

Project 3

Implementing Blended and Adaptive Learning Programs: Providing Equity for All Learners

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Introduction

The Jersey City Public School District (JCPSD), employs a continuous improvement approach to achieve its vision, mission, and goals. This entails systemic data-driven, decision-making that is grounded in research-based practices. After analyzing the data from the 2015-2016 Partnership for Assessment of Readiness for College and Careers (PARCC) scores, and surveys completed by key stakeholders, JCPSD identified the need to implement an English Language Arts (ELA) intervention program to ensure equity for all students (Lyles, 2016). After reviewing numerous programs, JCPSD selected Houghton Mifflin Harcourt's Response to Intervention approach. This three-tiered approach begins with quality research-based instruction in the mainstream classes at Tier I coupled with universal screening to identify students who need additional targeted interventions ("RTI Action Network", n.d.). Tier II instruction consist of targeted interventions for at-risk students consisting of opportunities for additional practice to hone their skills. Students who need intensive remediation receive Tier III instruction consisting of more explicit instruction with a smaller teacher to student ratio (RTI Action Network, n.d.). Students identified for Tier II targeted interventions will receive instruction using the READ 180 intervention program while those who need intensive Tier III instruction will use the System 44 program. By implementing the READ 180 and System 44 programs, JCPSD will be better equipped to foster equity and academic success for all students.

Needs Assessment

The department of Curriculum and Instruction vision statement is "to ensure that the programs, practices, and policies from Pre-K to 12 prepare our students for college and career,

are research-based, rigorous, and equitably accessible to all” (Jersey City Public School District [JCPSD], n.d.). While the district has implemented programs, practices, and policies in accordance with the vision statement, this has not translated to equitable academic success for all students. According to the district’s aggregated PARCC data for the 2015-2016 school year, JCPSD needs to take action to remediate lackluster performances in ELA at the middle school and high school level. In 6th grade, 43% of students from the district met or exceeded expectations. Additionally, 47% of 7th graders, 39% of 8th graders, 37% of 9th graders, and 38% of 10 graders met or exceeded expectations (Lyles, 2016). The overall district’s mean is 41% representing a 10% gap in comparison to the State mean of 51%. These figures indicate the need for further improvement, yet the district has made significant gains from the previous school year. JCPSD’s mean for the 2014-2015 school year was 9.4% lower at 31.4%.

While the current ELA program is resulting in gains for some, it is not effective for all students. There are significant disparities among several subgroups demonstrating a lack of equity in academic performance. Asians, and Whites scored near or above the state average with 68% and 47% respectively (Lyles, 2016.). The Hispanic and African-American populations did not average as well with 39%, and 27% respectively. While these gaps are concerning, the underperformance of the special education and English Language Learners (ELL) is truly troublesome. Only 7% of special education students and 9% of ELL students performed at or above expectations on the PARCC test.

Given that the vision of the district articulates equity for all its students, it is important to take action through the continuous improvement process. A committee of key stakeholders was formed to discuss the aggregated ELA data and find solutions to remediate the problem. After navigating the research on best practice in interventions for ELA, the curriculum and instruction

committee decided to purchase and implement the READ 180 and Systems 44 programs for students who are underperforming. Using the Hexagon Tool, the committee systematically evaluated several intervention programs. The Hexagon Tool is an instrument used to systematically select and/or assess evidence-based innovations and practices in education (Blass, Kiser, & Van Dyke, 2013). The READ 180 program was the best program for the district scoring high in all six factors including *needs, fit, resource availability, evidence, readiness for replication, and capacity to implement* (Blass, Kiser, & Van Dyke, 2013). Students who are already successful in school will continue to use the existing curriculum.

Literature Review

Introduction

Technology use in ELA should be based on research and rely on best practices in the field. Examining recent studies for theoretical framework, best practices, and the evaluation and impact of READ 180 and System 44 can help provide a solid rationale and support for implementation. This initiative will provide both blended and adaptive learning experiences for students while having them work on their ELA skills. The approach of using small-group direct instruction, individual learning, and modeled and independent reading to improve student success in ELA will also be grounded in the framework of constructivism and conceptual change (Horn & Staker, 2015). Through a rotational model, students will access three different stations and make use of the adaptive nature of the computer programs ultimately helping meet the needs of each individual learner (Horn and Staker, 2015). With the release of READ 180 in 2006 and System 44 in 2008, there is plenty of research to support implementation.

