that positive outcomes arise when there is collective participation. For example, when the staff unites, they build a sense of a learning community that is working toward a common goal. Another advantage to a school-wide approach is it reduces the risk of creating gaps in students' literacy learning with technology because more teachers are trained adequately and provide rich literacy-technology opportunities with fidelity to more students (U.S. Department of Education, 2010b; Hew & Brush, 2007).

Administration support. Effective professional development requires administration support and prominent leadership (Adams, 2005; Alexander & Henderson-Rosser, 2010; NSDC "http://leaningforward.org;" Polly et al., 2009). True leaders collaborate with their teachers and overcome educational and technological barriers. Administrators see the importance of attending literacy and technology trainings

(Vanderburg & Stephens, 2010) and lead their school forward with new research-based innovations. While with the same respect, they recognize developmentally where their staff is and start there to work toward their vision. Effective leaders believe in teachers' ingenuity and allow them to be risk takers. Effective administrators have high expectations and hold their teachers and staff accountable for implementation of their learning.

A vision. Effective staff development includes a compelling vision and clear expectations guided and built by administration, professional development leaders, and staff (Kopcha, 2010; Parker et al., 2010; Martin et al., 2010; Stover et al., 2011). Including the staff in developing staff development builds ownership into the program and increases staff participation (Hew & Brush, 2007; Bertram, 2010). The vision, expectations, goals (NSDC "http://leaningforward.org"), non-negotiables (meaning instructional and professional requirements mandated by administration), and program design are considered the foundation for successful staff development. The foundation is the building blocks of why the professional development is necessary and how the vision will be accomplished. Once this foundation is established, then the subsequent sessions of the professional development will be built onto this solid foundation.

Teacher learning and ownership. Since the staff development is about the teachers' learning, it is vital that the teachers are at the forefront of the professional development. Throughout the entire staff development, the teachers are contributing and involved participants (Adams, 2005; Bertram, 2010; Parsons et al., 2011; Stover et al., 2011). The leaders of the professional development teach the staff with the same learning principles promoted for students such as gathering student data (U.S. Department of

Education, 2010b); providing opportunities for active learning (Kagan, 2002), self-evaluation and self-reflection (Alexander & Henderson-Rosser, 2010; Parsons et al., 2011; Stover et al., 2011); providing rigorous and relevant information (Dugger et al., 2003; NSDC "http://leaningforward.org;" n.d.; Parker et al., 2010; Martin et al., 2010; Stover et al., 2011; U.S. Department of Education, 2010b); allowing time for information to be retained (Alexander & Henderson-Rosser, 2010; Martin et al., 2010; Parker et al., 2010; Vanderburg & Stephens, 2010); establishing an on-going support system (Adams, 2005; Martin, 2010; Polly et al., 2009); and adjusting their teaching to meet the staff's needs (U.S. Department of Education, 2010b). Investing in teachers is a worthy effort when trying to bring change to our students' learning.

Pedagogy and content knowledge. Based on the findings, a content knowledge-based and pedagogy focus in staff development is the most critical factor in changing a teacher's practice (Adams, 2005; Alexander & Henderson-Rosser, 2010; Dugger et al., 2003; Kopcha, 2010; Martin et al., 2010; NSDC "http://leaningforward.org;" n.d.; Parker et al., 2010; Parsons et al., 2011; Polly et al., 2009; Vanderburg & Stephens, 2010). In other words, a teacher's beliefs and knowledge control the choices and actions of a teacher. Strengthening a teacher's pedagogy and knowledge happens during staff development by reading research articles to build a theoretical foundation, learning researched-based literacy strategies through explicit instruction (U.S. Department of Education, 2010b), and learning new technologies through modeling and sharing (Lomos, Hofman, & Bosker, 2011). This part of the staff development needs to be rigorous, and essential information needs to be thoughtfully delivered (U.S. Department of Education, 2010b).

Alignment and relevancy. The staff development is relevant to the teachers, and there is alignment with the vision, the pedagogy, the curriculum, the instruction, and the assessment (Dugger et al., 2003; NSDC "http://leaningforward.org;" n.d.; Parker et al., 2010; Martin et al., 2010; Stover et al., 2011). When teachers notice the relevancy of how they can use the information in their classrooms and are given the opportunity to practice what they have learned with their students, it motivates them and cultivates more teacher buy-in (Kopcha, 2010). Teachers also need to witness explicit connections of how a theory read in a research article is implemented in the classroom and aligned with their curriculum and district's goals (Parker et al., 2010; Martin et al., 2010; Stover et al., 2011). Teachers benefit when districts know what skills need to be taught; what research-based strategies and practices to use for instruction; and how and what to assess students' skills and learning (Parker et al., 2010). Modeling alignment of the curriculum, instruction, and assessment in professional development is one way to assist teachers to make the connections between the three.

Reflection. One key factor demonstrated in effective learning is the power of self-reflection (Alexander & Henderson-Rosser, 2010; Parsons et al., 2011; Stover et al., 2011), which holds the power to change. As the teacher self-reflects on the prior lesson taught, the teacher is required to use higher order thinking skills specifically evaluation, analysis, and creative thinking (Stover et al., 2011). Self-reflection can occur by filling out a standard self-reflection form, writing in a notebook (Stover et al., 2011), videotaping and reviewing a lesson (Stover et al., 2011), discussing face-to-face (Vanderburg & Stephens, 2010), and discussing online (Alexander & Henderson-Rosser, 2010). Through self-reflection, learners evaluate how they performed, analyze why

something went well or why it did not go well, and create new ways to improve the situation.

Active learning: Collaboration with peers. To obtain the highest retention of information and optimal learning, professional development programs integrate active learning and engagement. Active learning as defined in the literature on professional development of teachers includes collaboration with face-to-face peers and online groups (Alexander & Henderson-Rosser, 2010); observing physical classrooms and virtual classrooms (Marin et al., 2010); and designing and sharing lessons (Adams, 2005; Kopcha, 2010; Martin et al., 2010; Parsons et al., 2011; Vanderburg & Stephens, 2010). In fact, collaboration with peers was found to be one of the core components of active learning for professional development (Adams, 2010; NSDC "http://leaningforward.org;" n.d.; Parker et al., 2010; Parsons et al., 2011; Vanderburg & Stephens, 2010). During collaboration, teachers can have discourse over theory, curriculum, and practice, analyze data together, collaborate on lesson plans and interventions, have reflective discussions after lessons, and teach each other new technologies and strategies (Adams, 2005; Kopcha, 2010; Parsons et al., 2011; Vanderburg & Stephens, 2010). Collaboration builds a sense of a professional learning community (PLC) (Lomos, Hofman, & Bosker, 2011).

On-going support. On-going support may look differently in every school, but the support is vital in maintaining motivation and continuing learning (Adams, 2005; Martin, 2010; Polly et al., 2009). While developing professional development and before implementing, it is essential for schools to devise an on-going support system. On-going support is more than working with a collaborative peer. On-going support is support provided by another who could be a peer, but is (a) an expert in a field (Bertram, 2010),

(b) a trained peer or mentor in a specific area (Kopcha, 2010), (c) a specialized coach (Stover et al., 2011), or (d) some form of online support (i.e. tutorials) (Alexander & Henderson-Rosser, 2010). Schools may have the option to build partnerships with universities and invite professors or graduate students to become mentors as part of their on-going support. Another option is coaches. Literacy coaches and technology coaches have been found to be more accessible than administrators and offer on-going support that is less threatening (Vanderburg & Stephens, 2010). Literacy coaches and technology coaches can support staff with their knowledge, skills, and experiences; make rounds to teams; be involved in delivering the professional development; help teams search for ideas and suggestions; model strategies in the classroom; help teachers build lesson plans; and meet teachers' diverse needs (Stover et al., 2011). If a school is financially unable to hire coaches, then schools could make arrangements with experts from Area Education Agencies (AEA) who are already assigned to the school to come on a regular basis or provide direct online support. Other online support options that can be posted to an online school-wide wiki are instant tutorials and PowerPoints from previous training sessions. Another type of support is for team members to designate one person (could alternate from year-to-year) to go to continuous technology or literacy training throughout the year and return as a mentor to teach the team members what he or she learned. With schools' ingenuity and available resources, they will need to develop their on-going support system in order to provide the teachers readily available support.

Accountability. The fidelity of implementation from a professional development program can ride solely on teacher accountability (Parker, 2010; Parson et al., 2011; Polly et al., 2009). Accountability can easily be disguised by having teachers (e.g., in

teams, partners, or individually) share or present to other team members. Sharing can range from reflections from a research article to presenting a lesson plan and their self-reflection to the school staff. Schrum and Ledesme (2011) refer to this accountability in front of colleagues as "positive peer pressure" (p. 11) and as an authentic audience. Many teachers profess that they are highly engaged and learn tremendously from others who have shared what they have implemented (Adams, 2005; Kopcha, 2010; Parsons et al., 2011; Vanderburg & Stephens, 2010), who have modeled in their classroom for them (Parker, 2010; Stover et al., 2011; Vanderburg & Stephens, 2010), and even from virtual videos of classroom modeling (Alexander & Henderson-Rosser, 2010; Polly et al., 2009). Even though authentic assessment is ideal, other forms of accountability are used as well such as submitting forms, paperwork, lesson plans, and formative assessments.

Sufficient time. Teachers need time to learn, engage, implement, and reflect. In other words, they need time to do something well (Parker et al., 2010). Past professional developments have been known to be short-lived, a hodge-podge of topics, lacking a vision and plan, and lacking relevancy to classroom practice. The realization is that learning is a process, and effective professional development requires sufficient time to work through this process (Alexander & Henderson-Rosser, 2010; Martin et al., 2010; Parker et al., 2010; Vanderburg & Stephens, 2010).

Technology and Literacy Instruction

While preparing the professional development to integrate technology into the literacy curriculum, instruction, and assessment, there are a few important guidelines. First, the reason technology is used relates to improving practice. Technology is used to improve current operations such as a) easier manipulation with writing (e.g., revising and

editing with cutting and pasting) (Haas, 1989), b) instant feedback on answers to students which allows opportunities for students to self-correct (Kamil & Kim, 2002), reach more diverse learners by using multisensory and assistive technology tools (Hasselbring & Bausch, 2005), d) improve quality and time efficiency on communication, projects, and designs (Haas, 1989). Consequently, time is money, and this is the reason technology is pivotal in the career world and why students need to learn technology skills. Second, technology is a tool used for learning, but is not a replacement for literacy instruction (Frey, Fisher, & Gonzalez, 2010). Critical literacy skills such as critical thinking, problem solving, comprehending text, and communicating are the basic skills needed as a student's foundational knowledge. These basic skills enable students to perform other skills pertaining to technological software and devices (U.S. Department of Education, 2010b; Hew & Brush, 2007). Third, it is critical to embed into the minds of teachers that "form follows function" (Frey, Fisher, & Gonzalez, 2010, p. 7). When integrating technology, teachers often use a technological device because it looks fun. This is highly not advised. Teachers need to return to the purpose or "function" (p.7) of what needs to be learned and then find the technology tool or the "form" (p.7) to help them reach their objective. Finally, when planning professional development for the literacy curriculum, instruction, and assessment, one needs to think of each area as two separate entities (e.g., curriculum for teachers and curriculum for students) even though at times they may seem similar.

The findings of how to integrate technology with fidelity into literacy were discovered and organized into the following sections of (a) curriculum, (b) building pedagogy and knowledge about literacy and technology, (c) instruction, and (d)

assessment. Some of these findings are general and the explicit details are outlined in the project.

Curriculum

Curriculum d for professional development in technology and education focuses on two broad areas, as curriculum for teachers and as curriculum for students. While similar in some ways, these two distinct curricula are designed to address the specific developmental and context needs of the learners.

Curriculum for teachers. The curriculum for professional development for literacy and technology is comprised of four areas of what teachers should learn. The first area is the core components of literacy: comprehension, fluency, vocabulary, phonological awareness (phonics and phonemic awareness), speaking, listening, and writing (National Governors Association Center for Best Practices & the Council of Chief State School Officers, 2010). The second curriculum area is the National Education Technology Standards for Teachers (NETS•T) ("www.iste.org/standards-for-teachers"), which are standards that were created by the International Society for Technology in Education (ISTE). The NETS•T focus on teacher responsibility of integrating technology into the student curriculum. Parker et al. (2010) found that basic technology skills were detrimental to the success of teacher implementation. Therefore, the third additional curriculum area is to offer basic technology skills through workshops and tutorials and require these skills as a prerequisite to further technology learning. The fourth curriculum area is effective literacy strategies, learning theories, and introductions to new technologies. It is beneficial for teachers to stay abreast of effective teaching strategies and technologies. In summary, the curriculum for teachers should include the core areas

of literacy, NETS•T, basic technology skills, and new technologies, strategies and theories.

Curriculum for students. The student curriculum for literacy and technology consists of the Common Core State Standards, National Educational Technology Standards for Students (NETS•S) ("www.iste.org/standards-for-students"), and a curriculum that provides opportunities for teachers to design their own project-based and technology-rich curriculum. The National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO) launched a state-led national curriculum initiative in 2010 entitled the Common Core State Standards (CCSS). The CCSS literacy standards include comprehension, fluency, vocabulary, phonological awareness (phonics and phonemic awareness), speaking, listening, and writing. The second area of focus for student curriculum is the NETS•S, which are standards that were created by the International Society for Technology in Education (ISTE). The NETS•S focus on a curriculum of technology learning for students. Two important NETS•S skills that need to be emphasized in the curriculum are basic technology skills (a sub strand under Standard 6) and Internet safety and citizenship (Standard 5). Basic technology skills need to be taught and reviewed. Frey, Fisher, & Gonzalez (2010) suggest teaching Internet safety and citizenship annually at the beginning of the year and extensively so students develop a deep understanding of plagiarism and are confident in making safe, responsible, and ethical decisions while utilizing the Internet.

There were other findings about curriculum in the research articles that were found to be promising for professional development. Adams (2005), Bertram (2010), and

Polly et al. (2009) reported positive results during inservice when teachers were involved in developing project-based and technology-rich curricula for their district. Bertram conducted a study in Alaska where significant success resulted from the collaboration of teachers, local scientists, and weather specialists as they designed the curriculum using local resources and authentic learning. Bertram's study and nonstandard curriculum promoted a deeper learning and relevant experience for the students and teachers (see Appendix C for project-based ideas and resources).

Instruction

The design of instruction for teachers and students is based on the aforementioned ten components of effective professional development and in addition to, using school and teacher data, the gradual release of responsibility (Fisher & Frey, 2008), and the spiral approach (Hackbarth, 1997; "www.reference.com", n.d.).

Using data for professional development. The Iowa Department of Education (2010) suggests using a data collection sheet to record information about the school district and student achievement in order to evaluate the school's strengths and weaknesses (see Appendix D). This information usually guides the focus of professional development. More relevant data of teacher knowledge and implementation comes from teacher pre-assessments and surveys (Stover et al., 2011). Data gathered from the pre-assessments is then used to drive the instruction of teachers' starting points and to guide what their next steps in learning will be.

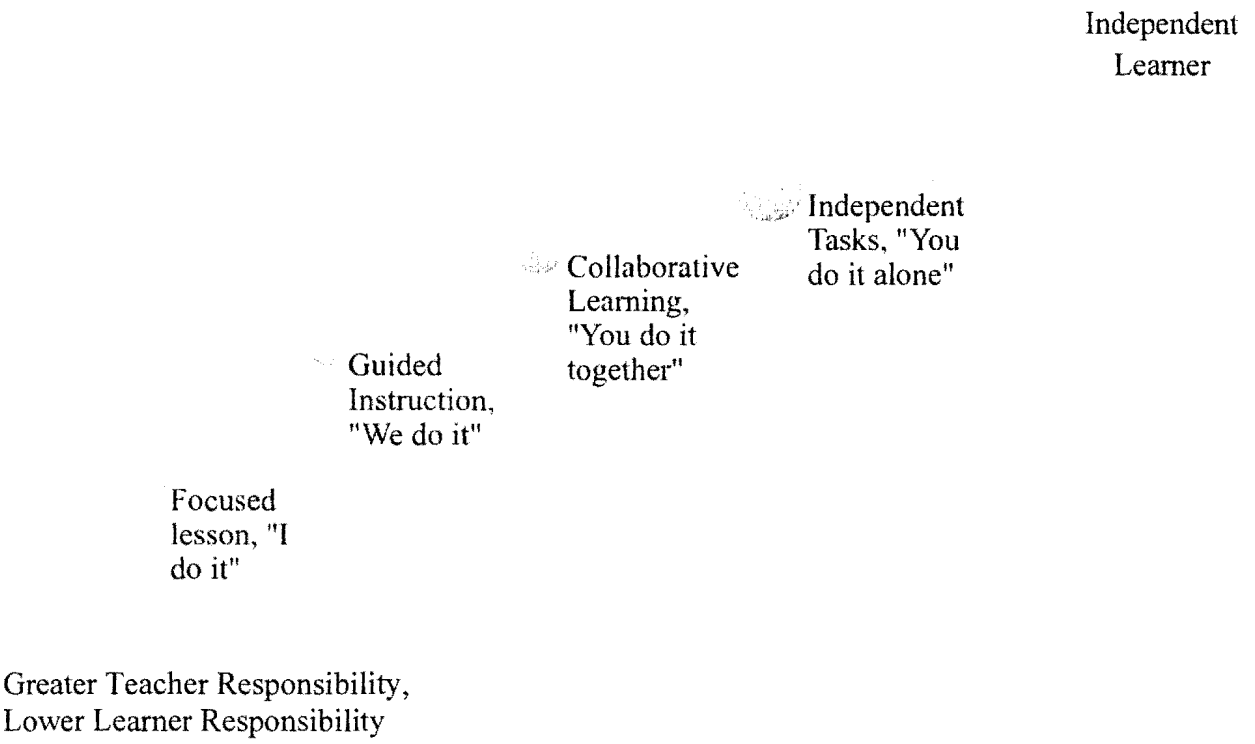
Using data for student instruction. Data collected from formative assessments (Sadler, 1989), authentic assessments (Paris, Calfee, Filby, Hiebert, Pearson, Valencia, &Wolf, 1992), technology-based assessments (Judson, 2010; Schmidt, Baran, Thompson,

Mishra, Koehler, & Shin, 2009), phone interviews or student reading inventories (Wolfson, 1960) are used to direct instruction. The data collection is continuous throughout the year driving classroom instruction and providing feedback to students (Sadler, 1989).

