Intense Reading Every-Day for Academic Development (iREAD)

Maryetta Public Schools

Grant #S215G140045

Program Evaluation
October 1, 2014 through September 30, 2016
With funding by the U.S. Department of Education

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Maryetta Public Schools, located in Adair County, is a very rural, economically depressed area of Northeastern Oklahoma. The school serves 624 K-8th grade students with the following demographics: 82% American Indian, 11% Caucasian, 6% Hispanic, and 1% Two or More Races. English language learners represent 38% of the student population, and over 20% of students are identified for Special Education services. Of students, 77% qualify for the free/reduced lunch program, and this elementary school is a school-wide Title I school.
The purpose of the iREAD comprehensive two-year evaluation was to establish baseline data for this project, document the implementation of the planned activities, and determine the impact of those activities upon completion of the project. The iREAD Evaluation Plan specified these evaluation questions:

1. To what extent did the project meet its grant objectives?
2. To what extent did the project implement programs founded in research-based reading strategies?
3. How effective were the processes used in the project?
4. What impact did the project have on students, teachers, administrators, parents, and community stakeholders?
5. To what extent did teachers incorporate technology-based instruction literacy strategies into their classroom practices?

Grant and Proposal Specialists LLC received the contract to conduct this evaluation through a competitive bidding process awarded in October 2014 for a two year contract which ended on September 30th, 2016. The evaluator met with iREAD staff on a regular basis to gain a deeper understanding of how the program was implemented during the two year funding cycle, and to discern any issues that might have arisen during implementation. The purpose of gathering this feedback was to provide summative input to Maryetta administrators and iREAD grant staff. This report summarizes highlights of the major findings of the project and presents recommendations and questions to facilitate discussion about programmatic adjustments moving forward.

The evaluator conducted group interviews with teachers, iREAD staff, and parents during activities and events over the course of the two years. These groups spoke to the evaluator about the reach of the iREAD project, dissemination of information, perceptions of service quality, problems with implementation, and other topics relevant to the evaluation. Interview questions are included in Appendix A. Questions were aligned with relevant foci of the evaluation. Each of the targeted group interviews ranged from four to six participants, and each session lasted between 20 and 45 minutes. Interviews were transcribed and formed the basis for thematic analyses. In addition to interviews, the evaluator generated monitoring tools for tracking implementation progress of the grant in an effort to document grant activities and objective outcomes. Products generated by the evaluator for the iREAD grant evaluation included:

- iREAD Annual Performance Reports;
- Monthly budget reports;
- Evaluation instruments/tools;
- Attendance at advisory meetings;
- Site visits;
- Attendance at family literacy events;
- Records review of documents, staff development completed, and integration of iREAD activities and their alignment to the district’s Strategic Plan;
- Student reading assessment data; and
- Classroom observations

**Executive Summary**

The purpose of this report is to provide descriptive information about educational practices to improve the literacy skills of students in grades PK-8 enrolled in Maryetta Public Schools in Northeastern Oklahoma as related to the core objectives of the U.S. Department of Education’s Innovative Approaches to Literacy (IAL) program.
Literacy is the foundation for success in academics as well as in life for all individuals. The abilities to read and write are essential skills to function in the 21st Century. As the world turns digital, it is imperative that individuals are literate in all formats necessary to succeed in this world of technology. Maryetta understands that they must prepare students for a global world that involves not only being literate, but being literate in the many formats of text. Building a 21st Century learning environment requires a technological infrastructure that includes access to devices such as desktop and laptop computers, tables, electronic readers and smart phones (Jones, Fox, & Levin, 2011). Maryetta Public Schools is committed to the preparation for the 21st Century for all of its students, addressing their diverse cultures and needs. Since students who struggle with aspects of literacy may benefit from learning through technology, Maryetta has implemented the iREAD Program with funding from the U.S. Department of Education in the amount of $797,745 used to incorporate a two-year grant implementation plan.

The IAL program supports high-quality programs designed to develop and improve literacy skills for children and students in high-need local educational schools. The Department supports innovative programs that promote early literacy for young children, motivate older children to read, and increase student achievement by using school libraries as partners to improve literacy, distributing free books to children and their families, and offering high-quality literacy activities. Many schools and districts across the Nation do not have school libraries that deliver high-quality literacy programming to children and their families. Additionally, many schools do not have qualified library media specialists and library facilities. Where facilities do exist, they often lack adequate books and other materials and resources. In many communities, high-need children have limited access to appropriate age- and grade-level reading material in their homes. The IAL program supports the implementation of high-quality plans for childhood literacy activities and book distribution efforts that are supported by evidence of strong theory and best practices.

**Key Findings/Recommendations**

**Evaluation Question:** To What Extent Did The Grant Meet Its Objectives?

**Objective 1:** To increase the percentage of 4-year old Maryetta children participating in the project who achieve significant gains in oral language skills by 10% each year of the project through culturally-infused activities as measured by the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment.

**Objective 1 Results:** Baseline data indicated that 94% of students were above the benchmark and not in need or remediation services. This trend continued for the duration of the grant cycle with 100% of students meeting the benchmark in 2016 and not requiring remediation services. The 70% mandated score set by GPRA was also met.

Additional assessment data for Maryetta pre-school students was provided through collaboration with the Cherokee Nation and based on the Teaching Strategies GOLD, an evidence-based, What Works Clearinghouse approved assessment for pre-school children. This assessment blended ongoing, authentic, observational assessments across all areas of development and learning with intentional, focused, performance assessment tasks for selected literacy objectives. Cherokee Nation collected evidence of children’s knowledge, skills, and behaviors during meaningful everyday experiences in their Maryetta educational setting. The system was used inclusively of children with disabilities, children who developed typically, and children who demonstrated competencies beyond typical developmental expectations. It also supported the assessment of children who are English and ELL learners. Teaching Strategies GOLD findings for four year olds during the duration of the iREAD project:
Table 1: Teaching Strategies GOLD Findings

<table>
<thead>
<tr>
<th>Areas of Assessment</th>
<th># of Students</th>
<th>% Below Growth Range August 2014</th>
<th>% At or Above Growth Range May 2015</th>
<th>% At or Above Growth Range May 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>51</td>
<td>10%</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>Cognitive</td>
<td>49</td>
<td>4%</td>
<td>96%</td>
<td>100%</td>
</tr>
<tr>
<td>Literacy</td>
<td>50</td>
<td>4%</td>
<td>96%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Data Source: Cherokee Nation 2016

Key Finding: Changes in Kindergarten Preparation

Maryetta went from 72% of their students enrolling in Kindergarten prepared for literacy and numeracy work appropriate for five and six year old students to 98% of students prepared for literacy work and 95% of student prepared for numeracy work upon entering Kindergarten. In addition, PK students were taught technology usage for literacy development and were better prepared for success with 21st Century skills at the conclusion of the grant.

Objective 2: To increase the percentage of 3rd-grade Maryetta students who meet or exceed proficiency on the State reading assessment by 5% each year of the project as measured by state assessment data. (GPRA) Baseline data indicates that 72% of students perform below proficient set in 2014.

Objective 2 Results: In Year One of the project, 57 third grade students or 63% had meet Satisfactory or Proficient on state reading assessments. When compared to the baseline average of 72% of students, this objective was not met in Year One. In Year Two, a total of 66 students took the reading assessment in the third grade, with 53 scoring in the Satisfactory or Proficient range, or 80%. This objective was met for Year Two, while the GPRA mandated percentage of 70% was also met for Year Two.

Key Finding: Changes in Student Reading Habits and Attitudes Toward Reading

Maryetta teachers believe that when students begin to enjoy reading on their own time not because a teacher said to but because they actually enjoy it, positive changes in the classroom are evident. This belief is factual according to a pre/post Maryetta student survey given to students prior to onset of the iREAD program and at the conclusion in May 2016. According to findings, 72% of Maryetta students indicated that they are participating in leisure reading in 2016 compared to 41% in 2014. Fifty percent stated they now read “when they get a chance”, compared to 38% in 2014. In addition, 42% stated they now read constantly compared to 21% in 2014.