Theoretical Background Behind Learning in the ELA

Current practices in ELA, including READ 180, can be better understood by examining theoretical framework that support it, most especially constructivism and conceptual change. ELA is grounded in constructivist theories, learning theories, and development of expertise (Deane et al., 2015). According to Gilakjani, Leong, and Ismail (2013), “Constructivism is defined as the philosophical position which holds that any so-called reality is the mental construction of those who believe they have discovered and investigated it” (p. 49). The authors added that learning is both an active and social endeavor in which learners-- regardless of their age or developmental stage-- engage, design, and construct personally meaningful projects. Jonassen (2006) indicated that the growing emphasis of constructivism in education, especially the idea of conceptual change, has led researchers to study more on concepts involving meaningful learning. The author explained that the theory of conceptual change posits that people, who initially have simplified explanations for external phenomena, begin to reorganize and add complexities to their concepts of phenomena, as their experiential and reflective opportunities broaden. Additionally, he indicated that conceptual change is interconnected with the theory of constructivism. The theories of constructivism and conceptual change can be used by educators in the implementation of the ELA curriculum. Students can be encouraged to construct their own meaning of the learning material by choosing learning activities they are interested in and engaging in independent learning that can be included as part of an ELA curriculum. Because learning can also be seen as a social endeavor, collaboration with other students should be encouraged in the classroom. Jonassen (2006) also indicated that, “Conceptual change arises from the interaction between the learner’s experience and learner’s conceptions while engaged in problem solving or some higher order cognitive activity” (p. 5). By

allowing self and collaborative discovery of learning concepts, students can construct their own learning by beginning to challenge their preconceptions and adding new knowledge to their previous mental constructs through experiential and reflective learning.

The implementation of best practices in ELA can be best described by examining current key practices in the educational setting. According to Deane et al. (2015), the effective implementation of ELA in the school systems require the following general key practices to ensure optimal learning: 1) *fundamental literacy practices* (activities that assist students in entering into literate English-speaking communities); 2) *model-building practices* (tasks that assist students in creating mental models of subject area content); and 3) *applied practices* (activities that help students use literacy skills to perform intellectual work, such as scientific inquiry and analysis). The authors further specified the following eleven activities that make up ELA key practices: 1) communicating by speaking and listening; 2) reading both silently and loudly; 3) writing words; 4) sharing stories in social settings; 5) building textual knowledge; 6) planning, revising, and editing text; 7) analyzing literary elements, building interpretations; 8) discussing ideas; 9) engaging in research and intellectual inquiry; 10) apply skills and strategies (proposing, reviewing, recommending, and evaluating); and 11) discovering developmental issues pertaining to implementation of key practices for learning. When planning to choose and implement technology-based programs in ELA curriculum, educators and researchers may refer to these general and specific key practices in order to enhance student learning.

Research has been performed to identify particular best practices in the field of literacy education. Slavin, Lake, Chambers, Cheung, and Davis (2009) explained that strong evidence supports the use of cooperative learning (e.g. students working in small groups) in helping elementary-level students master reading skills. The authors also stated that the student-teacher

interactions also affect student achievement in the classroom. Therefore, educators should undergo “extensive professional development in classroom strategies intended to maximize students’ participation and engagement, give them effective metacognitive strategies for comprehending text, and strengthen their phonics skills” (Slavin, Lake, Chambers, Cheung, & Davis, 2009). Some of these best practices are evident in the implementation of READ 180 in the ELA curriculum. A few examples of how READ 180 reflects ELA best practices are: 1) scaffolding (modeling) methods to assist learners in the mastery of skills through reading repeatedly and listening to teachers and narrators in recordings read material fluently; 2) opportunities for students to self-assess their skills through the use of recordings and play-back of electronic material; and 3) implementation of student-specific instruction that are assessment- and standards aligned (Scholastic Red, n.d.).

The use of technology in ELA can enhance learning skills in the classroom and complement existing best practices that are already being implemented in the curriculum. The technology-based aspect of the READ 180 program can be considered as a mindtool. According to Kommers, Jonassen, and Mayes (1992), “Mindtools are generalizable computer tools that are intended to engage and facilitate cognitive processing...” (p. 21). Jonassen (2006) indicated that mindtools do not lessen the workload for students, but instead, challenge them to use higher-order thinking regarding the subject area. The author added that learners cannot utilize mindtools without deeply thinking about the subject area being covered, as these instructional tools promote engagement in meaning-making processes. Also, computer-based learning platforms have been utilized as “...intellectual partners with the learner in order to engage and facilitate critical thinking and higher-order learning” (Jonassen, 2000, p. 21). READ 180 can promote student reflection and self-assessment by allowing students to replay computer-based lessons,

self-assessing their reading skills, and applying skills through self-recordings saved in personal electronic portfolios (Scholastic Red, n.d.). Technology-based tools, such as READ 180, can potentially assist in the development and application of higher-order thinking.

