

A Study on the Effects of Houghton Mifflin Harcourt's *Journeys* Program: Year 1 Final Report

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Executive Summary

As the basis of written communication, reading and writing are an integral part of a person's life. Developed and mastered, effective reading skills allow for opportunities to learn new information about the world, people, and events. Unfortunately, it has become increasingly apparent that elementary level children are failing to learn to read at a rate that will adequately sustain them if they are to succeed in future academic pursuits or the workforce.

In order to more fully prepare students with the literacy skills they need to become successful readers and writers, Houghton Mifflin Harcourt developed a new elementary reading/language arts program – Journeys (2012). The Journeys program is a comprehensive K-6 literacy program that targets key elements of literacy including reading comprehension, vocabulary, fluency, grammar, writing, and at grades K-2, phonics and phonemic awareness. Aligned to the Common Core State Standards, Journeys contains all the resources needed to integrate the five elements of reading into daily instruction.

To determine the efficacy of the Journeys program, Planning, Research, and Evaluation Services (PRES) Associates, Inc. is conducting a two year randomized control trial (RCT). This study, which commenced in the Fall of 2011, was conducted in the K-2nd grades during the 2011-2012 school year, and will continue into the 1st-3rd grades during the 2012-2013 school year. This report presents the findings from the first year of the study.

A total of 6 elementary schools participated in the study. The final sample for Year 1 consisted of 1046 students (505 control; 541 treatment) with 44 teachers (21

control; 23 treatment). Teachers were randomly assigned to conditions (either use of the Journeys program or continued use of the reading/writing curricula currently available at the school).

Major findings, organized by the key evaluation questions, include:

Do reading/language arts skills improve over the course of participating in the Journeys program? Does this vary by different types of students and levels of implementation?

Results showed significant growth over the course of the school year as measured by the national, standardized ITBS reading and language arts test. Specifically, students using the Journeys program showed significant growth on all six outcome measures -- thus, student skills in reading comprehension, vocabulary, word analysis, spelling, language, and word recognition grew notably over the course of the school year.

All subpopulations of students using Journeys showed significant learning gains on multiple reading and language arts subtests as well. The Journeys program worked just as well with K-2nd graders, females and males, White and minority students, special education and non-special education students, English Language Learners and non-ELLs, students of varying reading ability levels, students receiving free/reduced lunch and those not receiving such assistance.

Analysis by Journeys implementation level showed that there was a relationship between teacher's level of implementation of the program and learning gains. Specifically, students whose teachers implemented the Journeys program with moderate and high

fidelity showed the highest levels of gains as compared to teachers who used the program with low levels of fidelity -- as measured by the reading comprehension, vocabulary, and word recognition subtests. Furthermore, teachers who implemented the program with moderate fidelity showed significantly larger gains in word analysis skills than low implementers.

Do gains in reading/language arts skills differ between students using Journeys as compared to similar students not using the program?

Comparisons between students using Journeys and students using other elementary language arts programs showed that Journeys students significantly outperformed control students on four of the six outcome measures. Significant positive effects were observed in reading comprehension, vocabulary, spelling, and word recognition. The effect sizes obtained can be classified as small to moderate ($d=.15$ to $.39$) – however, only one effect exceeded the threshold ($.25$) for educational significance – the effect on the word recognition subtest. While these can be classified as small effects, it should be noted that such small effects are typical of educational curricular research conducted in real-world applied settings, particularly when comparisons are being made across core curricula covering similar content matter implemented across classrooms following comparable pacing guidelines. Additionally, such small effects are not surprising given that teachers and students had only used Journeys for one school year. It takes time for teachers to become familiar with any program and for effects, if present, to fully manifest themselves in terms of student performance. As a two year RCT, stronger effects are expected following year 2, after teachers and students have additional experience with the Journeys program.

These effect sizes translate to Journeys students performing 6 percentile points higher on norm-referenced assessments than control students on vocabulary and spelling skills, 8 percentile points higher on reading comprehension skills, and 15 percentile points higher on word recognition than control students.

Do effects of the Journeys program on student performance vary as a function of different student or school level characteristics? That is, do study findings vary across different types of students, at different grade or ability levels, from diverse educational contexts or settings?

Analysis of subgroup differences also showed statistically significant positive effects on student achievement. In all cases, Journeys students showed greater learning gains than control students from the same subgroup. Statistically significant differences were observed for the following groups:

- Free/reduced lunch eligible (on 5 outcomes)
- Hispanics (on 3 outcomes)
- African Americans (on 3 outcomes)
- Low reading level (on 3 outcomes)
- High reading level (on 2 outcomes)
- Females (on 2 outcomes)
- Second graders (on 2 outcomes)
- 1st graders (on 1 outcome)
- Kindergartners (on 1 outcome)
- Special education student (on 1 outcome)
- Limited English Proficient student (on 1 outcome)

In sum, all statistically significant differences found between treatment and control conditions across multiple subgroups were in favor of the Journeys program. Such consistency in findings across different subgroups and outcome measures combined

with the fact that all effects observed were in favor of Journeys lend credence to the conclusion that Journeys is an effective program which positively impacts student reading, spelling, vocabulary and word recognition skills.

Does participation in the Journeys program result in other positive student outcomes (e.g., positive attitudes towards reading, student engagement/interest, etc.)?

While the main focus of the Journeys program is to improve upon reading and language arts skills, other measures were included to explore if Journeys was associated with positive impacts on student and teacher attitudes, and classroom practices. Results showed that Journeys students and teachers felt their program had a positive impact on student vocabulary skills to a greater extent than the control group. While not statistically significant, Journeys teachers also reported that the program helped with students' inquiry skills and ability to make connections to other subject areas, but was lacking in the area of writing. Journeys teachers also reported being more prepared to use small, leveled groups than control teachers.

Journeys teachers also tended to integrate more of their reading instruction with other subject areas as compared to control teachers – such integration is an important component of the Common Core State Standards. Indeed, Journeys teachers reported significantly greater assistance with their program in connecting to the Common Core State Standards as compared to control teachers. With respect to differentiated instruction, Journeys teachers also reported that their program provided more assistance with instruction to above average and average students as compared to teachers using other elementary programs.

What do users of Journeys think about the program?

Approximately 80% of teachers reported that they liked the Journeys program and would like to use it again in the upcoming school year. Teachers indicated that the program was user-friendly and included everything they needed to teach reading effectively. A trend was also observed where Journeys students enjoyed their reading/language arts program to a greater extent than students using other programs. As well, the vast majority of Journeys teachers reported that their students spoke highly of the program and enjoyed it.

Teachers reported that they liked the comprehensiveness of the Journeys program and its focus on multiple target areas (e.g., phonics, phonemic awareness, comprehension, fluency, spelling, writing, and grammar). Furthermore, Journeys teachers reported that the alignment of the program to the Common Core State Standards was a major strength of the program as it allowed them to meet these standards without taking much planning or preparation time. As well, despite some critiques regarding the Journeys writing component, a few teachers commented that their Kindergarten students benefited from early exposure to grammar and writing rules.

In sum, results from the first year of this RCT show that students who use the Journeys program perform significantly better than students using other reading/language arts programs. Furthermore, the consistency of positive effects in favor of the Journeys program across multiple outcomes and subgroups supports the conclusion that the Journeys program has a positive impact on student performance relative to other elementary reading/ language arts programs.

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Project Background

“In a modern society, the ability to read well is the cornerstone of a child’s education. In a modern economy, literacy is a prerequisite for a successful life. In their early years of schooling, children learn to draw meaning and pleasure from the words on a page, which gives them a sense of accomplishment. Throughout the remainder of their schooling, reading is the critical skill they use for learning in all parts of the curriculum. For adults, reading is a key means to learn and do our jobs; it is also a source of enjoyment and an essential way we connect with family, friends, and the world around us. The ability to read critically and analytically is crucial for effective participation in America’s democratic society.”

*- Reading Framework for the 2011
National Assessment of Education Progress*

In recent years it has become increasingly apparent that elementary level children are not learning to read at a rate that will adequately sustain them if they are to succeed in future academic pursuits or the workforce. The 1999 National Reading Panel Report indicates that early intervention is paramount for students struggling with reading; students who fall behind in the first three years of their schooling may never become fluent readers and will continue to fall behind over the course of their educational career. Results from the most recent National Assessment of Education Progress (2011) indicated that 67% of fourth graders were unable to reach a proficient level in reading, including 33% who could not perform basic reading tasks.

Indeed lack of reading and language arts proficiency hinders more than academic attainment. A deficiency in reading skills

produces societal repercussions that go beyond individual successes and ultimately affects the nation as a whole. According to statistics from the National Right to Read Foundation:

- 90 million adults are, at best, functionally literate;
- Adult illiteracy costs taxpayers \$224 billion a year in welfare payments, crime, job incompetence, lost taxes, and remedial education; and
- U.S. companies lose nearly \$40 billion annually because of illiteracy.

With the far reaching impact of poor literacy rates, it comes as no surprise that there’s been a nearly nationwide adoption of the Common Core State Standards, which place a significant emphasis on reading and literacy skills.

“Reading proficiently by the end of third grade is a crucial marker in a child’s educational development. Failure to read proficiently is linked to higher rates of school dropout, which suppresses individual earning potential as well as the nation’s competitiveness and general productivity.”

*- A KIDS COUNT Special Report from
the Annie E. Casey Foundation*

The adoption of the Common Core State Standards by the majority of states has heightened the need to learn about “what works” in reading and language arts education. Accordingly, as educators strive to achieve better results in reading and language arts there’s an increased need for documented, evidence based, research-proven programs that have demonstrated positive impacts on student reading and language arts achievement.

Planning, Research, and Evaluation Services (PRES Associates¹) is conducting a two-year randomized control trial (RCT) designed to examine the effectiveness of the Houghton Mifflin Harcourt Journeys program in helping elementary students improve their reading and language arts skills and understanding. *Journeys* is a new, comprehensive K-6 literacy program that targets key elements of literacy including reading comprehension, vocabulary, fluency, grammar, writing, and at grades K-2, phonics and phonemic awareness. Designed to meet the diverse needs of all students, every lesson allows the student to develop comprehension and fluency by focusing on a target skill and strategy in a relevant short story and non-fiction story companion. The Journeys Student Edition includes vocabulary instruction that takes students through key steps in acquiring, practicing and applying a rich vocabulary. The Journeys program also includes weekly interactive lessons, Leveled Readers by Irene Fountas, Vocabulary Readers and intervention support for struggling readers.

The 2-year randomized control trial (RCT) on Journeys, which commenced in the Fall of 2011, was conducted in the K-2nd grades during the 2011-12 school year and will continue during the 2012-13 school year in the 1st – 3rd grades. What follows is a report which presents findings from the first year (2011-2012) of the RCT.

¹ PRES Associates, Inc. is an external, independent, educational research firm with nearly 20 years of experience in applied educational research and evaluation.

Project Overview

The overarching purpose of this study is to rigorously evaluate the effectiveness of the Journeys program in helping elementary students attain critical reading and language arts skills. Specifically, this study is designed to address the following research questions:

- ◆ Do reading/language arts skills improve over the course of participating in the Journeys program? Does this vary by different types of students and levels of implementation?
- ◆ Do gains in reading/language arts skills differ between students using Journeys as compared to students not using the program?
- ◆ Do effects of the Journeys program on student performance vary as a function of different student or school level characteristics? That is, do study findings vary across different types of students, at different grade or ability levels, from diverse educational contexts or settings?
- ◆ Does participation in the Journeys program result in other positive student outcomes (e.g., positive attitudes towards reading, student engagement/interest, etc.)?
- ◆ What do users of Journeys think about the program? What aspects of the program do they find most useful? Least useful? What, if any, suggestions for program improvement do they have?

- ◆ How do teachers use the Journeys program and how should the program best be used in order to maximize its impact on student performance?

This report presents descriptive information and results of the first year of the RCT. Specifically, the remainder of this report includes: 1) a description of the design and methodology; 2) sample and site information, including descriptions of Journeys implementation; 3) results of the first year of the evaluation; and 4) conclusions. In addition, Appendix A contains detailed statistical results of all baseline, attrition and assessment analyses conducted on the first year data, including the analytical goals and framework employed.

Design & Methodology

Research Design

The present study was designed to address all standards and criteria described in the What Works Clearinghouse (WWC) Study Review Standards (2008) and the Joint Committee on Standards for Educational Evaluation's Program Evaluation Standards (1994). The research design consists of a two-year randomized control trial, with random assignment of teachers to a treatment (i.e., use of Journeys) or control group (i.e., use of other elementary reading/language arts program) *within* schools². Other important design and methodological features include:

² There are a number of reasons why random assignment to treatment conditions was done at the teacher level. The most important reason for selecting this level of assignment is that such a design provides an opportunity to help establish *causality* by eliminating the threat that school level factors could have potentially contributed to differences between treatment and control groups. An important issue to be considered with this design option, however, is that procedures must be put into place to ensure that the treatment and control classes are not

- ◆ The study was conducted in the K-2nd grades during the 2011-2012 school year and will extend into the 1st-3rd grades during the 2012-13 school year.
- ◆ Random assignment occurred at the teacher level. Teachers at all grade levels (K-3rd) were assigned to treatment or control conditions at the beginning of the study.
- ◆ Clear site selection criteria were established along with accompanying rationale.
- ◆ To the extent possible, the control programs to which Journeys was compared were selected to be as distinct as possible given the common content taught.
- ◆ Extensive background data³ was collected on instructional activities and materials employed in both treatment and control conditions so that distinctive pedagogical elements could be described given the common content taught.
- ◆ The threat of differential attrition was addressed via: 1) the initial site selection process⁴; 2) random assignment within schools, at the teacher level, to help ensure that attrition is relatively constant across both treatment and control groups; and 3) the characteristics of students who dropped out were statistically compared between treatment and control groups.

contaminated through teachers sharing of Journeys materials. Indeed, this was accomplished through stringent guidelines provided to the teachers and close monitoring of their instruction and use of resources by researchers.

³ Descriptive information was obtained so that, even if not all extraneous variables related to the outcome measures can be controlled, they can at least be measured and used as covariates in subsequent analyses.

⁴ Sites that historically had more than 20% student attrition were not used in the study.

- ◆ Extensive implementation guidelines and monitoring procedures⁵ were embedded to ensure the fidelity of treatment implementation.
- ◆ A battery of assessments aligned to national reading standards and offering a broad-range of content matter was used in order to enhance the sensitivity of the study to picking up treatment effects.
- ◆ The study employed pre/post measures of, among other things, (1) student performance; (2) school, teacher and reading-related attitudes; (3) teacher practices; and (4) teacher knowledge and characteristics.
- ◆ Student assessments, surveys, and classroom observation forms are valid and reliable as shown by technical documentation and statistical analyses performed.
- ◆

The study employed the use of statistical controls as well as random assignment to establish initial group equivalence⁶.

- ◆ Analyses of assessment data were primarily conducted via multilevel modeling (MLM) with student and teacher level data to take into account dependency issues. In addition, the teacher level of analysis used in MLM matches the unit of random assignment.

Table 1 displays the timeline for the important study activities during the first year of the RCT. More detailed information on these activities, as well as measures being used are discussed in the following section.

Table 1. Journeys RCT: Timeline of Activities

2011-12	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.-Feb.	Mar.	April	May	June
Training and Program Implementation Begins	◆	◆								
Follow Up Trainings Occurred			<i>Varied for each site</i>							
Assessments and Surveys Administered		◆	◆						◆	◆
Site Observations			◆	◆				◆	◆	
Teacher Logs*		◆	◆	◆	◆	◆	◆	◆	◆	◆

*Note that teachers completed monthly teacher logs that monitor instructional activities and the use of program and other resources.

⁵ Training provided and implementation guidelines reflect how the Journeys program should typically be used in schools.

⁶ Random assignment helps to create group equivalence. However, it must be noted that with small sample sizes random assignment in and of itself does not assure initial group equivalence (Lipsey, 1990).

Measures

This section reviews the outcome and assessment measures that were administered, including descriptions of the items, and available reliability and validity information.

Student Assessments: In order to enhance the sensitivity of the RCT to detect any effects associated with the Journeys program, the Iowa Test of Basic Skills (ITBS) – Form C was selected. Assessment selection was based on a thorough literature review of existing assessments to identify tests that were valid, reliable, measured various reading/language arts skills (e.g., phonemic awareness, phonics, comprehension, spelling, grammar, etc.), and that included content that reflected important concepts and skills in major reading textbook series, literature, and national reading/language arts standards.

The ITBS is a norm-referenced achievement test composed of tests in several subject areas developed by the faculty and professional staff at Iowa Testing Programs at The University of Iowa. Public and non-public schools participated in a series of pilot studies to standardize test scores and develop the 2000 and 2005 norms.

Kindergarten students were administered the reading comprehension, reading words, word analysis and vocabulary sections of the ITBS Level 6 test. Students in 1st and 2nd grades were administered the vocabulary, word analysis, reading comprehension, spelling and language sections of the ITBS Levels 7 and 8 tests, respectively. Each level of the tests were designed to be developmentally appropriate for young children and are multiple-choice. As well, all tests were untimed and, except for the

reading and vocabulary tests at Levels 7 and 8, are read aloud by the teacher. The following describes each of the ITBS subtests that are used as outcomes:

- ◆ **Reading Comprehension (K-2).** The Reading Comprehension score includes *Reading Sentences*, *Reading Picture Stories* and *Reading Stories*. *Reading sentences* involves a sentence completion task in which students select the most appropriate word out of four options. In *Reading Picture Story*, students demonstrate reading comprehension by answering multiple choice questions about a picture, and in *Reading Story* students read a brief passage and answer multiple choice questions about the passage.
- ◆ **Reading Words (K).** The Reading Words score measures word recognition and includes *Reading Words*, *Reading Pictures* and *Reading Word Attack*. In *Reading Words*, the teacher says a word aloud and students demonstrate word recognition by selecting the appropriate word. In *Reading Pictures*, the student identifies the word indicated by a picture. In *Word Attack*, students use print, context, and picture cues to identify unfamiliar words.
- ◆ **Word analysis (K-2).** The Word Analysis subtest assesses students' ability to recognize letters and letter-sound relationships.
 - At the kindergarten level, students are asked to identify letters, letter sounds and rhyming words by selecting the appropriate letter, word or picture.
 - At the 1st and 2nd grades, students are asked to identify words, letter

sounds, vowel sounds, consonant sounds and rhyming words by selecting the appropriate letter, word, or picture.

- ◆ **Vocabulary (K-2).**
 - At the kindergarten level, the vocabulary subtest measures listening vocabulary. Students hear a word and chose one of three pictorial response options that mean the same thing as the spoken word.
 - The vocabulary test in 1st and 2nd grades measures reading vocabulary. Students respond to a pictorial or writing stimulus to identify the appropriate word.
- ◆ **Spelling (1-2).** The teacher reads 3 pairs of words aloud, then reads these words in a sentence. The student identifies which of the three words is spelled incorrectly.
- ◆ **Language (1-2).** The language test in 1st and 2nd grades assesses students' ability to use the conventions of standard written English. The subtest includes capitalization, punctuation, and skill in usage and expression in writing.

The ITBS has demonstrated reliabilities ranging from .78 to .97 in the Fall. Scale scores, percentile ranks, and grade equivalents are available. However, for all analyses, the standardized scale score was used.

Student Survey: In an effort to examine other potential areas that may be influenced by the Journeys program, a student survey was developed primarily to measure:

- ◆ Attitudes about school (*e.g. I like school.*)
- ◆ Attitudes about reading-related activities (*e.g. I like reading.*)

- ◆ Perceived reading ability (*e.g. I can read well.*)
- ◆ Effort and motivation (*e.g., I try hard in class.*)

The survey also included items on parental knowledge and support, teacher support, classroom experiences, and in the Spring survey, satisfaction with their reading program. These scales were included in order to obtain measures of the impact of the Journeys program on affective student outcomes and to measure potential variables that may serve as covariates as needed (*e.g., parental support*). While some items were created by PRES Associates, others were derived from scales with published reliability and validity⁷. Internal consistency of the scales measuring attitudinal constructs range from .53 to .78. High scores represent a very positive attitude or strong agreement (scales are from 1 to 5 on the 2nd grade survey and 1 to 3 on the K-1 survey).