Gradual release of responsibility. Fisher and Frey (2008) offer a gradual release of responsibility model of instruction as shown in Figure 2. The gradual release of responsibility approach provides students with complete teacher support at the onset of learning a new concept and then during the process of practice, the support gradually transforms to little or no teacher support. At the beginning teacher support is performed by modeling explicit instruction and demonstrations to students. Frey and Fisher consider this the focus lesson- "I do it" (p. 4). Next, students practice the concept or skill with the teacher during the guided instruction phase- "We do it" (p. 4). Collaborative learning is followed after the guided instruction. Students cooperatively practice the concept or skill- "You do it together" (p. 4). Finally, students work independently during the independent tasks- "You do it alone" (p. 4) and demonstrate if they have learned or not learned the new concept or skill. The gradual release of responsibility model provides students with direct instruction, practice, scaffolding, social learning, self-efficacy, and time to build retention.

Spiral approach. The spiral approach is designed to expose learners to critical skills numerous times throughout a year allowing the skills to enter into their long-term memory (Hackbarth, 1997; "www.reference.com", n.d.). As time proceeds, more details are compiled and built on prior schema. This is contrary to the traditional one and done

Figure 2. The gradual release of responsibility model for instruction based on Fisher and Frey's model (2008)



unit approach. Instead of heavily concentrating on one literacy area in professional development for an entire year, the spiral approach permits teachers to learn theoretical and essential information in one area temporarily. Once teachers have had the opportunity to practice and collaborate, then facilitators gradually move onto the next area, eventually cycling back to the first area studied. The spiral approach for professional development has the flexibility for facilitators to move onto the next literacy area when they feel it is appropriate. With a purposeful spiral approach, three to five areas of literacy could be explored in one year.

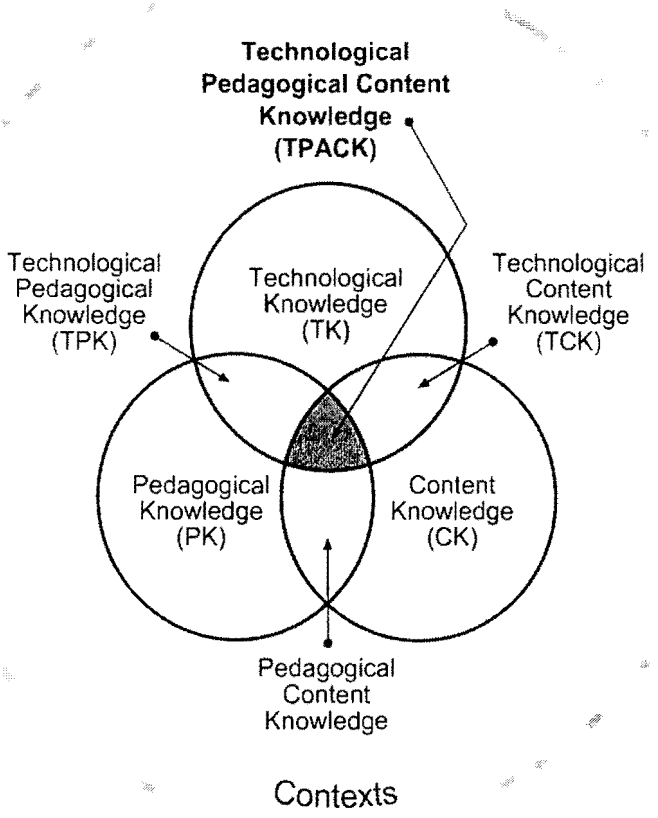
Building pedagogy and knowledge in literacy and technology. When building pedagogy and knowledge in literacy and technology, having knowledgeable leaders in

these two areas are key to professional development (Vanderburg & Stephens, 2010). Knowledgeable leaders make a conscious effort to build pedagogy, content knowledge, and technology knowledge in their staff. Knowing this allows the leaders to search and select reliable research articles and books for the staff to read. In addition, knowledgeable literacy leaders model the research-based reading and writing strategies to the staff, while knowledgeable technology leaders model how to use new technology and software. Together they model how to fuse the two together. Mirsha and Koehler (2006) refer to this building knowledge and showing the interrelations among pedagogy, content knowledge, and technology knowledge as the Technological Pedagogical Content Knowledge (TPACK) framework (see Figure 3). Parker et al. (2010) suggested that staff development leaders must be explicit while showing the interrelations among pedagogy, knowledge, instruction, curriculum, goals, and assessment. By doing this, the staff development leaders help teachers focus on the goal and curriculum of what needs to be taught, understand theories of how to deliver the instruction, and create or use assessments that assess the goal that was taught. When these areas are in alignment, an instructor's teaching is in true harmony.

Assessment

Assessment for students. Within the technology integration articles, several mentioned technology-based assessments in general terms, but only one disclosed which technology-based assessment was conducted. Judson (2010) reported using TechLiteracy Assessments™ that was developed by www.learning.com. The test assesses grades 3-8. TechLiteracy Assessments assess a student's technology proficiency based on the following categories: (a) system fundamentals, (b) social and ethical issues, (c) word

Figure 3. Technological Pedagogical Content Knowledge (TPACK) Framework. (graphic from http://tpack.org)



processing, (d) spreadsheets, (e) multimedia presentations, (f) telecommunications, and (g) databases. Often in literature, assessments for students are dependent on the teacher to create authentic or relevant technology-based assessments that align with the curriculum and instruction.

Assessment for teachers. Many methods of assessments of professional development have been mentioned in the literature (see Reflection and Accountability). However, two additional assessments for teachers for integrating technology into literacy were found. In Stover et al.'s study (2011) the directors measured the professional development effectiveness by administering pre- and post-assessments to the staff to find

evidence of growth of learning. Schmidt, Baran, Thompson, Mishra, Koehler, & Shin (2009) developed an assessment survey tool used to evaluate the TPACK framework for technology integration for preservice teachers. The survey instrument used a five-level Likert scale. There were seven different categories representing Technology Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Pedagogical Content Knowledge (PCT), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPCK). Some examples from the survey statements that reflect these different areas included:

- "I know how to solve my own technical problems" (p. 131). (TK)
- "I have sufficient knowledge of literacy" (p. 132) (CK)
- "I can adapt my teaching based on what students currently understand or do not understand" (p. 133). (PK)
- "I know how to select effective teaching approaches to guide student thinking and learning in literacy" (p. 133). (PCK)
- "I know about technologies that I can use for understanding and doing literacy" (p. 133). (TCK)
- "I can choose technologies that enhance students' learning for a lesson" (p. 134). (TPK)
- "I can select technologies to use in my classroom that enhance what I teach, how I teach, and what a student learns" (p. 134). (TPCK)

The pre- and post-assessments, the TPACK assessment survey, and other assessments for teachers are used to drive the instruction of professional development.

Summary

In summary, the research findings coalesced to reveal what effective professional development looks like and how to integrate technology into the literacy curriculum, instruction, and assessment. Effective professional development entails collective participation, administration support, a vision, teacher learning and ownership, pedagogy and content knowledge, alignment and relevancy, active learning: collaboration with peers, on-going support, accountability, and sufficient time. These components have become the structure of the professional development project for integrating technology into literacy.

The three technology and literacy guidelines were followed in the project: technology is used to improve the efficiency of learning, technology is a tool, and focus on the function of learning first and then find the form of technology to reach the function. The guidelines were used to keep the technology and literacy perspectives focused.

The literature for the curriculum for teachers and students suggested using the Common Core State Standards, basic technology skills, NET•S, and NET•T. In addition, the teachers' curriculum included research articles, theories, exposure to literacy strategies and newer technologies, and designing project-based curriculum. The students' curriculum emphasized Internet safety and responsibility. This curriculum for teachers and students has been incorporated into the research project by charting each area of the standards and aligning the NET•S, technology ideas, and research articles to them.

The literature for the instruction for teachers and students suggested using school, teacher, and student data to drive the instruction, using the gradual release of

responsibility model, and using a spiral approach. The classroom and professional development instruction is delivered by knowledgeable leaders who build pedagogy and knowledge in literacy and technology (TPACK). The project was thoughtfully designed in phases and a rotation of topics to model the gradual release of responsibility and the spiral approach.

The literature for the assessment for teachers and students recommended an assortment of assessments. The data used to drive instruction and to assess learning for teachers and students included surveys, pre/post-assessments, technology-based assessments, and authentic assessments. Formative assessments and reading interest inventories were used for students to collect data. Surveys and assessments were created in the research project to drive the professional development instruction and to assess the effectiveness of the professional development.

The structure and additional details for the research project is outlined in the subsequent section.

THE PROJECT

The project was created based on the literature findings and may be referred to as the Lit-Tech Professional Development model (LTPD). LTPD is outlined in this section. First, technology integration is defined. Next, the target audience and purpose of the project are stated. Then an overview of the professional development project including the three phases, tiers, and sessions is described. Next, the needed supplies for the project and the preparation to start the project are included. Finally, each session is detailed for a deeper understanding of the project.

Defining Technology Integration

For this project, technology integration will be considered as any technological tool (e.g., computing or handheld device) with Internet connectivity or special software used to enhance (a) literacy instruction (e.g., PowerPoints, images, video clips, Google Earth, websites), (b) student learning (e.g., games, research, multimedia creations and presentations, discourse and collaboration on wikis and blogs, electronic books, electronic pen pals), (c) collaboration with professional peers, (d) communication with students and families (e.g., classroom websites), and (e) assessment.

Audience

This research project is directed toward U.S. school administration and facilitators who lead elementary staff in professional development in schools that are beyond the initial stage (needs assessment) of technology integration and are equipped with technological tools that have internet connectivity, such as student laptops, iPods, or iPads, in each classroom. This professional learning also targets districts where there is

technological underusage and where the goal is to expand teachers' foundational knowledge and practice in the areas of technology integration and literacy.

Purpose

There is substantial evidence that defends heightened student achievement due to successful technology integration into the curriculum. However, the purpose of this staff development is not to provide evidence of *why* technology should be used in a classroom, but to provide learning and support of *how* to integrate technology meaningfully into the literacy curriculum, instruction, and assessment.

Overview of the Professional Development Model

This Lit-Tech Professional Development model transitions through three phases. The three phases are a developmental procession based on the gradual release of responsibility model (Fisher & Frey, 2008) and the spiral approach ("www.reference.com", n.d.). In Phase I the focus is on a) building pedagogy, technology knowledge, and content knowledge and b) on direct instruction and modeling from the coaches. In Phase 2 the focus continues to build knowledge and pedagogy, but the responsibility is gradually transferred to the teachers. Part of the responsibility of the teachers is collaborating with other teachers and sharing their lessons with their entire staff, other teams, and their team. All areas of literacy are explored in Phase 2. In Phase 3 the spiral approach occurs with the second round of the areas in literacy, the ongoing learning of building knowledge and pedagogy continues, and the sharing of teachers' lessons continues.

Within the three phases, there are five Tiers. The Tiers represent the steps in the gradual release of responsibility model. The Tiers are as follows:

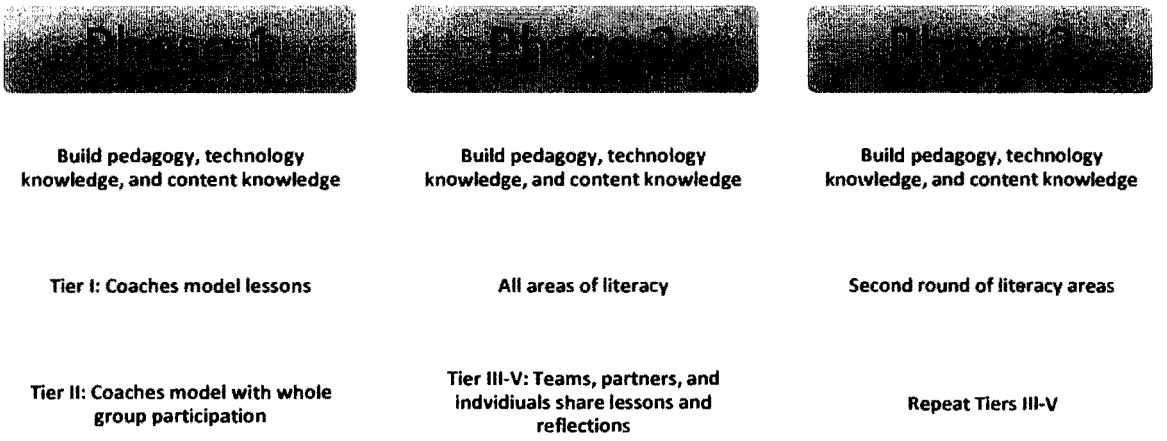
- Tier I: Coaches modeling
- Tier II: Coaches modeling with whole group participation
- Tier III: Teams collaborate to create and implement a lesson plan and return to whole group to share the lesson and reflection
- Tier IV: Partners collaborate to create and implement a lesson plan and share the lesson and reflection with another team
- Tier V: Individuals collaborate to create and implement a lesson plan and share the lesson and reflection with their team.

Tiers I and II are executed in Phase I where coaches have more responsibility. Tiers III, IV, and V are executed in Phase 2 and then repeated in Phase 3 where the teachers have more responsibility. For a better understanding of these phases and tiers, refer to Figure 3. Throughout Tiers III, IV, and V, teams, partners, and individuals will be asked to post their lesson plans and reflections to a school-wide online wiki, blog, or website for unlimited sharing and learning. In addition, collective lesson plans will be available as a resource to the staff. Further details about the online sharing are explained in the preparation for the professional development and the sessions.

There are nine sessions in Phases 1 and 2 that present all the Tiers and provide the framework for the ongoing learning. Sessions 1 through 6 are delivered in Phase 1 (coaches modeling), and sessions 7 through 9 are delivered in Phase 2 (teachers implementing and sharing). Sessions 7, 8, and 9 have a part 1 and a part 2. Part 1 provides the teachers time to develop their collaborative lesson plan and part 2 provides

teachers the opportunity to share their lesson plans and reflections about the delivery of their lessons. It will be the school district's responsibility to continue the ongoing learning in future sessions in Phase 3.

Figure 4. Structure and Transitions of the Lit-Tech Professional Development Model



The professional development session times are approximate and have the flexibility to be modified to fit the needs of the school. Rather than specifying a timeline in years, this professional development relies on the developmental process of the staff.

As with any teaching of high quality, preparation is required prior to the first session. Details about the preparation for the professional development are elaborated in the below sections titled *Supplies* and *Prior to Starting the Professional Development.*

Supplies

Teachers should bring their laptops to every session. If teachers do not have individually assigned laptops, then teams will need as many laptops that their administrators can obtain from the building (e.g., portable laptop station). If laptops are not an option, the school administration should problem solve for solutions for teachers to

have access to computers and the Internet such as utilizing the computer lab. Other needed materials are listed with each session.

Prior to Starting the Professional Development

The school administration will be required to build a leadership team. The leadership team, which will include school administration, will be required to devise an on-going support system, prepare online forms and surveys, and create a wiki, blog, or website prior to the start of the professional development.

Build a leadership team. Administration will need to develop a Professional Development Team (PDT). The role of the PDT is to analyze data, plan and deliver instruction, provide on-going support to team members and staff, research best-practices and technologies, attend conferences, and model prominent leadership. Team members may consist of, but not be restricted to, principals, assistant principals, professional development/curriculum directors, literacy coaches, technology coaches, educational media specialists, a teacher from each team or department, reading specialists, Title I reading teachers, Area Education Area (AEA) specialists or representatives, university professors or graduate students, and information and technology (IT) specialists from the school district and local businesses. In order to present a teacher's perspective of the reality in a classroom, it is recommended to have a teacher(s) on the leadership team. Administrators may select or ask for a teacher from each team to be a representative prior to the start of professional development. Otherwise, during Session 3 teachers may be given the choice to select a member.

Build an on-going support system. One task for the PDT will be to design an on-going support system for staff members and maintenance on the technology equipment.

This will depend upon the available staff (e.g., literacy coaches, technology coaches). (see On-Going Support p. 20)

Prepare online forms and surveys. Another task for the PDT will be to create their online surveys and forms. The advantage of administering the surveys online is the results are instantly tabulated, saved in an account, and accessible at any time. An advantage of providing online collaborative forms is the document can be shared, edited, and accessible to many people simultaneously. Refer to Table 3 for recommended sites for creating online surveys. If the PDT prefers to administer a paper copy survey instead, the surveys may be found in the appendices and used as hard copies.

Table 3

Tech and Learning's 2011 Top Sites for Creating Online Surveys

1. Strutta*
2. Flisti
3. Obsurvery
4. Survey Monkey
5. Polldaddy
6. Vorbeo
7. Text the Mob
8. Insightify
9. Yarp
*Indicates that the website is not free.