Objective 3: To increase the percentage of 8th-grade Maryetta students who meet or exceed proficiency on the State reading assessment by 5% each year of the project as measured by state assessment data. (GPRA) Baseline data indicates that 58% of students perform below proficient which was set in 2014.

Objective 3 Results: At the eighth grade level on Oklahoma State Reading assessments, a baseline for the 2014 school year indicated that 58% of students scored in the Satisfactory or Proficient score range. This baseline data was compared to the 49 students who completed the assessment in 2015, or Year One of the project, with 36 scoring in the Satisfactory or Proficient range or 73%. The objective was met for Year One. In 2016, a total of 64 students completed the reading assessment at the 8th grade level with 45 scoring in the Satisfactory or Proficient range, or 70% of the student population. Year Two found that less students were scoring in the required range than was projected, so this objective was not met for Year Two. It is important to note, however, that Year Two did meet the 70% mandated score indicating that Maryetta students are headed in the right direction.
Key Finding: Changes in Literacy Instruction Moved from Novel-Based Instruction to Skills-Based Instruction

Teachers who taught Reading at the 8th grade level prior to 2014 used novels to teach reading/English concepts and skills. Upon completion of the iREAD Project, teachers realized that novels should not be the focus of their instruction but rather the skills students wanted to learn. Teachers now allow students to select what books they want to read instead of doing classroom novels. This allows students to read for pleasure and enjoyment, while also learning the necessary reading skills that are being taught.

Objective 4: To increase access to and usage of library materials by 25% each year of the project as measured by Destiny Library Management Software circulation reports. Baseline data indicates the average circulation rate is 31 books annually per student.

Objective 4 Results: Destiny software circulation rates for elementary students for Maryetta indicated that 42 books per student were checked out or downloaded as an e-book at a rate of 74%. This objective was met.

Key Finding: Changes in Teacher/Library Collaboration

Prior to the iREAD grant, collaboration between the library staff at the school and classroom teachers was limited to weekly designated library time only. Through the opportunities for all staff to participate in collaborative professional development, staff began to work together on specific units and lessons that teachers wanted to incorporate, and staff began to collaborate on resources that would be purchased and used such as technology APPS for the e-readers and iPADS.

Objective 5: Increase technology integration and differentiated instruction by classroom teachers aligned to the Oklahoma Academic Standards by 15% each year of the project as measured by Teacher Leader Effectiveness Evaluation System calibrated to state student assessment scores. Baseline data indicated that 83% of teachers scored a 4.0 or above on a 5-point scale.

Objective 5 Results: Data taken from the May 2014 teacher evaluation system indicated that 83% of Maryetta teachers scored above a 4 point rating scale on a five point scale teacher evaluation in Technology Integration Domain. In Year Two of this grant, a total of 95% of teachers scored a 4.0 or higher in the Technology Integration Domain of the Teacher/Leader Effectiveness Evaluation System, an increase of 15%. This objective has been met.

Key Finding: Changes in Teacher Knowledge and Practice

Data gathered from questionnaire items were analyzed using SPSS 15.0. Descriptive statistics, a multivariate analysis, and analysis of variance (ANOVA) were used. In addition, the evaluator analyzed these items using “item Analysis” method in order to gain a deeper understanding of the results of the questionnaire.

Evaluation Question: How Do Maryetta Teachers Perceive Their Competencies in Technology Integration?

Results indicated that teachers highly regard their competencies in technology integration. The mean scores of the Maryetta teachers ranged from 4.0 to 4.8 on a 5-point scale. This high perception by teachers might be due to the fact that technology integration in classrooms is a part of their teacher evaluation, and the tremendous amount of technology training the district teachers have received through iREAD and other federal grant programs.
### Table 2: Teacher Technology Competencies

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am proficient in the use of common input and output devices; I can solve</td>
<td>4.8</td>
<td>0.4</td>
</tr>
<tr>
<td>routine hardware and software problems; I can make informed choices about</td>
<td></td>
<td></td>
</tr>
<tr>
<td>technology systems, resources, and services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can use technology to locate, evaluate, and collect information from a</td>
<td>4.6</td>
<td>0.5</td>
</tr>
<tr>
<td>variety of sources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can use technology tools and information resources to increase productivity,</td>
<td>4.5</td>
<td>0.6</td>
</tr>
<tr>
<td>promote creativity, and facilitate academic learning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can use content-specific tools to support learning.</td>
<td>4.5</td>
<td>0.6</td>
</tr>
<tr>
<td>I can collaborate in constructing technology-enhanced models.</td>
<td>4.5</td>
<td>0.6</td>
</tr>
<tr>
<td>I can use technology tools to process data and report results.</td>
<td>4.4</td>
<td>0.6</td>
</tr>
<tr>
<td>I have a strong understanding of the nature and operation of technology</td>
<td>4.3</td>
<td>0.6</td>
</tr>
<tr>
<td>systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can choose learning and technology resources</td>
<td>4.1</td>
<td>0.7</td>
</tr>
<tr>
<td>I can use technology resources to facilitate higher order and complex</td>
<td>4.1</td>
<td>0.8</td>
</tr>
<tr>
<td>thinking skills, including problem solving, critical thinking, informed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>decision-making, knowledge construction, and creativity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can troubleshoot common computer problems</td>
<td>4.0</td>
<td>0.9</td>
</tr>
<tr>
<td>I can use technology in the development of strategies for solving real-world</td>
<td>4.0</td>
<td>0.7</td>
</tr>
<tr>
<td>problems and issues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can use technology tools and resources for managing and communicating</td>
<td>4.0</td>
<td>0.8</td>
</tr>
<tr>
<td>information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can evaluate and select new information resources and technological</td>
<td>4.0</td>
<td>0.7</td>
</tr>
<tr>
<td>innovations based on their appropriateness to specific tasks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can use a variety of media and formats to collaborate, publish, and interact</td>
<td>4.0</td>
<td>0.8</td>
</tr>
<tr>
<td>with my students and peers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can discuss diversity issues related to electronic media.</td>
<td>4.0</td>
<td>0.8</td>
</tr>
</tbody>
</table>

These results conform to Bauer and Kenton (2005) where they found that teachers were highly skilled with technology and had the competencies required from successful technology integration. In addition, they were also supported by Zhao (2007) who investigated perspectives and experiences of 17 teachers following technology integration training. Four major categories of technology-related activities were observed among participants: (a) teacher-centered, (b) structured inquiry, (c) teacher-student negotiated, and (d) student-centered. Most teachers were willing to use technology, expressed positive experiences with technology integration training, increased their use of technology in the classroom, and used technology more creatively.

**Evaluation Question:** To what extent did the project implement programs founded in research-based reading strategies?

Maryetta Public Schools implemented two research-based reading programs in conjunction with iREAD. Both programs have been cited in the What Works Clearinghouse with moderate evidence of effectiveness without reservations. These programs included SpellRead and Really Great Reading.

**SpellRead**

Grant funding provided an opportunity for Maryetta teachers to implement the SpellRead reading/literacy program as a blended learning, computer based curriculum for supplemental reading enrichment and literacy training. SpellRead is a unique science-based phonological auditory training program for struggling readers. The program focused on phonological automaticity and reading fluency while providing explicit comprehension
and vocabulary instruction. Aligned with current reading research and backed by independent research, SpellRead provided an integrated, multi-sensory approach that builds a student’s sound system and then bridges it with students’ oral language. Students heard, manipulated, and processed sounds, and then mastered the relationships between sounds and letters. By working on mastering the sounds of the English language, beginning with those easiest to hear and manipulate to the most difficult, and by combining rigorous phonemic and phonetic activities with active reading and writing, SpellRead didn’t just accommodate deficiencies, but changed how students read. SpellRead reliably improves reading fluency and comprehension across diverse populations.