Teacher Survey: Information was collected via surveys from all participating teachers. In addition to obtaining teacher background and demographic information, the survey was developed to measure:

- ◆ Classroom and instructional practices
- ◆ Reading/language arts-related preparation and knowledge
- ◆ Teacher knowledge of effective teaching practices (including those aligned to Common Core State

⁷ For the most part, student surveys for elementary children that are reliable and valid are difficult to find. In addition, they tend to be old. Therefore, a subset of items were selected from the entire survey and modified to be consistent with today's language. Survey information can be obtained from the following sources: Hogan, T. P. (1975). *Manual for Administering and Interpreting the Survey of School Attitudes*. New York: Hartcourt Brace; Johnson, O. G. (1976). *Tests and Measurements in Child Development: Handbook II*. San Francisco: Jossey-Bass; Marsh, H. (1990). The structure of academic self-concept: The Marsh-Shavelson model. *Journal of Educational Psychology*, 82, 623-636.

Standards)

- ◆ Organizational factors/context
- ◆ Attitudes about reading/language arts curriculum

These measures were obtained to examine affective outcomes as well as to gather background information (e.g., years of experience, education, etc.). Some items were obtained from existing scales, while others were developed for the study⁸. Internal consistency of the scales measuring attitudinal constructs range from .80 to .91. High scores represent a very positive attitude or strong agreement (scales are from 1 to 5).

Classroom Observations: A classroom observation form was developed to guide observations. This form was largely based on existing protocols that have been used across the nation⁹. Modifications were made to reflect content and practices typical of elementary reading/language arts classes, as well as to examine implementation of key components of the Journeys program. Researchers conducting site visits and using classroom observation forms were trained extensively until a high level of agreement was demonstrated among observers on the various quantitative and qualitative items.

Procedures

To ensure that all treatment teachers participating in the study had sufficient knowledge and skills to successfully

⁸ Items in this survey were developed by PRES Associates and modified from the *Trends in International Mathematics and Science Study (TIMSS) 2003 Teacher Questionnaire Science Grade 8* (Washington, DC: National Center For Education Statistics) and the *2000 National Survey of Science and Mathematics Education Science Questionnaire* (Rockville, MD: Westat).

⁹ The Classroom Observation Form was derived from the following protocols: Horizon Research's *Local Systematic Change Professional Development Classroom Observation Protocol*, and the *Texas Collaborative for Excellence in Teacher Preparation Classroom Observation Protocol*.

implement Journeys, teachers were provided with both implementation guidelines and Journeys training prior to implementation. In addition, monitoring procedures (via monthly instructional logs completed by teachers, classroom observations and interviews) were instituted to measure the extent to which teachers were implementing a similar instructional model as outlined by the Journeys program implementation guidelines.

The following section presents the procedures used to assist teachers in implementing the Journeys program, the monitoring procedures used by evaluators to determine treatment fidelity, methods used to obtain program feedback, and the test administration and scoring procedures employed.

TRAINING

The training model for the Journeys study was designed to provide teachers with the necessary background and practical experiences to begin implementing the program with fidelity at the start of the 2011-2012 school year and continue using the program with increased confidence and familiarity through the 2012-2013 school year. It should be noted that the focus of these trainings was not on general reading and language arts professional development, but rather on the vision of the Journeys program, use of the materials and implementation of the key components, and how the program could best be used to effectively help students learn reading and language arts.

Teachers met with a Houghton Mifflin Harcourt professional trainer for approximately 5-6 hours at the start of the 2011-2012 school year. During the training, trainers clearly described the philosophy of the program, provided an overview of all

program components and clearly indicated key components teachers were required to use based on the implementation guidelines. The Houghton Mifflin Harcourt professional trainer also assisted teachers in understanding the daily structure of the Journeys program and specifically addressed how to incorporate key elements into centers and small group activities. A strong emphasis was placed on which components were key and required, versus those that were strongly encouraged or just recommended. Handouts (including the implementation guidelines) were also provided. These included materials lists, and specific instructions on lesson flow for each day of the week. Trainers also modeled a sample lesson for one or two days in order to demonstrate how teachers should fully implement the program (this included lesson flow, related components and language to use).

In addition to the initial in-depth training, one half-day follow-up session was conducted at each site during the 2011-2012 school year, with one exception. Site F declined the half day follow up training as they felt they did not need additional training. The follow-up training sessions were somewhat less formal than the initial training and allowed opportunities for teachers to ask questions and receive additional training on Journeys technology or program components. While the initial training was geared towards ensuring teachers were ready to begin implementing the program with fidelity at the start of the school year, the follow up training allowed teachers to focus on areas and components where, after having used the program for a few months, they still felt they required additional training in order to implement them to the highest degree possible. The follow up training timeline allowed teachers adequate time to discern areas of weakness

and to compile questions based on applied implementation (i.e. during the initial training it is feasible that teachers might not know what questions to ask since they have not used the program yet). As well, the follow up session also allowed teachers the time for additional training on resources that were recommended for use, but not required, since many teachers had become comfortable and proficient using the majority of key components by the time the follow up training occurred. In some cases, during the follow up session trainers observed the teachers using the Journeys program in their treatment classes and then conducted targeted training based on their observations and teacher input. Table 2 shows training received by each site during the first year of the study.

Table 2. 2009-10 Training Sessions by Site

	Initial Full Day Training	Half Day Follow-up Training
Site A	7/28	9/23
Site B	7/27	9/23
Site C	7/26	9/14
Site D	8/16	12/6
Site E	8/11	2/28
Site F	10/11	NA

IMPLEMENTATION GUIDELINES

Journeys teachers were provided with detailed implementation guidelines at the onset of the study in order to ensure they had a concise understanding of the essential program components and an understanding of the foundation of the Journeys program. Implementation guidelines were based on key program components and pedagogy as identified by HMM product managers and trainers. The guidelines were developed by PRES Associates with final input and revisions from HMM. These offered detailed direction on how the program should be used in the classroom, as well as what parts of the program were considered key (and required), versus what program elements

were considered optional. Given that each Journeys lesson takes one week to complete, teachers were asked to complete whole group reading, small group reading, and language arts activities as outlined below:

A. Whole Group Reading Activities

- **The Big Idea and Essential Question**
- **Opening Routines** – This activity is meant as a quick “wake-up” for students. Do daily.
- **Teacher Read Aloud** - There are typically three skill areas that appear: a) Modeling Fluency, b) Vocabulary, and c) Listening Comprehension— we ask that you instruct/demonstrate at least one skill area.
- **Words to Know / Vocabulary** – High frequency words/target vocabulary words are identified and repeated throughout the lesson.
- **Phonemic Awareness (Grades K-2; Letter Naming-K) and/or Phonics** – These are done 4 days a week (Monday-Thursday).
- **Comprehension Skills/Strategies**
- **Main Selection Story**
 - ◆ **Develop Comprehension** – Throughout the selection, Develop Comprehension questions are numbered. **Teachers should ask all the questions that have a checkmark next to them** as these pertain to the Target Skill.
 - ◆ **Stop and Think** – (Grades 1-3) This applies the concept taught in the lesson to the selection.
 - ◆ **Your Turn** – This section promotes critical thinking skills.
- **Fluency**
- **Deepen Comprehension**
- **Paired Selection / Making Connections.**

- **Vocabulary Strategies** – This section helps students develop strategies to learn vocabulary words in the lesson.

B. Small Group Reading Activities

- **Small Group activities** are an important part of the Journeys program and should occur 5 days of the week. Teachers were free to use the suggested Journeys activities or other Journeys materials, along with small group activities that have worked for your students in the past. However, they were asked to use the **Journeys Leveled Readers** as part of their small groups.

C. Language Arts

- Language Arts activities occur on Days 1-4 of each lesson. Teachers were asked to complete sections of the **Grammar, Spelling and Writing activities.**

D. Assessments

- The Journey’s program includes many options for student progress monitoring and teachers were free to select any method available from the Journeys program.
 - ◆ Teachers were asked to administer the **Unit Benchmark Assessment** (3 times over the course of the year).

For a full description of these key components, please see Appendix C.

PROGRAM MONITORING

Teacher Logs. Online teacher logs were used so that program implementation could be monitored on a real-time basis and to identify any issues or local events that had the potential to influence study results. Teachers were instructed to complete these on a monthly basis from September through May/June. The primary purpose of the teacher logs was to monitor program implementation and fidelity among Journeys classes. Researchers also collected monthly logs from control classes so instructional activities and content covered could be noted and also to monitor the extent to which any contamination may have occurred. Such background information provided researchers with a detailed data source on what was occurring in treatment and control classrooms with respect to reading instruction and practices. It also allowed researchers to identify areas of overlap in terms of content taught and instructional activities. The extent to which there are similarities and differences between classrooms can have an impact on observed differences between treatment and control classes and effect sizes thus, it is important to take these factors into consideration when interpreting study results. Information obtained via these logs included changes in student rosters, typical classroom activities, use of other print resources and related exercises (including homework and independent practice), time spent on various instructional activities, and for treatment classes, use of key Journeys program components.

Results showed that teachers had, on average, a 98% completion rate. The ranges were 89% to 100%¹⁰. Teachers were contacted after failure to complete teacher

¹⁰ Calculation based on 9 months in which teachers were asked to report on their activities.

logs each month. In cases of noncompliance, the school liaison was asked to consult with the teacher to see if there was anything that could be done to assist the teacher in completing the logs and for the most part this was an effective practice and log completion was relatively high with teachers, at most, missing only one log.

Classroom Observation. Classroom observations were conducted for treatment and control classes during the Fall (October-November, 2011) and the Spring (April-May, 2012). The purpose of these observations was to better understand the instructional approaches and materials used by teachers with their students and to identify differences and similarities between classes taught by teachers that were randomly assigned to treatment or control conditions. Specifically, observations focused on how classroom activities were structured, what and how materials were used, and characteristics of the class including student engagement, classroom environment and culture, and teacher-student interactions. In addition, teachers were interviewed after the observations to obtain more specific information on the representativeness of the lesson, resources used, ability levels of the students, assessment practices, pacing, independent practices, test preparation strategies and feedback related to the program. The observations also allowed researchers to examine the extent to which class and teacher level differences could have influenced study results and to examine the threat of possible contamination between treatment and control classes.

TEST/SURVEY ADMINISTRATION AND SCORING

Assessments were administered during two time periods over the course of the study: (1) Fall (September through October 2011); and (2) Spring (May through June

2012)¹¹. For the ITBS, the test publisher's standard testing procedures were followed. Teachers were instructed to contact PRES Associates if they needed additional guidance related to assessment administration. Assessment data was entered by data entry staff who were blind to assigned treatment conditions.

Student and teacher surveys were completed during the same time periods as the assessments (i.e., Fall 2011 and Spring 2012).

Site Selection Criteria

Criteria for developing an initial list of schools to be contacted for possible inclusion in the study included geographical diversity across different states, and public schools in urban or suburban areas so that a sufficient number of teachers would be available for purposes of random assignment. Schools meeting the aforementioned criteria were contacted and, of those, 60 indicated initial interest. Of these, 6 met additional criteria for study participation as indicated below and were selected to participate in the research study.

- Schools had to be willing to do teacher level random assignment;
- Historically low student mobility rates (less than 20%) as a means of helping control for the threat of attrition;
- Willingness/commitment to fully participate in all aspects of the study (e.g., random assignment and data collection).

Other major criteria included: 1) that there be no other major reading initiative(s) at the school; and 2) the typical reading/language arts curricula employed by the school fell under the “comparison” programs which provided a contrast to the Journeys program.

Sample Description

Site Characteristics

Six schools participated in the study. Schools were located in urban and suburban areas and were geographically dispersed across the U.S in the states of Arizona, Rhode Island, and Louisiana, and the District of Columbia. A detailed case study of each of the schools is available in Appendix D.

Table 3 on the following page shows the school-wide characteristics of each of the participating sites. As shown, school populations were ethnically diverse, and with the exception of one school, the majority of students were classified as economically disadvantaged. Characteristics specific to the study participants are provided in Table 4.

¹¹ Administration dates depended on the school's start and end date. Teachers within each school followed a similar testing schedule. Generally, administration occurred within 1 month after the school year commenced (pretest) and within 1 month prior to the end of the school year (posttest).

Table 3. School-Wide Student Demographics

School	School Size	Ethnic Breakdown	% Special Education	% of Limited English Proficient	% Economically Disadvantaged	% by Gender
<i>Site A Arizona Grades K-5</i>	317	46% White, not Hispanic 35% Hispanic 3% American Indian/Alaskan Native 11% Black, not Hispanic 5% Asian/Pacific Islander	NR	7%	57%	49% Male 51% Female
<i>Site B Arizona Grades K-5</i>	315	38% White, not Hispanic 20% Hispanic 7% American Indian/Alaskan Native 34% Black, not Hispanic 1% Asian/Pacific Islander	15%	9%	73%	46% Male 54% Female
<i>Site C Arizona Grades K-5</i>	407	9% White, not Hispanic 86% Hispanic 1% American Indian/Alaskan Native 4% Black, not Hispanic 0% Asian/Pacific Islander	NR	28%	95%	51% Male 49% Female
<i>Site D District of Columbia Grades K-8</i>	531	62% Black, not Hispanic 36% Hispanic 2% Other	17%	38%	87%	49% Male 51% Female
<i>Site E Louisiana Grades K-5</i>	1520	52% White, not Hispanic 39% Black, not Hispanic 5% Asian/Pacific Islander 4% Hispanic 1% American Indian/Alaska Native	NR	NR	31%	49% Male 51% Female
<i>Site F Rhode Island Grades K-2 and 3-5</i>	215 (K-2) 243 (3-5)	33% White, not Hispanic 47% Hispanic 7% American Indian/Alaskan Native 12% Black, not Hispanic <1% Asian/Pacific Islander	NR	NR	84%	51% Male 49% Female
<i>National Population</i>		White-53.5% Hispanic-21.9% African Am.-17.6% Asian/Pacific Islander-5% Native American 1.2% Other 0.5%	13.2%	9.6%	45.4%	Male-50.8% Female-48.0%

Data on National Population was obtained from the U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD). Figures represent distributions across all grade levels and reported for 2009. School data obtained from respective State Department of Education websites. NR=Not Reported

Student Characteristics

The final sample for Year 1 consisted of 1046 students (505 control; 541 treatment) with 44 teachers (21 control; 23 treatment). The study participants were in the K-2nd grade. Table 4 presents the demographic distribution among study participants. Note that only students who remained in the study throughout the year are

included in this table and in the final analyses. The sample was diverse, with 61.1% minorities and with a majority of students receiving free/reduced lunch (55.4%).

Preliminary analyses¹² were performed to examine whether baseline differences existed as a function of student demographics. Chi-square analyses on the demographic characteristics

Table 4. Student Demographics Distributions*

Characteristics		Control (n=505)		Journeys (n=541)		Total (n=1046)		National
		Count	Percent	Count	Percent	Count	Percent	Percent
Gender ($\chi^2(1)=2.60$, $p=.11$)	Male	238	48.8%	280	53.8%	518	51.4%	50.8%
	Female	250	51.2%	240	46.2%	490	48.6%	48.0%
Ethnicity ($\chi^2(5)=12.24$, $p=.03$)	White	181	37.1%	211	40.6%	392	38.9%	53.2%
	Hispanic	178	36.5%	146	28.1%	324	32.1%	21.9%
	African American	97	19.9%	134	25.8%	231	22.9%	17.6%
	Asian	19	3.9%	15	2.9%	34	3.4%	5.0%
	Other	13	2.6%	14	2.7%	27	2.7%	1.7%
Grade ($\chi^2(2)=1.57$, $p=.46$)	K	189	37.4%	183	33.8%	372	35.6%	--
	1st	157	31.1%	182	33.6%	339	32.4%	--
	2nd	159	31.5%	176	32.5%	335	32.0%	--
Subpopulations								
($\chi^2(1)=2.48$, $p=.12$)	Free/Reduced Lunch Status	258	52.9%	300	57.8%	558	55.4%	45.4%
($\chi^2(1)=2.66$, $p=.10$)	Limited English Proficiency	109	21.8%	93	17.8%	202	19.8%	9.6%
($\chi^2(1)=0.58$, $p=.45$)	Special Ed Status	41	8.4%	37	7.1%	78	7.7%	13.2%
($\chi^2(2)=1.39$, $p=.50$)	Low Reading Level	214	44.8%	235	47.3%	449	46.1%	--
	Mid Reading Level	96	20.1%	105	21.1%	201	20.6%	--
	High Reading Level	168	35.1%	157	31.6%	325	33.3%	--

*Counts (and percents) do not include missing information. Ability level was determined by percentile standing on the ITBS Reading comprehension pretest. Students scoring at the top 33rd percentile were classified as high, students scoring at the bottom 33rd percentile were classified as low, and students scoring at the middle 66th percentile were classified as mid level.

¹² All details regarding analyses on baseline differences and attrition analyses are provided in Technical Appendix A.

noted in Table 4 showed one significant difference, $p < .05$ ¹³. In particular, there was a higher proportion of Hispanics and a lower proportion African Americans in the control group as compared to treatment group. That said, when students were categorized as minority and non-minority (White), results showed no significant differences between groups, $p > .05$

Differences in baseline reading performance were also examined based on analyses of pretest scores. Student level t-test analyses revealed one significant difference on the Word Analysis subtest, $p < .05$, see Table 5. Treatment students had significantly higher pretest scores than control students. Thus, treatment and control students were not equivalent with respect to this assessment of phonics skills. Differences on other student characteristics were also examined. Results showed no significant differences between treatment and control students in perceived parental support and school engagement. Of

note, as a result of baseline differences on the Word Analysis subtest, analyses of program effects on this outcome measures controlled for pretest differences.

Attrition Analysis

Both measurement attrition (i.e., missing data due to students not completing assessments) and dropout attrition (i.e., missing data due to students leaving the study) were examined. Details on the attrition analysis are presented in Technical Appendix A, and are summarized herein. There was an overall dropout attrition of 6.9% (n=77) due to students leaving school or moving from treatment to control classes (or vice versa). While there was no evidence of differential attrition (attrition rates were similar across groups), there was some evidence of performance differences between those who stayed in the study and those who left. Specifically, control students who left had lower spelling scores than control students who remained in the study. In contrast, the

Table 5. Sample Size, Means, Standard Deviations, and t-test (Student Level) Results for Assessments at Pre-testing

Pretest*	Group	N	Mean	Std. Dev.	t	Sig. Level
Vocabulary Subtest (K-2)	Journeys	493	136.69	19.91	0.71	.480
	Control	477	135.85	17.02		
Word Analysis Subtest (K-2)	Journeys	495	138.20	23.38	2.79	.005
	Control	480	134.25	20.75		
Reading Words Subtest (K only)	Journeys	169	126.59	10.31	1.85	.068
	Control	186	128.47	8.95		
Reading Comprehension Subtest (K-2)	Journeys	497	139.29	19.89	0.26	.795
	Control	478	138.98	16.18		
Spelling Subtest (1-2 only)	Journeys	324	150.21	14.25	0.58	.561
	Control	294	149.53	14.95		
Language Subtest (1-2 only)	Journeys	325	144.29	14.24	1.34	.179
	Control	294	142.83	12.74		

¹³ “Significant” means that we can be 95% or more confident that the observed differences are real. If the significance level is less than or equal to .05, then the differences are considered statistically significant. If this value is greater than .05, this means that any observed differences are not statistically significant and may be interpreted as inconclusive. However, at times this may be referred to as “marginally significant.” In this case, the criterion is more liberal and means that we can be 90% or more confident that the observed differences are real.

treatment students who left and remained showed similar spelling scores. However, given that this difference was observed on a single outcome (out of 5) and students were fairly equivalent on all other measures, this threat is considered minimal.

With respect to measurement attrition, analyses showed no significant relationships between the proportion of students who provided and did not provide data and group. Furthermore, there were no significant performance differences between those who completed tests and those that did not by group.

Teacher and Class Characteristics

There were 44 elementary school teachers who participated in the first year of the RCT (23 treatment and 21 control). Approximately 96% of teachers were female and 64% were Caucasian. In regards to educational background, 67% of teachers held a Bachelor's degree and 33% of teachers held a Master's Degree, primarily in Education or Early Childhood Education. Teacher experience ranged from 1 to 32 years, with the average number of years taught being 10. No significant differences were observed among treatment and control teachers in terms of these demographic and background variables.