Evaluation of the Impact of READ 180 on Student Outcomes

This section examines the findings of an in-depth research project on student outcomes in response to READ 180. Vogel's (2013) doctoral dissertation is a qualitative case study that explores the impact of READ 180 on struggling students' reading interests and comprehension outcomes. The study analyzes data from interviews, student documents, and observations to identify themes related to research questions. Vogel (2013) reports multiple beneficial results from READ 180, with some drawbacks.

The study addresses four research questions on 1) the impact of READ 180 on students' affective and cognitive reading abilities, 2) READ 180 successful teaching strategies, 3) students' reading interest in response to READ 180, and 4) READ 180's impact on overall reading skills (Vogel, 2013). The author outlines the type of data that was used to address each research question, which involved a combination of interviews, observations, and documents-related data.

The study sample is comprised of 21 ninth grade students from a Title I school with a predominantly Hispanic population. Research participants have academic deficiencies and attended daily sessions of READ 180. The sample is chosen because it is representative of the demographics of struggling learners in the district.

Vogel (2013) addresses the research questions by analyzing the effectiveness of READ 180 educational materials, participant observations, student READ 180 assignments, student progress reports, and student, teacher, and administrator interviews. Data analysis reveals that

READ 180 resulted in student cognitive development and improved student knowledge through rereading assignments that had students focus on different questions during each reading. Research also showed that READ 180 helped students develop fluency, comprehension, vocabulary, and word decoding skills (Vogel, 2013). The READ 180 assessments and teaching strategies are found to be effective because they kept students within their zone of proximal development, which is important for maximizing on-task behavior and academic outcomes (Vogel, 2013). A negative aspect of READ 180 was determined to be its text, which the researcher indicates is “substantially below grade level”, and therefore did not align with the state learning standards (Vogel, 2013).

Comprehensive Evaluation of READ 180

This section explores the findings from an in-depth study of multiple aspects of READ 180 implementation and outcomes. White et al. (2013) conducted a comprehensive evaluation of READ 180 at the secondary level in Virginia Beach City Public Schools. The report outlines progress that had been made towards meeting implementation and student outcome goals for READ 180. Goals for implementation include establishment of proper placement screening measures, ensuring student access, fidelity of implementation, and providing effective teacher training and support. Goals for outcomes include improvement of student reading skills, knowledge transfer, and attitudes towards reading. The authors also present stakeholder’s perceptions of READ 180.

Data analysis reveals the following about progress towards implementation goals. After surveying teachers, administrators, and parents, the study finds that 89 % of survey respondents indicated the READ 180 placement criteria was appropriate. 74% of teachers agree the program is accessible to all students who met the placement criteria, and 77% agree that placement

criteria aligns with the placement guidelines (White et al., 2013). To determine progress that was made towards the goal of implementing READ 180 with fidelity, teachers and administrators are asked whether the program was implemented according to the provider's guidelines. Ninety-six percent of teachers, and 100% of administrators surveyed agree the program implementation aligns with the provider's guidelines. Teachers and administrators also expressed a high level of agreement regarding the effectiveness of professional development training and support.

Research reveals the following about progress towards outcomes goals. All teachers and administrators, 87% of students, and 89% of parents surveyed agree that the program improved student reading ability (White et al., 2013). Analysis of students' pre- and post-assessment data shows that 86% of students' reading skills improved during the academic year. Twenty percent of READ 180 students achieved one year of growth, 18% achieved two years of growth, 13% achieved three years of growth, and 19% achieved more than three years of growth (White et al., 2013).

The study further analyzes student outcomes in science, English, social studies, and math to determine if successful READ 180 students transferred their knowledge and skills to other courses. Their findings show 40 percent of READ 180 students improved in science, 39 percent improved in English and social studies, and 37 percent improved in math throughout the year. The researchers also determine that students continued to show improvement in these subjects after leaving the READ 180 program.

On teacher surveys, the most frequently cited benefits of READ 180 are differentiated instruction, improved reading skills, and enhanced student self-confidence (White et al., 2013). Parents and students also indicate improved reading abilities among the things they like most

about READ 180. Another positive outcome of the program that parents and students highlighted was reading for enjoyment.