The report of the National Reading Panel (2000) revealed five essential components of an effective reading program: phonemic awareness, phonics, fluency, vocabulary and comprehension. The SpellRead program incorporated these five critical elements with a particular emphasis on the first three. A basic underlying assumption of the SpellRead intervention was that fluency in phonological skills will free a student’s mental capacity permitting an unhindered focus on comprehension and vocabulary acquisition.

Phonemic awareness activities were prevalent in the SpellRead program. Listening exercises involved phoneme isolation of initial, medial, and final sounds, segmenting a syllable or word into its individual sounds, blending a word that the teacher had segmented, and phoneme manipulation. Activities in phonemic awareness and phonics occurred side-by-side to facilitate the acquisition of the alphabetic principle. The advanced phonics applications with secondary vowels, consonant clusters and polysyllabic words found in Phase B and C were a crucial part of reading and spelling instruction for older struggling readers. Activity books were aligned with instruction so that the writing of letter-sounds, syllables and words emphasizes the speech to print connection. Initially, phonemic awareness and phonics tasks concentrate on developing accuracy and then they build speed. A highlight of this program was the creative and varied array of phonemic awareness and phonics exercises that enhance student motivation while simultaneously working and reworking a skill to the point of automaticity.

Fluency was another important goal of the program and was addressed uniquely in terms of automaticity of response in all phonemic awareness and phonics activities. Speed-reading was one activity that occurred daily and consisted of the student quickly reading the word or syllable cards. Another aspect of fluency work involves placing students in the correct book level so that reading flows effortlessly. During the share-reading and free-writing portion, students were able to synthesize and apply the skills they have been learning to the stories they were reading. Each student and the instructor took turns reading orally for a short time while the others follow along (shadow) in their own books. Literal and inferential questioning was the primary comprehension strategy of this program. Before reading begins, teachers posed questions to stimulate prior knowledge, recall events of the previous day’s reading, or to prompt students to make a prediction. While students read aloud, the teacher would prompt the first sound and then said the word if a student was struggling with an unfamiliar word. In order to address potentially difficult new vocabulary during reading, teachers read a sentence from the story and asked students what they thought it meant. After reading, by means of questioning and written response, students were asked to sequence, summarize, gave a title to the chapter, or reflect on events or situations that arise in the story. Through students’ writing, teachers checked for general understanding of ideas or vocabulary, and returned a written response to each student.

Research

The SpellRead program was developed by Kay McPhee in 1994 and grew from her evolving knowledge of and experience with the hearing impaired and students with learning disabilities. A study at an elementary school in Newfoundland, Canada (Rashotte, MacPhee, & Torgesen, 2001) was conducted to determine the effectiveness of the SpellRead program delivered in small groups of 3-5 students, to poor readers from grades 1-6 during an 8-week period. The school population was socially and economically disadvantaged with 75% on social assistance and 55% coming from single parent homes with low levels of adult literacy. The sample size included 116 students in grades 1-6 selected because they were struggling with basic reading skills (roughly
below the 20th percentile). Students fell in the average range of verbal ability as measured by the Vocabulary Subtest of the Stanford-Binet (Thorndike, Hagen, & Sattler, 1986). Students were randomly assigned to treatment Group 1 (n=58) or control Group 2 (n=58). Due to the limited amount of time remaining in the school year, the first part of the intervention lasted 8 weeks.

Children in the treatment group received fifty minutes of daily instruction that was delivered in small groups of 3-5 students over an 8-week period. Children in the control group received their regular classroom instruction. Immediately after the 8-week intervention, an adaptation of a multiple baseline design allowed the control children to receive instruction with the SpellRead intervention and the intervention for the treatment children was stopped. Posttest-1 results for treatment Group 1 at the end of the first 8-week (35 hour) intervention were impressive and indicate that the SpellRead program significantly impacted all grade levels. Grades were combined into 3 units: grades 1-2, grades 3-4, and grades 5-6. Effect sizes for phonetic decoding ranged from 1.67–2.20 for the 3 grade-level groups; effect sizes for the 3 phonological awareness measures ranged from .96 for grades 1-2, 1.35 for grades 3-4, and 1.56 for grades 5-6. Effect sizes for the comprehension measures were equally large showing an average of 1.48 in grades 1-2, .73 in grades 3-4, and .54 in grades 5-6. Word–level reading showed moderate effect sizes across all grades and stronger effects for word accuracy in text reading for grades 1-4. When Group-2 (the original control group) received 7 weeks of the intervention, they showed similar positive results at Posttest-2. It is important to note that growth was sustained from Posttest-1 to Posttest-2 for Group-1.

Outcomes for several clinical samples of children taught with the SpellRead program were reported as part of a discussion of intervention outcomes that included results from other intervention methods (Torgesen, Alexander, Alexander, & MacPhee, 2003). One of the questions explored in this paper was how much intervention was needed to bring reading skills into the average range for students who begin instruction at different levels of reading skill. In three different samples that began instruction with word level skills from the 10th to the 30th percentile, exposure to instruction with the Spell Read program produced powerful instructional effects ranging from one to two standard deviations depending on the specific reading skill being measured. Depending on the amount of instruction provided, most of the reading skills of the older students in these samples were in the average range following intervention.

Really Great Reading

Really Great Reading’s Phonics Suite provided a comprehensive set of tools to Maryetta to diagnose, group and teach students with weaknesses in their foundational reading skills. The complimentary assessments (the Diagnostic Decoding Surveys) helped educators identify students with decoding issues contributing to comprehension weaknesses. Their complimentary online data management system (Grouping Matrix) used data to group students according to their decoding strengths and weaknesses while their lessons helped prevent and remediate decoding weaknesses in students at every grade level K-8 enrolled in Maryetta.

Research

Research showed that instruction in basic reading skills can help remediate a student’s weaknesses and put them back on the path to academic success (Kamil 2003). Really Great Reading’s Phonics Suite solution for struggling readers gave educators the tools they needed to effectively diagnose, group, and instruct struggling readers in grades 2-8 who lacked the basic reading skills necessary for accurate and fluent reading.

The first step to remediation was to diagnose specific weaknesses. In their 2007 guidance document, “Academic Literacy Instruction for Adolescents,” Joe Torgesen and his colleagues at the Center on Instruction described struggling readers in grades 4 through 12 as “very heterogeneous, often differing in nature of their reading problems.” They went on to explain that “some students, for example those who fit the modern research-based definitions of dyslexia or specific reading disabilities, have difficulties reading the words in text accurately and
fluently but may have quite strong vocabulary and language comprehension skills” while “others would most from tutoring in the flexible use of reading comprehension strategies” (Torgesen et. al. 2007). Some students, especially those who struggle with decoding and fluency, required “intense individualized instruction” (Snow and Biancarosa 2006).

Because adolescent struggling readers faced a variety of challenges that impeded their progress in reading, the most effective interventions were those that targeted the specific skills that interfere with a student’s ability to comprehend text. Really Great Reading’s Diagnostic Decoding Surveys allowed educators to determine whether students struggled with decoding, and when they do, the surveys pinpointed specific decoding weaknesses. This is the first step to successful intervention.

Upon identifying students with decoding weaknesses using an assessment tool like the Diagnostic Decoding Surveys, educators then needed to remediate those weaknesses. These decoding weaknesses often were what hindered students’ comprehension.

Students who struggled to decode in middle and high school frequently suffered from poor comprehension. The National Association of State Boards of Education has found that 10 percent of middle and high school students have decoding deficits that “impair their fluency and comprehension” (2006). Students needed to decode with automaticity, or without conscious effort, to be able to expend their mental energy on comprehending text. Stanovich noted that “reading for meaning” is greatly hindered when children are having too much trouble with word recognition because “when word recognition processes demanded too much cognitive capacity, fewer cognitive resources are left to allocate to higher-level processes of text integration and comprehension” (1993).