Control and treatment teachers were also very similar in terms of their preparation to teach via "best practices" strategies and according to Common Core State Standards, perceptions of control over teaching, and perceptions of student barriers placed on their teaching, $p > .05$. However, one difference did emerge in that control teachers reported being more familiar with the five elements of reading than treatment teachers as measured by the pre-survey, $p < .05$.

Classroom environment and implementation of various typical activities that occur in elementary classrooms were also analyzed

based on information collected from the classroom observations, teacher logs, and teacher surveys. Results showed no significant differences between treatment and control classrooms in terms of classroom environment, instructional time spent on reading (whole group and small group), language arts (including writing, grammar and spelling), and in emphasis placed on specific reading areas such as phonics, comprehension, vocabulary, fluency, and phonemic awareness. No differences were observed in the amount of homework assigned (in minutes), percentage of students who turn in homework, provision of differentiated instruction, diversity of student activities, and assessment use, $p > .05$. The only significant difference observed among all the comparisons conducted was in the number of days of week homework is assigned, with control teachers assigning homework on 4 days average and treatment teachers assigning homework on 3 days average, $p < .05$.

In summary, randomization was quite successful in producing equivalent treatment and control groups in terms of student, classroom, and teacher characteristics.

Instructional Curricula

The focus of this study was to examine the effects of an entire core curriculum and as such, it must be compared to other core curricula that teach the same content area. With this in mind, researchers tried, to the extent possible, to select schools to participate in the study that used a control program that differed pedagogically from the intervention under study. For the Journeys RCT, participating schools used six distinct published reading/language arts programs. However, schools A, B, C and F had control teachers that used a mixed reading/language arts curricula, drawing upon numerous resources and materials for instruction.

Teachers involved in the study all taught concepts essential to reading and language arts instruction. Depending on the school and grade level, teachers paced their classes according to their program, followed a school or state pacing guide to meet required standards, and/or taught according to student needs. Teachers that used the Journeys program, however, followed the scope and sequence of the Journeys program which is aligned to the Common Core State Standards.

JOURNEYS

Houghton Mifflin Harcourt's Journeys program is a comprehensive reading and language arts program designed for Kindergarten to 6th grade. Aligned to the Common Core State Standards, this program contains all the resources needed to integrate the five elements of reading each day. Organized around six themed units, each unit contains five lessons, each with a daily instructional plan. Lessons contain whole group reading and language arts activities as well as options for small group instruction. Each lesson theme follows an overarching Big Idea and Essential Question that is referenced throughout -- the program encourages teachers to review these with students in every lesson. Generally, the pacing of the program is about one lesson per week or 5 weeks per unit.

The literature selections in the Journeys program are designed to engage students in a blend of literary genres including fiction, poetry, nonfiction and informational text. The paired selection stories integrate nonfiction and informative text selections consistent with the unit themes. These selections develop skill and appreciation for different types of reading. The literature opportunities are available to students via their student textbook/anthology and a series of leveled readers, developed and leveled by Irene Fountas under the Readers Workshop model of instruction. As well, a series of decodable readers and vocabulary readers are

provided for additional reading selections. Leveled trade books are also provided in the 3rd grade in lieu of leveled readers for the last unit of the program.

Language arts instruction includes comprehensive writing and grammar activities that are integrated within the program literature. Weekly writing instruction has students practicing the writing process of pre writing, drafting and revising everyday with writing prompts related to reading selections.

Assessment activities in the Journeys program include a dynamic assessment program with diagnostic, formative, and summative assessment opportunities that inform instruction for every student. Daily progress monitoring with opportunities to monitor student progress and provide corrective feedback is also provided. As well, the Journeys digital site includes teacher planning and management, instruction and student activities.

Specific resources available include:

Student Resources

- Student Edition
- Leveled Reader

Teacher Resources

- Teacher's Edition
- Grab n Go Blackline Masters and Additional Resources
- Decodable Reader Stories
- Vocabulary Reader
- Read Aloud Book (Kinder)
- Big Book (Kinder - 1)
- Interactive Instructional Flip Chart (Kinder)
- Ready Made Work Stations
- Leveled Practice Book
- Vocabulary in Context Cards
- Focus Wall poster
- Progress Monitoring Assessments

- Benchmark Tests and Unit Tests (Grades 1-3)
- Diagnostic Assessment (1-3)
- Comprehensive Literacy Guide
- Language Support Cards
- Student Book Audio Text CD (Grades 1-3)
- Instructional Card Kit (Grades 1-3)
- Reading Tool Kit (1-3)
- ExamView CDROM (1-3)

Digital Resources

- Student & Teacher Edition
- Teacher One-Stop
- Assessment Resources
- Phonemic Awareness/Phonics Activities
- Leveled Readers Online

For a more detailed description of the program's key features and materials, see Appendix C-Implementation Guidelines.

CONTROL CURRICULA

The type of control curricula used by teachers varied between teachers and sites. Table 6 shows the programs used at each of the sites. Some teachers at schools A, B, and C and all teachers at school F did not follow a published program but rather used a mixture of resources and only occasionally supplemented with a textbook for supplemental reading and instructional purposes. The control teachers at schools D and E used primarily one basal program (programs 1 and 6 respectively) across all grade levels.

Most similar to Journeys, control program 1 is a traditional, basal program with a focus on literature, reading comprehension, phonemic awareness/phonics, vocabulary and writing. Control program 1 is organized around themed units and lessons. The program encourages students to read both fiction and non-fiction stories that fit within the unit theme. Each theme includes weekly lesson plans that are structured

Table 6. Primary Control Curricula by Site

	Program 1	Program 2	Program 3	Program 4	Program 5	Program 6	Mixture of Resources
Site A: AZ	First Grade (2001 Ed.)	Kindergarten & Second Grade (2002 Ed.)					Kindergarten Second Grade
Site B: AZ	Kindergarten, First & Second Grade (2006 Ed.)	Kindergarten & First Grade (2002 Ed.)					Second Grade
Site C: AZ			Kindergarten & Second Grade (2003 Ed.)	Second Grade (2000 Ed.)	First Grade (2003 Ed.)		Kindergarten
Site D: DC	Kindergarten, First & Second Grade (2003 Ed.)						
Site E: LA						Kindergarten, First & Second Grade (2003 & 2006 Ed.)	
Site F: RI							Kindergarten, First & Second Grade

around a five day school week with a daily emphasis on reading, word work, writing and oral language. Additionally, the weekly lesson plans include an emphasis on cross-curricular activities including social studies, vocabulary, math, science, and technology. Read aloud books, leveled readers, vocabulary readers and a decodable text are provided in addition to the student textbook. This program was used primarily at schools D & B and an older edition was used by the first grade teacher at school A.

Control program 2 is a phonemic awareness, phonics and spelling program that serves as a prevention program to help reduce reading and spelling failure. Lessons are organized as a 30-minute daily lesson that is integrated into language arts classroom instruction. The lessons focus on sequenced skills that include print knowledge, alphabet awareness, phonological awareness, phonemic awareness, decoding, vocabulary, fluency, and spelling. Additionally, the program emphasizes letter formation and handwriting practice. Control program 2 is recommended to be used in conjunction with a literature-based reading program. At school A & B, teachers used this program to supplement their core reading and language arts instruction.

Control program 3 is a comprehensive language arts program with all elements of language integrated into spelling, writing and reading lessons. The program emphasizes a students' mastery of subskills to encourage a desire to read both academically and recreationally. The reading lessons are organized by three strands: literary appreciation, text structure and comprehension with an emphasis on writing and author's purpose. Students are viewed as active participants and the built-in observations and assessments allow teachers to tailor instruction around student's individual needs. Control program 3 also emphasizes a memorization of Rules of Pronunciation, Spelling and Language as well as phonograms. Similar to Control program 2, this program can be used in conjunction with other

literature based reading programs. At School C, where this program was used by the Kindergarten and 2nd grade teachers, they supplemented program 3 with other reading materials (e.g., program 4 below).

Similar to program 1, program 4 is a basal reading/language arts program organized around overall unit themes with 5 day/week daily lesson plans. The program is focused on literature that correlates with the overall unit theme. The literature available includes leveled readers, decodable readers, independent reading and big book (anthology) stories. Each day of the lesson includes daily oral language, word work, reading, and language arts. The lessons also include the development of background knowledge to enhance understanding and appreciation for the literature. This program was used by the 2nd grade control teacher at school C.

Control program 5 is a comprehensive basal reading/language arts program organized around overall themes and daily instructional plans. Similar to control programs 1 and 4, this program emphasizes a variety of literature including fiction, folktales, informational texts, nonfiction, plays and poems. Opportunities for literature include trade books, leveled readers, student edition anthology stories and take home books. The daily lesson plans emphasize reading skills and strategies, phonics, writing, grammar and spelling. Also similar to control program 4, the lessons include development of background knowledge and reading strategies to enhance reading comprehension. This program was used by the 1st grade control teacher at school C.

Control program 6 is a comprehensive reading program designed to target the needs of beginning readers in the primary grade levels and develop more sophisticated reading skill in the secondary grade levels. Lessons are designed to be used for 90 minutes a day over a

period of 5 days. At the primary levels the program includes systematic phonics instruction supported by decodable stories, along with instruction in fluency and comprehension. At the secondary levels the programs core instructional structures target vocabulary development, reading comprehension, fluency, oral language development and writing expression by providing students opportunities for narrative and expository text. Similar to Control program 1, 4 and 5, control program 6 encourages a student’s appreciation for reading by providing rich literature experiences. It is recommended that students using this program be assessed and grouped according to their level to ensure the receipt of focused instruction. This program was used by the control teachers at school E.

The control curricula, including resources available, are described in more detail in Appendix E.

COMPARISONS BETWEEN JOURNEYS AND CONTROL PROGRAM CONTENT, COVERAGE AND PRACTICES

As a result of state and district scope and sequence guidelines prescribing reading and writing content, treatment and control class coverage was similar with all teachers equally emphasizing the five elements of reading. While some elements were presented in a different sequence depending on the program used, for the most part, reading content coverage was comparable. As shown in Table 7, comparison on the percent of textbook coverage during the school year showed that for the most part, program completion was similar for treatment and control teachers at each grade level. For teachers that did not follow a published textbook, percent of total content coverage could not be calculated.

Table 7. Percent Textbook Coverage

	Control	Journeys
Site A: AZ	*	K: 94%
	1 st : 90%	1 st : 94%
	*	2 nd : 90%
Site B: AZ	*	K: 87%
	1 st : 100%	1 st : 93%
	*	2 nd : 87%
Site C: AZ	*	K 90%
	1 st 90%	1 st : 85%
	2 nd 85%	2 nd : 100%
Site D: DC	K: 90%	K: 77%
	1 st : 85%	1 st 66.7%
	2 nd : 80%	2 nd : 85%
Site E: LA	K: 57%	K: 80%,
	1 st : 87%	1 st : 67%,
	*	2 nd : 77%
Site F: RI	*	K: 93%
	*	1 st : 97%
	*	2 nd : 100%

* - Teachers supplemented extensively or did not use a basal program in which content coverage could be calculated.

It should be noted that due to the learning curve of the Journeys program, not all treatment teachers completed 100% of the program. In Year 2, it is expected that teachers and students will be more familiar with the organizational structure of the lessons and will complete a larger percent of the available lessons.

With respect to the textbooks and the pedagogical approaches employed by the various reading/language arts curricula, there were some differences between control and Journeys programs. As previously noted, schools A, B, C and D used traditional, theme-based, teacher delivered programs as their main control curricula. These basal control materials were similar in their organization around theme based units and lessons, and emphasis on literature. However, there is a notable difference in the primary philosophy behind

each program. Specifically, Journeys delivers lessons driven by a Big Idea and Essential Question and the specific skills and activities within the lesson support this larger concept. While control programs 1, 4 and 5 followed a similar organizational structure around a unit theme, these programs did not incorporate an overarching concept. Similarly, lessons within control programs 2, 3 and 6 (School E) contain themes within their lessons, but these themes do not prompt students to think about the big picture. Another notable difference between Journeys and the control curricula is the emphasis of daily small group activities. Neither of the control programs used include lessons plans for small group activities. Furthermore, there is a greater emphasis on writing and grammar within the Journeys program at the early grade levels (K). Another distinction is the greater cohesiveness between the different elements of the Journeys program (e.g., the writing, reading, vocabulary, and phonics components) as compared to the other basal control programs. As previously noted, Journeys is also aligned to the Common Core State Standards.

In addition to their main reading curricula, schools A, B and C supplemented their reading instruction using targeted language arts programs. School E used a targeted phonics based program that targets phonemic awareness, phonics and oral language development in the primary grades and comprehension and vocabulary in the secondary grades. In contrast to Journeys, these programs did not include student textbooks or anthologies, but rather instruction was teacher delivered and they utilized worksheets, decodable readers and trade books. Furthermore, unlike Journeys, as separate supplemental programs, the activities and targeted skills from these resources were not tied to the main reading selection and activities.

In terms of a typical lesson schedule, lessons in both control and treatment class were relatively consistent with a few exceptions as noted below. Lessons usually started with an opening routine and a homework check. This was followed by a review of the previous day's lesson and the introduction to the new lesson. Comprehension, vocabulary, writing, and spelling typically occurred daily with different skills/strategies targeted each week. Lessons included teacher read alouds, class discussions, collaborative or independent reading, response to reading and word/sentence structure activities. Students would also participate in small group activities or centers; however these occurred in greater frequency in treatment classes. The centers would typically include independent and/or group reading with leveled readers or trade books, word practice, writing practice, computer games, differentiated instruction with the teacher, and academically orientated games. Both treatment and control teachers reported administering weekly quizzes, typically occurring on Fridays. With regards to homework activities, teachers reported assigning homework Monday through Thursday, and homework activities generally included independent reading and spelling/vocabulary/phonics activities. There were no significant differences observed regarding the emphasis on comprehension, fluency, phonics, phonemic awareness and vocabulary in treatment and control classrooms.

In terms of specific instructional activities, there were some significant differences observed. While the teachers reported a similar flow in their lesson schedule, treatment teachers reported a significantly stronger emphasis on enrichment activities for advanced students. All teachers reported the use of leveled readers for enrichment activities, however, treatment teachers were significantly more likely to also utilize worksheets, independent practice and additional in-depth questioning for enrichment activities. With regards to utilizing technology

in the classroom, control teachers were significantly more likely to report having students use technology to practice reading and writing in the classroom despite availability of Journeys Digital. These were the only notable differences observed across schools in terms of reading language arts instruction.

In sum, Journeys and control classes were fairly similar to one another in terms of structure and content taught. Given this information, and the fact that the duration of the study and exposure to the program occurred during *one* school year, small effect sizes were expected. After all, even with training provided, there is a learning curve for teachers in their first year of implementing a new program. Indeed, it is recommended that *cumulative* student exposure be examined to determine the sustainability of effects observed. Indeed, as a two year study, stronger effects are expected following two years of exposure.

FIDELITY OF IMPLEMENTATION

Three levels of implementation (low, moderate, and high) were assigned for teachers’ implementation of key Journeys program components as noted in the implementation guidelines (see Appendix C). Triangulation of the available information¹⁴ showed that three teachers did not typically follow the implementation guidelines with high fidelity. In particular, these teachers tended to skip over important components of each lesson such as the Teacher Read Aloud, Vocabulary, Stop and Think, Your Turn, Fluency, daily Opening Routines, use of Leveled Readers and language arts components of program (spelling, writing, grammar) on a more regular basis than the moderate and high implementers. These teachers noted that they did not have sufficient time to complete all activities while ensuring they covered necessary content. The remaining

¹⁴ Information was analyzed from teacher logs, class observations, and exit interviews.

87% of treatment teachers implemented the program with adequate fidelity (high and moderate).

When the average implementation for each of the key components is examined, results show that the majority of teachers tended to implement the Writing, Grammar, Stop and Think, Your Turn, and Fluency with less frequency than prescribed, with coverage occurring for approximately 75% of the lessons. Some teachers also conducted small groups 3-4 times per week as opposed to daily. Nevertheless, for the most part, participating treatment teachers did very well in implementing the program as noted in the implementation guidelines.

Appendix F provides a more detailed table describing the extent to which teachers utilized the various Journeys program components. For more information on how teachers implemented the Journeys program in their classrooms, see Appendix D: Case Studies.

Table 8. Level of Journeys Implementation

Level of Journeys Implementation	Completion of Key Program Components
High	90% or higher consistent completion of Journeys components= 13 teachers
Moderate	80%-89% consistent completion of Journeys components = 7 teachers
Low	Less than 80% of goals met = 3 teachers

Approximately 87% of classrooms were exposed to the key Journeys program components with a moderate to high level of fidelity.

No evidence of contamination was observed between teachers or in classrooms. That is, control teachers did not use any components of the Journeys program with their students.

However, there was some movement of students from treatment to control classes (or vice versa) over the school year. These students were excluded from the all program effect analyses that are subsequently reported.

It should be noted that the potential for contamination was given careful consideration when determining the level of random assignment. Through years of research experience, PRES researchers have found that the benefits of random assignment at the teacher level (hence, controlling for school and teacher level factors) with careful monitoring of possible contamination, outweighs the risk of contamination. Procedures used to eliminate the threat of contamination included an in-depth study orientation with teachers, site visits made to both treatment and control classrooms to observe what was occurring in classrooms, and monthly teacher logs that monitored practices and materials used across both treatment and control classrooms.

Results

This section is organized by the key questions from the RCT and reviews major findings first, followed by a more detailed presentation of results.

Major Findings

Do reading/language arts skills improve over the course of participating in the Journeys program? Does this vary by different types of students and levels of implementation?

Results showed significant growth over the course of the school year as measured by the national, standardized ITBS reading and language arts test. Specifically, students using the Journeys program showed significant growth on all six outcome measures -- thus, student skills in reading comprehension, vocabulary, word analysis, spelling, language, and word recognition grew notably over the course of the school year.

All subpopulations of students using Journeys showed significant learning gains on multiple reading and language arts subtests as well. The Journeys program worked just as well with K-2nd graders, females and males, White and minority students, special education and non-special education students, English Language Learners and non-ELLs, students of varying reading ability levels, students receiving free/reduced lunch and those not receiving such assistance.

Analysis by Journeys implementation level showed that there was a relationship between teacher's level of implementation of the program and learning gains. Specifically, students whose teachers implemented the Journeys program with moderate and high fidelity showed the highest levels of gains as compared to teachers who used the program with low levels of fidelity -- as measured by the

reading comprehension, vocabulary, and word recognition subtests. Furthermore, teachers who implemented the program with moderate fidelity showed significantly larger gains in word analysis skills than low implementers.

Do gains in reading/language arts skills differ between students using Journeys as compared to similar students not using the program?

Comparisons between students using Journeys and students using other elementary language arts programs showed that Journeys students significantly outperformed control students on four of the six outcome measures. Significant positive effects were observed in reading comprehension, vocabulary, spelling, and word recognition. The effect sizes obtained can be classified as small to moderate ($d=.15$ to $.39$) – however, only one effect exceeded the threshold ($.25$) for educational significance – the effect on the word recognition subtest. While these can be classified as small effects, it should be noted that such small effects are typical of educational curricular research conducted in real-world applied settings, particularly when comparisons are being made across core curricula covering similar content matter implemented across classrooms following comparable pacing guidelines. Additionally, such small effects are not surprising given that teachers and students had only used Journeys for one school year. It takes time for teachers to become familiar with any program and for effects, if present, to fully manifest themselves in terms of student performance. As a two year RCT, stronger effects are expected following year 2, after teachers and students have additional experience with the Journeys program.

These effect sizes translate to Journeys students performing 6 percentile points higher on norm-referenced assessments than control students on vocabulary and spelling skills, 8 percentile points higher on reading

comprehension skills, and 15 percentile points higher on word recognition than control students.

Do effects of the Journeys program on student performance vary as a function of different student or school level characteristics? That is, do study findings vary across different types of students, at different grade or ability levels, from diverse educational contexts or settings?

Analysis of subgroup differences also showed statistically significant positive effects on student achievement. In all cases, Journeys students showed greater learning gains than control students from the same subgroup. Statistically significant differences were observed for the following groups:

- Free/reduced lunch eligible (on 5 outcomes)
- Hispanics (on 3 outcomes)
- African Americans (on 3 outcomes)
- Low reading level (on 3 outcomes)
- High reading level (on 2 outcomes)
- Females (on 2 outcomes)
- Second graders (on 2 outcomes)
- 1st graders (on 1 outcome)
- Kindergartners (on 1 outcome)
- Special education student (on 1 outcome)
- Limited English Proficient student (on 1 outcome)

In sum, all statistically significant differences found between treatment and control conditions across multiple subgroups were in favor of the Journeys program. Such consistency in findings across different subgroups and outcome measures combined with the fact that all effects observed were in favor of Journeys lend credence to the conclusion that Journeys is an effective program which positively impacts student reading, spelling, vocabulary and word recognition skills.