Analysis of the Implementation of READ 180

The READ 180 implementation process is complex; therefore, it is important to understand the impact of this process on organizations. Vayre's (2014) doctoral dissertation examines the fidelity of implementation of READ 180 in an urban school district. The study seeks to address research questions that focus on teachers' utilization of READ 180 materials and strategies, alignment with the original READ 180 design, teachers' prioritization and application of READ 180 components, and any relationship between teachers' priorities and frequency of usage of READ 180 materials and strategies. The research analyzes data from surveys, interviews, observations, and card sorts to answer the research questions.

The study found that the 12 READ 180 teacher participants in her study did not implement READ 180 exactly as prescribed (Vayre, 2014). The teachers deviated from the guidelines for implementing the recommended strategies; however, they did utilize all strategies at some point throughout the program. Teacher perceptions of the importance of various strategies were found to be a significant determining factor in whether the recommended strategies were applied as prescribed (Vayre, 2014). This revealed that teacher backgrounds and perceptions can significantly impact the way in which they implement READ 180 in their classrooms.

Analysis of the Impact of READ 180 on Reading Achievement

The primary goal of READ 180 is to improve literacy and reading outcomes. Miller's (2014) doctoral dissertation examined the impact of READ 180 on sixth grade students' reading achievement, using their Missouri Assessment Program (MAP) scores. The study compared

changes in reading achievement levels of children enrolled in READ 180 to those not enrolled in the program. Statistical analysis showed a significant difference between these groups of students, with greater change in reading levels experienced by READ 180 enrollees. Miller's (2014) analysis of MAP scores also revealed that students with "below basic" or "basic" reading levels in fifth grade experienced significant reading growth while enrolled in READ 180 during their sixth-grade year.

System 44 Impact on Student Outcomes

Although published research on System 44 is limited, preliminary studies and anecdotal evidence show promise. Houghton Mifflin's (2015) evaluation of the impact of System 44 and READ 180 on Napa Valley Unified School District provides an overview of the implementation model, program participants, and standardized test measures. Data from 517 students enrolled in System 44, and 877 students enrolled in READ 180 were analyzed in this study. Analysis revealed that both System 44 and READ 180 students showed significant improvement in their reading comprehension skills upon completion of one year in the programs. System 44 students' standardized test data revealed an increase in Proficient and Above scores from 6% in 2010-11 to 16% percent in 2011-2012 (Houghton Mifflin, 2015). The number of System 44 students achieving scores of Early Advanced and Above increased from 12% in 2011 to 41% in 2012 (Houghton Mifflin, 2015). The study also found that special education referral rates and suspension and expulsion incidences declined during this period, which saved the district money.

Conclusion

Research on READ 180 and System 44 points to beneficial student outcomes, positive results in improved cognitive development and student knowledge, and progress towards meeting goals. Additionally, studies showed that teachers, administrators, students, and parents

agreed that these types of blended and adaptive learning programs improved student reading ability. Having information about how other districts and teachers have implemented the same programs, examples of ELA best practices, and the theoretical framework that supports them will be helpful in the JCPSD's own program implementation. The success of the READ 180 and System 44 programs is clearly supported by existing research making this initiative a sound choice for the JCPSD.

Project Description

In September 2018, the JCPSD will fully implement READ 180 for Tier II instruction and System 44 for Tier III instruction as part of the RTI process. These intervention programs use a blended learning model to help increase students' reading comprehension, vocabulary, and writing (Houghton Mifflin Harcourt, nd). Students will receive supplemental instruction through a rotational blended learning model incorporating whole and small group instruction, independent practice, and an online component. This supplemental instruction will be done during a different class period than the main ELA instruction. The adaptive online component helps educators individualize instruction. Additionally, these programs promote research-based instruction for ELL students (Houghton Mifflin Harcourt, n.d.).

Several goals will help the district assess the efficacy of the program. These include:

Goal 1: Ninety percent of teachers implementing the READ 180 and System 44 will report that they have received adequate training and support to implement the new reading system effectively.

Goal 2: The average number of students meeting or exceeding expectations on the PARCC will increase 10% in the first year of implementation.

Goal 3: The average number of students meeting or exceeding expectations on the PARCC will increase 15% for Hispanic, African-American, Special Education, and ELL students.

Goal 4: The average number of students meeting or exceeding expectations on the PARCC will be comparable to the State's average in all aggregated groups by the third year of implementation.