Literacy through technology integration was the focus of the iREAD program. There were numerous advantages to incorporating iPads and e-readers into the classroom. According to Ireland and Woolerton, they believe that “the iPad and e-readers have many advantages over personal computers (PC’s). For example, the price of an iPad is considerably cheaper (about $500) than a PC (over $1,000). In addition, the iPad is much lighter, smaller and easier to carry than most PC’s on the market. iPad applications were designed to be simple to use and many younger students who are not computer literate found the iPad easy to use. The large touch screen on an iPad allowed for much quicker and simpler manipulation of both materials being viewed or created. The iPad and e-readers were quick, easy, fun devices which encouraged students to use their own imagination and creativity. The touch screen made it a much more exciting tool to use than a standard PC. In addition, they can last approximately seven hours on a charged battery which makes it very accessible to use for the entire school day” (Ireland & Woolerton, 2010, p.38).

To answer the evaluation question “How do teachers perceive their students’ usage of technology in the classroom?, results showed that teachers had perception of students’ usage of technology (See Table 3). They reported high usage of technology for interaction and communication, independent learning, engagement in learning, and understanding of academic subjects. The mean score for each of these items was 4.0 on a 5-point scale. These results are supported by Holinga (1999) who studied how Project LINCOLN in Springfield, Illinois, changed children’s education in an important and meaningful way. The results of the project showed that student achievement improved across all grades.
Table 3: Student Uses of Technology

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are interacting and communicating differently with the help of technology.</td>
<td>4.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Students become more independent learners as a result of technology</td>
<td>4.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Students are more engaged in learning due to technology</td>
<td>4.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Student understanding of academic subjects has deepened due to technology use.</td>
<td>4.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Students use technology to improve their basic skills with computer programs.</td>
<td>3.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Students are developing online research expertise</td>
<td>3.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Students do more school work when not in school</td>
<td>3.8</td>
<td>0.6</td>
</tr>
<tr>
<td>The primary student-related use of technology is to teach students how to use the technology itself.</td>
<td>3.7</td>
<td>0.9</td>
</tr>
<tr>
<td>District reports that students have better grades and/or test scores since they began using technology</td>
<td>4.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Student use technology in at least some of their regular classrooms</td>
<td>4.3</td>
<td>0.7</td>
</tr>
<tr>
<td>District reports decreases in student discipline due to higher levels of student engagement.</td>
<td>3.1</td>
<td>1.2</td>
</tr>
<tr>
<td>District reports an increase in attendance on days that students are scheduled to use technology.</td>
<td>4.3</td>
<td>0.5</td>
</tr>
</tbody>
</table>

What impact did the project have on students, teachers, administrators, parents, and community stakeholders?

**Students**

Student interest and self-confidence in reading increased through the use of digital devices in learning. Students could read at their reading level without their peers knowing what they were reading. The students then did not feel pressure to check out books way above their reading level. Teachers became more aware of the use of reading levels and working with the Library Media Specialist (LMS) to ensure the correct books were checked out by all students. The digital devices allowed the LMS specialist and teachers to collaboratively monitor the books students checked out. Conversations were then had about the best books at a student’s reading level to inspire them to read.

**Teachers**

Grant staff perceived that the reading instruction offered to students and the literacy events offered to families were of high quality, highly relevant, and very useful. They were satisfied with the events and services provided, especially the participation which continued to grow over the course of the two years of the program. One staff member said that iREAD has “changed the culture of our entire school…it seems like almost every single student is at least enjoying reading and books more, and loves using technology.”

**Staffing Plan**

Shelly Eubanks was hired as a full time Reading Lab Coach, who provided reading assistance to students, and coaching and modeling of reading strategies to all classroom teachers. Also, Sherry Workman was hired as a
part-time Reading Lab Coach and concentrated on providing direct reading instruction to students in grades 3-4 for reading sufficiency. Maryetta also hired a full-time Reading Lab Coach with local funds to ensure all students that needed services received them on a formative basis. Maryetta contracted with a part-time data consultant through Tools for Reading, a state reading coach initiative. Ms. Monica Hardbarger, (former Northeastern State University faculty) provided reading data analysis training to Maryetta teachers two days per week. This is different than the original grant which called for a full time data specialist position. It was determined that the Evaluator and ALCA consultants offered a variety of data training to Maryetta staff thereby reducing the need for an additional full-time contractual partner. Ms. Hardbarger created data walls for student reading tracking purposes, and provided ongoing weekly data training to teachers on how to analyze longitudinal data using online tools to inform instruction.

Teachers’ survey responses suggested that teachers were increasingly likely to use computers and the Internet on a weekly basis from 2014 to 2016 (See Table 4). In 2014, fewer than a third of teachers reported doing any one of a variety of activities related to using technology to teach literacy. During site visits prior to the grant, Maryetta teachers acknowledged relatively low levels of technology integration. The barrier to technology integration cited most often was teacher time; teachers had limited time to learn and practice technology-related skills for teaching literacy. However, in 2016, there were significant increases in the proportions of teachers who reported using technology to teach literacy including developing curricula and assignments, presenting reading concepts to students, research and planning, and creating tests and quizzes. According to the data in Table 4, 63% of Maryetta teachers used technology to develop curricula in 2016 compared to 47% in 2014 (p<.05) which was a significant difference.

<table>
<thead>
<tr>
<th>Professional Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint professional development for teachers and library staff was held every year of the project on a monthly basis and during the summer months. Teachers completed a minimum of 130 hours of training per year in the area of professional learning communities, technology integration, reading and literacy instruction, and data driven decision making best practices.</td>
</tr>
</tbody>
</table>
First, teachers participated in Professional Learning Community training with Solution Tree, Inc. and School Report Initiative trainers. Teachers and administrators learned the value and importance of collaborating together and focused on student learning instead of teaching. This training included teachers, grant staff, and administrators attending a national Solution Tree two-day summit, having Solution Tree coaches on the Maryetta campus to work with PLC teams and guiding coalition as they learned to collaborate, create common formative assessments, and review student data to ensure learning for all students. In addition, School Reform Initiative trainers provided summer training to teachers in how to use protocols both in the classroom with students, and in their PLC meetings to guide conversation and rich data discussions. Through the PLC process, Maryetta staff and administrators learned to make a shift in the work of teachers:

<table>
<thead>
<tr>
<th>From isolation…</th>
<th>To a focus on learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>From each teacher clarifying what students must learn…</td>
<td>To collaborative teams building shared knowledge and understanding about essential learning.</td>
</tr>
<tr>
<td>From each teacher assigning priority to different learning standards…</td>
<td>To collaborative teams establishing the priority of respective learning standards.</td>
</tr>
<tr>
<td>From each teacher determining the pacing of the curriculum…</td>
<td>To collaborative teams of teachers agreeing on common pacing.</td>
</tr>
<tr>
<td>From individual teachers attempting to discover ways to improve results…</td>
<td>To collaborative teams of teachers helping each other improve.</td>
</tr>
<tr>
<td>From privatization of practice…</td>
<td>To open sharing of practice.</td>
</tr>
<tr>
<td>From decisions made on the basis of individual preferences…</td>
<td>To decisions made collectively by building shared knowledge of best practice.</td>
</tr>
<tr>
<td>From “collaboration lite” on matters unrelated to student achievement…</td>
<td>To collaboration explicitly focused on issues and questions that most impact student achievement.</td>
</tr>
<tr>
<td>From an assumption that these are “my kids, those are your kids”…</td>
<td>To an assumption that these are “our kids”.</td>
</tr>
</tbody>
</table>

Also, teachers participated in monthly literacy/reading training through reading/literacy consultants and also participated in a Master’s Degree program through Northeastern State University on the Maryetta campus which allowed eight teachers to complete their graduate degree in Reading.