Does participation in the Journeys program result in other positive student outcomes (e.g., positive attitudes towards reading, student engagement/interest, etc.)?

While the main focus of the Journeys program is to improve upon reading and language arts skills, other measures were included to explore if Journeys was associated with positive impacts on student and teacher attitudes, and classroom practices. Results showed that Journeys students and teachers felt their program had a positive impact on student vocabulary skills to a greater extent than the control group. While not statistically significant, Journeys teachers also reported that the program helped with students' inquiry skills and ability to make connections to other subject areas, but was lacking in the area of writing. Journeys teachers also reported being more prepared to use small, leveled groups than control teachers.

Journeys teachers also tended to integrate more of their reading instruction with other subject areas as compared to control teachers – such integration is an important component of the Common Core State Standards. Indeed, Journeys teachers reported significantly greater assistance with their program in connecting to the Common Core State Standards as compared to teachers using other reading/language arts programs. With respect to differentiated instruction, Journeys teachers also reported that their program provided more assistance with instruction to above average and average students as compared to teachers using other elementary programs.

What do users of Journeys think about the program?

Approximately 80% of teachers reported that they liked the Journeys program and would like to use it again in the upcoming school year. Teachers indicated that the program was user-friendly and included everything they needed to teach reading effectively. A trend was also observed where Journeys students enjoyed their reading/language arts program to a greater extent than students using other programs. As well, the vast majority of Journeys teachers reported that their students spoke highly of the program and enjoyed it.

Teachers reported that they liked the comprehensiveness of the Journeys program and its focus on multiple target areas (e.g., phonics, phonemic awareness, comprehension, fluency, spelling, writing, and grammar). Furthermore, Journeys teachers reported that the alignment of the program to the Common Core State Standards was a major strength of the program as it allowed them to meet these standards without taking much planning or preparation time. As well, despite some critiques regarding the Journeys writing component, a few teachers commented that their Kindergarten students benefited from early exposure to grammar and writing rules.

Detailed Findings

Do reading/language arts skills improve over the course of participating in the Journeys program?

In order to determine whether students who used Journeys showed significant learning gains over the course of a school year, analysis on outcomes were conducted via paired sample t-tests. Results showed significant growth on all reading and language arts related outcomes as measured by the ITBS assessment, $p < .05$. As a reminder, depending on grade level, students took 4-5 subtests. At the Kindergarten level (ITBS Level 6), students took the following subtests: reading comprehension, vocabulary, word analysis, and reading words (which is a measure of word recognition). At the 1st and 2nd grade levels (ITBS Level 7-8), students took the following subtests: reading comprehension, vocabulary, word analysis, spelling and language. Thus, in all areas measured, Journeys students showed significant gains over the course of one school year. The biggest gains were observed in word analysis (19.69 points) followed by vocabulary (15.64 points) and reading comprehension (15.23 points). Gains were smallest in the area of spelling (11.53); however it was still significant.

Figure 1. Pre- and Post ITBS Reading Comprehension Subtest (Grades K-2)

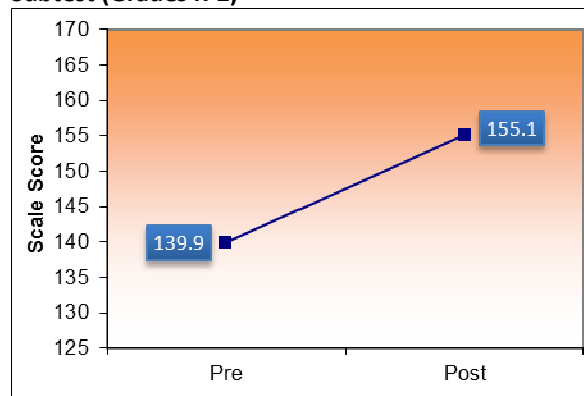


Figure 2. Pre and Post ITBS Vocabulary Subtest Performance of Journey Students (Grades K-2)

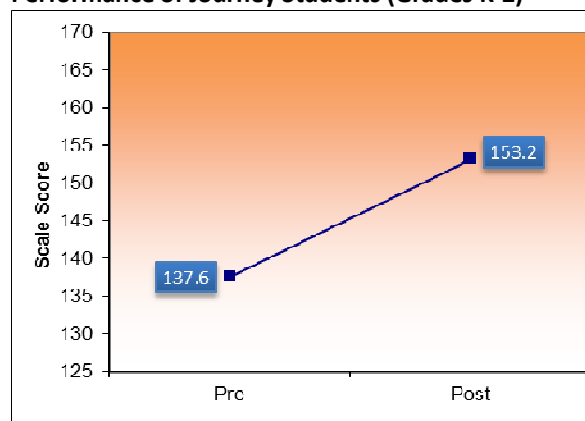


Figure 3. Pre- and Post ITBS Word Analysis Subtest Performance of Journey Students (Grades K-2)

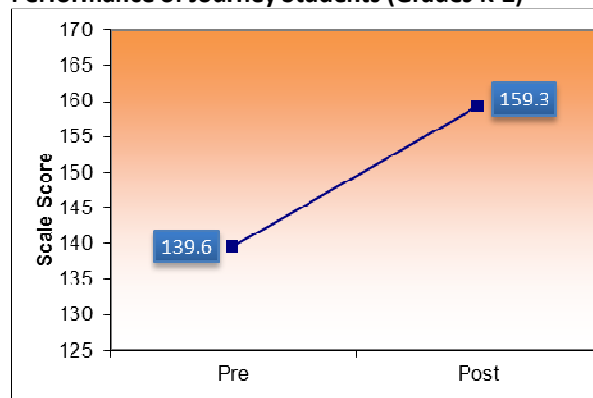


Figure 4. Pre- and Post ITBS Reading Words Subtest (Grade K Only)

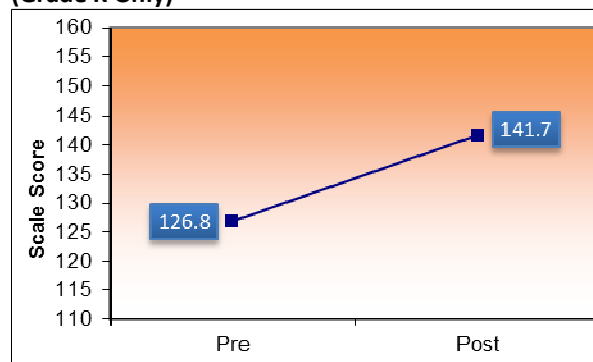


Figure 5. Pre- and Post ITBS Spelling Subtest (Grades 1 and 2)

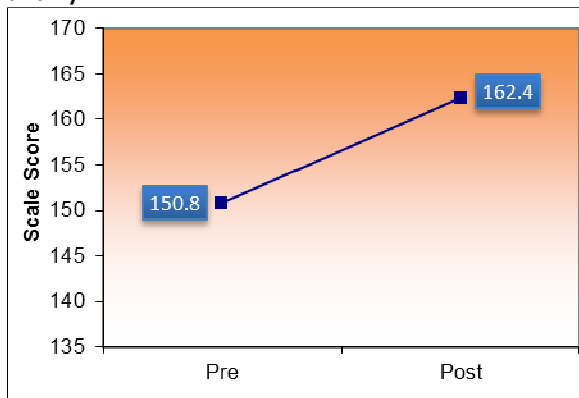
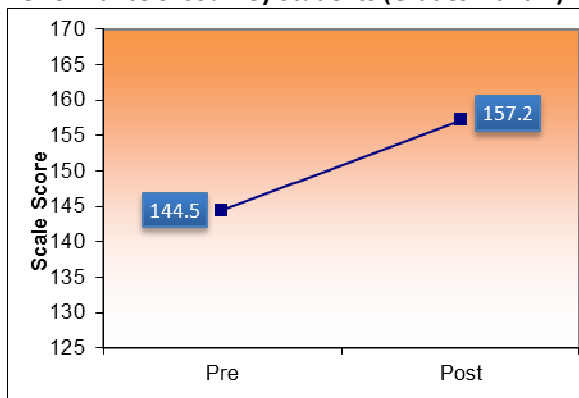


Figure 6. Pre- and Post ITBS Language Subtest Performance of Journey Students (Grades 1 and 2)



Journeys students showed significant growth in all measured outcomes. Specifically, gains were observed in reading comprehension, vocabulary, word analysis, word recognition, spelling and language performance.

Do changes in reading/language arts performance among Journeys students vary by different types of students and levels of implementation?

In order to examine whether the Journeys program was associated with improvements among students of various subgroups, exploratory, descriptive analyses were conducted. Only the performance of *treatment* students in specific student populations (i.e. students receiving free/reduced lunch and students not receiving aid, males and females, minority and non-minority students, Limited English Proficient (LEP) students and non-LEPs, special education students and students not in special education, and students of various grade levels) was examined in these analyses. It should be noted that the sample sizes in some of the subgroups are small and there are unequal sample sizes between those in the special populations and those not for a number of variables¹⁵. Therefore, with the caveat that these analyses are limited, this provides readers with preliminary, descriptive information on whether the program is associated with improvements among various subgroups. Figures 7-41 display the results for the various subgroups.

Results showed that all subpopulations of students using Journeys showed significant learning gains on all outcome assessments, with two exceptions. Special education Journeys students did not show growth in the areas of word recognition and language. However, generally females and males, minorities and non-minorities, students receiving free/reduced lunch and those not, LEPs and non-LEPs, students in special education and those not, and students at various grade levels showed significant gains in reading and language arts skills, $p < .05$.

¹⁵ The reader is referred to Technical Appendix A for statistics.

Free or Reduced Price Lunch

Figure 7. Journey Students Gains by Free /Reduced Price Lunch: ITBS Reading Comprehension Subtest

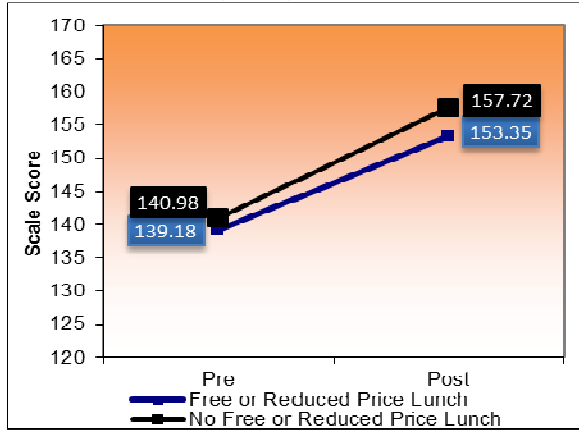


Figure 8. Journey Students Gains by Free/ Reduced Price Lunch: ITBS Vocabulary Subtest

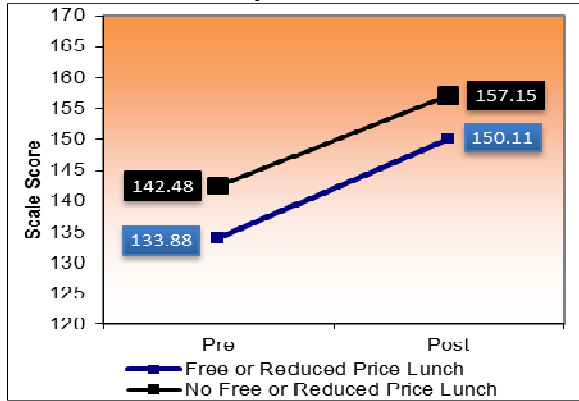


Figure 9. Journey Students Gains by Free /Reduced Price Lunch: ITBS Word Analysis Subtest

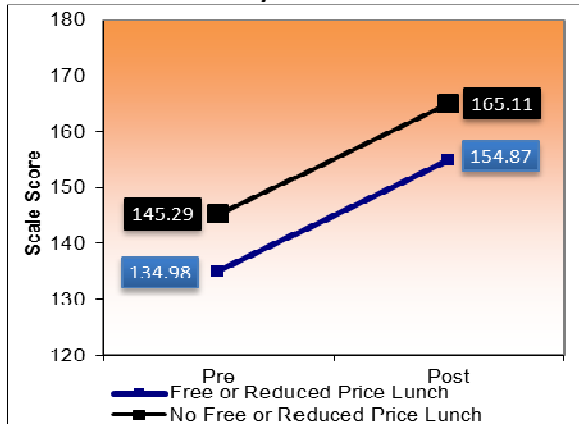


Figure 10. Journey Students Gains by Free/ Reduced Price Lunch: ITBS Reading Words Subtest

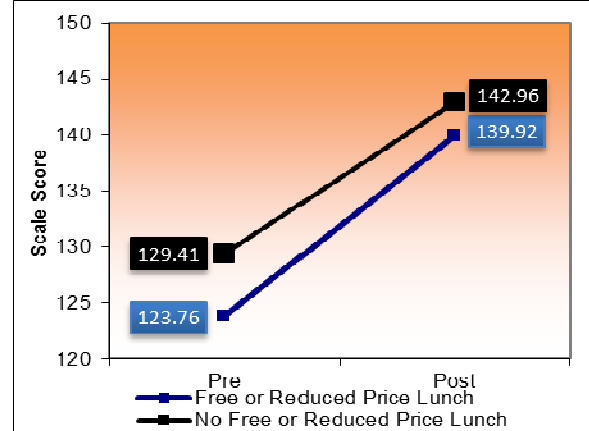


Figure 11. Journey Students Gains by Free/Reduced Price Lunch: ITBS Spelling Subtest

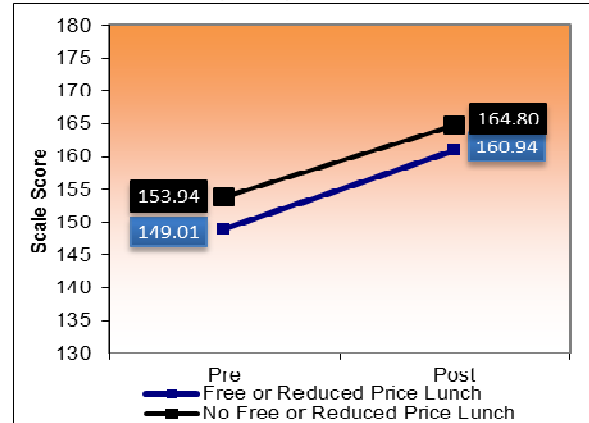
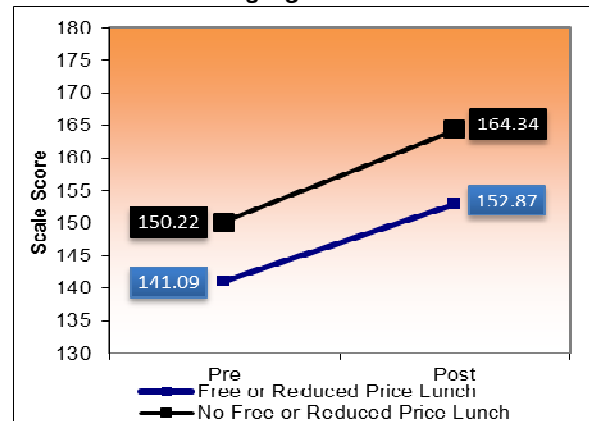


Figure 12. Journey Students Gains by Free/ Reduced Price Lunch: ITBS Language Subtest



Journeys students receiving free/reduced lunch and those not receiving this aid showed similar, significant gains across all outcome measures.

Gender

Figure 13. Journey Students Performance Gains by Gender: ITBS Reading Comprehension Subtest

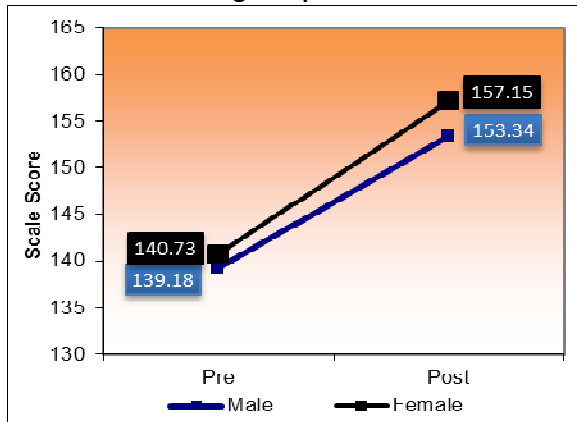


Figure 14. Journey Students Performance Gains by Gender: ITBS Vocabulary Subtest

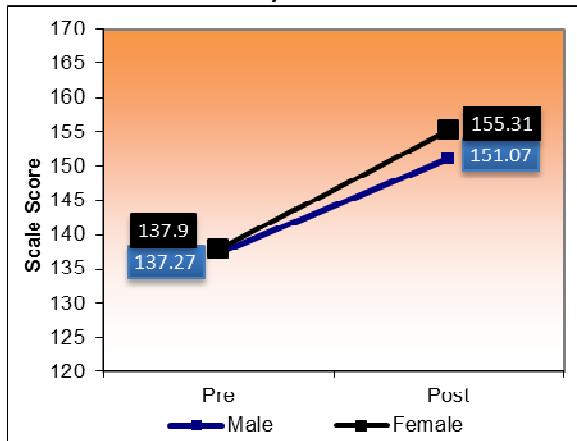


Figure 15. Journey Students Performance Gains by Gender: ITBS Word Analysis Subtest

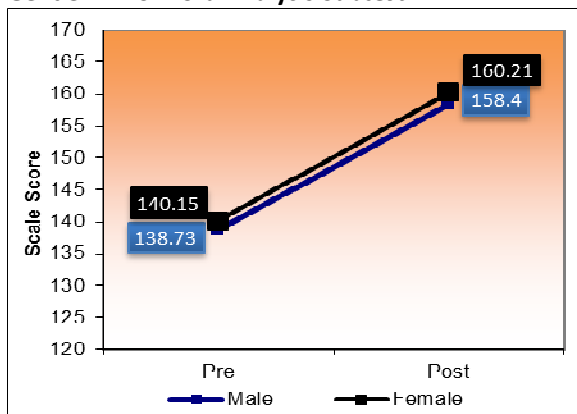


Figure 16. Journey Students Performance Gains by Gender: ITBS Reading Words Subtest

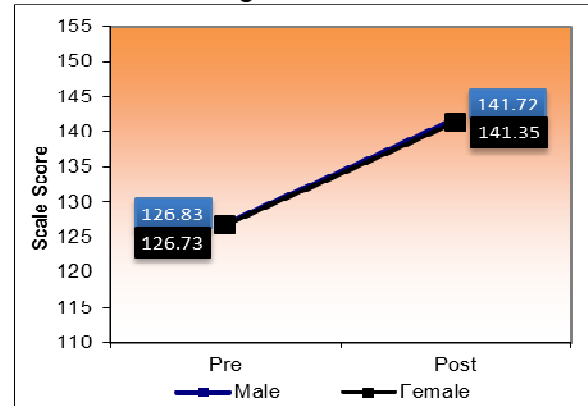


Figure 17. Journey Students Performance Gains by Gender: ITBS Spelling Subtest

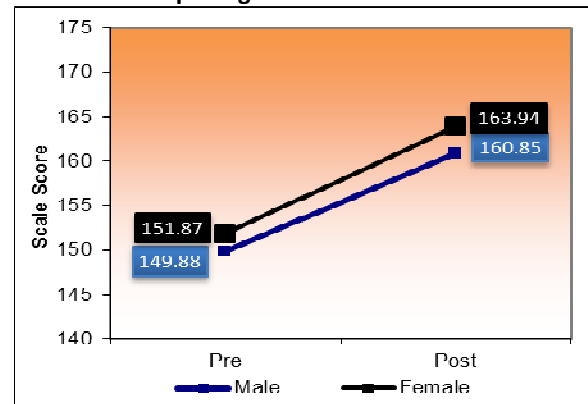
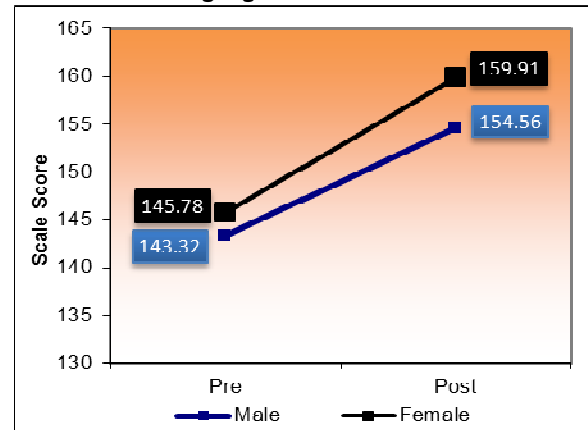


Figure 18. Journey Students Performance Gains by Gender: ITBS Language Subtest



Females and males using Journeys showed similar and significant performance gains on all ITBS subtests.

