

Passport Reading Journeys™ in Florida

Julia A. Peyton, Ph.D. and Janet R. Macpherson, Ph.D.

Voyager Expanded Learning, Inc.

Dallas, TX

This study investigated the program effects of Passport Reading Journeys™ on the reading achievement of middle school students in the state of Florida who used this product as part of the Language Arts program. This study used a pretest posttest quasi-experimental design. The study participants included 1,574 students in the seventh through eleventh grades across the state of Florida during the 2006-2007 school year. Student growth was measured using the MetaMetrics Lexile Framework®. Students who participated in Passport Reading Journeys showed greater than expected gain across the academic school year.

INTRODUCTION

The number of middle and high school students who struggle to read at grade level continues to grow. Part of the problem is reading instruction is not typically part of the instructional priority at middle and high schools. Part of the problem is that many students come to the classroom without the knowledge, skills, and desire to read and comprehend the materials presented to them (Rippen & Brewer in Snow, 2002).

Focus on the reading achievement of middle and high school students has come to the forefront since the Carnegie Report, *Reading Next* (Biancarosa & Snow, 2004). Passport Reading Journeys™ was designed to focus on the upper-grade struggling readers. Voyager Expanded Learning's *Passport Reading Journeys* provides explicit, systematic word study, vocabulary, comprehension, and fluency instruction that is age- and interest-appropriate both in design and implementation for adolescents.

Various districts in the state of Florida were interested in evaluating the effectiveness of using explicit instruction for middle and high school students who were in the lowest 20 to 30% of readers. *Passport Reading Journeys* was chosen as the instructional method.

METHODS

Participants

During the 2006-2007 school year, 1,574 students in seventh through eleventh grade attended reading instruction using the *Passport Reading Journeys* curriculum. For some of the students, English was not the primary language. All of the students were two or more years behind in reading fluency and comprehension as determined by their school district evaluations. The districts represented serve a diverse student population.

Implementation

Each of the participating teachers received the standard full day of training, which oriented the teachers to the curriculum and assessment materials. Teachers received instruction on VPORT, Voyager's data management system. Throughout the school year, implementation specialists visited the classrooms and provided support and suggestions on how to improve the instructional experience for each student.

Materials

Passport Reading Journeys is designed to meet the complex and varied needs of students who struggle with reading and read significantly below grade level. *Passport Reading Journeys* lessons specifically address the needs of struggling adolescent readers with instruction in the skills and strategies required to effectively read, understand, and learn in each of the content areas critical to reading successfully.

Phonemic Awareness/Phonics/Advanced Word Study: Students who did not learn to decode fluently during the primary grades require explicit, carefully designed instruction in the fundamentals of reading (Abbott & Berninger, 1999). The ability to decode is directly related to reading comprehension and the ability to concentrate more fully on the processes for understanding the text (Homan, Klesius, & Hite, 1993; Kuhn & Stahl, 2003; Reutzel & Hollingsworth, 1993). Teachers may access phonemic awareness activities for students who may have difficulty distinguishing initial, medial, or final sounds, blending sounds, or segmenting words into separate phonemes. Further, phonics is taught through direct teaching of a planned sequence of sound-symbol relationships and their use in reading and spelling. Instruction in Advanced Word Study includes affixes, sight words, decoding multisyllabic words, spelling, and word or phrase fluency.

Fluency: The speed of word reading in context or lists is closely associated with comprehension (Kuhn & Stahl, 2003; Meyer & Felton, 1999). Students who read laboriously are not able to maintain information in memory long enough or do not have remaining cognitive resources to construct meaning (Perfetti, 1985, 1992). *Passport Reading Journeys* features passages including high-interest material with frequently occurring words and repeated content-area vocabulary. Multiple opportunities for students to read and reread high-interest passages at their instructional level are provided in the *Passport Reading Journeys* Library and the technology program, Strategic Online Learning Opportunities™ (SOLO™).