Planning Process

During the planning stage, the district will acquire the necessary resources, begin the student identification process, and provide professional development to the relevant faculty members in the ELA department. In January 2018, the district will place orders for the following year. The cost for READ 180 Universal program will be approximately \$716.00 per student for the first year with a replacement cost of \$29.95 for the second year (Kim, Capotosto, Hartry & Fitzgerald, 2011). The System 44 program will be approximately \$1,100 per student for the first year with a replacement cost of \$24.95 (Beam, Faddis, & Hahn, 2012). The final cost of implementation will be determined by the number of students who are identified as eligible to receive instruction in the Tier II READ 180 and Tier III System 44 programs.

Under the direction of the director of curriculum and instruction, the English department supervisors and the technology coordinators at each middle and high school will lead the professional development committee responsible for providing the necessary training. The district will use comprehensive professional development planning to ensure that teachers receive the necessary training to successfully implement the new programs by following seven evidence-based steps (Alberta Education, 2004). First, the professional development committee will conduct an environmental scan and a teachers' needs assessment that will inform the process. Next, the committee will develop priorities used to set realistic goals and identify the

optimal comprehensive professional development program for systemic support. Once the committee develops and finalizes an action plan, the director of curriculum and instruction will approve the plan. The committee will then communicate the plan to key stakeholders in a timely fashion. By March of 2018, the committee will begin to implement the action plan. Based on collected feedback from the participants and emerging needs, the committee will revise the plan accordingly. Lastly, the committee will collect summative data used to demonstrate completion of the first goal of the READ 180/System 44 Initiative which is to provide adequate professional development.

In May of 2018, the district will begin testing to identify students in need of Tier II and Tier III interventions. The *Scholastic Reading Inventory (SRI)* will be used to screen potential students for placement based on Lexile Scores. Those who score within normal ranges will continue to receive instruction with the existing ELA program. Students in grades 6-8 who are identified for Tier II will be placed in READ 180 Stage B while those eligible for Tier III will be placed in the System 44 program. At the high school level, students identified for Tier II instruction will be placed in the READ 180 Stage C program while Tier III will be placed in the System 44 program. Testing must be completed before the guidance department begins scheduling for the next school year.

To ensure community buy-in, the director of curriculum and instruction will communicate the program's essential features and how it is in line with the district's vision. The district will conduct several day and evening parent information sessions to inform key stakeholders of the new initiative and provide guidance to families providing homework support. The district will also collect formative evaluation data throughout the planning process to inform the continuous improvement process.

Implementation Process

In September 2018, the new reading programs will be implemented in the different classrooms. The teachers' schedules will be created with common planning periods used for professional learning community (PLC) meetings. During this time, the technology coordinators and English supervisors will continue to provide feedback and ongoing support. They will also provide in-class support to educators who need it. The curriculum and assessment committee in collaboration with the professional development committee, will collect formative assessment data, adjusting the implementation process when deemed necessary. Students will be tested on a quarterly basis allowing them the opportunity to test out of the program when enough growth has been demonstrated.

Evaluation Process

The continuous improvement process involves evaluation of a program throughout all stages of implementation. Formative data will be collected from various key stakeholders at various stages. To assess student improvement data, various sources will be collected and analyzed. First, students will be tested quarterly using the SRI. This information can be used to analyze intermediate trends in student growth while long-term trends will be assessed using the PARCC scores for the 2018-2019 year. Teachers' perceptions on the implementation process and accompanying professional development will be assessed through surveys throughout the year. The committees will also collect data through informal interviews and observations. It is also important to learn the perspective of other key stakeholders including students, parents, and administrators. These stakeholders will also have the opportunity to share their perceptions through surveys sent out mid- and end-of-year. The curriculum and instruction committee will make address any logistical concerns while the professional development committee will make

adjustments where the solution lies with additional training. The summative finding will be presented to key stakeholder at a board meeting and on the district's website.

Conclusion

To maintain the JCPSD's vision of ensuring their educational programs, practices, and policies prepare students for college and careers, the district must take action to improve academic success in ELA. The district has identified using an RTI approach to address low performance and plans to specifically implement READ 180 and System 44 with Tier II and Tier III instruction respectively. With research in best practices, evaluation and outcomes, and a theoretical framework grounded in constructivism and conceptual change, there is support for implementation of both blended and adaptive learning programs. Using a process that outlines the planning, implementation, and evaluative phases provides a clear outline for how this ELA initiative will run to ultimately foster academic success and equity for all students.

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