Race/ Ethnicity

Figure 19. Journey Students Gains by Race/ Ethnicity: ITBS Reading Comprehension Subtest

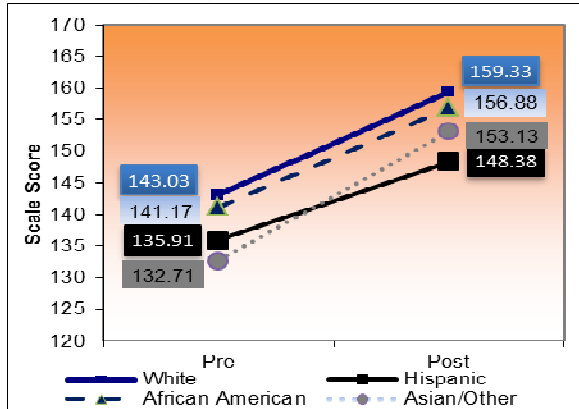


Figure 20. Journey Students Performance Gains by Race/Ethnicity: ITBS Vocabulary Subtest

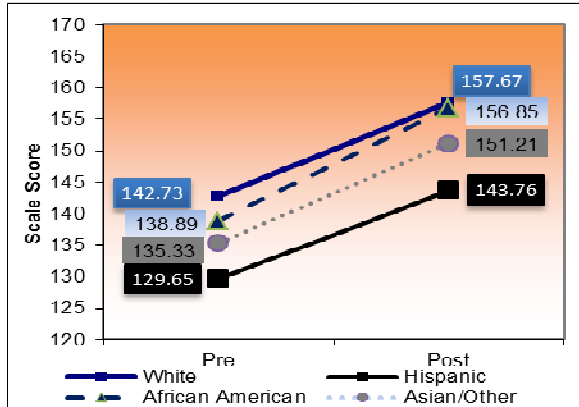


Figure 21. Journey Students Performance Gains by Race/Ethnicity: ITBS Word Analysis Subtest

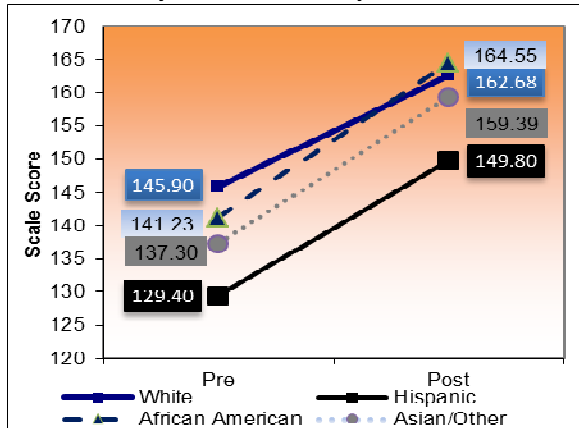


Figure 22. Journey Students Performance Gains by Race/Ethnicity: ITBS Reading Words Subtest

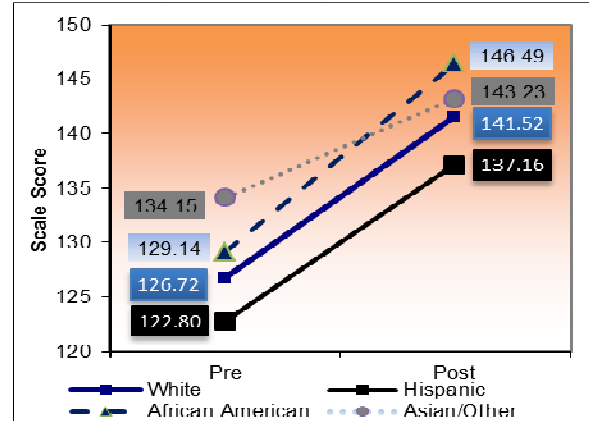


Figure 23. Journey Students Performance Gains by Race/Ethnicity: ITBS Spelling Subtest

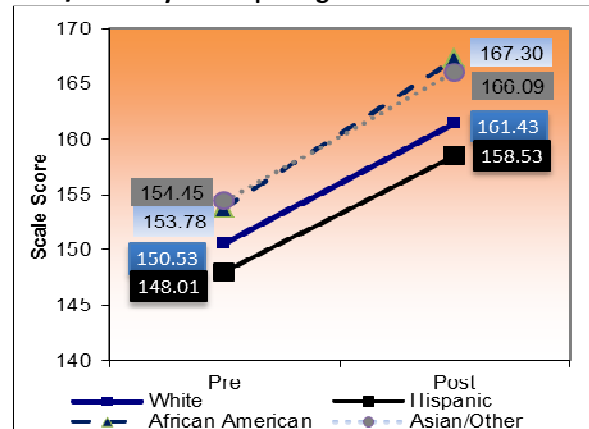
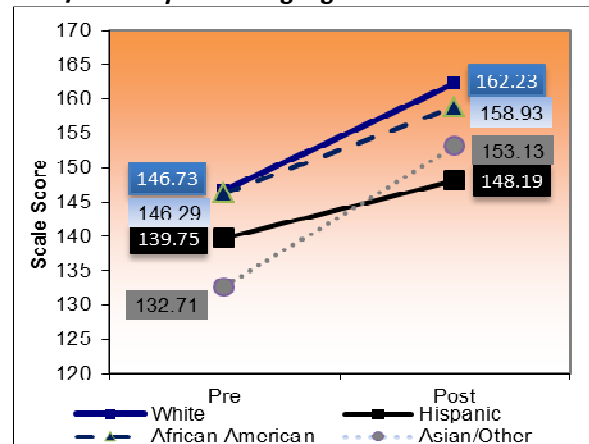


Figure 24. Journey Students Performance Gains by Race/Ethnicity: ITBS Language Subtest



Significant learning gains were also observed among students of all ethnic backgrounds.

Limited English Proficient

Figure 25. Journey Students Performance Gains by Limited English Proficient: ITBS Reading Comprehension Subtest

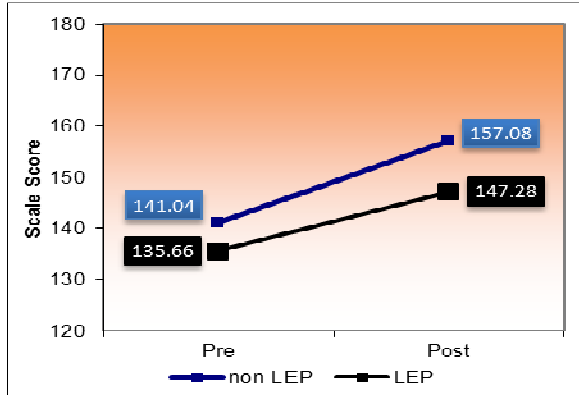


Figure 26. Journey Students Performance Gains by Limited English Proficient: ITBS Vocabulary Subtest

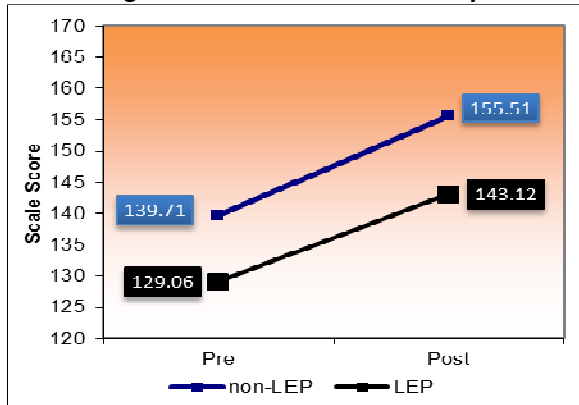


Figure 27. Journey Students Performance Gains by Limited English Proficient: ITBS Word Analysis Subtest

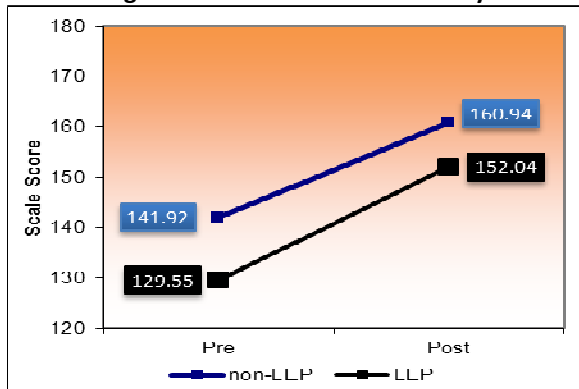


Figure 28. Journey Students Performance Gains by Limited English Proficient: ITBS Reading Words Subtest

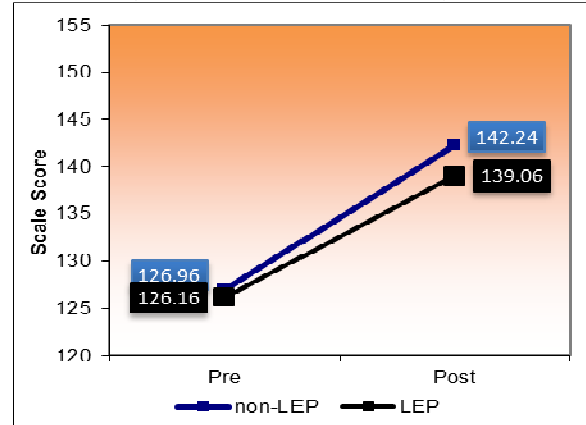


Figure 29. Journey Students Performance Gains by Limited English Proficient: ITBS Spelling Subtest

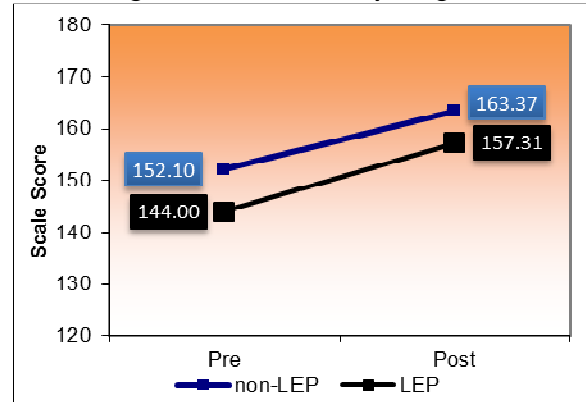
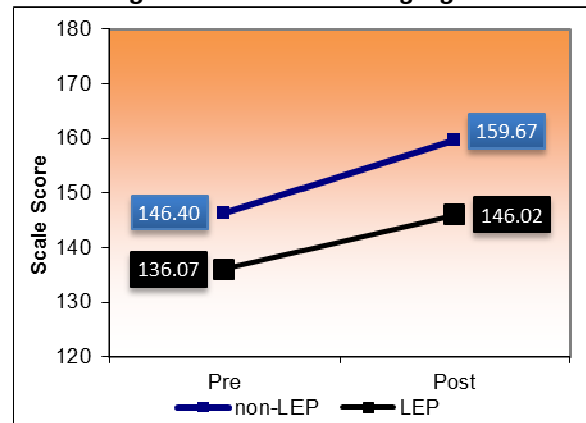


Figure 30. Journey Students Performance Gains by Limited English Proficient: ITBS Language Subtest



Journeys students who were of limited English proficiency demonstrated significant growth on all measures. Non-LEP students also showed significant gains.

Special Education Status

Figure 31. Journey Students Gains by Individualized Education Plan : ITBS Reading Comprehension Subtest

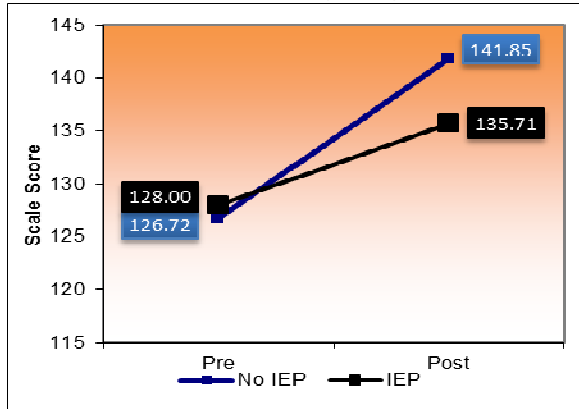


Figure 32. Journey Students Gains by Individualized Education Plan: ITBS Vocabulary Subtest

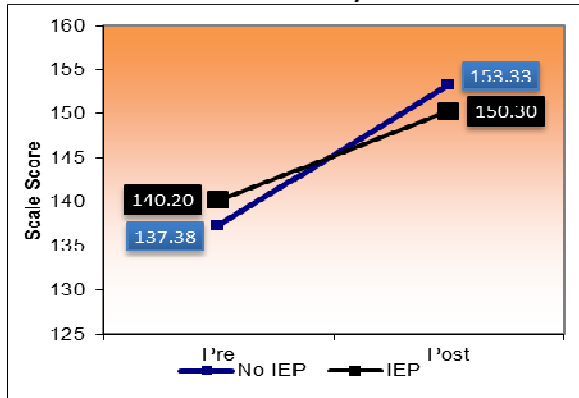


Figure 33. Journey Students Gains by Individualized Education Plan: ITBS Word Analysis Subtest

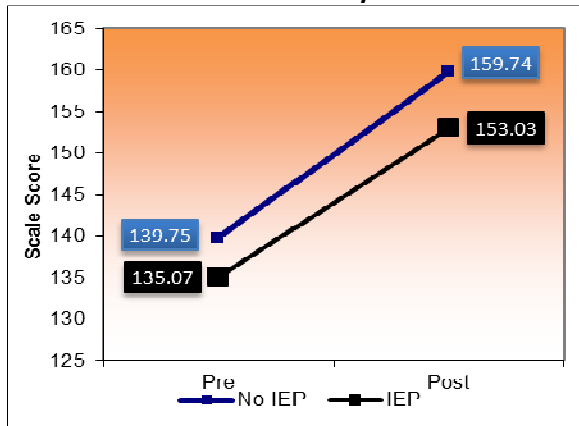


Figure 34. Journey Students Gains by Individualized Education Plan: ITBS Reading Words Subtest

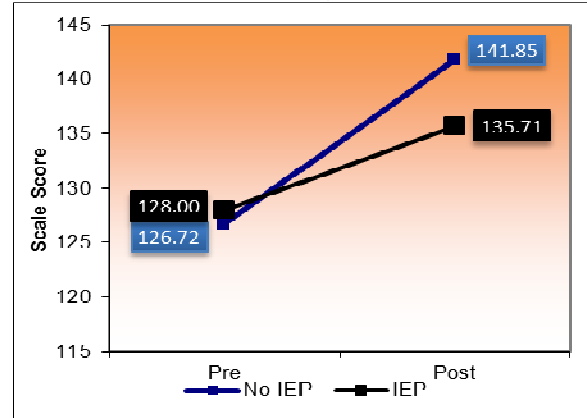


Figure 35. Journey Students Gains by Individualized Education Plan: ITBS Spelling Subtest

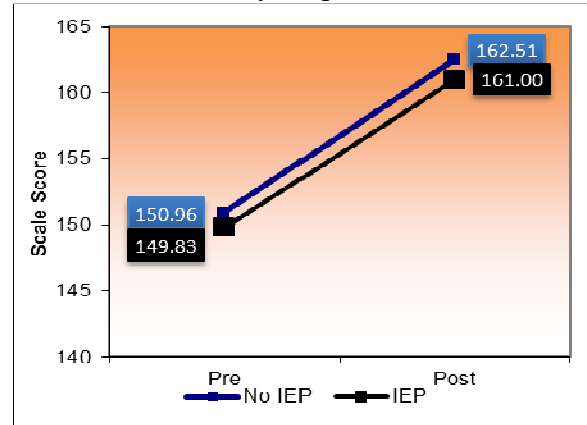
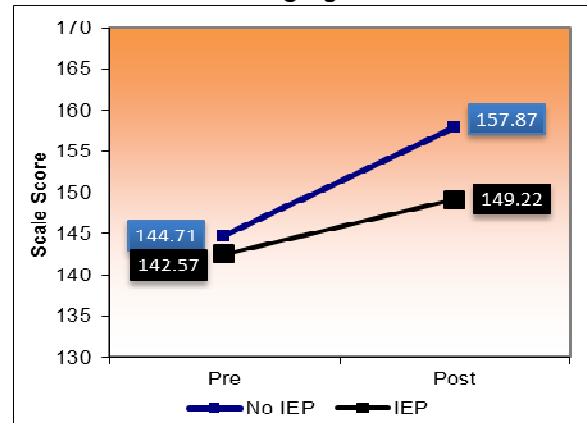


Figure 36. Journey Students Gains by Individualized Education Plan: ITBS Language Subtest



Among special education students, gains were observed for all measures with a couple of exceptions. Special education students did not show significant gains on the Reading Words and Language subtests.

Grade Level

Figure 37. Journey Students Performance Gains by Grade Level: ITBS Reading Comprehension Subtest

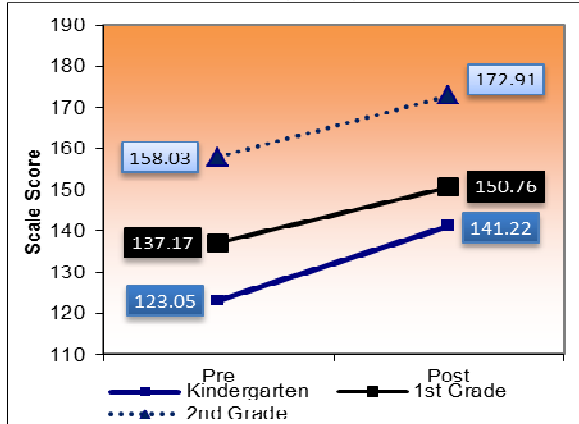


Figure 38. Journey Students Performance Gains by Grade Level: ITBS Vocabulary Subtest

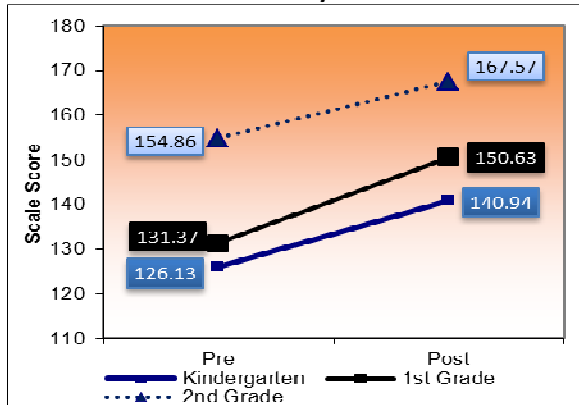


Figure 39. Journey Students Performance Gains by Grade Level: ITBS Word Analysis Subtest

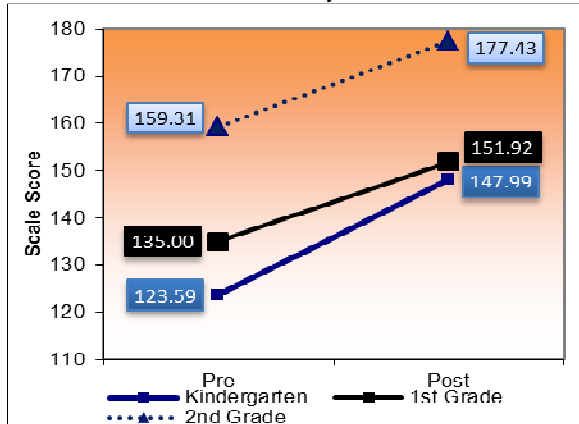


Figure 40. Journey Students Performance Gains by Grade Level: ITBS Spelling Subtest

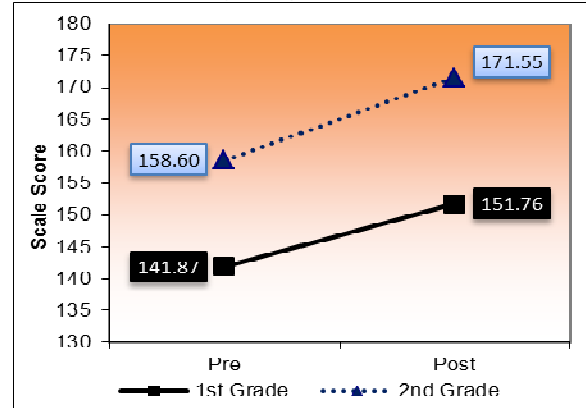
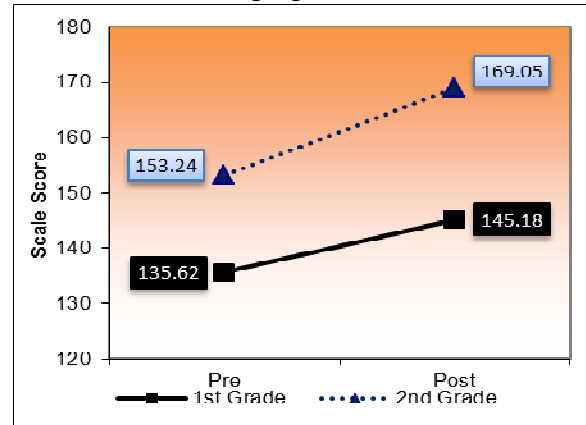


Figure 41. Journey Students Performance Gains by Grade Level: ITBS Language Subtest



Journeys students at all grade levels (K-2) showed significant learning gains from pre- to post-testing.