Vocabulary: As with fluency, vocabulary knowledge is related strongly to reading comprehension (Baker, Simmons, & Keme'enui, 1995). Effective vocabulary instruction includes direct, explicit instruction in the meaning of high-frequency words and content-specific words vital to comprehending text (Beck, McKeown, & Kucan, 2002). *Passport Reading Journeys* addresses vocabulary instruction as the research suggests, using explicit instruction of word meanings and development of strategies to determine unknown words through morpheme analysis. A carefully planned sequence of vocabulary skills and word choices is skillfully meshed with student passage reading, comprehension activities, and text discussions.

Comprehension: Reading comprehension is the ability to understand and gain meaning from text. It is the result of active reading in which students draw upon their stored knowledge of words and concepts, their prior knowledge and experiences with topics, and their understanding of text structures and syntax. *Passport Reading Journeys* utilizes research-based comprehension instruction for middle school students. A set of priority strategies, adapted from reciprocal teaching (Palinscar & Brown, 1984), help students to comprehend text. The strategies are preview, vocabulary, main idea, and summarization, and incorporates teaching students how to generate questions as well as how to think inferentially.

Assessments

In addition to explicit, systematic instruction in each of the reading components, effective instruction for struggling readers must be responsive to students' ongoing needs and must include a variety of continuous assessment to guide additional instruction (Deshler, Shumaker, & Woodruff, 2004). The *Passport Reading Journeys* comprehensive assessment system includes, among other measures, the Reading Benchmark Assessment, powered by the Lexile Framework for Reading, a scientific approach to reading measurement providing a common scale for matching reader ability and text difficulty.

Construct Validity of the Reading Benchmark has been established through evidence for The Lexile Framework which demonstrates how well Lexile measures relate to other measures of reading comprehension. The Lexile Framework for Reading has been linked to several standardized tests of reading comprehension. When assessment scales are linked, a common frame of reference can be used to interpret the test results.

Table 1 shows the linking studies between the Lexile and a number of standardized tests. The Reading Benchmark Assessment is teacher-administered in a whole-group format three times per school year. Not only is the Reading Benchmark used to place students in the appropriate level of reading materials, but it also assesses growth of students' reading ability across the school year.

Table 1. Results from linking studies conducted with The Lexile Framework for Reading.

Standardized Test	Grades in Study	N	Correlation Between Test Score and Lexile measure
Stanford Achievement Tests (Ninth Edition)	4, 6, 8, 10	1,167	0.92
Stanford Diagnostic Reading Test (Version 4)	4, 6, 8, 10	1,169	0.91
North Carolina End-of-Grade Tests (Reading Comprehension)	3, 4, 5, 8	966	0.90
TerraNova (CTBS/5)	2, 4, 6, 8	2,713	0.92
Texas Assessment of Academic Skills (TAAS)	3-8	3,623	0.73 to 0.78*
Metropolitan Achievement Test (Eighth Edition)	2, 4, 6, 8, and 10	2,382	0.93
Gates-MacGinitie Reading Test (Version 4)	2, 4, 6, 8, and 10	4,644	0.92
Utah Core Assessments	3-6	1,551	0.73
Texas Assessment of Knowledge and Skills (TAKS)	3, 5, and 8	1,960	0.60 to 0.73*
The Iowa Tests of Basic Skills and Iowa Tests of Educational Development	3, 5, 7, 9, and 11	4,666	0.88
Stanford Achievement Test (Tenth Edition)	2, 4, 6, 8, and 10	3,064	0.93
Oregon Reading/Literature Knowledge and Skills Test	3, 5, 8, and 10	3,180	0.89

Notes: *Results are based on final samples used with each linking study.
*TAAS and TAKS are not vertically equated; separate linking equations were derived for each grade.

Data Gathering and Analysis

Each teacher was responsible for the administration and recording of student scores into the VPORT system at the three benchmarks during the school year. Students who completed all three Reading Benchmark Assessments were included in the analysis. Effect size was computed and an evaluation of the comprehension of grade level materials was completed, based on the Lexile level at the beginning and end of the school year.