The PDT will need to create five online pre-assessments and surveys (see Appendix E, F, G, H, and I), one collaborative lesson plan form (see Appendix J), and one lesson reflection form (see Appendix K). The five online pre-assessments and surveys will need to be ready for the first session, and they are:

- Literacy Knowledge and Skills pre-assessment (see Appendix E)

- Technology Knowledge and Skills: basic technology skills (see Appendix F)
- Technology Knowledge and Skills: pre-assessment (see Appendix G)
- Technological Pedagogical Content Knowledge (TPACK): pre-assessment (see Appendix H)
- Online Interest Topics Survey (see Appendix I)

Build a wiki, blog, or website. To increase collaboration and inquiry, it is recommended that administrators create an educational wiki, blog, or website. This will allow further discussions, posting of tutorials for references, and posting of teachers' collaborative work and ideas. The sites listed in Table 3 and Table 4 have been highly rated sites for creating a wiki, blog, or website, for models and examples, or for popular collaboration. Once the wiki, blog, or website is created, the PDT may want to post the acronyms and links to professional literacy and technology organizations (see Appendix L).

After the professional development team, the on-going support system, the online forms, the online surveys, and an online forum are established, the professional development is ready for implementation.

Table 4

Sites for Building a Classroom Website and Wiki

Classroom websites:

- www.Teach-nology.com/web_tolls/web_site
- www.teacherwebsite.com
- www.classjump.com
- www.moodle.org
- www.teacherweb.com
- www.w3schools.com/html/ (Examples of websites and free tutorials)
- www.htmlcodetutorial.com/ (Examples of websites and free tutorials)

Wikis:

- www.wikispaces.com/content/for/teachers
- www.pbworks.com
- www.wetpaint.com

More website domains:

- www.weebly.com (Teacher-friendly. Site is free if you choose basic service.)
- www.drupal.com (Advanced free website.)

Organizing websites for teachers and students:

- www.diigo.com
- www.delicious.com
- www.trackstar.4teachers.org

Table 5

Sites for Blogs

Award-winning educator blogs nominated by educators (as cited in http://edublogawards.com):

- Best Resource Sharing Blog 2007= http://tipline.blogspot.com
- Best Group Blog 2007= www.techlearning.com/blog
- Most Influential Post 2007= http://thefischbowl.blogspot.com
- Best Library/Librarian Blog 2006 = http://heyjude.wordpress.com
- Best Newcomer Blog 2006= http://preilly.wordpress.com

Other blogs (Boling, Castek, Zawilinski, Barton, & Nierlich, 2008):

- www.weblogg-ed.com Will Richardson's blog
- www.jsiporin.motime.com Reflections on classroom use of blogs
- www.epnweb.org The Education Podcast Network
- www.jeffersonbear.motime.com The Adventures of Jefferson Bear
- www.web.mac.com/jsiporin/iWeb The Adventures of Jefferson Bear Renewed
- www.edublogs.org
- www.wordpress.org
- www.youthradio.wordpress.com Youth Radio: Connecting youth voices to the world
- www.teachers.tv/video/167 Inspirations- Blogosphere (video)
- www.supportblogging.com/Links+to+School+Bloggers Links to various school bloggers

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Sessions

This section contains the nine detailed sessions of the professional development. The sessions are divided into the three phases. In Phase 1 you will find sessions 1 through 6, and in Phase 2 you will find sessions 7 through 9. The sessions conclude by Phase 3.

Phase I

SESSION 1: *A Brief Introduction to PD (20 minutes), Complete Surveys and pre-assessments (25 minutes)*

Materials:

- Session 1 PowerPoint (see Appendix M)
- Literacy Knowledge and Skills: pre-assessment (see Appendix E)
- Technology Knowledge and Skills: basic technology skills (see Appendix F)
- Technology Knowledge and Skills: pre-assessment (see Appendix G)
- Technological Pedagogical Content Knowledge (TPACK): pre-assessment (see Appendix H)
- Online Interest Topics Survey (see Appendix I)

The Professional Development Team (PDT) may be introduced at this session or wait until session 3.

Welcome staff and explain that the subsequent professional development sessions will focus on the areas of literacy and technology integration entitled Lit-Tech Professional Development (LTPD). First, information will need to be gathered from the staff during this session. They will have five online surveys and pre-assessments to complete (listed above under materials). Based on the results of these surveys and pre-assessments, some teachers will need to complete a basic technology skills workshop. Emphasize that teachers will be required to know these basic skills as a prerequisite for later technology integration. The computer will tally the teacher's score and inform the teacher whether the *Level 1 Technology* workshop is recommended for them or not. This workshop should take place during PD hours while other staff members are collecting and recording district-wide data, school-wide data, and grade level data. An aggressive approach would be to provide the basic skills workshop(s) within the first one or two

weeks of the school year. Staff will receive a certification for completion to include in their teacher portfolio (see Appendix N).

Professional Development Team: After the staff completes the surveys, tabulate and analyze survey results. Collaborate what area of literacy needs to be the first focus.

SESSION 2: Basic Technology Skills Workshop and Data Collection & Analysis (The number of workshops is dependent upon the need.)

Materials: The Modified Iowa Professional Development Model (IPDM) Data Sheet (see Appendix D)

It is recommended that a technology specialist, technician, or coach teach the workshop(s) to the staff. If staff is interested, additional voluntary workshops may be offered outside of professional development hours. While planning the instruction of the basic technology skills workshop, refer to the technology survey results to analyze the weak areas. Furthermore, it is recommended to provide a list of computer mentors and online tutorials to give to the staff members to be used as a future reference.

If a technology specialist is not available, then a different option for the district is to have teachers learn basic technology skills solely through online tutorials. Some states and universities have tutorials and assessments on their websites such as Brigham Young University (http://education.byu.edu/technology/tsa.html). Brigham's college of education prepares preservice and inservice teachers for the Technology Skills Assessment (TSA). Another example is Florida's Teacher Technology Literacy Inventory at http://flinnovates.org/info/index/html.

While some staff members are completing the technology skills workshop(s), the remaining staff will analyze district, school, and grade-level data.

Professional Development Team: The PDT will need to discuss the options and make the best decision to fit their teachers' needs. Staff will need to remember to bring all school data to session 3.

SESSION 3: *Comprehensive Introduction to the Professional Development: The Vision (3-4 hours)*

Materials:

- Session 3 PowerPoint (see Appendix O)
- Chart paper
- Markers
- Number posters (a poster with four boxes with a number in each box- indicates the number they are for discussion),

Session 3 opens with a PowerPoint welcoming everyone and an introduction of the PDT members. The purpose of session 3 is to promote teacher buy-in to the literacy and technology integration need, to analyze the data, create a vision together, and to explain the structure, expectations, and long-term plan of the professional development. The following structures of the program are explained in the PowerPoint: the spiral approach, technological pedagogical content knowledge (TPACK), alignment, lesson implementation: gradual release of responsibility, collaboration, sharing of lessons and reflections, on-going support system, and the assessments driving instruction. Two video clips are used in the PowerPoint to enhance the audience's thinking about educating our students in the 21st century and how students respond to technology. Teachers are encouraged to discuss three different times during the session. One discussion is a partner share, the second discussion involves a small group of four teachers discussing their student and school data to understand the reality of the situation, and the third discussion is a small group of four teachers collaborating to contribute to the creation of the school's vision.

SESSION 4: *Review The Vision, Internet Safety Training (2-3 hours)*

Materials:

- Session 4 PowerPoint (see Appendix P)
- Discussion Boxes (see Appendix Q)
- Number posters

The session begins by reviewing the school's vision. The purpose of this session is to raise teacher and student awareness about Internet safety and responsibility while using the Internet. First, the PDT will familiarize the staff with NET•S, NET•T, and NETP. Next, staff will be directed to log onto a site created by Karen Campbell, Instructional Technology Coordinator for Harrisonburg City Public Schools (http://staff.harrisonburg.k12.va.us/~kkcampbell/safety/teachers.htm). On this site several hyperlinks are provided to viewers including free Internet Safety curriculum for schools (www.commonsensemedia.org). After a short introduction to Internet safety, teachers will explore on their laptops the hyperlinks on this site. During their site exploration, teachers will individually complete the Discussion Boxes (see Appendix Q) and then discuss their findings with their group. The professional development team will facilitate the discussion by rolling two dice: one die to designate which box to discuss and the second die to designate which group member will share (use number posters). This will continue until all boxes have been discussed. Occasionally have the small groups share with the whole group. If time permits, staff could read one chapter of how a teacher thoroughly taught plagiarism (Fisher, Frey, & Gonzalez, 2011). The small groups will also discuss possible implementation ideas and plan to execute one Internet safety lesson from the Common Sense Media curriculum into their classroom. The teams will post a brief summary of their lesson plan on the school wiki. As we continue with subsequent

sessions, these safety lessons could be taught prior to or incorporated in the literacy-technology lessons. In addition, the PDT may want to express that teaching and reinforcing safety and citizenship issues is an annual occurrence that ideally should be taught at the start of every school year.

Prior to the session: The PDT may need to confer with the educational media specialist and guidance counselor to see what topics are discussed during computer and guidance class and the depth of the discussions and activities. Facilitators, teachers, guidance counselors, and educational media specialists may need to coordinate the curriculum and see how they can support each other with student learning.

SESSION 5: *Tier I Fluency*

Materials:

- Session 5 PowerPoint (see Appendix R)
- Discussion Codes (See Appendix S)
- Discussion Code Bookmarks (see Appendix T)
- Elmo (if needed)
- Research articles and books (on-line or hard copy)
- Fluency Alignment (see Appendix U)*
- Collaborative Online Lesson Plan: Fluency Example (see Appendix V)
- Online Reflection: Fluency Example (see Appendix W)

* Note: Standards are highlighted in the CCSS where technology was integrated into the curriculum (see Appendix U).

Tier I is all about the professional development team modeling a fluency lesson and integrating a technology tool into that strategy. Before the modeling begins, it is imperative that the PDT embed into the staff's thinking the three important tips for integrating technology: (a) remember why technology is used, (b) remember technology is a tool not a replacement of literacy, and (c) remember to know the purpose of the lesson and then find the technology tool to help achieve the purpose. Next, explain what active reading and active learning will look like throughout the professional development and what the expectations for learning will be. Because this professional development encourages an inquiry-based learning, the staff will proceed to read a fluency research article or excerpts from a book to add to their content knowledge. Teams will choose their reading from a provided list (see Session 5 PPT, Appendix R). This time, while reading, the staff will be given the Discussion Codes handout (see Appendix S) and bookmark (see Appendix T) to mark on their articles or excerpts to use for discussion. After the readings, the staff will first share collaboratively amongst their teams and then as a large group. During the large group discourse, essential learning questions will be

answered and posted to the wiki (see Session 5 PPT, Appendix R). Next, the technology coach will show a tutorial on a technology integration tool, Audacity, and lead the group with instruction and practice on their laptops. Then, the PDT and staff will review the alignment for fluency (see Appendix U). Finally, the coaches will model the lesson plan (see Appendix V), lesson, and self-reflection (see Appendix W).

Optional: An additional session on assessment could be inserted here. Some teachers who have co-teachers may be interested in learning how to use Google Docs (spreadsheet) to create a conferring notebook (e.g., anecdotal records) so observations of a student can be noted and saved in one shared document. Another assessment that other teachers may be interested in learning is how to use a flip camera or other video camera for recording student's reader's theater performances for (student) self-evaluation. The performances could also be uploaded to a wiki or website for parental viewing. The last assessment tool that teachers may want to learn earlier in the school year is how to create electronic portfolios to use as an assessment or to use as an organizational tool for student work and self-evaluations.

SESSION 6: Tier II Comprehension Strategies: Building Schema and Metagcognition Strategies

Materials:

- Session 6 PowerPoint (see Appendix X)
- Discussion Code Bookmarks (extra copies if needed)
- Elmo (if needed)
- Research articles and books (online or hard copy) (see Comprehension Alignment: Literature, Appendix Y and Comprehension Alignment: Informational Text, Appendix Z)
- Comprehension: Literature Alignment (see Appendix Y)*
- Comprehension: Informational Text (see Appendix Z)*
- Collaborative Online Lesson Plan (see Appendix K)
- Literacy Knowledge and Skills: mid-assessment (see Appendix E)
- Technology Knowledge and Skills: mid-assessment (see Appendix G)
- TPACK: mid-assessment (see Appendix H)

* Note: Standards are highlighted in the CCSS where technology was integrated into the curriculum (see Appendices Y and Z).

During session 6 staff will participate in the readings, discussions, and lesson planning of the literacy area, Comprehension Strategies: Building Schema and Metacognition Strategies. This will be similar to the same structure of session 5 while the PDT is releasing some of the responsibility of learning to the staff. After the readings (see Appendices Y and Z), teams will answer the essential questions found in the session 6 PowerPoint (see Appendix X) and share their answers with the whole group. The technology tool that will be taught to the staff to support building students' schemata is electronic field trips. The technology coach will introduce electronic field trips, the various websites that offer them, and extensively explore and model some field trips. Next, the whole group will discuss the comprehension curriculum alignment (see Appendices Y and Z) and practice writing the online lesson plan (see Appendix J). It is

optional if the lesson plan is to be implemented. No reflection form will be completed during this session unless the lesson plan was taught. The session will close with the mid-assessments for literacy (see Appendix E), technology (see Appendix G), and TPACK (see Appendix H).

Professional Development Team: The PDT will discuss the results from the mid-assessments and adjust accordingly.

Phase 2

SESSION 7, PART 1: *Tier III Differentiated topics (varies per team)*

Materials:

- Phonemic Awareness Alignment (see Appendix AA)*
- Phonics and Word Recognition Alignment (see Appendix BB)*
- Vocabulary Alignment (see Appendix CC)*
- Writing Alignment (see Appendix DD)*
- Language and Grammar Alignment (see Appendix EE)*
- Speaking and Listening Alignment (see Appendix FF)*
- Discussion Codes (see Appendix S) or Discussion Boxes (see Appendix Q)
- Collaborative Online Lesson Plan (see Appendix K)
- Online Reflection Form (see Appendix L)

* Note: Standards are highlighted in the CCSS where technology was integrated into the curriculum (see Appendices AA, BB, CC, DD, EE, and FF).

Session 7 will continue similar to session 6 except staff will work within their teams to plan their lesson (see Appendix K). All areas of literacy and their alignment are included in the materials for this session due to the differentiated topics for staff. Staff will still congregate in small groups, teams, or whole group to learn a new technology device or software. During small group collaboration, literacy and technology coaches will circulate to each team, probing questions, adding to discussions, demonstrating strategies, and meeting specific needs. The self- or team-reflection form (see Appendix L) should be submitted within one week after implementing the lesson. The self-reflection will provide feedback to the PDT and help guide instruction of what needs refining in professional development.

Optional: If the PDT selected the option to include one teacher from each team or if a school district does not have a literacy or technology coach, then the designated team

member could occasionally attend an additional technology or literacy training offered by the PDT. The team member would return to his or her team to teach them the new technique learned (e.g., iPods, iPads, Elmos, Smartboards, digital cameras, flip cameras, movie and photo software, Kindles, online sources, other software).

SESSION 7, PART 2: *Tier III Presenting Lessons*

After teams have had the opportunity to implement the lessons, then they will share their lesson plan and reflection of implementation with the entire staff. Facilitators will consult teacher data (e.g., reflections and mid-assessments) and student data (e.g., authentic assessments, diagnostic assessments) to guide further professional development instruction.

SESSION 8, PART 1 & PART 2: *Tier IV Differentiated topics (varies per team)*

Materials:

- Phonemic Awareness Alignment (see Appendix AA)
- Phonics and Word Recognition Alignment (see Appendix BB)
- Vocabulary Alignment (see Appendix CC)
- Writing Alignment (see Appendix DD)
- Language and Grammar Alignment (see Appendix EE)
- Speaking and Listening Alignment (see Appendix FF)
- Discussion Codes (see Appendix S) or Discussion Boxes (see Appendix Q)
- Collaborative Online Lesson Plan (see Appendix K)
- Online Reflection Form (see Appendix L)

* Note: Standards were highlighted in the CCSS where technology was integrated into the curriculum (see Appendices AA, BB, CC, DD, EE, and FF).

Session 8 will continue similar to session 7 except staff will do the collaborative planning with a partner and present to another team (e.g., partners on the 2nd grade team will share with partners on the 3rd grade team).

SESSION 9, PART 1 & PART 2: *Tier V Differentiated topics (varies per team)*

Materials:

- Phonemic Awareness Alignment (see Appendix AA)
- Phonics and Word Recognition Alignment (see Appendix BB)
- Vocabulary Alignment (see Appendix CC)
- Writing Alignment (see Appendix DD)
- Language and Grammar Alignment (see Appendix EE)
- Speaking and Listening Alignment (see Appendix FF)
- Discussion Codes (see Appendix S) or Discussion Boxes (see Appendix Q)
- Collaborative Online Lesson Plan (see Appendix K)
- Online Reflection Form (see Appendix L)

* Note: Standards were highlighted in the CCSS where technology was integrated into the curriculum (see Appendices AA, BB, CC, DD, EE, and FF).

Session 9 will continue similar to session 7 except staff will plan individually and present to their team. Post-assessments shall be given at this time to measure teacher learning.

The PDT will celebrate with their staff the completion of Phase 2 and handout certificates of completion of the Lit-Tech Integration training (see Appendix GG).

Phase 3

After session 9 the staff moves into Phase 3, which means the spiral approach begins to take effect. The first topic in Phase 3 will return to previously studied literacy areas and begin cycling through all the other areas. Specific topics may have to be addressed based on the needs from the assessments. Facilitators will repeat sessions 7-9 (Tiers III-V). Mid-assessments shall be given during session 7 and post-assessment shall be given during session 9.