READING/LANGUAGE ARTS LEVELS

Performance results from the ITBS reading comprehension subtest administered in the Fall was used to categorize students on initial reading level, since it is a norm-referenced test. Students who were at or below the 33rd percentile were classified at a low reading level, students who were at or above the 66th percentile were classified as high, and the remaining students were classified as average. Comparisons were made between the three identified reading levels. Results showed that students at all reading levels showed significant growth over the course of the school year.

Figure 42. Pre- and Post ITBS Reading Comprehension Subtest Performance of Journey Students by Reading Level (Grades K-2)

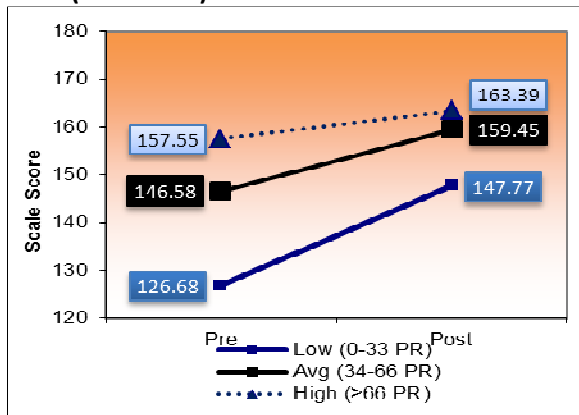


Figure 43. Pre and Post ITBS Vocabulary Subtest Performance of Journey Students by Reading Level (Grades K-2)

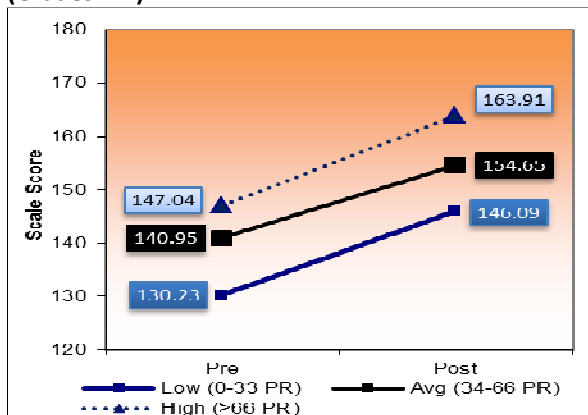


Figure 44. Pre- and Post ITBS Word Analysis Subtest Performance of Journey Students by Reading Level (Grades K-2)

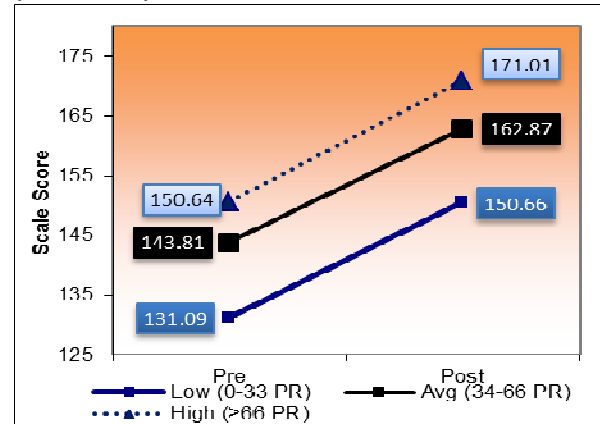


Figure 45. Pre- and Post ITBS Reading Words Subtest Performance of Journey Students by Reading Level (Grade K Only)

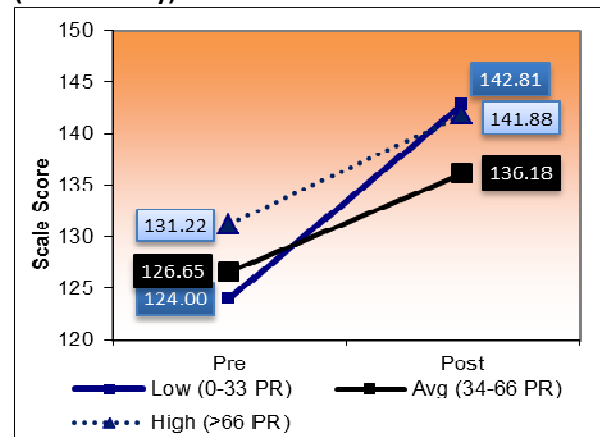


Figure 46. Pre- and Post ITBS Spelling Subtest Performance of Journey Students by Reading Level (1st and 2nd Grades)

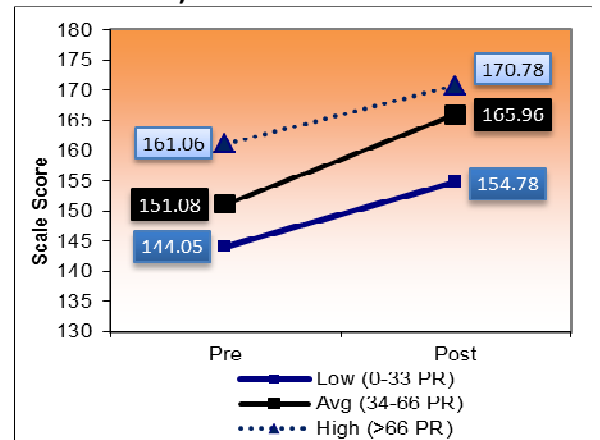
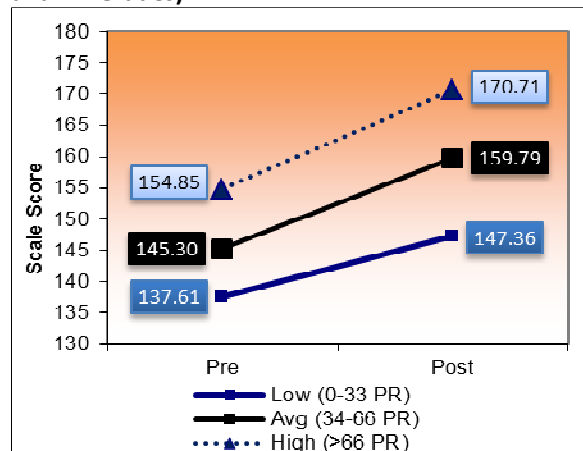


Figure 47. Pre- and Post ITBS Language Subtest Performance of Journey Students by Reading Level (1st and 2nd Grades)



Journeys students at all reading levels showed significant learning gains on the ITBS subtests. In addition, Kindergarteners who were initially at a low level showed accelerated learning gains on word recognition as compared to average and high level students.

IMPLEMENTATION LEVELS

In addition to these analyses among subgroups of Journeys students, exploratory analyses on the relationship between overall levels of Journeys implementation of key program components and student performance were conducted. These analyses provide preliminary information on whether low to high implementation fidelity of Journeys¹⁶ components was associated with student performance. Note that sample sizes are uneven, with the majority of treatment teachers being high implementers.

Results showed significant relationships between overall Journeys implementation levels and improved performance on the ITBS subtests, $p < .05$. Specifically, students whose teachers used the Journeys program with high and moderate fidelity showed the highest levels of gains as compared to teachers who used the program with low levels of fidelity as measured by the reading comprehension, vocabulary, and word recognition (Reading Words) subtests. Furthermore, teachers who implemented the program with moderate fidelity showed significant larger gains in word analysis skills than low implementers, see Figures 45-53. No relationship was observed in spelling or language.

Preliminary analysis showed that teachers implementing the Journeys program with high and moderate fidelity showed greater gains in reading performance as compared to teachers implementing the program with low fidelity.

¹⁶ See section on Fidelity of Implementation for how this categorization was determined.

Figure 48. Pre- and Post ITBS Reading Comprehension Subtest Performance of Journey Students by Implementation Level (Grades K-2)

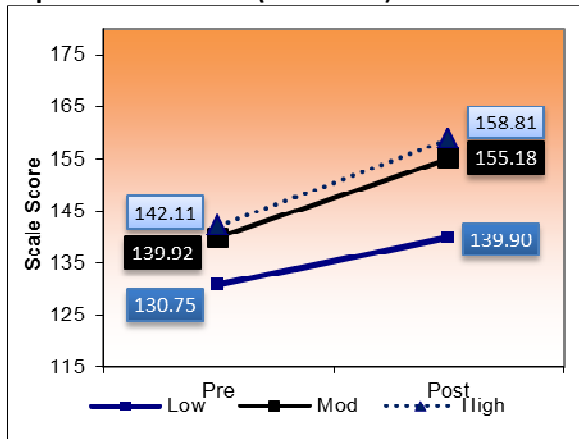


Figure 51. Pre- and Post ITBS Reading Words Subtest Performance of Journey Students by Implementation Level (Grade K Only)

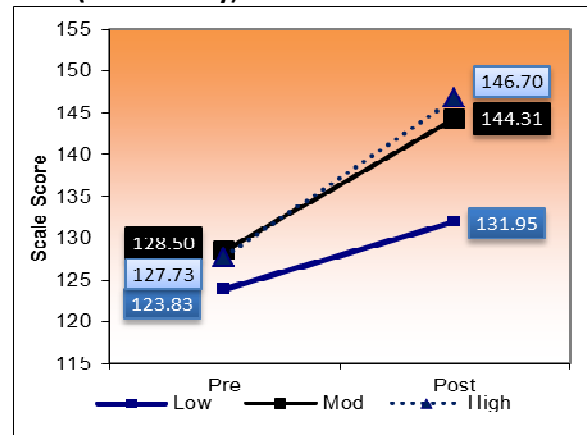


Figure 49. Pre and Post ITBS Vocabulary Subtest Performance of Journey Students by Implementation Level (Grades K-2)

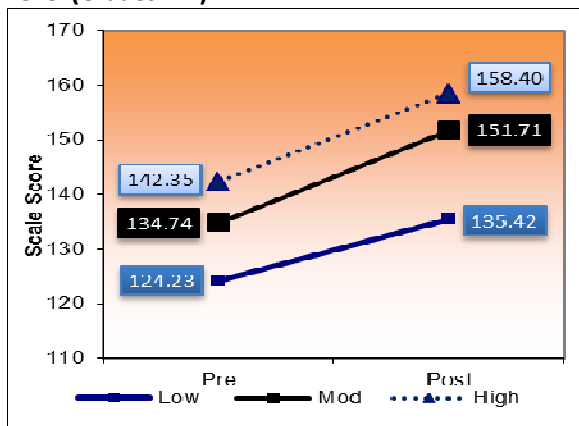


Figure 52. Pre- and Post ITBS Spelling Subtest Performance of Journey Students by Implementation Level (1st and 2nd Grades)

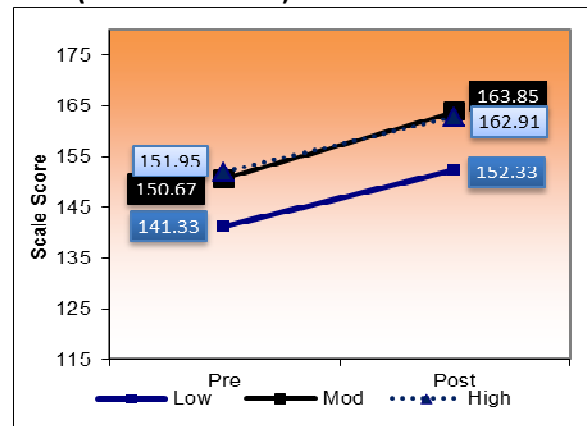


Figure 50. Pre- and Post ITBS Word Analysis Subtest Performance of Journey Students by Implementation Level (Grades K-2)

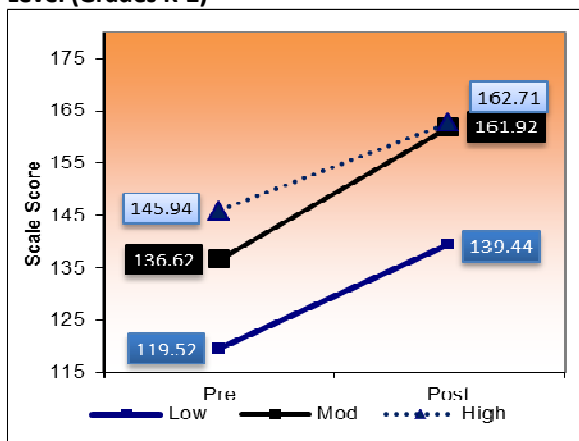
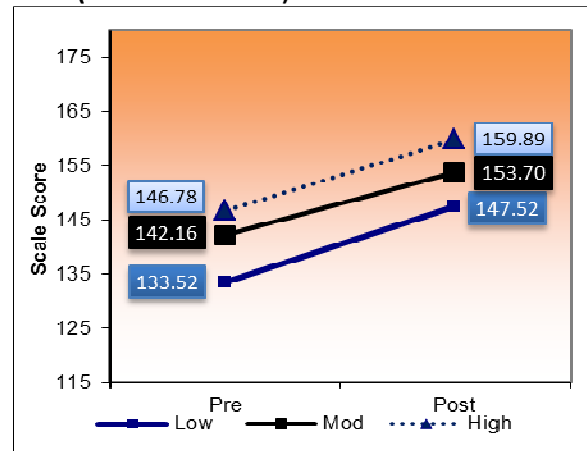


Figure 53. Pre- and Post ITBS Language Subtest Performance of Journey Students by Implementation Level (1st and 2nd Grades)



The aforementioned analyses focused on the extent to which Journeys is positively associated with student reading/language arts performance. Results clearly show significant improvements among students overall, and among subgroups of students. However, these analyses do not examine how Journeys students compared to students using other elementary reading/language arts programs. The following section presents analyses of how the reading performance of students taught via Journeys compares to the performance of students using other programs.

Does using Journeys result in increased student achievement as compared to other types of reading/language arts programs?

Prior to discussing the results found, it is important to understand the differences and similarities of the Journeys program and control curricula and classes. This will assist the reader in interpreting the results and effect sizes¹⁷, a measure of the importance of an intervention.

As previously noted, control and treatment classes generally were exposed to the same content within schools. This is due to teachers following curriculum pacing guides that dictate what content to cover at each grade level which was similar across the Journeys and control programs, with a few exceptions such as a stronger emphasis in writing and grammar at the Kindergarten level. However, in general all teachers emphasized the same amount of comprehension, phonics, phonemic awareness, spelling, and vocabulary instruction.

In addition, differences existed with respect to the pedagogy employed. Specifically, Journeys delivers lessons driven by a Big Idea and Essential Question and the specific skills and activities within the lesson support this larger concept. While control programs 1, 4 and 5 followed a similar organizational structure around a unit theme, these programs did not incorporate an overarching concept. Similarly, lessons within control programs 2, 3 and 6 contain themes within their lessons, but these themes do not prompt students to think about the big picture. Other notable differences between Journeys and the control curricula include: a) the emphasis of daily small group activities in Journeys, b) the greater

¹⁷ Effect size (ES) is commonly used as a measure of the magnitude of an effect of an intervention relative to a comparison group. It provides a measure of the relative position of one group to another. For example, with a moderate effect size of $d=.5$, we expect that about 69% of cases in Group 2 are above the mean of Group 1, whereas for a small effect of $d=.2$ this figure would be 58% and for a large effect of $d=.8$ this would be 79%.

cohesiveness between the different elements of the Journeys program (e.g., the writing, reading, vocabulary, and phonics components), and c) the embedded alignment of the Journeys program to the Common Core State Standards.

In terms of specific instructional activities, there were only a few differences between the groups in terms of how the lessons were structured or delivered. While the teachers reported a similar flow in their lesson schedule, treatment teachers reported a significantly stronger emphasis on enrichment activities for advanced students. With regards to utilizing technology in the classroom, control teachers were significantly more likely to report having students use technology to practice reading and writing in the classroom despite the availability of Journeys Digital. Otherwise, while teaching styles varied for some teachers, the instructional sequence and practices employed was comparable across treatment and control classes, and from teacher to teacher.

In summary, Journeys and control classrooms, with the exception of the program-based activities, were similar to one another in terms of structure. Given this information, and the fact that the duration of the study and exposure to the program occurred during *one* school year, small effect sizes were expected. After all, even with training provided, there is a learning curve for teachers in their first year of implementing a new program. Indeed, as a two-year RCT, stronger effects are expected following two years of usage. It should also be noted that according to Slavin (1986), a leader in educational research, an effect size of .25 is considered educationally significant.

RESULTS

Multilevel modeling was conducted to examine whether there were significant differences in growth of reading and language arts related skills between treatment and control students. That is, the three level models examine

changes in outcomes between the pre and post-testing.

Results showed four significant differences between students who used the Journeys program and students using other reading/language arts programs out of the six outcome measures, $p < .05$. In all cases, Journeys students outperformed control students—thus a positive impact was observed. Significant positive effects were observed in reading comprehension (K-2), vocabulary (K-2), spelling (1-2), and word recognition (K-Reading Words), see Figures 54-60. No significant differences were observed on the language (1-2) and word analysis (K-2) subtests. In sum, Journeys students showed accelerated learning gains on the ITBS assessments as compared to control students.