Based on a review of research, seven characteristics that are generally cited as elements of best practice were identified (Means et al. 2004): (a) related to the content that teachers teach; (b) included other members of the school community (library staff); (c) was consistent with technology goals in the district; (d) provided an opportunity for meaningful engagement with colleagues and materials; (e) addressed different levels of teachers’ knowledge, skills and interests; (f) delivered over multiple sessions; and (g) included follow-up activities.

Research on the effectiveness of teacher professional development suggested that technology-related training is most effective when it relates directly to the content that faculty teach, engaged participants at their current knowledge and skill levels, was delivered over multiple sessions rather than in a single workshop, and offered follow-up activities (Gollub et al. 2002). Literature on professional development practices in general also suggested that teachers benefited more from professional development when they attend with other teachers from their schools. When teachers complete professional development together, they are more likely to support one another’s work and reinforce their own professional development goals (McLaughlin and Talbert 1993). Additionally professional development is more effective when it aligns well with district technology goals and teachers’ professional growth (Smith, Clark and Blomeyer 2005; Sweet et al. 2004). Finally, technology-related professional development that gave teachers active learning opportunities, including opportunities to
meaningfully engage with colleagues and curricular materials, helped them more successfully develop their professional practice (Bransford, Brown and Cocking 2000).

Teacher survey responses suggested that Maryetta teachers received training that related specifically to the research that supports effective professional development as demonstrated in Table 5.

Table 5 – Percent of Teachers Who Stated They Received Characteristics of “Most Useful” Technology-Related Professional Development

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included follow-up activities</td>
<td></td>
</tr>
<tr>
<td>Delivered over multiple sessions</td>
<td></td>
</tr>
<tr>
<td>Addressed different levels of teachers’ knowledge, skills, and interests</td>
<td></td>
</tr>
<tr>
<td>Provided an opportunity for meaningful engagement with colleagues</td>
<td></td>
</tr>
<tr>
<td>Was consistent with the technology goals of the district</td>
<td></td>
</tr>
<tr>
<td>Included other members of the school community</td>
<td></td>
</tr>
<tr>
<td>Was directly related to content taught</td>
<td></td>
</tr>
</tbody>
</table>

Administrators

Administrators participated in the Professional Learning Community training events each year of the project and learned the skills necessary to become instructional leaders for Maryetta teachers and not just building managers. In addition, administrators agreed that the most successful strategy of the iREAD program was the staff development that was offered during the school day in the teachers’ classrooms where iREAD staff and consultants demonstrated sound reading strategies and practices with the teachers’ students.

Parents

Family Literacy events were held each year of the project and interest in these evening sessions was evident in the increased attendance each year. Highlights from Year One’s events included:

- **Literacy 3 Preschool Family Literacy Event** in collaboration with the Cherokee Nation, a strong partner in the iREAD project. This event was held on December 16, 2014 and focused on digital literacy, English literacy, and Cherokee literacy for families of preschoolers enrolled in Maryetta which also included a visit from Santa. A total of 60 parents and their children attended this collaborative event. An evaluation of this event averaged a 4.70 on a 5.0 Likert-type scale.
• **Pirate Adventures Literacy Event** which was held on January 29, 2015 that featured pirate stories and books, make and take activities, and pirate snacks. A total of 93 parents and 121 children were in attendance ranging from age 3 - 4th grade. An evaluation of this event averaged a 4.85 on a 5.0 Likert-type scale.

• **Reading Roundup Literacy Event** was held on February 26, 2015 and featured western inspired storytelling and cowboy poetry, special events, snacks, and technology literacy training. A total of 22 teachers, 50 parents, and 69 students attending this exciting literacy event. An evaluation of this event averaged a 4.91 on a 5.0 Likert-type scale.

• **Hats Off to Dr. Seuss Event** was held on March 26th, 2015 with 128 students and parents in attendance featuring read aloud group event, breakout sessions and book club sessions, make and take crafts, door prizes, and snacks. Partners in this event included the local library and the Cherokee Nation who provided funding for the door prizes and food. An evaluation of this event averaged a 4.99 on a 5.0 Likert-type scale.

• **Literacy Luau Event** was held on April 30, 2015 with 65 students and parents in attendance. This event included Make and Take treasures, story time, and snacks. An evaluation of this event averaged a 4.85 on a 5.0 Likert-type evaluation instrument.

• **String Man Event** was held on August 27, 2015 which featured the author, Dave Titus who entertained students with his string art and tricks, while also teaching students how to write simple stories. A total of 108 parents and students were in attendance. An evaluation of this event averaged a 4.77 on a 5.0 Likert-type scale.

• **Authors Visit** was held on September 24, 2015 with 208 students and parents in attendance. The event featured an Oklahoma artist, Mr. Steven Fite and technology literacy training. An evaluation of this event averaged a 4.95 on a 5.0 Likert-type scale.

Highlights from Year Two’s events included:

• **Its Fall Charlie Brown** was held on October 29, 2015 with 142 total attendees students and parents in attendance. An average evaluation was a 4.75 on a 5 point Likert Scale.

• **Cultures Around the World** was held on November 19, 2015 with 2016 students and parents in attendance. The average evaluation was a 4.82 on a 5 point Likert Scale. This event included Make and Take books and food from various cultures from around the world.

• **Santa Claus is Coming with Books for Everyone** was held on December 17, 2015 with 190 students and parents in attendance. Children took books home and enjoyed a visit with Santa complete with milk and cookies. The average evaluation was a 4.95 on a 5 point Likert Scale.

• **Reading Under the Big Top** was held on January 28, 2016 with 148 total attendees. This circus theme provided stories read by foster grandparents and included a feast of animal crackers and crafts. The average evaluation was a 4.77 on 5 point Likert Scale.

• **Reading Round Up** was held on February 25, 2016 with 116 students and parents in attendance. This western themed event featured trick ropers, western crafts, and snacks. The average evaluation was a 4.69 on a 5 point Likert Scale.
- **Hats Off to Dr. Seuss** was held on March 31, 2016 with 127 total attendees. Families enjoyed Dr. Seuss books, crafts, and green eggs and ham. The average evaluation was a 4.87 on a 5 point Likert Scale.

- **Earth Day** was held on April 28, 2016 and featured interactive Stories and compost stew. A total of 92 students and parents attended. The average evaluation was a 4.93 on a 5 point Likert Scale.

- **A Back to School Bash** was held on August 25, 2016 with 167 total attendees. The average evaluation was a 4.88 on a 5 point Likert Scale.

- **Super Hero Day** was held on September 30, 2016 with 99 total attendees. This event featured fire and EMSA staff from the Cherokee Nation and City of Stilwell where children were reminded of everyday heroes. The average evaluation was a 4.54 on a 5 point Likert Scale.

Parents who attended literacy events were generally very “appreciative” and interested in the information and training provided. Maryetta teachers and grant staff have had parents “say thank you for different things…they’re realizing that we are doing something for their kids that other schools cannot do.” Staff described the technology integration aspects of the project as “a big thing for parents.” Parents reported that students are reading more at home and are engaged in more “casual” reading. Parents also responded positively to the books that families received from community partners and many stated “they were the first books we’ve had in our home for our children.”

All family literacy events featured reading, technology, stories, games, arts and crafts, food and a book distribution. The majority of the books were donated by local community stakeholders such as the City of Stilwell and the Cherokee Nation. Parents who were evaluated in focus groups stated:

> “These events are the highlight of our month. We haven’t missed one yet.”

> “I really appreciate the books they give the kids to bring home. We didn’t have a single book in our home for them to read or for us to read together until we started coming to these events.”

> “I’ve learned so much about how to use technology and my kids and I enjoy our story time at home using a check out e-reader. Before I started coming to these events, I couldn’t even turn on a computer.”