CONCLUSION

Changing teachers' practice takes a conscious and purposeful effort. It requires instructional practices that are derived from a theoretical foundation, a vision, and a well-prepared plan. In addition, quality instructional practices provide sufficient time for learning content knowledge and developing pedagogy, modeling skills and strategies, and a gradual release of responsibility. Teachers, similar to students, necessitate an on-going support system while learning a new skill. Teachers' learning thrives when administrators support their needs with resources and copious opportunities to actively participate in the construction of knowledge and ideas. In order to obtain maximum learning and attention, a teacher's learning needs to be relevant specifically to their teaching and students. This includes depicting connections and alignment with the curriculum and district goals. Pivotal factors when improving teachers' practice are collaboration, sharing of ideas, and holding teachers accountable for their learning. This can all be done successfully through collective participation and striving toward a common goal.

It is critical that every staff development is centered on improving student learning and achievement. This means providing a high-quality education for all students for future successes in the 21st digital century. A high-quality education consists of a balanced literacy, incorporating NET•S, and staying abreast of the innovative technologies. Hence, teachers must deliver best-instructional literacy practices with technology integration.

From this research, I have garnered new knowledge and understandings in the field of literacy, staff development, and technology integration. Not only have I learned key components of how quality instruction should be delivered to teachers, but also

quality instruction that should be delivered to students. I have gained a deeper understanding on theories and models such as TPACK and the gradual release of responsibility. Since this project, the importance and power of self-reflection had significantly impacted my thinking. With this new knowledge, I will become a better literacy teacher and be able to share this new knowledge with co-workers and administration. Together we can learn and grow in this ever-so-changing digital world and in return, our students will benefit.

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APPENDIX A

National Staff Development Council (NSDC)

Professional Development Definition

National Staff Development Council (NSDC)
Professional Development Definition

Proposed Amendments to Section 9101 (34) of the Elementary and Secondary Education Act as reauthorized by the No Child Left Behind Act of 2001.

(34) PROFESSIONAL DEVELOPMENT— The term "professional development" means a comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement –

(A) Professional development fosters collective responsibility for improved student performance and must be comprised of professional learning that:

(1) is aligned with rigorous state student academic achievement standards as well as related local educational agency and school improvement goals;

(2) is conducted among educators at the school and facilitated by well-prepared school principals and/or school-based professional development coaches, mentors, master teachers, or other teacher leaders;

(3) primarily occurs several times per week among established teams of teachers, principals, and other instructional staff members where the teams of educators engage in a continuous cycle of improvement that —

(i) evaluates student, teacher, and school learning needs through a thorough review of data on teacher and student performance;

(ii) defines a clear set of educator learning goals based on the rigorous analysis of the data;

(iii) achieves the educator learning goals identified in subsection (A)(3)(ii) by implementing coherent, sustained, and evidenced-based learning strategies, such as lesson study and the development of formative assessments, that improve instructional effectiveness and student achievement;

(iv) provides job-embedded coaching or other forms of assistance to support the transfer of new knowledge and skills to the classroom;

(v) regularly assesses the effectiveness of the professional development in achieving identified learning goals, improving teaching, and assisting all students in meeting challenging state academic achievement standards;

(vi) informs ongoing improvements in teaching and student learning; and

(vii) that may be supported by external assistance.

(B) The process outlined in (A) may be supported by activities such as courses, workshops, institutes, networks, and conferences that:

(1) must address the learning goals and objectives established for professional development by educators at the school level;

(2) advance the ongoing school-based professional development; and

(3) are provided by for-profit and nonprofit entities outside the school such as universities, education service agencies, technical assistance providers, networks of content-area specialists, and other education organizations and associations.

APPENDIX B

National Staff Development Council (NSDC)
Standards for Staff Development

National Staff Development Council (NSDC)
Standards for Staff Development

Context Standards

- **Learning Communities:** Staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district.
- **Leadership**: Staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement.
- **Resources:** Staff development that improves the learning of all students requires resources to support adult learning and collaboration.

Process Standards

- **Data-Driven**: Staff development that improves the learning of all students uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.
- **Evaluation**: Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate its impact.
- **Research-Based**: Staff development that improves the learning of all students prepares educators to apply research to decision making.
- **Design:** Staff development that improves the learning of all students uses learning strategies appropriate to the intended goal.
- **Learning:** Staff development that improves the learning of all students applies knowledge about human learning and change.
- **Collaboration**: Staff development that improves the learning of all students provides educators with the knowledge and skills to collaborate.

Content Standards

- **Equity:** Staff development that improves the learning of all students prepares educators to understand and appreciate all students, create safe, orderly and supportive learning environments, and hold high expectations for their academic achievement.
- **Quality Teaching:** Staff development that improves the learning of all students deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately.
- **Family Involvement**: Staff development that improves the learning of all students
provides educators with knowledge and skills to involve families and other stakeholders appropriately.

APPENDIX C

Collaborative Internet Projects

Collaborative Internet Projects

- www.ed.gov/teachers/how/tech/international/index.html

  A Teacher's Guide to International Collaboration on the Internet

- www.ed/gov/teachers/how/tech/international/guide_pg2.html

  Internet Project Registry Sites

- www.fi.edu/fellows/fellow7/mar99/collaboration.pdf

  An Internet Collaboration Model: Speaking From Experience

- www.nschubert.home.mchsi.com/education.index.html

  Collaborating in the Global Classroom

Boling, E., Castek, J., Zawilinski, Barton, K. & Nierlich, T. (2008). Collaborative literacy: Blogs and Internet projects. *The Reading Teacher, 61*(6), 504-508.

APPENDIX D

Modified from the Iowa Professional Development Model (IPDM)
Data Form

Modified from the Iowa Professional Development Model (IPDM)
Discussing Our District or Elementary School's Literacy Data

District Name: _____ Date of Analysis: _____
Data Analyzed By: _____ Data Collection Period: _____
Type of Data Analyzed: *(Check the data source being analyzed.)*

___ ITBS/ITED
___ Diagnostic: _____
___ Grades, Progress, or Behavior Indicators
___ Other: _____
___ MAP
___ DIBELS
___ Teacher Data
___ Attendance Records

1. What do you notice when you look at these district or school level data?
    a. How does our student performance in reading compare with state and national achievement norms?

    b. Are our median percentile reading achievement scores consistent at the elementary, middle school and high school levels?

    c. How does the achievement of our various subgroups (e.g., Special Education, English Language Learners, Low Socioeconomic Status, ethnic minorities, etc.) compare with our district averages in reading? Are we serving all students equally?

    e. How many schools do we have "in need of assistance" or in danger of being labeled "in need of assistance?"

    f. How often are students with low scores in reading absent?

    g. How often do struggling readers get referred to the office in a given year?

    h. How many of our students are proficient in reading?

    i. How many of our students are "marginally" proficient (e.g., scoring between the 41st and 50th percentile in reading on the ITBS/ITED?)

2. What are you comfortable saying about student or staff performance based on these results?

3. What additional questions do these data generate?

4. What do these data indicate students need to work on?

5. What do the results and their implications mean for your instructional practices and the district-level professional development plan?

APPENDIX E

Literacy Knowledge and Skills: Pre-Assessment, Mid-Assessment, Post-Assessment

Literacy Knowledge and Skills:
Pre-Assessment
To Guide and Measure Professional Development

Name _____ Date _____ page 1 of 2

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area, and the research-based strategies. I could not teach this to a peer at this time.	I am somewhat familiar with this area and the research-based strategies. I could teach one or two strategies to a peer.	I am fairly confident with this area and the research-based strategies. I could teach some strategies to a peer, but I would like to learn a little more.	I am very familiar with this area and the research-based strategies. I could teach this area and several strategies to a peer.	Not Applicable to my grade level or area

Main Categories/ Subcategories

Phonemic Awareness 1 2 3 4 NA
- Rhyming
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Substitution
- Phoneme Isolation

Phonics, Word Recognition, Spelling 1 2 3 4 NA
- Words Their Way or Word Journey
- Word Attack Skills
- Word Work

Vocabulary 1 2 3 4 NA
- Selecting Tier I, II, III Words
- Context Clues
- Robust Activities

Fluency 1 2 3 4 NA
- Reader's Theater
- Poetry
- Echo Reading

(Pre-Assessment Continued) page 2 of 2

Reading Comprehension	1	2	3	4	NA
Reader's Workshop (including independent reading, conferencing, peer conferencing, shared reading)					
Partner Reading					
Guided Reading					
Literature Circles					
Comprehension strategies:	1	2	3	4	NA
Building Schema & Metacognition Skills (e.g., activating prior knowledge, making connections, asking questions, self-monitoring, visualizing, drawing inferences, retelling, summarizing, question answer relationships [QAR], reciprocal teaching, read-alouds/ think-alouds)					
Nonfiction Elements (e.g., text features, text structures)					
Literature Elements (e.g., text structures, literary elements)					
Writing	1	2	3	4	NA
Writer's Workshop (including conferencing, peer conferencing, shared writing)					
Guided Writing					
Stages & Types of Writing (Poetry, Expository, Narrative, Opinion)					
6 Traits of Writing					
Literacy Assessments	1	2	3	4	NA
Diagnostic (e.g., QRI-4, BRI)					
Formative or Authentic (e.g., running records, miscue analysis, anecdotal records, conferring notebook)					
Summative					
Literacy Interventions	1	2	3	4	NA
Reading Recovery					
Response to Intervention (RTI)					
Other:	1	2	3	4	NA
The Reading/Writing Connection					
Cross-Curriculum or Project-Based Learning					Co-teaching
Gradual Release of Responsibility					Direct Instruction
Student Selected Text (Good Fit Books)					Family Involvement
Common Core Curriculum					Student Accountability
Classroom Management & Organization (e.g., Daily Five)					
Cooperative Learning Strategies (e.g., Kagan Structures)					
Picture Word Inductive Model (PWIM)					Authentic Literacy
Differentiated Learning					
English-Language Learners					

Literacy Knowledge and Skills:
Mid-Assessment
To Guide and Measure Professional Development

Name _____ Date _____ page 1 of 2

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area, and the research-based strategies. I could not teach this to a peer at this time.	I am somewhat familiar with this area and the research-based strategies. I could teach one or two strategies to a peer.	I am fairly confident with this area and the research-based strategies. I could teach some strategies to a peer, but I would like to learn a little more.	I am very familiar with this area and the research-based strategies. I could teach this area and several strategies to a peer.	Not Applicable to my grade level or area

Main Categories/ Subcategories

Phonemic Awareness 1 2 3 4 NA
- Rhyming
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Substitution
- Phoneme Isolation

Phonics, Word Recognition, Spelling 1 2 3 4 NA
- Words Their Way or Word Journey
- Word Attack Skills
- Word Work

Vocabulary 1 2 3 4 NA
- Selecting Tier I, II, III Words
- Context Clues
- Robust Activities

Fluency 1 2 3 4 NA
- Reader's Theater
- Poetry
- Echo Reading

(Mid-Assessment Continued) page 2 of 2

Reading Comprehension	1	2	3	4	NA
Reader's Workshop (including independent reading, conferencing, peer conferencing, shared reading)					
Partner Reading					
Guided Reading					
Literature Circles					
Comprehension strategies:	1	2	3	4	NA
Building Schema & Metacognition Skills (e.g., activating prior knowledge, making connections, asking questions, self-monitoring, visualizing, drawing inferences, retelling, summarizing, question answer relationships [QAR], reciprocal teaching, read-alouds/ think-alouds)					
Nonfiction Elements (e.g., text features, text structures)					
Literature Elements (e.g., text structures, literary elements)					
Writing	1	2	3	4	NA
Writer's Workshop (including conferencing, peer conferencing, shared writing)					
Guided Writing					
Stages & Types of Writing (Poetry, Expository, Narrative, Opinion)					
6 Traits of Writing					
Literacy Assessments	1	2	3	4	NA
Diagnostic (e.g., QRI-4, BRI)					
Formative or Authentic (e.g., running records, miscue analysis, anecdotal records, conferring notebook)					
Summative					
Literacy Interventions	1	2	3	4	NA
Reading Recovery					
Response to Intervention (RTI)					
Other:	1	2	3	4	NA
The Reading/Writing Connection					
Cross-Curriculum or Project-Based Learning					Co-teaching
Gradual Release of Responsibility					Direct Instruction
Student Selected Text (Good Fit Books)					Family Involvement
Common Core Curriculum					Student Accountability
Classroom Management & Organization (e.g., Daily Five)					
Cooperative Learning Strategies (e.g., Kagan Structures)					
Picture Word Inductive Model (PWIM)					Authentic Literacy
Differentiated Learning					
English-Language Learners					

Literacy Knowledge and Skills:
Post-Assessment
To Guide and Measure Professional Development

Name _____ Date _____ page 1 of 2

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area, and the research-based strategies. I could not teach this to a peer at this time.	I am somewhat familiar with this area and the research-based strategies. I could teach one or two strategies to a peer.	I am fairly confident with this area and the research-based strategies. I could teach some strategies to a peer, but I would like to learn a little more.	I am very familiar with this area and the research-based strategies. I could teach this area and several strategies to a peer.	Not applicable to my grade level or area

Main Categories/ Subcategories

Phonemic Awareness 1 2 3 4 NA
- Rhyming
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Substitution
- Phoneme Isolation

Phonics, Word Recognition, Spelling 1 2 3 4 NA
- Words Their Way or Word Journey
- Word Attack Skills
- Word Work

Vocabulary 1 2 3 4 NA
- Selecting Tier I, II, III Words
- Context Clues
- Robust Activities

Fluency 1 2 3 4 NA
- Reader's Theater
- Poetry
- Echo Reading

(Post-Assessment Continued) page 2 of 2

Reading Comprehension	1	2	3	4	NA
Reader's Workshop (including independent reading, conferencing, peer conferencing, shared reading)					
Partner Reading					
Guided Reading					
Literature Circles					
Comprehension strategies:	1	2	3	4	NA
Building Schema & Metacognition Skills (e.g., activating prior knowledge, making connections, asking questions, self-monitoring, visualizing, drawing inferences, retelling, summarizing, question answer relationships [QAR], reciprocal teaching, read-alouds/ think-alouds)					
Nonfiction Elements (e.g., text features, text structures)					
Literature Elements (e.g., text structures, literary elements)					
Writing	1	2	3	4	NA
Writer's Workshop (including conferencing, peer conferencing, shared writing)					
Guided Writing					
Stages & Types of Writing (Poetry, Expository, Narrative, Opinion)					
6 Traits of Writing					
Literacy Assessments	1	2	3	4	NA
Diagnostic (e.g., QRI-4, BRI)					
Formative or Authentic (e.g., running records, miscue analysis, anecdotal records, conferring notebook)					
Summative					
Literacy Interventions	1	2	3	4	NA
Reading Recovery					
Response to Intervention (RTI)					
Other:	1	2	3	4	NA
The Reading/Writing Connection					
Cross-Curriculum or Project-Based Learning					
Co-teaching					
Gradual Release of Responsibility					
Direct Instruction					
Student Selected Text (Good Fit Books)					
Family Involvement					
Common Core Curriculum					
Student Accountability					
Classroom Management & Organization (e.g., Daily Five)					
Cooperative Learning Strategies (e.g., Kagan Structures)					
Picture Word Inductive Model (PWIM)					
Authentic Literacy					
Differentiated Learning					
English-Language Learners					

APPENDIX F

Technology Knowledge and Skills: Basic Technology Skills

Technology Knowledge and Skills:
Basic Technology Skills
To Guide and Measure Professional Development

Name _____ Date_____

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area and need assistance from others.	I am somewhat familiar with this area, but need assistance to refresh my memory to get started.	I am fairly confident with this area and only need assistance from time to time.	I am very familiar with this area and assist others.	Not Applicable to my grade level or area

Categories/ Subcategories

Basic Operations 1 2 3 4 NA
- Connect cables and attachments correctly
- Properly turn on and shut down a computer
- Open, save, create, and print files
- Locate and open applications
- Troubleshoot technical problems

Productivity (create, edit, & insert items) 1 2 3 4 NA
- Word processor
- Spreadsheet
- Databases
- Presentations (insert hyperlinks)
- Graphics

Communication 1 2 3 4 NA
- E-mail (open, reply, attach)
- Video (run, upload, conference)
- On-line Chat (basic application)

Research 1 2 3 4 NA
- Research skills (search online databases)
- Browser use (identify, open, & bookmark)

Internet Safety and Citizenship 1 2 3 4 NA
- Identify safety and harassment issues with the Internet
- On-line etiquette
- Properly cite sources

Score= 0-14: Recommended to enroll in BTS workshop
20-15: Not recommended to enroll

APPENDIX G

Technology Knowledge and Skills: Pre-Assessment, Mid-Assessment, Post-Assessment

Technology Knowledge and Skills:
Pre-Assessment
To Guide and Measure Professional Development

Name _____ Date_____

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area, and how to integrate this into literacy. I could not teach this to a peer at this time.	I am somewhat familiar with this area and how to integrate this into literacy. I could teach what it is, but I am not sure how to integrate it.	I am fairly confident with this area and how to integrate this into literacy. For the most part, I could teach what it is and how to integrate it.	I am very familiar with this area and how to integrate this into literacy. I could teach this area and include several ideas of how to integrate it.	Not Applicable to my grade level or area

Categories/ Subcategories

Communication & Collaboration 1 2 3 4 NA
- Building a Classroom Website
- Wikis and Blogs
- Video Conferencing (e.g., Skype)
- Electronic Pen Pals

Instruction & Student Learning 1 2 3 4 NA
- Google Applications
(e.g., Google Earth, Google Docs, Google Presentations, YouTube)
- Literature Walks, Electronic Field Trips
- Electronic books

Creativity & Innovation 1 2 3 4 NA
- Audio Recordings/ Podcasts (e.g., GarageBand, Audacity)
- iLife: iMovie, iTunes, & iPhoto (uploading photos & videos)

Technology-based Assessments 1 2 3 4 NA

Assistive Technology 1 2 3 4 NA
(e.g., for struggling students, students on a 504 [a handicap or condition], students on a health plan, students on an Individual Education Plan-IEP)

Classroom Management with Technology 1 2 3 4 NA

Technology Knowledge and Skills:
Mid-Assessment
To Guide and Measure Professional Development

Name _____ Date_____

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area, and how to integrate this into literacy. I could not teach this to a peer at this time.	I am somewhat familiar with this area and how to integrate this into literacy. I could teach what it is, but I am not sure how to integrate it.	I am fairly confident with this area and how to integrate this into literacy. For the most part, I could teach what it is and how to integrate it.	I am very familiar with this area and how to integrate this into literacy. I could teach this area and include several ideas of how to integrate it.	Not Applicable to my grade level or area

Categories/ Subcategories

Communication & Collaboration 1 2 3 4 NA
- Building a Classroom Website
- Wikis and Blogs
- Video Conferencing (e.g., Skype)
- Electronic Pen Pals

Instruction & Student Learning 1 2 3 4 NA
- Google Applications
(e.g., Google Earth, Google Docs, Google Presentations, YouTube)
- Literature Walks, Electronic Field Trips
- Electronic books

Creativity & Innovation 1 2 3 4 NA
- Audio Recordings/ Podcasts (e.g., GarageBand, Audacity)
- iLife: iMovie, iTunes, & iPhoto (uploading photos & videos)

Technology-based Assessments 1 2 3 4 NA

Assistive Technology 1 2 3 4 NA
(e.g., for struggling students, students on a 504 [a handicap or condition], students on a health plan, students on an Individual Education Plan-IEP)

Classroom Management with Technology 1 2 3 4 NA

Technology Knowledge and Skills:
Post-Assessment
To Guide and Measure Professional Development

Name _____ Date_____

How confident are you in the following areas?