Figure 54. Pre-Post Performance on ITBS Reading Comprehension Subtest of Journeys and Control Students

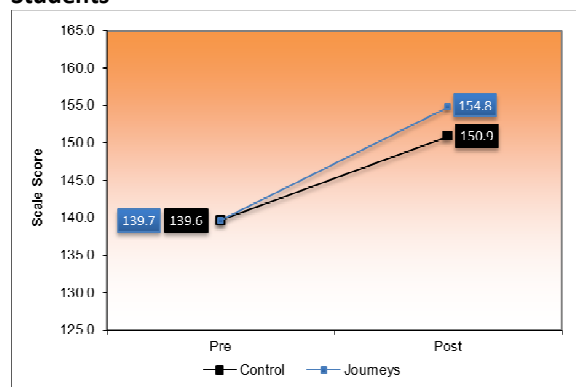


Figure 55. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students

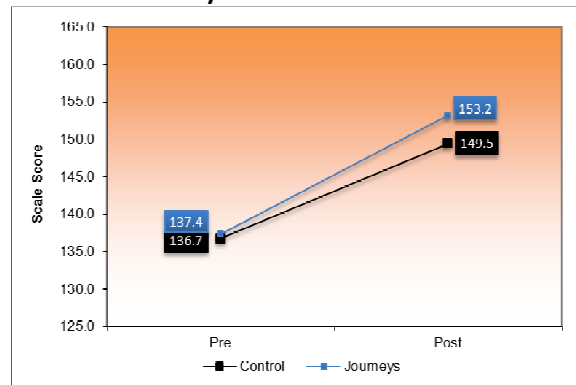


Figure 56. Pre-Post Performance on ITBS Spelling Subtest of Journeys and Control Students

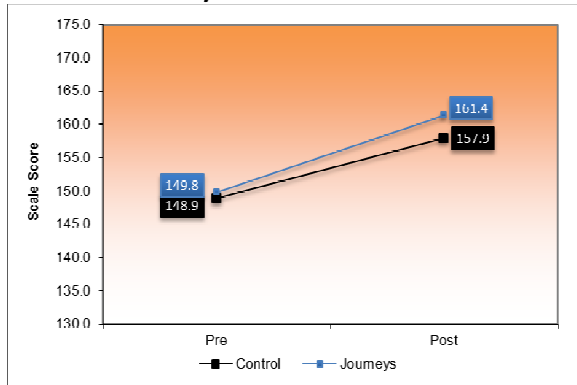


Figure 59. Pre-Post Performance on ITBS Language Subtest of Journeys and Control Students

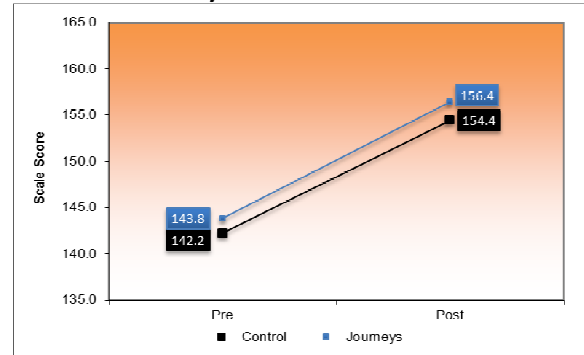
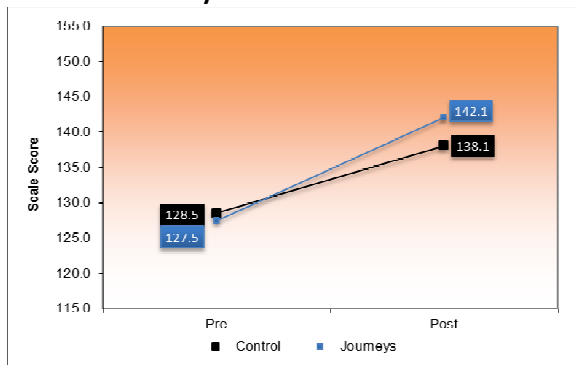


Figure 57. Pre-Post Performance on ITBS Reading Words Subtest of Journeys and Control Students

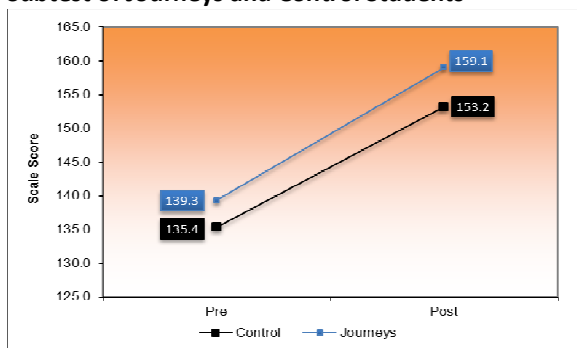


Results showed that Journeys students outperformed students using other reading/language arts programs on four out of the six outcome measures. Specifically, Journeys students showed accelerated learning gains in the areas of reading comprehension, vocabulary, spelling, and word recognition.

EFFECT SIZES

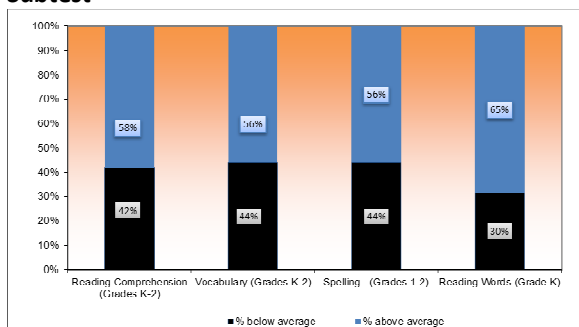
Effect size is a commonly used measure of the importance of the effect of an intervention (in this case, Journeys). All effect sizes were positive indicating a favorable effect of the Journeys program on student reading performance. In addition, the effect sizes obtained can be classified as small to moderate ($d=.15$ to $.39$). However, only one effect exceeded the threshold (.25) for educational significance – the effect on the word recognition (Reading Words) subtest. Thus, while results for four subtests were statistically significant, only the findings for word recognition (which was completed by Kindergartners only) was meaningful in terms of impacting a students’ educational experience. However, such small effects are not surprising given that teachers and students had only used Journeys for one school year, and it takes time for teachers to become familiar with any program. As a two year RCT, stronger effects are expected following year 2, after teachers and students have additional experience with the Journeys program.

Figure 58. Pre-Post Performance on ITBS Word Analysis Subtest of Journeys and Control Students



In order to better understand the effects observed as a result of exposure to Journeys, effect sizes can be translated to the percent of treatment students that can be expected to be *above* the average of the control group (see blue part of bar in Figure 60). As shown, students using Journeys are more likely to have scored above the average of control students.

Figure 60. Percent of Journeys Students Above and Below Average Relative to Control Students by ITBS Subtest



Results show that 56% to 65% of Journeys students scored above the average control student as measured by the reading comprehension, vocabulary, spelling and reading words subtests respectively. In other words, Journeys students were 6 percentile points higher than the average of control students on vocabulary and spelling skills, 8 percentile points higher on reading comprehension skills, and 15 percentile points higher on word recognition skills than control students.

Do effects of the Journeys program on student performance vary as a function of different student characteristics?

To examine if there were differences in performance between different subgroups of Journeys and control students, subgroup effects were analyzed via multilevel modeling. Specifically, differences between Journeys and control students in the following subgroups were examined: grade, gender, ethnicity, free/reduced lunch status, special education status, Limited English Proficiency status, and reading ability level. Note, it is important to view these analyses as exploratory given the smaller sample sizes involved and the fact that random assignment did not occur at the subgroup level¹⁸. Significant subgroup differences are discussed in the following sections.

RESULTS BY STUDENT SUBPOPULATIONS

Results showed a significant difference between Journeys students and control students in the following subgroups: African Americans and Hispanics, students in Kindergarten, 1st and 2nd grades, females, Special Education students, Limited English Proficiency students, and students receiving free/reduced lunch. These results are shown in Figures 61-76. In **all** cases, students showed greater gains on the ITBS subtests as compared to control students within these subgroups. Thus, Journeys students consistently outperformed control students within specific subgroups.

These consistent findings across multiple subgroups suggest that Journeys may be more effective with certain subgroups as compared to other elementary reading/ language arts programs. However, due to the small sample sizes involved for many subgroups, these results are preliminary and warrant further research.

¹⁸ Detailed information on why this is exploratory and non-casual and statistics regarding these results are presented in Technical Appendix A.

Results by Grade Level

Figure 61. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students: Grade 1

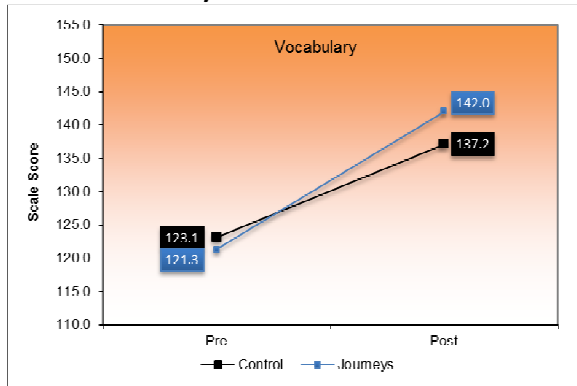


Figure 62. Pre-Post Performance on ITBS Spelling Subtest of Journeys and Control Students: Grade K

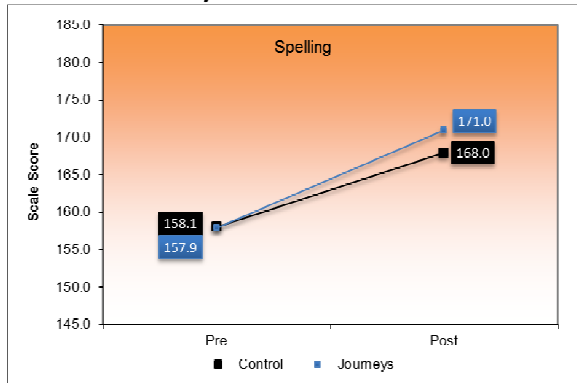
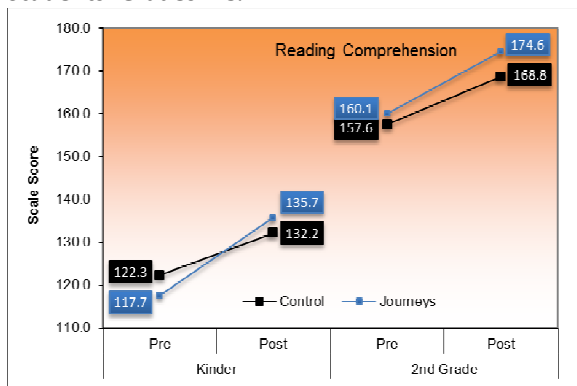


Figure 63. Pre-Post Performance on ITBS Reading Comprehension Subtest of Journeys and Control Students: Grades K & 2



Results showed that 1st grade students who used Journeys showed greater gains in vocabulary skills than students using other reading/language arts programs. Similarly, Kindergarten Journeys students had significantly more growth in spelling than control students. On reading comprehension, Journeys students who were in Kindergarten and 2nd grade outperformed control students.

Results by Ethnicity

Figure 64. Pre-Post Performance on ITBS Reading Comprehension Subtest of Journeys and Control Students: African Americans and Hispanics

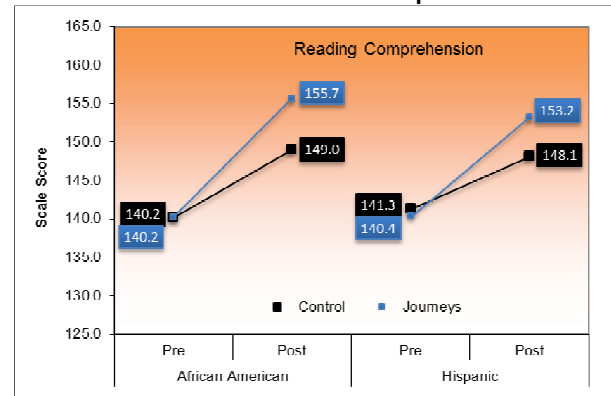


Figure 65. Pre-Post Performance on ITBS Reading Words Subtest of Journeys and Control Students: African Americans and Hispanics

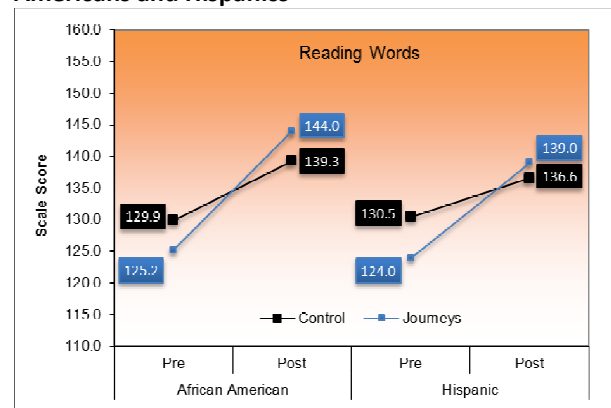


Figure 66. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students: Hispanics

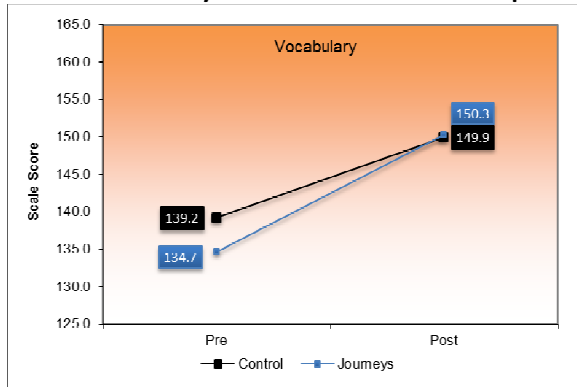
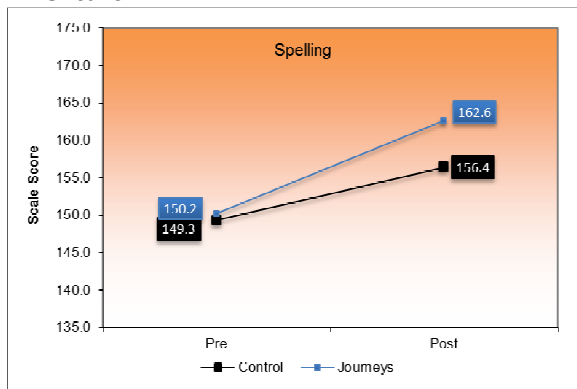


Figure 67. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students: African Americans



Results showed that Hispanics and African Americans who used the Journeys program showed accelerated learning gains in reading comprehension, word recognition (Reading Words), spelling and vocabulary as compared to Hispanics and African Americans who used other elementary reading/language arts programs.

Results by Gender

Figure 68. Pre-Post Performance on ITBS Reading Comprehension Subtest of Journeys and Control Students: Females

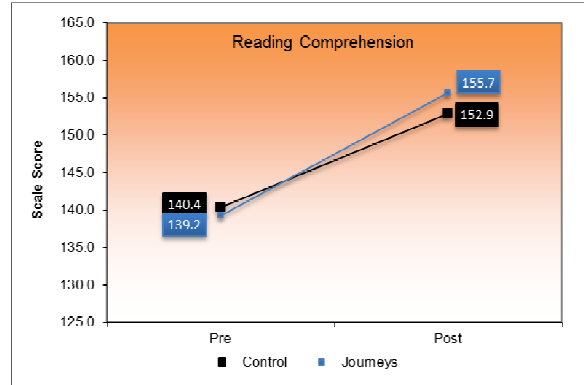
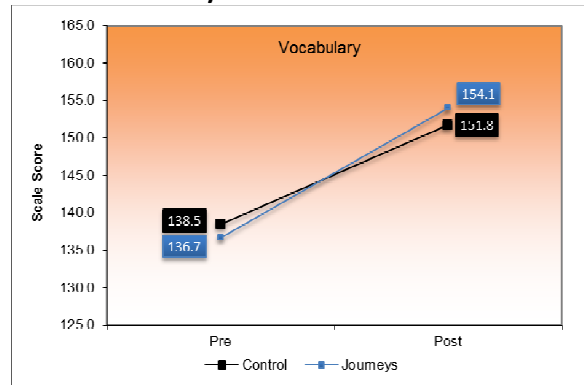


Figure 69. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students: Females



Female students who used the Journeys program showed greater gains in reading comprehension and vocabulary as compared to female control students.

Results by Free/Reduced Lunch

Figure 70. Pre-Post Performance on ITBS Reading Comprehension Subtest of Journeys and Control Students: Students Receiving Free/Reduced Lunch

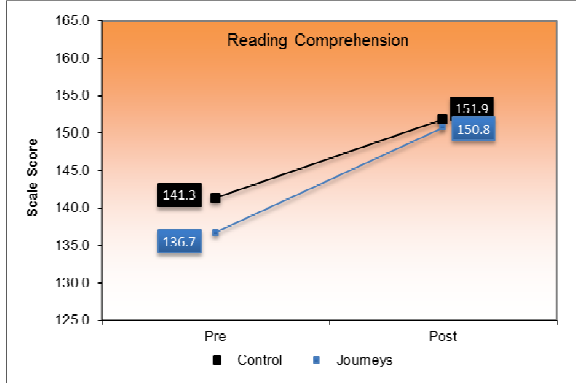


Figure 71. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students: Students Receiving Free/Reduced Lunch

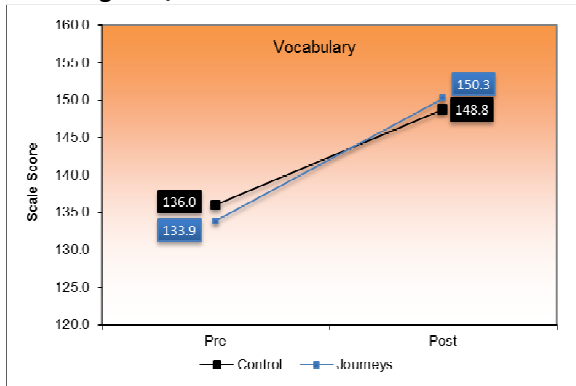


Figure 72. Pre-Post Performance on ITBS Spelling Subtest of Journeys and Control Students: Students Receiving Free/Reduced Lunch

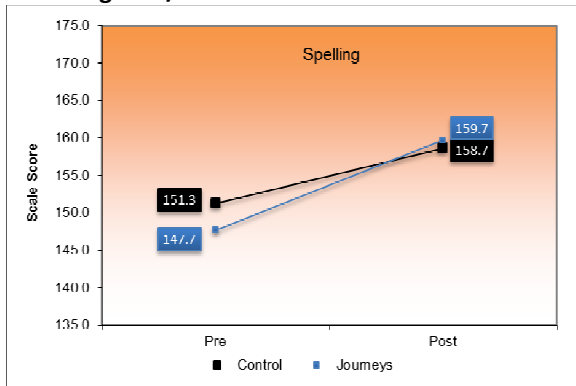


Figure 73. Pre-Post Performance on ITBS Reading Words Subtest of Journeys and Control Students: Students Receiving Free/Reduced Lunch

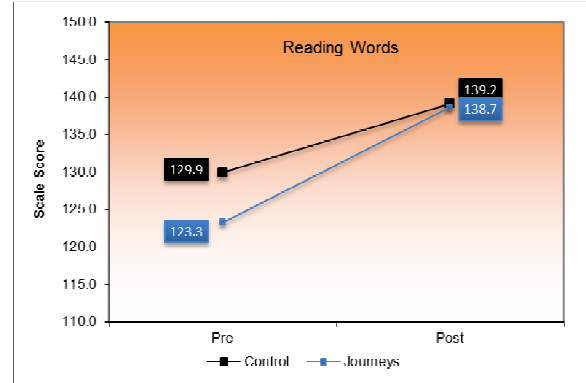
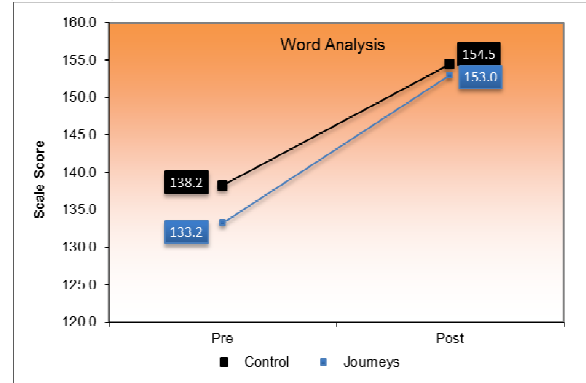


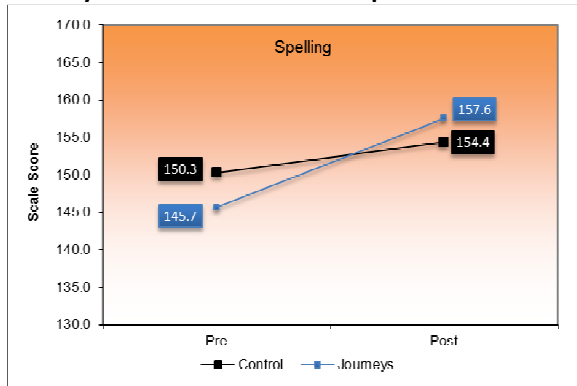
Figure 74. Pre-Post Performance on ITBS Word Analysis Subtest of Journeys and Control Students: Students Receiving Free/Reduced Lunch



Journeys students receiving free/reduced lunch consistently showed greater learning gains than control students receiving this aid across five of the six outcome measures (vocabulary, comprehension, spelling, word analysis, and word recognition).

Results by Special Education Status

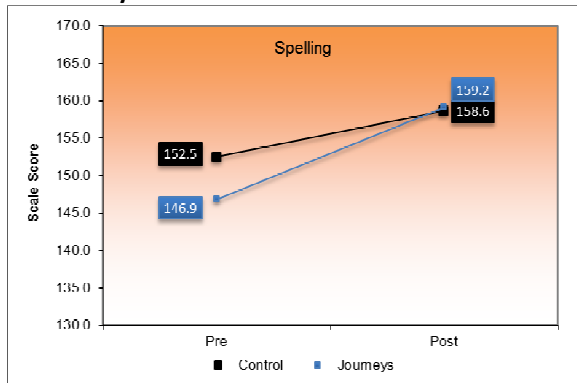
Figure 75. Pre-Post Performance on ITBS Spelling of Journeys and Control Students: Special Education



Special education students who used the Journeys program showed accelerated learning gains in spelling as compared to special education students using other reading/ language arts programs.