RESULTS

Participation Level

Across the state of Florida in four districts and 26 different campuses, 1,574 students who took all three Reading Benchmark Assessments, received approximately 30 weeks of instruction with *Passport Reading Journeys*. The *Passport Reading Journeys* lessons are structured for a 45 to 50 minute class, but can

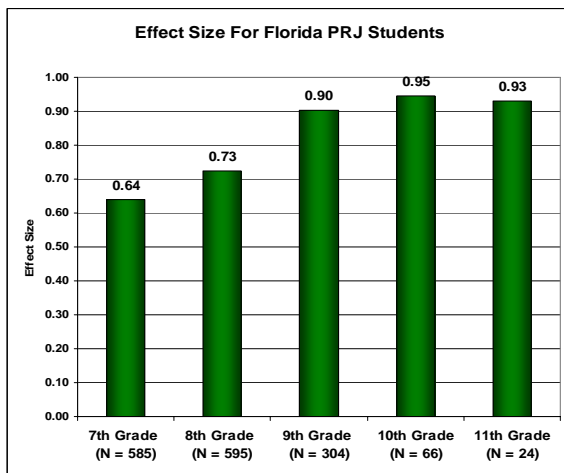
also work in a block class by teaching two lessons per day.

Assessment Results

Effect size is a way of determining if an intervention made a difference or had the intended result of improving student performance. The effect size indicates how much the mean or average of the group is moved as the result of the intervention, as measured by the assessments. Effect sizes are based on unadjusted Initial and Final test means. Effect sizes are calculated by dividing the difference between Initial and Final test means by the pooled standard deviation of the Initial and Final Tests. An effect size of 1.0 indicates the mean of the group moved a full standard deviation between assessments. An effect size of 0 indicates the group made no improvement between assessments. Generally, an effect size of .2 is considered a small effect, .5 is moderate, and .8 is large (Cohen, 1988).

For the 686 students in 7th grade the effect size was .64 which means 73% of student pretest scores were lower than the average posttest score. The effect size for the 8th grade population of 595 students was .73 which means approximately 77% of the student pretests scores were below the average posttest score. The effect size for the 304 9th grade students was .90. The 10th (n=66) and 11th (n = 24) grade student populations had effect sizes of .95 and .93 respectively meaning over 80% of student pretest scores were below the average posttest score. Figure 1 shows the effect sizes across the grades.

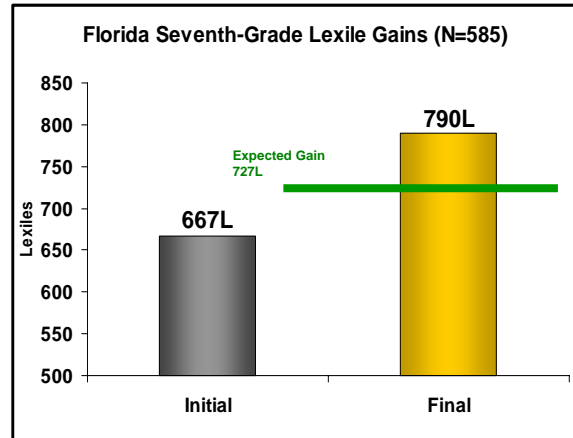
Figure 1. Effect Sizes by Grade for Florida PRJ Students.



When looking at the growth between two points in time, there must be a reference to the context of the results. In the case of Lexile growth, MetaMetrics has determined the amount of expected growth by grade. For grades 6 through 8, students in the 25th percentile are expected to grow at a rate of two Lexiles per week. For students in the 25th percentile in grades 9 and above, the expected