**Stakeholders**

Stakeholders in the grant included several community stakeholders including Northeastern State University, City of Stilwell, Cherokee Nation, and KI BOIS Foster Grandparent Program. Members of each organization served on the grant’s Advisory Board where they attended quarterly meetings. Stakeholders provided resources to support literacy-rich academic and enrichment activities and services aligned with the Oklahoma Academic Standards such as assisting with the Family Literacy events by providing speakers, readers, supplies and materials, and most importantly, books to be given to families.

**Evaluation Question: How do stakeholders perceive the quality of project activities, interventions, products, and outputs?**

Reactions to and perceptions of the iREAD activities were very positive during each year of implementation. Grant, stakeholder, and district staff discussions revealed perceptions that most of the services were good quality, highly relevant, and highly useful. Not one of the interviewees mentioned any negative reactions to any events, and in fact, often mentioned students and parents thanking them for offering the activities and services.
Students seemed to be the most engaged in the reading activities and lessons. Stakeholders such as community partners, administration and parents were satisfied with the kinds of lessons and activities that were being implemented. They also reported that students were receiving valuable reading instruction and were getting invaluable exposure to technology, specifically iPADS through the iREAD program. Stakeholders agreed that iREAD was providing students with helpful instruction, resources and experience to which they might not otherwise have access.

**Cultural Intervention**

Maryetta Public Schools and the iREAD staff team took pride in its rich Cherokee Indian history and have worked in collaboration with Northeastern State University, the Cherokee Nation, the Center for Tribal Studies, and the American Indian Resource Center to ensure that Maryetta staff participated in the annual American Indian Symposium in April of each year of the grant at Northeastern State University. iREAD staff served on the planning committee for this event and assisted in running program components and attending event sessions. In addition, students and parents enjoyed attending event sessions.

| To what extent did teachers incorporate technology-based instructional literacy strategies into their classroom practices? |

Maryetta teachers and iREAD staff received training to learn how to facilitate student-created literacy media projects to include digital storytelling, e-books, photo stories, book trailers, etc. to increase student motivation and literacy achievement. Specifically, the iREAD program focused on the following tenets for a successful literacy program:

**Read All the Time**

The more students read, the more likely they will see their reading levels go up. The iREAD program ensured that reading was something the students did as often as possible. In the classroom, reading wasn’t limited to language arts or silent reading time. Reading was also encouraged and expected during math, science, art, physical education, social studies and everywhere that learning took place. This helped to expose students to multiple types of texts and show them that reading connects to everything they are learning.

**Reading Out of School**

This can be a challenge for students who come from a home where the adults struggle with reading or a home without books and the iREAD program remedied this problem by hosting monthly family literacy events and giving books to children to take home so they could create a home book library. Teachers worked with parents to help them understand the importance of reading and encouraged them to read with their children or let their children read to them. Students also had the opportunity to check out iPADS and e-readers to take home and read and utilized new books purchased for the school library to check out books and take home for out-of-school reading time.

**Read Out loud**

Students who struggled with reading had the benefit of hearing others read. Through iREAD, teachers incorporated daily read-aloud sessions in the classroom so students could hear the traits of a strong reader and focus on key vocabulary words or elements of a story in a different way. No matter what grade students were in or at what level of reading they were, they had the opportunity to benefit from a read aloud.
Read it Again

The iREAD program taught students they didn’t have to read something new every time they picked up a book. Re-reading the same book over and over again was encouraged and helped students become more comfortable with his or her reading abilities and helped him or her become more familiar with key vocabulary words. Re-reading sentences and paragraphs of a story helped students clear up confusion, correct errors or discover something they missed the first time.

Talk About Reading

Another focus of the iREAD program was teaching students to talk about what they read. As students made predictions, answered clarifying questions and analyzed what they were reading, they learned to ask questions as they read and built skills to improve comprehension. Maryetta did this by setting up book clubs for older students in grades 7-8 and also established a parent book club. Simply asking a child what he thought about a book or to share his favorite part of a book was found to be very beneficial to students.

Find the Right Book

In order to encourage reading, Maryetta teachers knew that students had to think reading was fun. The purchase of new library books and the plethora of e-books that were purchased through the iREAD program provided books that were at an appropriate reading level and that were high interest books. It was always the goal of Maryetta teachers to find that magical book that would transform a student’s thinking about reading. To do this, students completed interest inventories and teachers discussed students’ interests during family literacy events to ensure that all new books that were purchased would help to light up a child’s imagination.

Specific reading strategies that iREAD encouraged teachers to focus on during the two years of the program included:

1. Activating Background Knowledge (Schema) by making connections;
2. Questioning to propel readers forward;
3. Making inferences—reading between the lines;
4. Visualizing—using words to see meaning;
5. Determining importance—understanding the author’s purpose;
6. Summarizing and synthesizing; and
7. Developing literal and inferential comprehension which requires students to acquire concrete skills including vocabulary, main idea, fact and opinion, sequencing, following directions, and reading for detail.

Conclusion/Recommendations

Maryetta grant staff, teachers, administrators and stakeholders commented throughout this implementation phase that, as in the previous grant, they remain committed to the iREAD program and wanted it to succeed; most especially, however, they want their students to succeed. They expressed gratitude for the program, extolling the opportunities that students have had through iREAD that they would not have without it and called it “a blessing.”

iREAD staff were satisfied with the iREAD program and continued to report that it served the students at Maryetta well. Technology integration, leisure reading time, family literacy events, and more access to books and reading materials were perceived as particularly beneficial for students. iREAD resources are still being used to enhance the district’s technological opportunities to students and relationships with community
stakeholders are quite strong and are continuing to improve what is mutually beneficial to students and the community.

**Recommendation:** To continue their focus on student learning, expand their successful implementation of the Positive Behavior Intervention Strategies (PBIS) model the district uses to improve student behavior, focus on the mental health needs of students, and decrease discipline, it is recommended that the Response to Intervention (RtI) strategies which complement and support the Professional Learning Community approach the district has already invested in be the next phase of intervention at Maryetta. RtI is a multi-tier approach to the early identification and support of children with learning and/or behavioral needs. RtI learning strategies demand extensive differentiated and one-on-one instruction from the teacher.

According to the RtI Action Network, RtI is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RtI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. These services may be provided by a variety of personnel, including general education teachers, special educators, and specialists. Progress is closely monitored to assess both the learning rate and level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction (National Center for Learning Disabilities1, 2012, What is RtI).

**Tier 1.** Within Tier 1, all students receive high-quality, scientifically based instruction provided by qualified personnel to ensure that their difficulties are not due to inadequate instruction (National Center for Learning Disabilities2, 2012, Tier 1).

**Tier 2.** Students not making adequate progress in the regular classroom in Tier 1 are provided with increasingly intensive instruction matched to their needs on the basis of levels of performance and rates of progress. Intensity varies across group size, frequency and duration of intervention, and the level of training the professionals provided instruction or intervention. These services and interventions are provided in small-group settings in addition to instruction in the general curriculum (National Center for Learning Disabilities 2, 2012, Tier 2).

**Tier 3.** At this level, students receive individualized, intensive interventions that target the students’ skill deficits. Students who do not achieve the desired level of progress in response to these targeted interventions are then referred for a comprehensive evaluation and considered for eligibility for special education services under the Individuals with Disabilities Education Improvement Act of 2004 (National Center for Learning Disabilities 2, 2012, Tier 3).