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A
I am unfamiliar with this area, and how to integrate this into literacy. I could not teach this to a peer at this time.	I am somewhat familiar with this area and how to integrate this into literacy. I could teach what it is, but I am not sure how to integrate it.	I am fairly confident with this area and how to integrate this into literacy. For the most part, I could teach what it is and how to integrate it.	I am very familiar with this area and how to integrate this into literacy. I could teach this area and include several ideas of how to integrate it.	Not Applicable to my grade level or area

Categories/ Subcategories

Communication & Collaboration 1 2 3 4 NA
- Building a Classroom Website
- Wikis and Blogs
- Video Conferencing (e.g., Skype)
- Electronic Pen Pals

Instruction & Student Learning 1 2 3 4 NA
- Google Applications
(e.g., Google Earth, Google Docs, Google Presentations, YouTube)
- Literature Walks, Electronic Field Trips
- Electronic books

Creativity & Innovation 1 2 3 4 NA
- Audio Recordings/ Podcasts (e.g., GarageBand, Audacity)
- iLife: iMovie, iTunes, & iPhoto (uploading photos & videos)

Technology-based Assessments 1 2 3 4 NA

Assistive Technology 1 2 3 4 NA
(e.g., for struggling students, students on a 504 [a handicap or condition], students on a health plan, students on an Individual Education Plan-IEP)

Classroom Management with Technology 1 2 3 4 NA

APPENDIX H

Modified and Condensed Version of
Technological Pedagogical Content Knowledge (TPACK):
Pre-Assessment, Mid-Assessment, Post-Assessment

Modified and Condensed Version of Technological Pedagogical Content Knowledge (TPACK): Pre-Assessment To Guide and Measure Professional Development

NAME _____ **DATE** _____

Read the statements below and rate your confidence level.

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A

1 2 3 4 NA "I know how to solve my own technical problems" (p. 131). (TK)

1 2 3 4 NA "I have sufficient knowledge of literacy" (p. 132) (CK)

1 2 3 4 NA "I can adapt my teaching based on what students currently understand or do not understand" (p. 133). (PK)

1 2 3 4 NA "I know how to select effective teaching approaches to guide student thinking and learning in literacy" (p. 133). (PCK)

1 2 3 4 NA "I know about technologies that I can use for understanding and doing literacy" (p. 133). (TCK)

1 2 3 4 NA "I can choose technologies that enhance students' learning for a lesson" (p. 134). (TPK)

1 2 3 4 NA "I can select technologies to use in my classroom that enhance what I teach, how I teach, and what a student learns" (p. 134). (TPCK)

Schmidt, D., Baran, E., Thompson, A., Mishra, P., Koehler, M., & Shin, S. (2009). Technological pedagogical content knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education, 42*(2), 123-149.

Modified and Condensed Version of Technological Pedagogical Content Knowledge (TPACK): Mid-Assessment

NAME _____ **DATE** _____ page 4 of 4

Read the statements below and rate your confidence level.

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A

1 2 3 4 NA "I know how to solve my own technical problems" (p. 131). (TK)

1 2 3 4 NA "I have sufficient knowledge of literacy" (p. 132) (CK)

1 2 3 4 NA "I can adapt my teaching based on what students currently understand or do not understand" (p. 133). (PK)

1 2 3 4 NA "I know how to select effective teaching approaches to guide student thinking and learning in literacy" (p. 133). (PCK)

1 2 3 4 NA "I know about technologies that I can use for understanding and doing literacy" (p. 133). (TCK)

1 2 3 4 NA "I can choose technologies that enhance students' learning for a lesson" (p. 134). (TPK)

1 2 3 4 NA "I can select technologies to use in my classroom that enhance what I teach, how I teach, and what a student learns" (p. 134). (TPCK)

Schmidt, D., Baran, E., Thompson, A., Mishra, P., Koehler, M., & Shin, S. (2009). Technological pedagogical content knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education, 42*(2), 123-149.

Modified and Condensed Version of Technological Pedagogical Content Knowledge (TPACK): Post-Assessment

NAME _____ **DATE** _____

Read the statements below and rate your confidence level.

1= Not Confident	2= Somewhat Confident	3= Fairly Confident	4= Confident	N/A

1	2	3	4	NA	"I know how to solve my own technical problems" (p. 131). (TK)
1	2	3	4	NA	"I have sufficient knowledge of literacy" (p. 132) (CK)
1	2	3	4	NA	"I can adapt my teaching based on what students currently understand or do not understand" (p. 133). (PK)
1	2	3	4	NA	"I know how to select effective teaching approaches to guide student thinking and learning in literacy" (p. 133). (PCK)
1	2	3	4	NA	"I know about technologies that I can use for understanding and doing literacy" (p. 133). (TCK)
1	2	3	4	NA	"I can choose technologies that enhance students' learning for a lesson" (p. 134). (TPK)
1	2	3	4	NA	"I can select technologies to use in my classroom that enhance what I teach, how I teach, and what a student learns" (p. 134). (TPCK)

Schmidt, D., Baran, E., Thompson, A., Mishra, P., Koehler, M., & Shin, S. (2009). Technological pedagogical content knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education, 42*(2), 123-149.

APPENDIX I

Online Interest Topics Survey: Literacy and Technology

Online Interest Topics Survey: Literacy and Technology

Team: K 1 2 3 4 5 other Date_____ page 1 of 2

Literacy

Rank the topics from 1 to 10, with 1 being your first choice that you are most interested in learning.

_____Phonemic Awareness
- Rhyming
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Substitution
- Phoneme Isolation

_____Phonics, Word Recognition, Spelling
- Words Their Way or Word Journey
- Word Attack Skills
- Word Work

_____Vocabulary
- Selecting Tier I, II, III Words
- Context Clues
- Robust Activities

_____Fluency
- Reader's Theater
- Poetry
- Echo Reading

_____Reading Comprehension
- Reader's Workshop (including independent reading, conferencing, peer conferencing, shared reading)
- Partner Reading
- Guided Reading
- Literature Circles

_____Comprehension strategies:
- Building Schema & Metacognition Skills
  - (e.g., activating prior knowledge, making connections, asking questions, self-monitoring, visualizing, drawing inferences, retelling, summarizing, question answer relationships [QAR], reciprocal teaching, read-alouds/ think-alouds)
- Nonfiction Elements (e.g., text features, text structures)
- Literature Elements (e.g., text structures, literary elements)

_____Writing
- Writer's Workshop (including conferencing, peer conferencing, shared writing)
- Guided Writing
- Stages & Types of Writing (Poetry, Expository, Narrative, Opinion)
- 6 Traits of Writing

_____Literacy Interventions
- Reading Recovery
- Response to Intervention (RTI)

_____Literacy Assessments
Diagnostic (e.g., QRI-4, BRI)
Formative or Authentic
(e.g., running records, miscue analysis, anecdotal records, conferring notebook)
Summative

_____Other: ****(Circle ones of interest)****

The Reading/Writing Connection	Authentic Literacy
Cross-Curriculum or Project-Based Learning	Co-teaching
Gradual Release of Responsibility	Direct Instruction
Student Selected Text (Good Fit Books)	Family Involvement
Common Core Curriculum	Student Accountability

Classroom Management & Organization (e.g., Daily Five)
Cooperative Learning Strategies (e.g., Kagan Structures)
Picture Word Inductive Model (PWIM)
English-Language Learners
Differentiated Learning

Technology

Rank the topics from 1 to 6, with 1 being your first choice that you are most interested in learning.

_____Communication & Collaboration
Building a Classroom Website
Wikis and Blogs
Video Conferencing (e.g., Skype)
Electronic Pen Pals

_____Instruction & Student Learning
Google Applications
(e.g., Google Earth, Google Docs, Google Presentations, YouTube)
Literature Walks, Electronic Field Trips
Electronic books

_____Creativity & Innovation
Audio Recordings/ Podcasts (e.g., GarageBand, Audacity)
iLife: iMovie, iTunes, & iPhoto (uploading photos & videos)

_____Technology-based Assessments

_____Assistive Technology
(e.g., for struggling students, students on a 504 [a handicap or condition], students on a health plan, students on an Individual Education Plan-IEP)

_____Classroom Management with Technology

(author created)

APPENDIX J

Online Collaborative Lesson Plan

ONLINE COLLABORATIVE LESSON PLAN

Team: _____ Date Started: _____ Date Implemented: _____
Grade Level: K 1 2 3 4 5 Multiage
Approximate Time:

Lesson plans must answer yes to this question:

- Does my lesson include student-centered learning?

May Assign Roles: Recorder, Facilitator, Tech/Material Retriever

Literacy Area (may be multiple): _____

Literacy & Technology Curriculum/Standard(s):

Objective(s):

Tech Integration:

Materials:

Procedures:

Assessment:

Modifications/Interventions:

(author created)

APPENDIX K

Online Reflection

ONLINE REFLECTION

Individual or with group (circle) Name/Team _____ Date _____

Were you able to follow the lesson plan? YES or NO If NO, explain:

Any technical difficulties or challenges? YES or NO If YES, explain:

Do you feel the lesson helped students reach their objective/standard(s)? YES or NO
Why?

What evidence do you have to show growth for student learning? (Check all that apply.)

_____ Observations/ Anecdotal Records

_____ Student work

_____ Audio or video recording

_____ Fluency probe

_____ Other_____

What would you change about the lesson to make it more efficient or effective? What advice would you give to another teacher before s/he would implement the lesson?

1=Not Good 5=Great

Overall feeling of the literacy lesson and tech integration: 1 2 3 4 5

(author created)

APPENDIX L

Reference List of Technology and Literacy Organizations, Associations, and Acronyms

Reference List of Technology and Literacy Organizations, Associations, and Acronyms

Technology Organizations and Associations

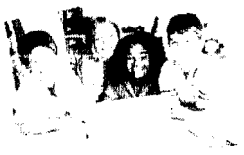
NETS= National Education Technology Standards
NETS-S= National Education Technology Standards for Students
NETS-T= National Education Technology Standards for Teachers
NETS-A=National Education Technology Standards for Administrators
NETP= National Education Technology Plan
PT3=Preparing Tomorrow's Teachers to Use Technology
2001 Collaborate for Technology Standards for School Administrators
ISTE= International Society for Technology in Education
ITEA= International Technology Education Association
STL= Standards for Technological Literacy (developed by ITEA)
AETL= Advancing Excellence in Technological Literacy (developed by ITEA)
SETDA= State Educational Technology Directors Association
OTA= Office of Technology Association (origin. 1995)
CASTLE= UCEA, Center for Advanced Study of Technology Leadership in Education
CCT= Center for Children and Technology
www.techlearning.com (or subscribe through AEA or local education agency)
www.technologyintegrationforteachers.com (or subscribe through AEA or local education agency)

Literacy Organizations and Associations

NRP= National Reading Panel
RAND= Research and Development nonprofit organization
IRA= International Reading Association
Readwritethink.org
NCTE= National Council of Teachers of English
U.S. Department of Education www.ed.gov/education/
Iowa AEA online (iowaaeaonline.org)
CCSS= Common Core State Standards
NAEP= National Assessment of Educational Progress (report card)

APPENDIX M

Session 1 PPT



Integrating Technology into the Literacy Curriculum, Instruction, and Assessment

2011 LTPD
(Lit-Tech Professional Development)

http://schools.iclipart.com/iowa/

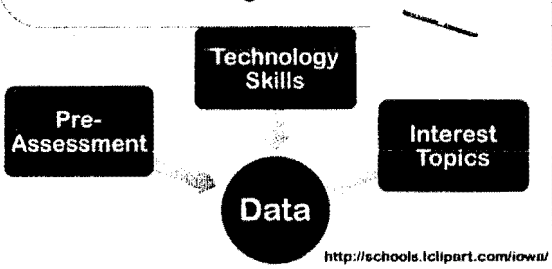
http://schools.iclipart.com/iowa/

Session 1 Purpose

Brief introduction

To obtain data to drive our instruction for LTPD

Three Surveys



http://schools.iclipart.com/iowa/

Next Session

Some will be attending the Level 1 Technology Skills workshop(s).

Others will be collecting and recording district, school, and grade level data.

APPENDIX N

Level 1 Tech Skills
Certificate of Completion

This certificate hereby confirms the completion of

Level 1 Tech Skills

Training provided by the Community School District of Utopia

Awarded to

[Recipient Name]

On (enter date)

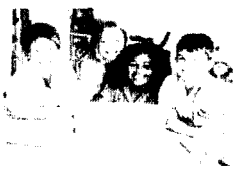
[Name, Title]

[Name, Title]

APPENDIX O

Session 3 PPT

Integrating Technology into the Literacy Curriculum, Instruction, and Assessment



2011 LTPD
Session 3

http://schools.iclipart.com/iowa/

Welcome!

Meet the Professional Development Team (PDT)

Our:

- Principal
- Literacy coach
- Technology coach
- Educational Media Specialist
- Information and Technology Technician
- One member from each team

Session 3

Purpose

Create The Vision

Microsoft Windows 7 clipart

Agenda

- Why are we here?
- Data Discussion
- Structure of LTPD

Collaborative Sharing

Why are we here?

Teachers Matter

"Good teachers form the foundation of good schools, and improving teachers' skills and knowledge is one of the most important investments of time and money that local, state, and national leaders make in education"

(American Educational Research Association,2005, p. 1)

Why are we here?

- Schools are not meeting students' digital and educational needs (McLeod, 2010).
- Many concerns have been raised that teachers are not integrating technology, nor are they prepared to do so effectively (Polly, Mims, Shepherd, & Inan, 2009).
- In a 2009 national survey 60% of teachers reported that they or their students sometimes, rarely, or never used computers during instructional time throughout the school year (US Department of Education).

Why are we here?

- Low-leveled technology skills are taught, but our kids need the higher-leveled technology skills to obtain the career readiness skills for the 21st Century (Magner, 2011).
- Video: A Vision for 21st Century Learners http://www.youtube.com/watch?v=_A-ZVCjfWf8

Why are we here?

- Today's children live in a dynamic, digital world. A world filled with a plethora of information at their finger tips.

Discuss with a partner (#1&2, #3&4):

- How does technology change children's literacy learning?
- Video: Researcher Sugata Mitra http://www.youtube.com/watch?v=dk60sYrU2RU

Analyzing the Data

- This is a critical time in education globally and nationally. By looking at our data, how do our students compete? Where do we stand? Are our students prepared for the 21st century?

Discussion:

Groups will refer to their data collection record sheet and discuss these questions. Share findings with whole group.

Analyzing Teacher Data

- (Depict group results of the pre-assessment here)
- (Depict results by teams of interest topics here)

Teacher Collaboration

Think-Pair-Share in Discussion Groups:

- What is our vision with technology and literacy?
  - If there were no financial barriers, what would our teaching and student learning look like now? Five years from now? Ten years from now?
  - What would students be doing in a classroom? Would they be in a classroom? What technologies would they be using and how often?

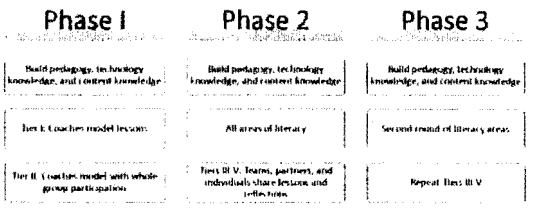
The Vision & Expectations

- Administration: support staff in their learning, find technological resources, and provide sufficient time to staff to learn.
- PDT: analyze data, plan and deliver instruction, provide on-going support to team members and staff, research best-practices and technologies, attend conferences, and model prominent leadership

Teacher Expectations

- Read research articles and discuss with team members to build our technological pedagogical content knowledge (TPACK).
- Collaborate with team members to design lessons that integrate technology into literacy and reflect on implementation.
- Model and share lesson plans and reflections with others.
- Continue implementing integrated technology into literacy.