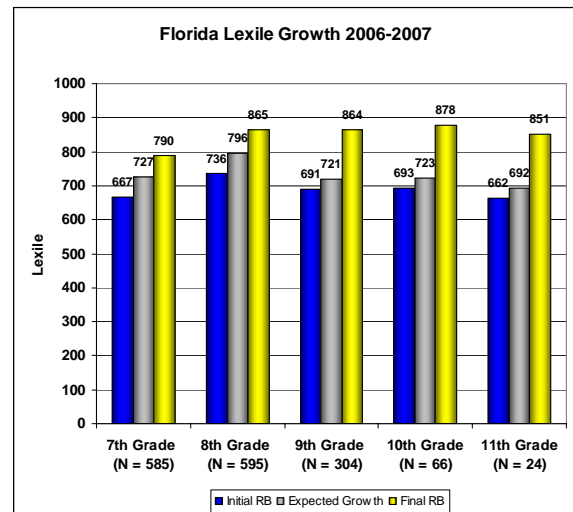
rate of gain is one Lexile per week. With this in mind, the beginning and ending Lexile average is presented in the following chart (Figure 2) for 7th grade students, along with expected growth.

Figure 2. Lexile Gains with Expected Growth.



The following chart (Figure 3) illustrates the initial and final Reading Benchmark (RB) Lexile scores for each grade that participated in the study. The Expected Growth is represented as the middle bar.

Figure 3. Lexile Growth Including Expected Growth by Grade.



A derivative of the Lexile measure is being able to look at how students comprehend the materials being read. The comprehension rate of students can be measured against a set of grade level materials to understand how successful students will be reading the material. For instance, using the mean for this group of seventh graders who read on average at a 667L at the beginning of the school year and at a 790L level at the end of the year, this group moved from being able to comprehend about 45 percent of 7th grade materials on various topics to about 62 percent by the end of the school year.

Unpacking the average score often leads to insights that may not be obvious from looking at an overall score. Within a group, different ranges of students can be making progress at different rates. The following charts (Figures 4-6) extend the idea of examining the comprehension of students by looking at students in the different quartiles to see how successful that group was by the end of the year. For instance, the students in the 25th to 50th percentile on the 7th grade chart, ranging from 551L to 715L, started the year comprehending approximately 43% of grade level material, according to the Lexile Calculator (MetaMetrics, 2006). By the end of the year, the students in this percentile range comprehended 63% of grade level material.

Figure 4. Comprehension Gains by Percentile – Seventh Grade.

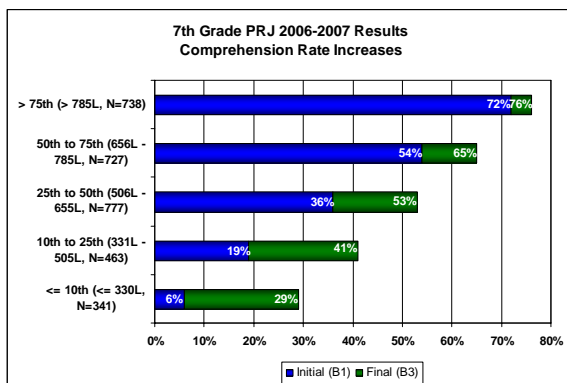


Figure 5. Comprehension Gains by Percentile – Eighth Grade.

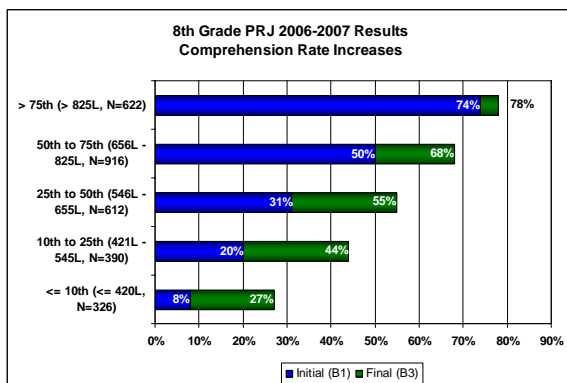
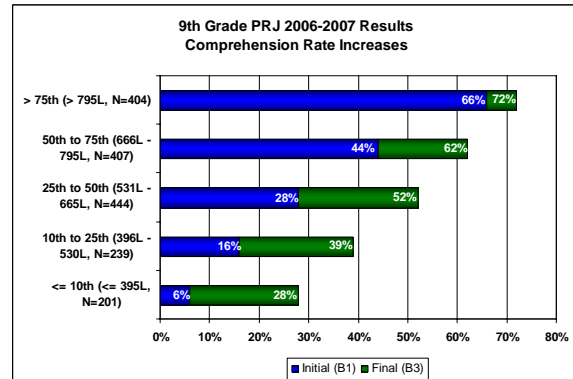


Figure 6. Comprehension Gains by Percentile – Ninth Grade.