The RtI initiative is a natural next step for Maryetta based on their extensive work with the RtI counterpart, PBIS and should be considered for implementation. The RtI model is also a perfect next step to continuing to use technology. Children today are required to learn more at a younger age than ever before. Early literacy and academic skills once taught in first and second grade are now being emphasized in the Pre-Kindergarten and Kindergarten curriculum levels. In order for all children to make adequate progress, schools are implementing RtI strategies. Consistently evaluating and documenting progress for each student in addition to small group and/or individual instruction makes meeting these RtI interventions extremely difficult. Implementing iPads into the 4K curriculum would assist teachers in the Tier 1 and Tier 2 general education intervention strategies. Using applications on the iPad, teachers could key in on necessary skills that particular students need to work on. This could be done in a small group setting while the teacher works with another group of struggling students. In essence, an iPad would be like an extra set of hands in the classroom. “Most technology-based applications, particularly those designed to provide practice in basic skills can be used independently, decreasing the need for teacher-based instruction and increasing the opportunity for students to gain additional instructional time throughout the day” (Okolo & Smith, 2010, p. 19).
Appendix
This study analyzed the reading performance of students enrolled in Maryetta Public Schools compared to students enrolled in comparison school districts. Specifically, the 2014 and 2016 scores on the Oklahoma State Assessment scale scores of third and eighth grade students enrolled in Maryetta Elementary School were compared with five non-Maryetta districts with similar characteristics: schools were comparable on enrollment size, demographics, poverty, and socio-economic characteristics.

The study found that in 2014 third grade students enrolled in Maryetta had a 51.20 mean reading scale score compared to the students enrolled in the comparison schools.

Methods

The study population consisted of students enrolled in Maryetta Public Schools as the experimental group, and students enrolled in Justus Tiawah, Briggs, Woodall, Lone Star, and North Rock Creek as the comparison schools who were selected based on size, poverty, and ethnic composition comparable to Maryetta. The study sample included baseline data for students enrolled in third and eighth grade during the 2013-14 school year and 2015-16 school year in all six schools.

Oklahoma Criterion Referenced scores for 2014 and 2016 measured students’ academic performance at third and eighth grades. Third and eighth grades were selected because of federal guidelines for the grant.

IBM SPSS was utilized to analyze and compare the mean differences between 2014 and 2016 reading state scale scores for Maryetta and the comparison students. Independent t-tests were conducted to compare the mean reading scores of third and eighth grade students enrolled in Maryetta and the comparison schools. Linear regression analysis was conducted on the mean scale scores for the 2014 and 2016 state reading tests to determine the impact of at-risk status, economic status, and ethnicity on mean scale score differences for the Maryetta program and the comparison students.

Effect sizes mirrored research by Cohen (1988) and included effect sizes as small (.20), moderate (.50) and larger (.80). Only independent t-tests were used for both years. All the students for whom reading scale scores were available were used, and only those who had scores for both years. Regression coefficient was used to improve the inferential qualities of the independent t-test, aware that the coefficient for the different predictors should not be compared.

Results

How do the Maryetta students compare to the comparison school demographically?

Table 6 indicated that Maryetta students were similar to the comparison school students in nearly every area noted.
The external evaluator determined whether the implementation of the iREAD initiatives are having a significant impact on student reading achievement as measured by the Oklahoma Criterion Referenced Tests (OCCT) in Reading at grades 3 and 8. The Nonequivalent Control Group Design with Pretest and Posttest quasi-experimental design was used and Maryetta students were compared to students in these grade levels in nearby districts of Justus Tiawah, Briggs, Woodall, Lone Star, and North Rock Creek who were similar in size (all K8 districts with less than 800 students), socio-economic factors (districts with student free-reduced lunch rate of 75%), and ethnicity factors (high Native American student population). These students served as the control group. At the end of the first grant cycle in 2014 of the iREAD program (the treatment), the external evaluator analyzed students’ OCCT scores (pretest scores in Spring 2014) and the students’ OCCT scores after the second iREAD program was completed in (posttest scores in Spring 2016) and found the following results:

<table>
<thead>
<tr>
<th></th>
<th>Comparison Group</th>
<th>Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean OCCT Reading Scores Pre-Test</td>
<td>487.19</td>
<td>438.63</td>
</tr>
<tr>
<td>Mean OCCT Reading Scores Post-Test</td>
<td>491.12</td>
<td>498.41</td>
</tr>
</tbody>
</table>

While the comparison group showed an increase in reading scores as measured by OCCT from a mean of 40.02 to a mean of 41.30, the treatment group showed an increase in reading scores as measured by OCCT from a mean of 43.05 to a mean of 51.20.

The nonequivalent control group design with pretest and posttest has been described as “one of the most commonly used quasi-experimental designs in educational research” (p. 283, Cohen, Manion, & Morrison, 2007). This is often the case since students are naturally organized in groups as classes within schools and are considered to share similar characteristics (Best & Kahn, 2006).

The nonequivalent control group design with pretest and posttest is represented as:

**Experimental Group:** $NR \quad 1O \quad X \quad 2O$

**Control Group:** $NR \quad 1O \quad 2O$
In this design NR represents non-randomization, O represents pretests, X represents the treatment implemented, and O represents posttests. So while both the control and treatment group complete a pretest and posttest, the treatment group (Maryetta students) the only group that receives the research treatment. As with all other quasi-experiments, in this experimental design, groups are considered nonequivalent as groups are not randomized. Nonequivalent groups specifically mean that participant characteristics may not be balanced equally among the control and experiment group. Also, non-equivalent groups mean that participants’ experiences during the study may differentiate. More equivalent groups may be created through either matching or random treatment assignment. As matching was nearly impossible for practical reasons, the external evaluator selected samples from the same population, as well as selecting samples that are as similar as possible.

Another advantage of the nonequivalent control group design with pretest and posttest is the pretest that both control and treatment groups complete. There are several benefits associated with pretesting including that the use of a joint pretest allows researchers to analyze differences that may initially exist between control and experiment groups which then allows researchers to adjust for such differences (Green, Camili, & Elmore, 2006). Another benefit of pretesting is that such tests tell about the magnitude of differences between control and treatment groups since researchers typically assume that differences between groups can be identified with pretests. This assumption requires that researchers look specifically at the size of the difference of pretest scores. Smaller differences in pretest scores indicate that smaller differences may exist between control and treatment groups. Finally, pretesting also assists researchers while they statistically analyze data (Heiman, 1999).

The external evaluator completed a statistical analysis of the data with an independent t-test analysis of variance with the following to evaluate whether or not there was a difference between Maryetta and the comparison group districts third grade students 2014, 2015, and 2016 reading score means. The test variable was the 2016 third and eighth grade reading scores. The grouping variable had two levels: Maryetta students versus Comparison Group students. The t test was significant, \( t(186) = 2.83, p = .005 \). Therefore, the null hypothesis was rejected. The effect size as measured by \( \eta^2 \) was small (< .04). That is, 4% of the variance in 2016 reading scores was accounted for by the grouping variable (Maryetta students versus Comparison Group students.). The mean reading score for students in Maryetta (\( M = 487.19, SD = 113.26 \)) was 48.57 points higher than the mean for students in the Comparison Group (\( M = 438.63, SD = 117.79 \)). The 95% confidence interval for the difference in means was 14.71 to 82.42.
Maryetta IAL Grant
LITERACY Event Form

Event Name: _______________________________________________________________
Date of Event: ____________________ Location of Event: __________________________
Start Time: ____________________ End Time: ________________________________

Activities Offered:
☐ Speaker(s) ☐ Child Care
☐ Literacy Activity ☐ Transportation
☐ Make and Take Activity
☐ Technology Related Activity
☐ Food/Beverages
☐ Other (Please Describe): ____________________________________________________________

Were Community Organizations Involved? _____ YES _____ NO
Types of Community Organizations Involved, if applicable:
☐ Parent Organization ☐ Higher Education
☐ Business and Industry ☐ Ministerial Alliance
☐ Local Non-Profits ☐ Chamber of Commerce
☐ Extra Curricular Programs and Organizations
☐ Other (Please Describe): ____________________________________________________________

Number of Parents Participating (Can be approximate): ______________________________
Number of Students Participating (Can be approximate): ________________________________

Where Event Was Advertised:
☐ Newspaper
☐ School Website or other form of technology
☐ Information Mailed to Students/Parents
☐ Word of Mouth
☐ Television
☐ Radio
☐ Flyers/Posters

Form Completed By: ________________________ Signature: ________________________
Evaluation Form
Directions: Please indicate on the rubric below with five being the highest and one being the lowest, your belief regarding the Literacy activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity was well organized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity included opportunities for community engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent participation was encouraged</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity was well attended</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity should assist in building student literacy skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity related to technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity was supported by data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Things that should be replicated in future activities:


Thing that could enhance future activities:


Other comments:
Elementary and Middle School Teacher Surveys

Use questions from these examples to construct your own survey to find out how teachers use the school library for personal use and to support student learning.