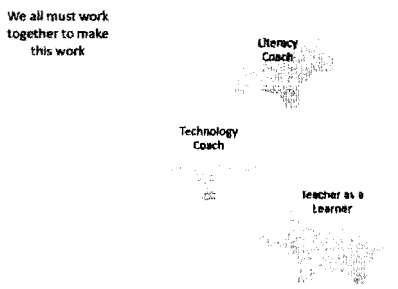
Structure and Transitions of LTPD



On-Going Support System

- Professional Development Team (PDT)
- Literacy and technology coaches working closely with the teams
- A school wiki space for references, tutorials, webinars, video clips, on-going collaboration and learning
- Video conferencing
- The Information and Technology Technician (ITT) and educational media specialist will repair technical problems and maintenance

Structure of LTPD: Mentorship



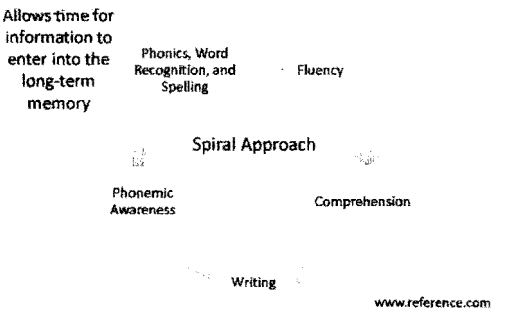
Literacy and Technology Coaches

They will support staff:

- with their knowledge, skills, and experiences,
- make rounds to teams,
- be involved in delivering the professional development,
- help teams search for ideas and suggestions,
- model strategies in the classroom,
- help teachers build lesson plans, and
- meet teachers' diverse needs.

(Stover, Kissel, Haag, & Shoniker, 2011)

Structure of LTPD: Spiral Approach



Structure of LTPD: Alignment

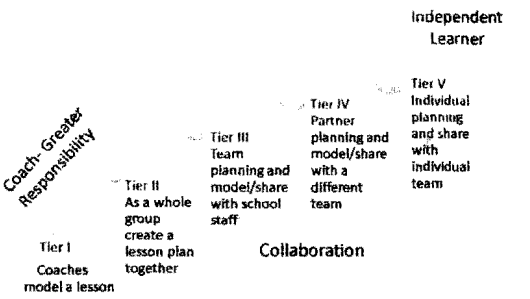
The Vision

Curriculum

Instruction

Assessment

Structure of LTPD: Implementing Lessons, The Gradual Release of Responsibility



(Mishra & Koehler, 2006)

Structure of LTPD: Assessments

- Student Assessments: We will learn how to administer authentic literacy assessments and learn several literacy interventions. The data from the student assessment will be used to guide classroom instruction.
- Teacher Assessments: Pre-, mid-, and post-assessments will be administered, collected, and analyzed to guide LTPD instruction and measure its effectiveness.

Summary of Structure of LTPD

Spiral Approach

Sharing of Lessons & Reflections

On-Going Support

Technological Pedagogical Content Knowledge (TPACK)

Collaboration

Assessments driving instruction

Alignment

Lesson Implementation: Gradual Release of Responsibility

Next Session

- If a team representative has not been selected yet for the PDT, choose one by the end of session 3. Post your representative on the school wiki under the PD team.
- Please bring your laptop to every session.
- Any questions?

References

American Educational Research Association. (2005). Teaching teachers: Professional development to improve student achievement. Research Points Essential Information for Education Policy, 3(1), 1-4. Retrieved from http://aera.net/uploadedFiles/Journals_and_Publications/Research_Points/RP_Summer05.pdf

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Spiral Approach. (n.d.). Retrieved from www.reference.com

Stover, K., Kissel, B., Haag, K., & Shoniker, R. (2011). Differentiated coaching: Fostering reflection with teachers. *The Reading Teacher, 64*(7), 498-509.

U.S. Department of Education. (2010) Teachers' use of educational technology in U.S. public schools: 2009. National Center for Education Statistics/ Institute of Educational Sciences.

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APPENDIX P

Session 4 PPT

Integrating Technology into the Literacy Curriculum, Instruction, and Assessment

2011 LTPD
Session 4

http://schools.ldipart.com/iowa/

Session 4

Purpose

- Familiarize staff with NET•S, NET•T, and NETP
- Raise awareness on Internet safety and digital citizenship

Agenda

- Introduction
- Independent site exploration
- Small group discussions
- Inquire a model
- Implement an Internet safety or digital citizenship lesson

The Vision

(Insert the vision statement here once established.)

Internet Safety & Digital Citizenship

- The U.S. Department of Justice reported that just through the Internet Crimes Against Children (ICAC) Task Force Program, investigators made 5,400 arrests and over 30,000 forensic examinations in 2010.
- Cyberbullying, identity theft, and other Internet crimes have been on the rise in the last decade.

(http://www.ojjdp.gov/programs/progsummar)

National Standards

- The U.S. Department of Education recently published a National Education Technology Plan (NETP) in 2010. A result from this plan came the National Education Technology Standards for Students (NETS-S) and the National Education Technology Standards for Teachers ((NETS-T).
- You may want to bookmark these sites because we will refer to them often.

Internet Safety and Digital Citizenship

- Explore a site created by Karen Campbell, Instructional Technology Coordinator for Harrisonburg City Public Schools http://staff.harrisonburg.k12.va.us/~kkcampbell/safety/teachers.htm
- Specifically explore the hyperlink www.commonsensemedia.org which is a free Internet Safety curriculum for K-12 schools.

Discussion Boxes

- Complete the Discussion Boxes as you view the site. The Discussion Boxes will be used for discourse with your table group. (15-20 minutes)
- Discussion and Whole Group Share
- Read Chapter 3 Using Information: Making Responsible Choices, p. 49-70 (from Fisher, Frey, & Gonzales, 2010). You may leave to read in your classroom or a more comfortable place. (40 minutes)
- Return at _____

Internet Safety and Digital Citizenship

- With your team, discuss an Internet safety or digital citizenship lesson plan or unit that you will implement in your classroom. Post a brief summary of your team's lesson plan on our wiki.
- As we continue with subsequent sessions, these safety lessons can be incorporated or taught prior to the literacy-technology integrated lessons.
- The Internet safety and digital citizenship lessons need to be taught and reinforced annually.

Next Session

- Before leaving, each team member will need to rank the subcategories under the comprehension strategies category.

  Comprehension strategies:

  ___Building Schema & Metacognition Skills

  ___Nonfiction Elements (e.g., text features, structures)

  ___Literature Elements (e.g., text structures, literary elements)
- Session 5: Fluency (Teacher Model)

References

- Campbell, K. http://staff.harrisonburg.k12.va.us/~kkcampbell/safety/teachers.htm
- Frey, N., Fisher, D., & Gonzalez, A. (2010). *Literacy 2.0: Reading and writing in 21st century classrooms*. Solution Press: Bloomington, Indiana.
- National Education Technology Plan. (2010). Retrieved from http://www.ed.gov/technology/netp-2010
- National Education Technology Standards for Students. (n.d.). International Society for Technology in Education (ISTE). Retrieved from http://www.iste.org/standards/nets-for-students.aspx
- National Education Technology Standards for Teachers. (n.d.). International Society for Technology in Education (ISTE). Retrieved from http://www.iste.org/standards/nets-for-teachers.aspx
- U.S. Department of Justice: Office of Justice Programs. (n.d.). Retrieved fromhttp://www.ojjdp.gov/programs/progsummar

APPENDIX Q

Discussion Boxes

DISCUSSION BOXES

Name_____ Date_____

As you read or view, add your thoughts in the boxes. Be prepared to share your thoughts during discussion time.

1. ?= One question I have is...	2. != This is great! I'd like to try this.	3. S= This surprised me
4. Y= Yes, I knew this or do this	5. R= This reminds me of...	6. D= I disagree...

Additional notes:

(author created)

APPENDIX R

Session 5 PPT

Integrating Technology into the Literacy Curriculum, Instruction, and Assessment

2011 LTPD
Session 5

http://schools.Iclipart.com/iowa/

Session 5: Tier I Fluency

Purpose

- To build TPACK in fluency and audio recordings
- To model technology integration and alignment of curriculum, instruction, and assessment in the area of fluency.

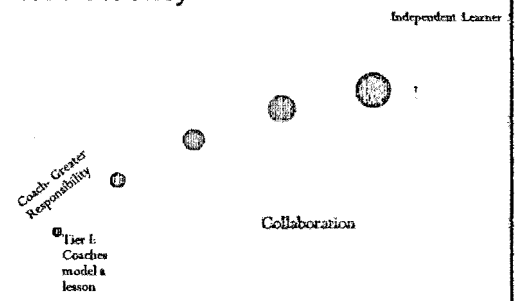
Agenda

- 3 Tips for Tech Integration
- Introduce active reading and learning
- Research article
- Collaboration
- Introduce new technology tool
- Model alignment and lesson

3 Important Tips to Remember While Integrating Technology

1. Remember the reason for technology.
2. Remember technology is a tool not a replacement of literacy.
3. Remember "form follows function" (Frey, Fisher, & Gonzalez, 2010, p. 7).

Tier I- Fluency



Active Reading

DISCUSSION CODES FOR RESEARCH ARTICLES AND BOOKS

As you read, write the following codes in the margins of the article along with any additional side notes. You may create additional codes. The codes will be used during discourse with your collaborative team.

?= I wonder..., This confuses me..., One question I have is...
!= Great suggestion... I would like to try this
N= This is new to me
R= This reminds me of...
S= This surprises me...
D= I disagree...
Y= Yes, I knew this or do this

Active Learning

- After your team is finished reading and coding, have discourse about your coding and what you learned about the topic of study.
- Remember successful discussion qualities are:
  - Active listening
    (eye contact, asking questions, not interrupting, reiterating what others say to check for understanding)
  - Equal speaking opportunities
    (giving everyone a chance to speak, inviting others' opinions and thoughts)

Research Articles and Books

Every team may choose their article or book of choice.

Books (May read one section or use the jigsaw approach)

- Rasinski, T. (2003). *The Fluent Reader: Oral reading strategies for building word recognition, fluency, and comprehension.* Scholastic: New York, NY.

Articles

- Rasinski, T., Homan, S., & Biggs, M. (2009). Teaching reading fluency to struggling readers: Method, materials, and evidence. *Reading &Writing Quarterly, 25*(2-3), 192-204.
- Young, C. & Rasinski, T. (2009). Implementing readers theatre as an approach to classroom fluency instruction. *Reading Teacher, 63*(1), 4-13.
- Rasinski, T., Rikli, A. & Johnston, S. (2009). Reading fluency: More than automaticity? More than a concern for the primary grades?. *Literacy Research and Instruction, 48*(4), 350-361.

http://schools.ldlpart.com/iowa/

Research Article or Book

1. Within your teams, concur on an article or book.
2. Individual- Read and code the research article or section of the book. Book option: all members read the same section to discuss or jigsaw approach- all report on their section. (25-30 minutes)
3. Meet with team to collaborate on the coded research (15-20 minutes)
4. Return at _____

Collaborative Sharing: What did you learn?

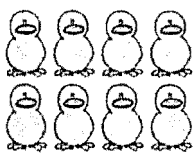
- What is fluency?
- How is fluency related with other areas of literacy?
- What methods and strategies can one use to enhance a student's fluency?
- What technologies support fluency building?
- Did you discover any websites that could be used as a great resource?
- How is fluency assessed appropriately?

New Technology: Audacity

- Audacity is a free download from the Internet that records and manipulates audio. (www.Audacity.com)
- GarageBand is the same concept as Audacity, but is found on Mac computers, and it isn't free.
- Begin with this tutorial: http://www.soundzabound.com/tutorial-create-podcast-audacity. Then the technology coach will lead the group with instruction and practice on their computers.

Review the Alignment

- Display Excel spreadsheet of:
  - Curriculum
  - NETS-S
  - Technology ideas
  - Assessment
  - Suggested Research Articles



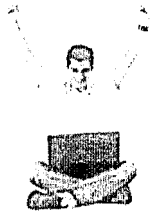
http://schools.ldlpart.com/iowa/

Collaborative Lesson Plan & Reflection

- Display Lesson Plan
- Walk staff through steps on lesson plan
- Share self-reflection of lesson

Next Session

- Session 6: Tier II Comprehension Strategies: Building Schema



http://schools.Iclipart.com/iowa/

References

- www.Audacity.com
- Audacity Tutorial. Free service through Iowa AEA267: Soundzabound. http://www.soundzabound.com/tutorial-create-podcast-audacity
- Frey, N., Fisher, D., & Gonzalez, A. (2010). *Literacy 2.0: Reading and writing in 21st century classrooms.* Solution Press: Bloomington, Indiana.
- Clip art. (n.d.). Retrieved from http://schools.Iclipart.com/iowa/
- Research articles and books (refer to slide 6).

APPENDIX S

Discussion Codes

DISCUSSION CODES
FOR
RESEARCH ARTICLES AND BOOKS

As you read, write the following codes in the margins of the article along with any additional side notes. You may create additional codes. The codes will be used during discourse with your collaborative team.

?= I wonder..., This confuses me..., One question I have is...

!= Great suggestion... I would like to try this

N= This is new to me

R= This reminds me of...

S= This surprises me...

D= I disagree...

Y= Yes, I knew this or do this

(author created)

APPENDIX T

Discussion Code Bookmarks

Reading Codes

?= I wonder...
This confuses me...
One question I have is...

!= Great suggestion...
I would like to try this

N= This is new to me

R= This reminds me of...

S= This surprises me

D= I disagree

Y= Yes, I knew this or do this

Reading Codes

?= I wonder...
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!= Great suggestion...
I would like to try this

N= This is new to me

R= This reminds me of...

S= This surprises me

D= I disagree

Y= Yes, I knew this or do this

APPENDIX U

Fluency Alignment

Fluency

Curriculum

	Kindergarten	Grade 1- Grade 5
National Standards Common Core	4. Read emergent-reader texts with purpose and understanding.	4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
National Educational Technology Standards for Students	**2. Communication and Collaboration** Students use digital media and environments to communicate and work collaborateively, including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats	
Technology Integration Ideas	Audacity.com, GarageBand, webcams or iMovie for video/audio recording, whisper phones, read-along radio dramas, Scholastic 180, Rosetta Stone, read along with electronic books, Solioquy Reading Assistant (new-not enough research to determine effectiveness), some reading series come with Fluency CD, audio books, [*Tech & Learning*, Sept 2010 31(2), p. 16 = computerized reading interventions, FastForWord ®, Reading Assisstant™], www.gigglepoetry.com (poetry theater)	
Assessment	Read Naturally (Non-fiction), DIBELS (no comprehension), fluency rubrics (Prosody, Volume, Phrasing, Smoothness, Pace), Anecdotal Records, Running Records	
Research Articles	Rasinski, T. (2003). The Fluent Reader: Oral reading strategies for building word recognition, fluency, and comprehension. Scholastic: New York, NY. Rasinski, T., Homan, S., & Biggs, M. (2009). Teaching reading fluency to struggling readers: Method, materials, and evidence. Reading & Writing Quarterly, 25(2-3), 192-204. Young, C. & Rasinski, T. (2009). Implementing readers theatre as an approach to classroom fluency instruction. Reading Teacher, 63(1), 4-13. Rasinski, T., Rikli, A. & Johnston, S. (2009). Reading fluency: More than automaticity? More than a concern for the primary grades?. Literacy Research and Instruction, 48(4), 350-361.	

APPENDIX V

Online Collaborative Lesson Plan
Fluency Example

ONLINE COLLABORATIVE LESSON PLAN

Fluency Example

Team: PDT Date Started: 10/15/11 Date Implemented: 10/30/11
Grade Level: K 1 2 3 4 5 Multiage
Approximate Time: 35-40 minutes

Lesson plans must answer yes to this question:

Does my lesson include student-centered learning? yes

May Assign Roles: Recorder, Facilitator, Tech/Material Retriever

Literacy Area (may be multiple): Fluency

Literacy & Technology Curriculum/Standard(s):

Common Core State Stanadards- Fluency
4. Read with sufficient accuracy and fluency to support comprehension.
a. Read on-level text with purpose and understanding.
b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

NETS•S
2. Communication and Collaboration
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:
a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

Objective(s):

1. Students will improve their prosody, accuracy, and smoothness while reading.

2. With a partner, students will record and evaluate their own and partner's fluency using a fluency rubric and oral reading fluency record sheet.

Tech Integration:

Audacity free software downloaded from the Internet.

Materials:

One laptop per two students (partners), student-selected good fit book per student (fiction), fluency rubrics, oral fluency record sheet

Procedures:

Prior to this lesson, students were taught how to use Audacity through modeling on a computer and LCD projector. Students were able to explore on the program for practice. Students have also been exposed to fluency terminology and strategies.

1. Mini-lesson: Review prosody and using "our character voice." Model different character voices saying the same phrase. Review phrasing and pausing at appropriate times. Read-aloud a chapter from the *Magic Tree House #1* (Osborne, 1992) to model fluent reading and character voice.
2. Do a quick review of how to record, edit, and listen in Audacity.
3. Share goal and expectations to students (post expectations on LCD if students forget the expectations:
   (a) Partner 1 will read aloud from his or her book while Partner 2 manipulates the computer (record) buttons. Remember to save the readings and date them.
   (b) Reverse roles.
   (c) Together listen to each reading and follow along in the book. Analyze the accuracy, prosody, and phrasing through discourse, stating what they did well and what they can improve (record this onto the oral fluency record sheet). Next, each partner rates him or herself using the fluency rubric.
   (d) Partners reread the same passage and record. Analyze only through discussion (no scoring or record sheet). Answer: Did I improve?
4. If some students finish before others, they can (a) reread the same passage to improve fluency, (b) edit or add sound effects on Audacity, or (c) explore www.magictreehouse.com.

Assessment:

1) Saved readings of students.
2) Self-evaluation (fluency rubric) and oral fluency record sheet.

Modifications/Interventions:

Students with low fluency skills may need more assistance or modeling. Do not partner two low students together or the highest with the lowest achieving student. Students with low fluency skills benefit being partnered with a student who is lower in the high achieving students or who is a middle skilled student.