DISCUSSION

Scammacca, et al. (2007) conducted a meta-analysis of interventions for adolescent struggling readers with implications for practice. In their study they found that adolescents was not too late to intervene and that older students with reading difficulties benefit from interventions focused both at the word and text level with comprehension strategies and support in increasing knowledge of word meanings and concepts. Those are the very elements of the Passport Reading Journeys program that have proven to be successful with this population. Results indicate that Passport Reading Journeys with the explicit instructional design enables teachers to intervene with older students with reading difficulties.

The benefits of instruction including word-study and comprehension strategies manifested the positive results the Scammacca et.al. (2007) report posited was possible. The average effect size for multi-component programs they reviewed like Journeys was .56. The effect sizes realized in this study ranged from .67 to .95.

CONCLUSION

By the end of the school year the percentage of students reading within the grade-level interquartile range increased. By having students become more proficient in grade-level text they will be better able to benefit and learn from the instruction provided across subject areas. The scaffolding provided within the *Passport Reading Journeys* program lead to improvement in the application of comprehension strategies utilized when reading connected text as demonstrated by the student performance on the Reading Benchmark Lexile assessment.

REFERENCES

- Abbott, S. P., & Berninger, V.W. (1999). It's never too late to remediate: Teaching word recognition to students with reading disabilities in grades 4-7. *Annals of Dyslexia, 49*, 223-250.
- Baker, S., Simmons, D., & Kame'enui, E. J. (1995). *Vocabulary acquisition: Synthesis of the research (Technical Report No. 13)*. University of Oregon: National Center to Improve the Tools of Educators.
- Beck, I., McKeon, M., & Kucan, L. (2002). *Bringing words to life*. New York: The Guilford Press.
- Biancarosa, G., & Snow, C. E. (2004). *Reading next—vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Deshler, D. D., Shumaker, J. B., & Woodruff, S. K. (2004). Improving literacy skills of at-risk adolescents: A schoolwide response. In D. Strickland and D. E. Alvermann (Eds.), *Bridging the literacy achievement gap grades 4-12*. New York: Teachers College Press.
- Homan, S. P., Klesius, J. P., & Hite, C. (1993). Effects of repeated readings and nonrepetitive strategies on students' fluency and comprehension. *Journal of Educational Research, 8*, 94-99.
- Kuhn, M. R., & Stahl, S. A. (2003). Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology, 95*(1), 3-21.
- MetaMetrics, Inc. (2006). *Passport Reading Journeys™ Benchmark Assessments: Development and technical guide*. Durham, NC: MetaMetrics, Inc.
- Meyer, M. S., & Felton, R. H. (1999). Repeated reading to enhance fluency: Old approaches and new directions. *Annals of Dyslexia, 49*, 283-306.
- Palinscar, A. S., & Brown, A. L. (1984). The reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1*, 117-175.
- Perfetti, C. A. (1985). *Reading Ability*. New York: Oxford University Press.
- Perfetti, C. A. (1992). The representation problem in reading acquisition. In P. B. Gough, L. C. Ehri, & R. Treiman (Eds.), *Reading acquisition* (pp. 145-174). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Reutzel, D. R., & Hollingsworth, P. M. (1993). Effects of fluency training on second graders' reading comprehension. *Journal of Educational Research, 86*, 325-331.
- Scammacca, N., Roberts, G., Vaughn, S., Edmonds, M., Wexler, J., Reutebuch, C. K., & Torgesen, J. K. (2007). *Interventions for adolescent struggling readers: A meta-analysis with implications for practice*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.
- Snow, C. E. (2002). *Reading for understanding: Towards a research and development program in reading comprehension*. Santa Monica, CA: Rand.