Teacher use of the School Library

How important is the Library for your pupils in terms of…? (circle one)

<table>
<thead>
<tr>
<th></th>
<th>Very</th>
<th>Moderately</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading for pleasure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning to read</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gathering information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning how to learn</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What matters in the library? Rank in importance… (1-most important, 5 –least.)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A teaching/learning space</td>
<td></td>
</tr>
<tr>
<td>People (TLR/librarians)</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
</tr>
<tr>
<td>Timetabled accessibility</td>
<td></td>
</tr>
<tr>
<td>Planned learning activities</td>
<td></td>
</tr>
</tbody>
</table>

Which of these statements most closely match your thinking about the library?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>I use the Library frequently for a variety of purposes.</td>
<td>√</td>
</tr>
<tr>
<td>I use the Library regularly with my classes.</td>
<td></td>
</tr>
<tr>
<td>I use the Library occasionally with my classes.</td>
<td></td>
</tr>
<tr>
<td>I rarely or never use the Library with my classes.</td>
<td></td>
</tr>
</tbody>
</table>

B. I use the Library for: (tick as many as you wish)

- Book exchange
- Reading/ literacy activities
- Assignment / Inquiry work
- ICT use
Use of Resources:

How frequently do you use the following resource types? (tick as many as you wish)

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Regular use</th>
<th>Occasional use</th>
<th>I never use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-fiction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magazines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD-Rom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. My students would use the Library more IF: (tick as many as you wish)

- It fitted more into my teaching programme
- I had a better idea of Library procedures and policy
- I had a better knowledge of the resources
- I had a better teaching & learning strategies
- There were more resources for my level
- Access was easier (timetabling, location etc)
- My class was better behaved in the library
- There was someone there to support me
- Other: (specify)
I use the Library for lunchtime or after-school activities. [Yes/No]
I recommend books to the Librarian. [Yes/No]

I am on the Library Committee. [Yes/No]

Library supporting Literacy

Would you like the library to support:

- Book club meetings for students who enjoy the same types of books in the library? [Yes/No]
- A library blog or wiki where students could share responses to books they read? [Yes/No]
- Display student responses electronically or physically to promote the collection? [Yes/No]

How helpful is the school library for students with their general reading interests, (tick as many as you wish)

- The school library has helped my students find stories they like
- The school library has motivated my students to read more
- The school library has helped my students improve their reading
- The school library has helped my students enjoy reading more
- The school library has helped my students be better writers.

What are the strengths of our library in serving the needs of the children?

- ______________________________________
- ______________________________________
- ______________________________________

What could we do better?

- ______________________________________
- ______________________________________
- ______________________________________

And what are the gaps or needs?

- ______________________________________
- ______________________________________
- ______________________________________
Teachers’ Reading Interests:

<table>
<thead>
<tr>
<th>Which genres do you enjoy reading the most? (tick as many as you wish)</th>
<th>√</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Adventure</td>
<td></td>
</tr>
<tr>
<td>● Graphic Novel</td>
<td></td>
</tr>
<tr>
<td>● Biography</td>
<td></td>
</tr>
<tr>
<td>● Mystery</td>
<td></td>
</tr>
<tr>
<td>● Fantasy</td>
<td></td>
</tr>
<tr>
<td>● Tear-jerkers</td>
<td></td>
</tr>
<tr>
<td>● Historical Fiction</td>
<td></td>
</tr>
<tr>
<td>● Non-fiction</td>
<td></td>
</tr>
<tr>
<td>● Sports</td>
<td></td>
</tr>
<tr>
<td>● Supernatural</td>
<td></td>
</tr>
<tr>
<td>● Romance</td>
<td></td>
</tr>
<tr>
<td>● Drama</td>
<td></td>
</tr>
<tr>
<td>● Other</td>
<td></td>
</tr>
</tbody>
</table>

Inquiry

Collaborating with Teachers
I would like to become more involved in collaborating with you when you are developing inquiry units, so that together we can explore resources available, and I can search for and curate some relevant online and print resources for your students.

Please complete this short online survey by [insert date here]. The information you provide will help guide the library team in supporting student learning in your classrooms and across our school.

- Inquiry/ discovery learning is an important part of my teaching practice. [Yes/No]
- What inquiry units / focuses of study are you planning for this year?
- What is the likely timeline for assignments you will be setting with your students?
- Are there any specific resources or types of resources you require your students to use?
- I would like to have a brief meeting with you to discuss how the library can be used to support your students throughout this unit. Please suggest the best day and time for you

Would you like the librarian/s to help your students:
- find different sources of information? [Yes/No]
- locate information relevant to their questions and topics? [Yes/No]
- search the Internet better? [Yes/No]
- search EPIC databases? [Yes/No]
- learn a lot more facts about their topics? [Yes/No]
- know the different steps in finding and using information? [Yes/No]
- get better at taking notes? [Yes/No]
- put new information and ideas together for their topic? [Yes/No]
- write information and ideas in their own words? [Yes/No]
- learn about how they should find information next time? [Yes/No]
- how to evaluate information they find on the Internet? [Yes/No]

**Access to Resources**

Can you / your students access library resources from:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student computers in your classroom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your classroom computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your home computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students’ home computers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Directing Students to Resources**

I direct my students to use the following resources for inquiry

<table>
<thead>
<tr>
<th>Internet</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarian</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library catalogue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print reference materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic eResources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multimedia Resources</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

When my students are choosing resources for inquiry, I tell them to:

<table>
<thead>
<tr>
<th>choose their own resources</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>consult the librarian</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use eResources before the Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use the Internet only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not to use the Internet</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Maryetta IAL Grant
End of Year Reading Habits Student Survey

Student Name: _______________________________________________________________

1. Do you like to read? ☐ YES ☐ NO

2. How well do you think you read? ☐ Below Average ☐ Average ☐ Above Average

3. How much time do you spend reading in an average week?
   - ☐ 0-3 Hours    ☐ 4-6 Hours    ☐ 7-10 Hours    ☐ More than 10 hours

4. What is the greatest obstacle that prevents you from reading?
   - ☐ Not enough time
   - ☐ Nothing to read that interests me
   - ☐ No one to share books with or talk about reading
   - ☐ Nothing stands in my way

5. Where are your favorite places to read?
   ________________________________________________________________

6. How many books have you read this year? ___________________

7. Have you read more or less than last year?
   - ☐ More
   - ☐ About the Same
   - ☐ Less

8. How do you find books you would like to read?
   - ☐ Teacher recommendation
   - ☐ Librarian recommendation
   - ☐ Friend recommendation
   - ☐ Family member recommendation
   - ☐ Book commercials
   - ☐ Library visits
   - ☐ Book order forms
   - ☐ Bookstore
   - ☐ Series
   - ☐ Author
   - ☐ Randomly chosen
   - ☐ Other – Please Specify: ____________________________________________________________
9. What part of our classroom environment helps you as a reader?
   - Class reading time
   - Home reading time
   - Classroom library
   - School library
   - Teacher who reads
   - Classmates who read
   - Assignments that relate to reading
   - Read Alouds
   - Discussions about books

10. What was the best book you read this year?
    __________________________________________

11. What made this book so good?
    __________________________________________
    __________________________________________

12. List 3 books you plan on reading over the summer:
    __________________________________________
    __________________________________________
    __________________________________________
Bibliography