APPENDIX W

Online Reflection
Fluency Example

ONLINE REFLECTION

Fluency Example

Individual or with group (circle) Name/Team __PDT_____ Date __11/2/11_____

Were you able to follow the lesson plan? YES or NO If NO, explain:

Any technical difficulties or challenges? YES or NO If YES, explain: One computer was not charged or operable so we had to assign four students to one laptop.

Do you feel the lesson helped students reach their objective/standard(s)? YES or NO Why? This lesson helped students become more cognizant of their fluency. It allowed them to self-evaluate and to reflect on how to improve.

What evidence do you have to show growth for student learning? (Check all that apply.)

_____ Observations/ Anecdotal Records

__X__ Student work / self-evaluation

__X__ Audio or video recording

_____ Fluency probe

_____ Other_____

What would you change about the lesson to make it more efficient or effective? What advice would you give to another teacher before s/he would implement the lesson?

One thing I would change is modeling how to self-evaluate with the rubric and to record onto the oral fluency record sheet.

My advice to another teacher would be to make sure you explore the software program before using it in the classroom. Also, have a back-up plan if technology fails. When technology fails or stumps us temporarily, this is when unwanted behaviors occur. In this case, I would have had the students partner read and discuss.

1=Not Good 5=Great

Overall feeling of the literacy lesson and tech integration: 1 2 3 4 5

APPENDIX X

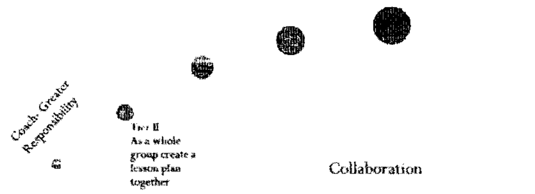
Session 6 PPT

Integrating Technology into the

2011 LTPD

Session 6

Tier II Comprehension Strategies: Building Schema and Metacognition Strategies



Active Reading

DISCUSSION CODES FOR RESEARCH ARTICLES AND BOOKS

As you read, write the following codes in the margins of the article along with any additional side notes. You may create additional codes. The codes will be used during discourse with your collaborative team.

?= I wonder…, This confuses me…, One question I have is…

!= Great suggestion… I would like to try this

N= This is new to me

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S= This surprises me…

D= I disagree…

Y= Yes, I knew this or do this

Active Learning

- After your team is finished reading and coding, have discourse about your coding and what you learned about the topic of study.
- Remember successful discussion qualities are:
  - Active listening
    (eye contact, asking questions, not interrupting, reiterating what others say to check for understanding)
  - Equal speaking opportunities
    (giving everyone a chance to speak, inviting others' opinions and thoughts)

Research Articles and Books

Every team may choose their article or book of choice.

Books (May read one section or use the jigsaw approach)

McGregor, T. (2007). *Comprehension Connections: Bridges to Strategic Reading. Portsmouth, NH: Heinemann.*

Articles

Barak, M. (20101101). Motivating self-regulated learning in technology education. *International Journal of Technology & Design Education, 20(4), 381-401.*

Carrell, P. L. & Eisterhold, J. C. (1983). Schema Theory and ESL Reading Pedagogy. *TESOL Quarterly, 17*(4), 553-573.

Magno, C. (2010). The role of metacognitive skills in developing critical thinking. *Metacognition and Learning, 5(2), 137.*

Wilson, N. , & Bai, H. (2010). The relationships and impact of teachers' metacognitive knowledge and pedagogical understandings of metacognition. *Metacognition and Learning, 5(3), 269.*

ZIPPRICH, M. , GRACE, M. , & GROTE-GARCIA, S. (2009). Building story schema: Using patterned books as a means of instruction for students with disabilities. *Intervention in School & Clinic, 44(5), 294-299.*

http://schools.clipart.com/iowa/

Research Article or Book

1. Within your teams, concur on an article or book.
2. Individual- Read and code the research article or section of the book. Book option: all members read the same section to discuss or jigsaw approach- all report on their section. (25-30 minutes)
3. Meet with team to collaborate on codes (thoughts and ideas) of research (15-20 minutes)
4. Return at _______

Collaborative Sharing: What did you learn?

- Name some comprehension strategies. What is schema? What is metacognition?
- What role does schema have with comprehension? Metacognition skills?
- What methods and strategies can one use to enhance a student's schema and comprehension?
- What technologies support schema building?
- Did you discover any websites that could be used as a great resource?
- How can one measure if the methods and strategies of enhancing schema and comprehension strategies are working?

New Technology: Electronic Field Trips

Technology coach

- Electronic field trips:
  - provide students with a virtual multisensory experience through the use of a computer and the Internet.
  - are the next best thing to face-to-face or face-to-place experience field trips.
  - are accessible for students to revisit and to create lasting memories.
  - allow students to connect with other cultures and people all over the world.
  - allow students to explore up-to-date information.
  - allow children to be the risk-taskers that they are and embrace their fascination with technology.

New Technology: Electronic Field Trips

Websites for Electronic Field Trips

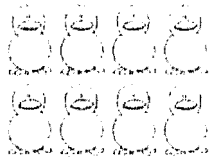
www.cfieldtrips.org
www.froguts.com
www.ket.org/trips
www.history.org/trips
www.readwritethink.org
(search virtual field trips)

www.thinkport.org
www.meetmeatthecorner.org
www.quest.nasa.gov/vft/
www.learnz.org/nz
www.agriculture.purdue.edu/zipTrips/PUzipTrip.shtml

Google Earth

Review the Alignment

- Display Excel spreadsheet of:
  - Curriculum
  - NETS-S
  - Technology ideas
  - Assessment
  - Suggested Research Articles



http://schools.ichpart.com/iowa/

Collaborative Lesson Plan & Reflection

- Plan a lesson together on building schema (comprehension strategy) or metacognition strategies.

Next Session

- Session 7: Tier III Team planning, implementing, and sharing with whole group

APPENDIX Y

Comprehension: Literature Alignment

Comprehension: Literature

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Key Ideas and Details** 1. With prompting and support, ask and answer questions about key details in a text. 2. With prompting and support, retell familiar stories, including key details. 3. With prompting and support, identify characters, settings, and major events in a story. **Craft and Structure** 4. (See Vocabulary) 5. Recognize common types of texts (e.g., storybooks, poems). 6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	**Key Ideas and Details** 1. Ask and answer questions about key details in a text. 2. Retell stories, including key details, and demonstrate understanding of their central message or lesson. 3. Describe characters, settings, and major events in a story, using key details. **Craft and Structure** 4. (See Vocabulary) 5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. 6. Identify who is telling the story at various points in a text.	**Key Ideas and Details** 1. Ask and answer such questions as *who, what, where, when , why,* and *how* to demonstrate understanding of key details in a text. 2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. 3. Describe how characters in a story respond to major events and challenges. **Craft and Structure** 4. (See Vocabulary) 5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action. 6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.
National Educational Technology Standards for Students	**1. Creativity and Innovation** Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: a. apply knowledge to generate new ideas, products, or processes b. create original works as a means of personal or group expression c. use models and simulations to explore complex systems and issues d. identify trends and forecast possibilities **2. Communication and Collaboration** Students use digital media and environments to communicate and work collaborateively , including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats		

Comprehension: Literature

Curriculum

National Standards Common Core

Grade 3	Grade 4	Grade 5
Key Ideas and Details 1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key detials in the text. 3. Describe characters in a story (e.g. their traits, motivations, or feelings) and explain how their actions contribute to the seuence of events. **Craft and Structure** 4. (See Vocabulary) 5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, stanza; describe how each successive part builds on earlier sections. 6. Distinguish their own point of view from that of the narrator or those of the characters.	**Key Ideas and Details** 1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. 2. Determine a theme of a story, drama, or poem from details in the text; sumarize the text. 3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). **Craft and Structure** 4. (See Vocabulary) 5. Explain major differences between poems, drama, prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing and speaking about a text. 6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	**Key Ideas and Details** 1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. 2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; sumarize the text. 3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). **Craft and Structure** 4. (See Vocabulary) 5. Explain how a series of chapters, scenes, or stanzas fit together to provide the overall structure of a particular story, drama, or poem. 6. Describe how a narrator's or speaker's point of view influences how events are described.

Comprehension: Literature

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Integration of Knowledge and Ideas** 7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). 8. (Not applicable to literature) 9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories. **Range of Reading and Level of Text Complexity** 10. Actively engage in group reading activities with purpose and understanding.	**Integration of Knowledge and Ideas** 7. Use illustrations and details in a story to describe its characters, setting, or events. 8. (Not applicable to literature) 9. Compare and contrast the adventures and experiences of characters in stories. **Range of Reading and Level of Text Complexity** 10. With prompting and support, read prose and poetry of appropriate complexity for grade 1.	**Integration of Knowledge and Ideas** 7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot. 8. (Not applicable to literature) 9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures. **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Technology Integration Ideas	**e-books** (e.g., pbskids.org/clifford,www.tumblebooks.com- free through your local library, www.storylineonline.net, www.rif.org/us/kids.htm, www.starfall.com, www.robermunsch.com, www.meddybumps.com, www.betweenthelions.org, www.bookpop.com, www.teacher.scholastic.com/clifford1) **multicultural e-books** (e.g., storycove.com), **DE Streaming Videos** (e.g., folktales, myths) **Checking comprehension and win free prizes** (e.g., bookadventure.com) **websites** (e.g., meettheauthor.com, www.gigglepoetry.com), **www.magictreehouse.com** (e-mail Mary Pope Osborne and she responds to you through video) **Smartboards** (e.g., graphic organizers for comparing/contrasting stories), **YouTube, video clips**, **Pen Pals** that exchange thoughts about books (e.g., In2Books, ePals), **Google Earth** to locate different cultures, **Google Earth** literature walks **watch videos of illustrators** drawing and sharing information; With a partner, a student could dictate a story and the other could **depict the illustration in Hyperstudio or kidpix**.		
Assessment	QRI-4, BRI, MAP Testing, Anecdotal Records, Individual Think Books		

Comprehension: Literature

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Integration of Knowledge and Ideas** 7. Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a charcter or setting). 8. (Not applicable to literature) 9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series). **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently.	**Integration of Knowledge and Ideas** 7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. 8. (Not applicable to literature) 9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literacture from different cultures. **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	**Integration of Knowledge and Ideas** 7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). 8. (Not applicable to literature) 9. Compare and contrast stories in the same genre (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently.
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research) Serafini, F. (2001). *The reading workshop: Creating space for readers*. Heinemann, Portsmouth: NH. Allington, R. L. (2001). *What really matters for struggling readers: Designing research- based programs*. Longman: New York, NY. Long, T. W. & Gove, M.K. (2003). How engagement strategies and literature circles promote critical response in a foutht-grade, urban classroom. *The Reading Teacher, 57*(4), 336-350. Baumann, J. F., Hooten, H., & White, P. (1999). Teaching comprehension through literature: A teacher research project to develop fifth graders' reading strategies and motivation. *The Reading Teacher, 53*(1), 38. Bluestein, N. (2002). Comprehension through characterization: Enabling readers to make personal connections with literature. *The Reading Teacher, 55*(5), 431.		

APPENDIX Z

Comprehension: Informational Text Alignment

Comprehension: Informational Text

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Key Ideas and Details** 1. With prompting and support, ask and answer questions about key details in a text. 2. With prompting and support, identify the main topic and retell key details of a text. 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. **Craft and Structure** 4. (See Vocabulary) 5. Identify the front cover, back cover, and title page of a book. 6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.	**Key Ideas and Details** 1. Ask and answer questions about key details in a text. 2. Identify the main topic and retell key details of a text. 3. Describe the connection between two indviduals, events, ideas, or pieces of information in a text. **Craft and Structure** 4. (See Vocabulary) 5. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. 6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	**Key Ideas and Details** 1. Ask and answer such questions as *who, what, where, when , why*, and *how* to demonstrate understanding of key details in a text. 2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. 3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. **Craft and Structure** 4. (See Vocabulary) 5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. 6. Identify the main prupose of a text, including what the author wants to answer, explain, or describe.
National Educational Technology Standards for Students	**1. Creativity and Innovation** Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: a. apply knowledge to generate new ideas, products, or processes b. create original works as a means of personal or group expression c. use models and simulations to explore complex systems and issues d. identify trends and forecast possibilities **2. Communication and Collaboration** Students use digital media and environments to communicate and work collaborateively , including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats"		

Comprehension: Informational Text

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Key Ideas and Details** 1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 2. Determine the main idea of a text; recount the key details and explain how they support the main idea. 3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. **Craft and Structure** 4. (See Vocabulary) 5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. 6. Distinguish their own point of view from that of the author of a text.	**Key Ideas and Details** 1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. 2. Determine the main idea of a text and explain how it is supported by key details; summarize the text. 3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. **Craft and Structure** 4. (See Vocabulary) 5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. 6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.	**Key Ideas and Details** 1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. 2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. 3. Explain the relationshps or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. **Craft and Structure** 4. (See Vocabulary) 5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. 6. Analyze multiple accounts of the same event or topic, noting important simliarities and differences in the point of view they represent.
Technology Integration Ideas	**webquests** **trackstar.4teachers.org** **meet the author** (e.g., meettheauthor.com, iTunes-meet the author) **video clips** (e.g., You Tube, Discovery Education Streaming) **electronic field trips** (e.g., efieldtrips.org, thinkport.org, froguts.com, meetmeatthecorner.org, ket.org/trips, quest.nasa.gov/vft, history.org/trips, learnz.org/nz, readwritethink.org-search virtual field trips, agriculture.purdue.edu/zipTrips/PUzipTrip.shtml) **Online informational resources** (e.g., AEA-WorldBook Encyclopedia) **GoogleEarth** (e.g., zoom into locations discussed in readings) **Online content areas & current events** (timeforkids.com/TFK/kids/news; weeklyreader.com/featurezone; www.digitalhistory.uh.edu; kids.nationalgeographic.com/kids; kidsblogs.nationalgeographic.com/kidsnews; sciencenewsforkids.org; www.nasa.gov/kidsclub)		

Comprehension: Informational Text

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Integration of Knowledge and Ideas** 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). 8. With prompting and support, identify the reasons an author gives to support points in a text. 9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). **Range of Reading and Level of Text Complexity** 10. Actively engage in group reading activities with purpose and understanding.	**Integration of Knowledge and Ideas** 7. Use illustrations and details in a text to describe its key ideas. 8. Identify the reasons an author gives to support points in a text. 9. Identify basic similarities and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). **Range of Reading and Level of Text Complexity** 10. With prompting and support, read informational texts appropriately complex for grade 1.	**Integration of Knowledge and Ideas** 7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. 8. Describe how reasons support specific points the author makes in a text. 9. Compare and contrast the most important points presented by two texts on the same topic. **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
National Educational Technology Standards for Students	3. Research and Information Fluency Students apply digital tools to gather, evaluate, and use information. Students: a. plan strategies to guide inquiry b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks d. process data and report results 4. Critical Thinking, Problem Solving, and Decision Making Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students: a. identify and define authentic problems and significant questions for investigation b. plan and manage activities to develop a solution or complete a project c. collect and analyze data to identify solutions and/or make informed decisions d. use multiple processes and diverse perspectives to explore alternative solutions		
Assessment	QRI-4, BRI, MAP Testing, Anecdotal Records, Individual Think Books, write a summary or report, presentations		

Comprehension: Informational Text

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Integration of Knowledge and Ideas** 7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). 8. Describe the local connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, firest/second/third in a sequence). 9. Compare and contrast the most important points and key details presented in two texts on the same topic. **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2-3 text complexity band independently and proficiently.	**Integration of Knowledge and Ideas** 7. Interpret information presented visually, orally, or quanitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. 8. Explain how an author uses reasons and evidence to support particular points in a text. 9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the gradess 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	**Integration of Knowledge and Ideas** 7. Draw on information from mulitple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. 8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). 9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. **Range of Reading and Level of Text Complexity** 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently.
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research)		

APPENDIX AA

Phonemic Awareness Alignment

Phonemic Awareness

Curriculum

	Kindergarten	Grade 1
National Standards Common Core	**Phonological Awareness** 2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Recognize and produce rhyming words. b. Count, prounouce, blend, and segment syllables in spoken words. c. Blend and segment onsets and rimes of single-syllable spoken words. d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. * (This does not include CVCs ending with /l/, /r/, or /x/.) e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.	**Phonological Awareness** 2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of indvidual sounds (phonemes).
National Educational Technology Standards for Students	**6. Technology Operations and Concepts** Students demonstrate a sound understanding of technology concepts, systems, and operations. Students: a. understand and use technology systems b. select and use applications effectively and productively	
Technology Integration Ideas	**Books, songs, and poems on YouTube, tapes, CDs, DVDs,** **Music video clips** (e.g., PBS Between the Lions website, YouTube)	
Assessment	PAT, The Tile Test, Yopp-Singer Test of Phoneme Segmentation, Anecdotal Records	
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research) Chapman, M. L. (2003). Phonemic awareness: Clarifying what we know. *Literacy Teaching and Learning, 4*(1 & 2), 91-114. Krashen, S. (2002). The great phonemic awareness debate: A recent episode. *Wisconsin State Reading Association Journal, 44*, 51-55. Stahl, S.A. & Murray, B.A. (1994). Defining phonological awareness and its relationship to early reading. *Journal of Educational Psychology*, 86, 221-234.	

APPENDIX BB

Phonics and Word Recognition Alignment

Phonics and Word Recognition

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Phonics and Word Recognition**	**Phonics and Word Recognition** 3	**Phonics and Word Recognition** 3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading regularly spelled one-syllable words. b. Know spelling-sound crrespondences for additional common vowel teams. c. Decode regularly spelled two-syllable words with long vowels. d. Decode words with common prefixes and suffixes. e. Identify words with inconsistent but common spelling-sound correspondences. f. Recognize and read grade-appropriate irregularly spelled words.
	Grade 3	**Grade 4**	**Grade 5**
National Standards Common Core	**Phonics and Word Recognition** 3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Identify and know the meaning of the most common prefixes and derivational suffixes. b. Decode words with common Latin suffixes. c. Decode multisyllable words. d. Read grade-appropriate irregularly spelled words.	**Phonics and Word Recognition** 3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g. roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.	**Phonics and Word Recognition** 3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g. roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Phonics and Word Recognition

National Educational Technology Standards for Students	**2. Communication and Collaboration** Students use digital media and environments to communicate and work collaborateively, including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. **6. Technology Operations and Concepts** Students demonstrate a sound understanding of technology concepts, systems, and operations. Students: a. understand and use technology systems b. select and use applications effectively and productively
Technology Integration Ideas	**Games** (e.g., www.vocabulary.co.il, www.learninggamesforkids.com), **Software programs** (e.g., Scholastic's System 44), **YouTube phonics learning videos** (e.g., Phonics song), **Smartboard activities**
Assessment	Writing samples, QRI-4 (word lists), BRI (word lists), Fry Words, Anecdotal Records
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research) Rasinski, T. & Oswald, R. (2005). Making and writing words: Constructivist word learning in a second-grade classroom. *Reading and Writing Quarterly, 21*(2), 151-163. Gates, L. & Yale, I. (2011). A logical letter-sound system in five phonic generalizations. *The Reading Teacher, 64*(5), 330-339. Bear, D. R. & Templeton, S. (1998). Explorations in developmental spelling: Foundations for learning and teaching phonics, spelling, and vocabulary. *The Reading Teacher, 52*(3), 222-242.

APPENDIX CC

Vocabulary Alignment

Vocabulary

Curriculum

National Standards Common Core

Kindergarten	Grade 1	Grade 2
Craft and Structure (Literature) 4. Ask and answer questions about unknown words in a text. **Craft and Structure (Informational Text)** 4. With prompting and support, ask and answer questions about unknown words in a text. **Vocabulary Acquisition and Use** 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *kindergarten reading and content*. a. Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb *to duck*). b. Use the most frequently occurring inflections and affixes (e.g., *-ed, -s, re-, un-, pre-, -ful, -less*) as a clue to the meaning of an unknown word. 5. With guidance and support from adults, explore word relationships and nuances in word meanings. a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.	**Craft and Structure (Literature)** 4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. **Craft and Structure (Informational Text)** 4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. **Vocabulary Acquisition and Use** 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 1 reading and content,* choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Use frequently occurring affixes as a clue to the meaning of a word. c. Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks, looked, looking*). 5. With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.	**Craft and Structure (Literature)** 4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. **Craft and Structure (Informational Text)** 4. Determine the meaning of words and phrases in a text to a *grade 2 topic or subject area*. **Vocabulary Acquisition and Use** 4. Determine or clarify the meaning of unknown and multiple-meaning words and prhases based on *grade 2 reading and content,* choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy, tell/retell*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition, additional*). d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*).

Vocabulary

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). c. Identify real-life connections between words and their use (e.g., note places at school that are *colorful*). d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings. 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.	b. Define words by category and by one or more key attributes (e.g., a *duck* is a *bird* that swims; a *tiger* is a large cat with stripes). c. Identify real-life connections between words and their use (e.g., note places at home that are *cozy*). d. Distinguish shades of meaning among verbs differing in manner (e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing in intensity (e.g., *large, gigantic*) by defining or choosing them or by acting out the meanings. 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*).	e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases. 5. Demonstrate understanding of word relationships and nuances in word meanings. a. Identify real-life connections between words and their use (e.g., describe foods that are *spicy or juicy*). b. Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closley related adjectives (e.g., *thin, slender, skinny, scrawny*). 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*).
National Educational Technology Standards for Students	**2. Communication and Collaboration** Students use digital media and environments to communicate and work collaborateively , including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats		
Technology Integration Ideas	**Online dictionaries, grammar** (e.g., dictionary.com; kids.yahoo.com/reference ; dictionary.reverso.net /english-cobuild/ **Online picture dictionaries for young kids** (e.g., enchantedlearning.com/dictionary.html [many languages] **Vocabulary field trips** (e.g., trackstar.4teachers.org) **Vocabulary games/practice** (e.g., vocabulary.co.il, learninggamesforkids.com, funbrain.com) **www.wordle.com, images or clipart, word mapping**		

Vocabulary

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Craft and Structure (Literature)** 4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language. **Craft and Structure (Informational Text)** 4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*. **Vocabulary Acquisition and Use** 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company , companion*). d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.	**Craft and Structure (Literature)** 4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., *Herculean*). **Craft and Structure (Informational Text)** 4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 4 topic or subject area*. **Vocabulary Acquisition and Use** 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latiin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	**Craft and Structure (Literature)** 4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. **Craft and Structure (Informational Text)** 4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*. **Vocabulary Acquisition and Use** 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latiin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
Assessment	Peabody, Authentic assessments (write a word in a sentence or use it orally)		

Vocabulary

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	5. Demonstrate understanding of word relationships and nuances in word meanings. a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*). b. Identify real-life connections between words and their use (e.g., *describe people who are friendly or helpful*). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered).* 6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms). 6. Acquire and use accurately gade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figurative language, including similes and metaphors, in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Use the relatioship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. 6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).
Research Articles	Dalton, B. & Grisham, D. (2011). eVoc strategies: 10 ways to use technology to build vocabulary. *The Reading Teacher, 64*(5), 306-317. Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research)		

APPENDIX DD

Writing Alignment

Writing

Curriculum

National Standards Common Core

Kindergarten	Grade 1	Grade 2
Text Types and Purposes 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., *My favorite book is...*). 2. Use a combination of drawing, dictating, and writing to compose informative/ explanatory texts in which they name what they are writing about and supply some information about the topic. 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. **Production and Distribution of Writing** 4. (Begins in grade 3) 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.	**Text Types and Purposes** 1. Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure. 2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure. 3. Write narratives in which they recount two or more appropriately sequences events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure. **Production and Distribution of Writing** 4. (Begins in grade 3) 5. With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. 6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	**Text Types and Purposes** 1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons and provide a concluding statement or section. 2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section. 3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. **Production and Distribution of Writing** 4. (Begins in grade 3) 5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editiing. 6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Writing

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Research to Build and Present Knowledge** 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. 9. (Begins in grade 4) **Range of Writing** 10. (Begins in grade 3)	**Research to Build and Present Knowledge** 7. Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions). 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. 9. (Begins in grade 4) **Range of Writing** 10. (Begins in grade 3)	**Research to Build and Present Knowledge** 7. Participate in shared research and writing projects (e.g., explore a number of books on a single topic to produce a report; record science observations). 8. Recall information from experiences or gather information from provided sources to answer a question. 9. (Begins in grade 4) **Range of Writing** 10. (Begins in grade 3)
National Educational Technology Standards for Students	1. Creativity and Innovation Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: a. apply knowledge to generate new ideas, products, or processes b. create original works as a means of personal or group expression c. use models and simulations to explore complex systems and issues d. identify trends and forecast possibilities 2. Communication and Collaboration Students use digital media and environments to communicate and work collaborateively , including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats 3. Research and Information Fluency Students apply digital tools to gather, evaluate, and use information. Students: a. plan strategies to guide inquiry b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks d. process data and report results		

Writing

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Text Types and Purposes** 1. Write opinion pieces on topics or texts, supporting a point of view with reasons. a. Introduce the topic or text they are writing about, state an opnion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opninion and reasons. d. Provide a concluding statement or section. 2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Provide a concluding statement or section.	**Text Types and Purposes** 1. Write opinion pieces on topics or texts, supporting a point of view with reasons or information. a. Introduce a topic or text clearly, state an opnion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*). d. Provide a concluding statement or section related to the opinion presented. 2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within cateogries of information using words and phrases (e.g., *another, for example, also, because).*	**Text Types and Purposes** 1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opnion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently, specifically*). d. Provide a concluding statement or section related to the opinion presented. 2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related infromation logically; include formatting (e.g., headings), illustrations, and multimdeia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across cateogries of information using words, phrases, and clauses (e.g., in contrast, especially).

Writing

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a concluding statement or section.	d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. 3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and /or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events prescisely. e. Provide a conclusion that follows from the narrated experiences or events.	d. Use precise language and domain-specific vocabulary to inform about or explain the topic. E. Provide a concluding statement or section related to the infomration or explanation presented. 3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and /or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events prescisely. e. Provide a conclusion that follows from the narrated experiences or events.
National Educational Technology Standards for Students	4. Critical Thinking, Problem Solving, and Decision Making Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students: a. identify and define authentic problems and significant questions for investigation b. plan and manage activities to develop a solution or complete a project c. collect and analyze data to identify solutions and/or make informed decisions d. use multiple processes and diverse perspectives to explore alternative solutions		

Writing

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Production and Distribution of Writing** 4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1-3 above). 5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 3 on pages 28 and 29). 6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	**Production and Distribution of Writing** 4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above). 5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 4 on pages 28 and 29). 6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.	**Production and Distribution of Writing** 4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1-3 above). 5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 on pages 28 and 29). 6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate skills to type a minimum of two pages in a single sitting.
Technology Integration Ideas	Student created e-books through PowerPoint, e-Pals, classroom blogs, wikis, writer's workshop (typing, revising, final copy), interactive writing on Elmos or Smartboards, www.literacyleader.com has several links to writing websites (e.g., assisted poetry forms, newspaper clippings, writing local news stories and posting them online on a school wiki		
Assessment	writing samples, 6+1 Traits of Writing, journaling, anecdotal records		

Writing

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	**Research to Build and Present Knowledge** 7. Conduct short research projects that build knowledge about a topic. 8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. 9.(Begins in grade 4) **Range of Writing** 10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**Research to Build and Present Knowledge** 7. Conduct short research projects that build knowledge through investigation of diifferent aspects of a topic. 8. Recall relevant information from experiences or gather information from print and digital sources; take notes and categorize information, and provide a list of sources. 9. Draw evidence from literay or informational texts to support analysis, reflection, and research. a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]") b. Apply *grade 4 Rreading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). **Range of Writing** 10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**Research to Build and Present Knowledge** 7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. 8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes on sources and finished work; provide a list of sources. 9. Draw evidence from literay or informational texts to support analysis, reflection, and research. a. Apply grade *5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, setting, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]") b. Apply grade *5 Rreading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). **Range of Writing** 10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research) Button, K., Johnson, M. J., & Furgerson, P. (1996). Interactive writing in a primary classroom. *The Reading Teacher, 49*(6), 446-454. Graves, D. (1994). Conditions of effective writing. In *A Fresh Look at Writing*. Heinemann: Portsmouth, NH. p. 103-114. Fletcher, R. & Portalupi, J. (2001). *Writing Workshop: The essential guide*. Portsmouth, NH: Heinemann.		

APPENDIX EE

Language and Grammar Alignment

Language/Grammar

Curriculum

National Standards Common Core

Kindergarten	Grade 1	Grade 2
Conventions of Standard English 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print many upper- and lowercase letters. b. Use frequently occurring nouns and verbs. c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog, dogs; wish, wishes*). d. Understand and use question words (interrogatives) (e.g., *who , what , where, when, why, how*). e. Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*). f. Produce and expand complete sentences in shared language activities. 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize the first word in a sentence and the pronoun *I*. b. Recognize and name end punctuation. c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.	**Conventions of Standard English** 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. A. Print all upper- and lowercase letters. b. Use common, proper, and possessive nouns. c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops; We hop*). d. Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their,; anyone, everything*). e. Use verbs to convey a sense of past, present, and future (e.g., *Yesterday I walked home; Today I walk home; Tomorrow I will walk home*). f. Use frequently occurring adjectives. g. Use frequently occurring conjunctions (e.g., *and, but, or, so, because*). h. Use determiners (e.g., articles, demonstratives). i. Use frequently occurring prepositions (e.g., *during, beyond, toward*). 2. Demonstrate command of the conventions fo standard English capitalization, punctuation, and spelling when writing. a. Captilize dates and names of people. b. Use end punctuation for sentences. c. Use commas in dates and to separate single words in a series. d. Use conventional spelling for words common spelling patterns and for frequently occurring irregular words.	**Conventions of Standard English** 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use collective nouns (e.g., group). b. Form and use frequently occurring plural nouns (e.g., *feet, children, teeth, mice, fish*). c. Use reflexive pronouns (e.g., *myself, ourselves*). d. Form and use the past tense of frequently occurring irregular verbs (e.g., *sat, hid, told*). e. Use adjectives and adverbs, and choose between them depending on what is to be modified. f. Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy*). 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize holidays, product names, and geographic names. b. Use commas in greetings and closing of letters. c. Use an apostrophe to form contractions and frequently occurring possessives. d. Generalize learned spelling patterns when writing words (e.g., cage- badge; boy-boil). e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Language/Grammar

Curriculum

National Standards Common Core

Grade 3	Grade 4	Grade 5
Conventions of Standard English 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. b. Form and use regular and irregular plural nouns. c. Use abstract nouns (e.g., *childhood*). d. Form and use regular and irregular verbs. e. Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses. f. Ensure subject-verb and pronoun-antecedent agreement.* g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. h. Use coordinating and subordinating conjunctions. i. Produce simple, compound, and complex sentences. 2. Demonstrate command of the conventions of standard English capitalizations, punctuation, and spelling when writing. a. Capitalize appropriate words in titles. b. Use commas in addresses. c. Use commas and quotation marks in dialogue. d. Form and use possessives.	**Conventions of Standard English** 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. c. Use modal auxiliaries (e.g., *can, may, must)* to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than a *red small bag*). e. Form and use prepositional phrases. f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* g. Correctly use frequently confused words (e.g., *to, too, two*; *there their*).* 2. Demonstrate command of the conventions of standard English capitalizations, punctuation, and spelling when writing. a. Use correct capitalization. b. Use commas and quotation marks to mark direct speech and quotations from a text. c. Use a comma before a coordinating conjunction in a compound sentence. d. Spell grade-appropriate words correctly, consulting references as needed.	**Conventions of Standard English** 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. b. Form and use the perfect (e.g., *I had walked, I have walked, I will have walked*) verb tenses. c. Use verb tense to convey various times, sequence, states, and conditions. d. Recognize and correct inappropriate shifts in verb tense.* e. Use correlative conjunctions (e.g., *either/or, neither/nor*). 2. Demonstrate command of the conventions of standard English capitalizations, punctuation, and spelling when writing. a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory element from the rest of the sentence. c. Use a comma to set off the words yes and no (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). d. Use underlining, quotation marks, or italics to indicate titles of works. e. Spell grade-appropriate words correctly, consulting references as needed.

Language/Grammar

Curriculum

	Grade 3	Grade 4	Grade 5
National Standards Common Core	e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness). f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.		
National Educational Technology Standards for Students	**2. Communication and Collaboration** Students use digital media and environments to communicate and work collaborateively , including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats		
Technology Integration Ideas	www.learninggamesforkids.com, Mango, liveMocha.com, Wikibook, Eliteskills		
Assessment	writing samples, journal		
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research) Moll, L. C., Amanti, C., Neff, D. & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice, 31*(2), 132-141.		

APPENDIX FF

Speaking and Listening Alignment

Speaking and Listening

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Comprehension and Collaboration** 1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussion (e.g., listening to others and taking turns speaking about the topics and texts under discussion). b. Continue a conversation through multiple exchanges. 2. Confim understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	**Comprehension and Collaboration** 1. Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussion (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. c. Ask questions to clear up any confusion about the topics and texts under discussion. 2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. 3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	**Comprehension and Collaboration** 1. Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussion (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion. 2. Recount or describe key ideas from a text read aloud or information presented orally or through other media. 3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
National Educational Technology Standards for Students	1. Creativity and Innovation Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: a. apply knowledge to generate new ideas, products, or processes b. create original works as a means of personal or group expression c. use models and simulations to explore complex systems and issues 2. Communication and Collaboration Students use digital media and environments to communicate and work collaborateively , including at a distance, to support individual learning and contribute to the learning of others. Students: a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. b. communicate information and ideas effectively to multiple audiences using a variety of media and formats		

Speaking and Listening

Curriculum

	Kindergarten	Grade 1	Grade 2
National Standards Common Core	**Presentation of Knowledge and Ideas** 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. 6. Speak audibly and express thoughts, feelings, and ideas clearly.	**Presentation of Knowledge and Ideas** 4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. 5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings. 6. Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)	**Presentation of Knowledge and Ideas** 4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences. 5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when approprate to clarify ideas, thoughts, and feelings. 6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on page 26 and 27 for specific expectations.)
Technology Integration Ideas	Audacity.com, Garageband, Animoto.com/education, online radio reading, karoke, taped recorded literature circles		
Assessment	Obervation with a Checklist, tape recorded literature circles		

Speaking and Listening

Curriculum

	Grade 3	Grade 1	Grade 2
National Standards Common Core	**Comprehension and Collaboration** 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts,* building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gainging the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion. 2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. 3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	**Comprehension and Collaboration** 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts,* building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on informatio, and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. 2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. 3. Identify the reasons and evidence a speaker provides to support particular points.	**Comprehension and Collaboration** 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts,* building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. 2. Summarize a written text read aloud or information preseneted in diverse media and formates, including visually, quantitatively, and orally. 3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
Research Articles	Doing What Works (n.d.). www.dww.ed.gov (several multimedia tutorials, video clips, & links to research)		

APPENDIX GG

Lit-Tech Integration Training Certificate of Completion

This certificate hereby confirms the completion of nine sessions of

Lit-Tech Integration

Training provided by the Community School District of Utopia

Awarded to

[Recipient Name]

On (enter date)

[Name, Title]

[Name, Title]