Results by Limited Education Proficiency

Figure 76. Pre-Post Performance on ITBS Spelling of Journeys and Control Students: Limited English Proficiency



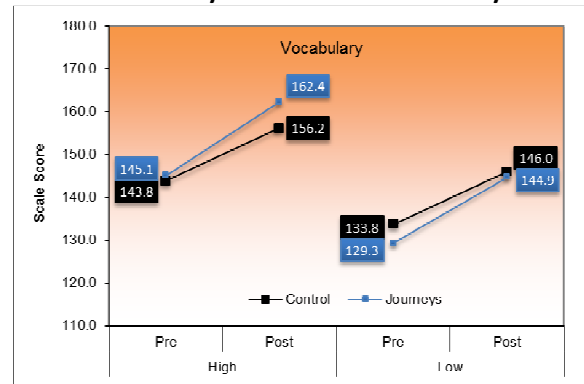
- ◆ *“I feel like it (Journeys) is really good at targeting ELL. there are so many great resources that ELL’s need to really succeed.” - 1st Grade Teacher, AZ*

LEP students using Journeys showed greater growth in spelling than LEP control students.

RESULTS BY READING ABILITY

It is important to closely examine the extent to which reading programs contribute to the continued progress of students at differing ability levels. With that in mind, students were categorized into reading levels depending on their percentile rankings on reading comprehension at baseline (Fall, 2011). Students who scored at or above the 66th percentile were classified as high level students, students below the 33rd percentile were low ability students -- those between were classified as average performing. Significant differences were observed among high level students in that Journeys students showed significantly greater growth than control students on both the vocabulary and spelling subtests. As well, low level students who used Journeys outperformed low level students using other reading programs in the areas of comprehension, vocabulary and word recognition, see Figures 77-80. Students of average ability levels showed comparable rates of growth across both treatment and control programs.

Figure 77. Pre-Post Performance on ITBS Vocabulary Subtest of Journeys and Control Students by Level



High and low level students using Journeys showed significantly larger gains in vocabulary than control students.

Figure 78. Pre-Post Performance on ITBS Reading Comprehension Subtest of Journeys and Control Students: Low Level Students

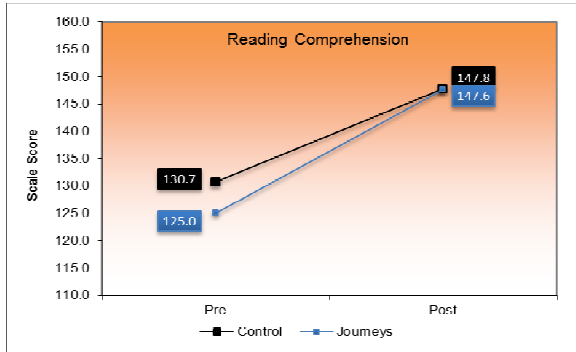
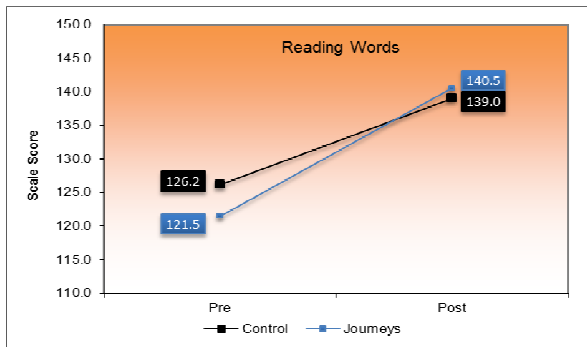
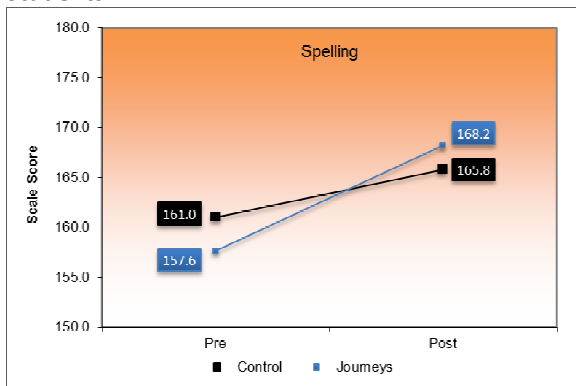


Figure 79. Pre-Post Performance on ITBS Reading Words Subtest of Journeys and Control Students: Low Level Students



Low level Journeys students demonstrated accelerated learning gains in reading comprehension and word recognition as compared to control students.

Figure 80. Pre-Post Performance on ITBS Spelling Subtest of Journeys and Control Students: High Level Students



Results showed that among high level students, Journeys students outperformed control students in spelling.

In sum, students who used Journeys showed significantly greater gains in multiple areas as compared to students using other elementary reading/language arts programs. The majority of these gains observed within subgroups of students were observed in the areas of comprehension, spelling, vocabulary, and word recognition. Moreover, in all cases in which significant differences were observed, results were in favor of Journeys students. Of note, no significant differences were observed on the language subtest. That is, control and Journeys students were comparable in terms of growth in the area of language – recall that this test measures students’ ability to use the conventions of standard written English. Interestingly, the program components that Journeys teachers were less likely to implement with fidelity included writing and grammar. Furthermore, prior results from a pilot study conducted in 2010-11 showed that teachers were less enthusiastic about the writing portion of the program and were more likely to modify this. Hence, it is not surprising that no effects were observed on the language subtest. Nevertheless, the consistency in findings across multiple outcome measures and subpopulations indicates that the Journeys program is effective in helping students attain critical reading skills.

Does participation in the Journeys program result in other positive student outcomes (e.g., positive attitudes towards reading, student engagement/interest, etc.)?

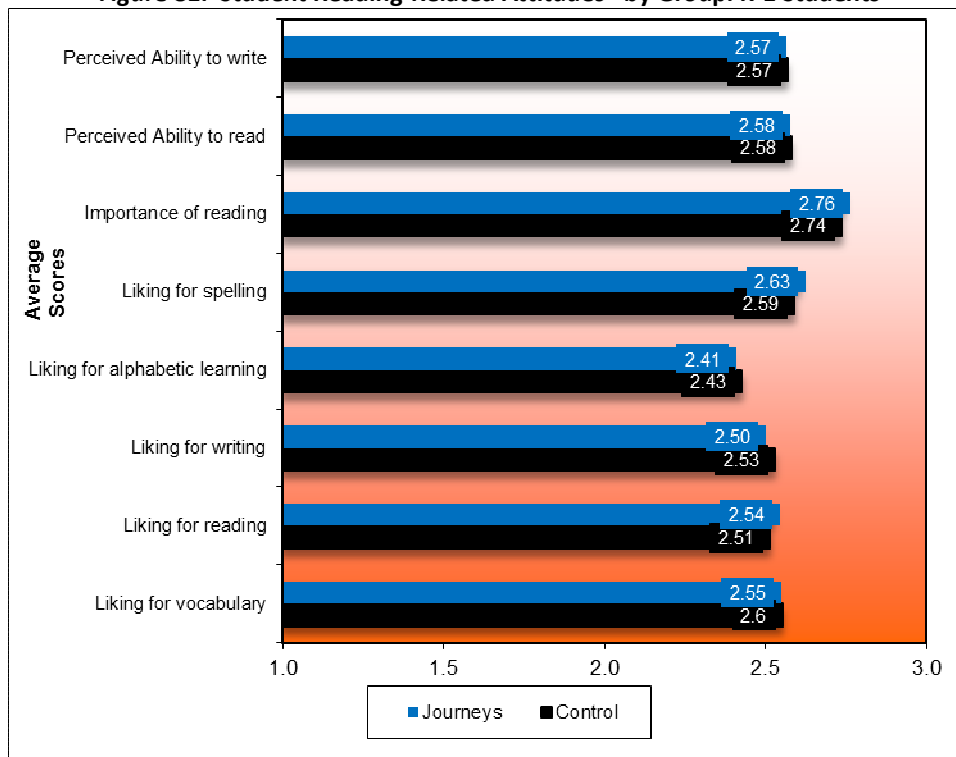
While the primary focus of the Journeys program is to improve students’ reading and language arts understanding and skills, the program incorporates a number of program components that may have an effect on other important aspects of education, including affective attitudes. Measures were included in the RCT to explore whether use of the Journeys program was associated with changes in student attitudes towards reading as well as changes in teacher practices and attitudes.

STUDENT ATTITUDES TOWARD READING & WRITING

Comparison of data collected on reading-related student attitudes showed no significant differences between students who used the Journeys program and control students, $p > .05$, see Figures 81-82. In general, both treatment and control students felt that reading was important; liked reading, spelling, writing and vocabulary; and reported a high ability in reading and writing.

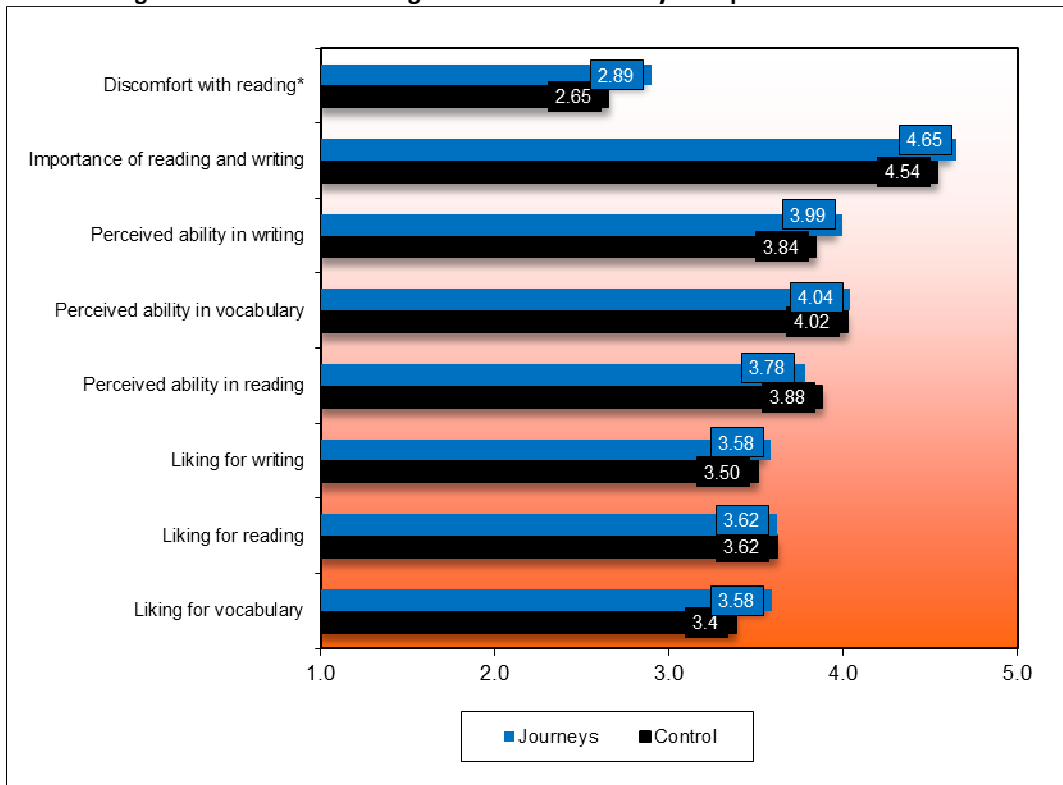
Results showed that both Journeys students and students using other reading/language arts programs felt strongly about their reading and writing abilities and enjoyed various reading and writing related activities.

Figure 81. Student Reading-Related Attitudes* by Group: K-1 Students



Higher scores indicate more positive attitudes. Based on scale of 1-3.

Figure 82. Student Reading-Related Attitudes* by Group: 2nd Grade Students



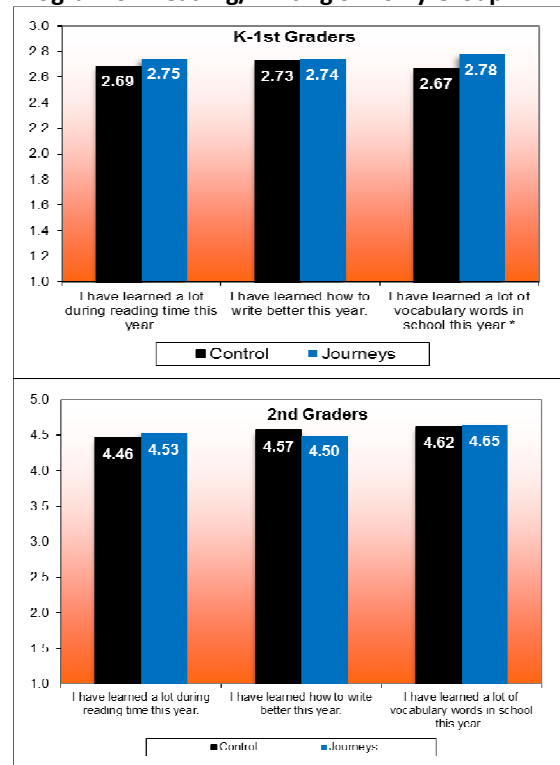
Higher scores indicate more positive attitudes (except Discomfort for Reading). Based on scale of 1-5.

In the following sections, more detailed information is presented on how students and teachers were impacted in terms of: 1) academic skills, 2) engagement and motivation, 3) preparation for future tests, 4) teacher preparation, and 5) instructional practices.

IMPACT ON ACADEMIC SKILLS

As shown in Figure 83, Journeys students in grades K-1 reported learning vocabulary words to a greater extent than control students, $p < .05$. No other differences were significant – thus Journeys and control students both felt they learned to be better readers and writers over the course of the school year. Anecdotally, Journeys teachers commented that the various vocabulary activities, including Words to Know, Vocabulary Context Cards, and embedded vocabulary strategies helped their students decipher word meanings from the context.

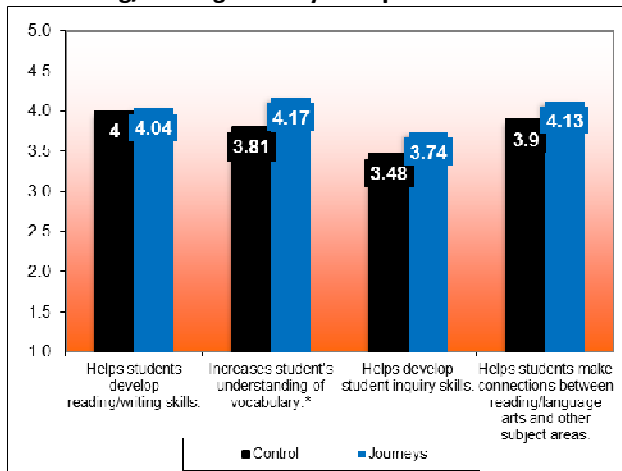
Figure 83. K-1 Students’ Perceptions of Impact of Program on Reading/Writing Skills By Group



*Significantly different at the $p < .05$ level. Higher scores indicate more agreement.

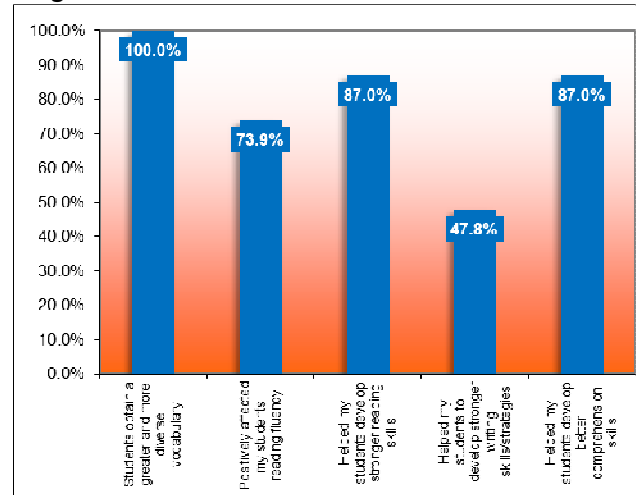
Results from the teacher survey showed that Journeys teachers concurred with their students' perceptions. Specifically, a significant difference was observed such that Journeys teachers perceived a greater impact of their reading program on students' vocabulary skills as compared to control teachers, see Figure 84. Although not statistically significant, Journeys teachers also tended to report more agreement that their program helped with students' inquiry skills and ability to make connections to other subject areas than control teachers.

Figure 84. Teachers' Perceptions of Impact of Program on Reading/Writing Skills By Group



Journeys teachers were also asked whether the Journeys program helped improve upon students' academic skills. As shown in Figure 85, all teachers reported that Journeys helped with students' vocabulary skills and 87% reported that the program helped with students' reading and comprehension skills. The lowest rated item was writing. As discussed later in this report, teachers reported that the writing component was not very strong and that they had to supplement to increase the rigor of the writing opportunities.

Figure 85. Journeys Teachers' Perceptions of Impact of Program on Students Academic Skills



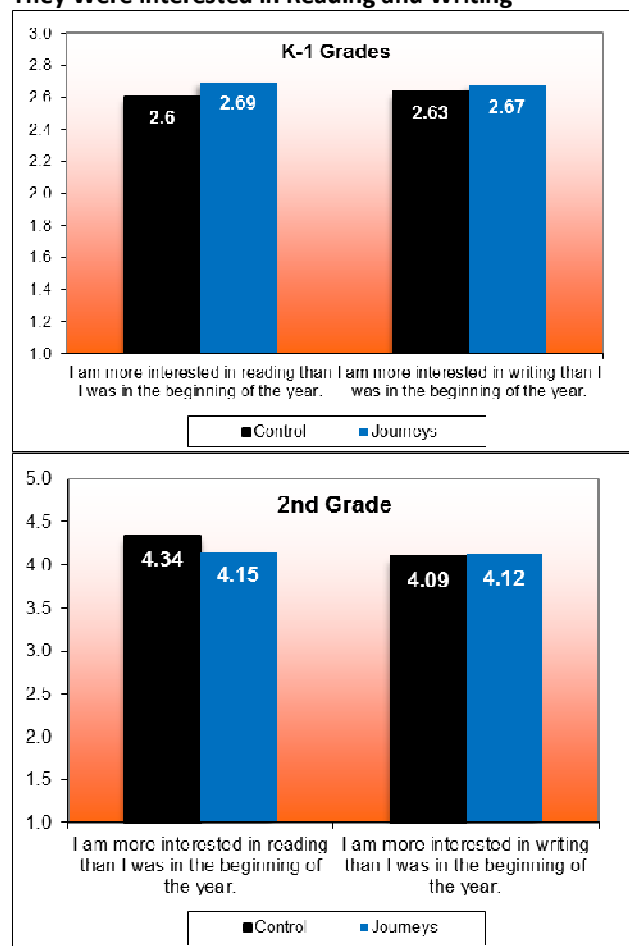
- ◆ *"This program (Journeys) make them (students) more prepared because of routine, its more challenging and helps them be more independent which I really like." - 2nd Grade Teacher, DC*
- ◆ *"I've noticed that they (students) really grew, the majority of the kids are reading and writing on their own now. I see big big growth, I really love this program (Journeys)." - Kindergarten Teacher, AZ*
- ◆ *"I've seen the biggest improvement in reading; using Journeys has made me focus so much more on reading." - 1st Grade Teacher, AZ*
- ◆ *The Journeys program is great. My students have learned so much. The higher order thinking skills and the rigorous lessons are a great asset. - 2nd Grade Teacher, RI*

Journeys students and teachers reported that the Journeys program had a significant impact on student vocabulary skills as compared to the control group. While not statistically significant, Journeys teachers also reported that the program helped with students' inquiry skills and ability to make connections to other subject areas, but was lacking in the area of writing.

STUDENT ENGAGEMENT AND MOTIVATION

In general, both Journeys and control students reported that they were more interested in reading and writing since the beginning of the school year, and no significant differences were observed, see Figure 86. Thus, regardless of their reading/language arts program, student engagement improved over the course of the school year.

Figure 86. Student Perceptions of the Degree to Which They Were Interested in Reading and Writing

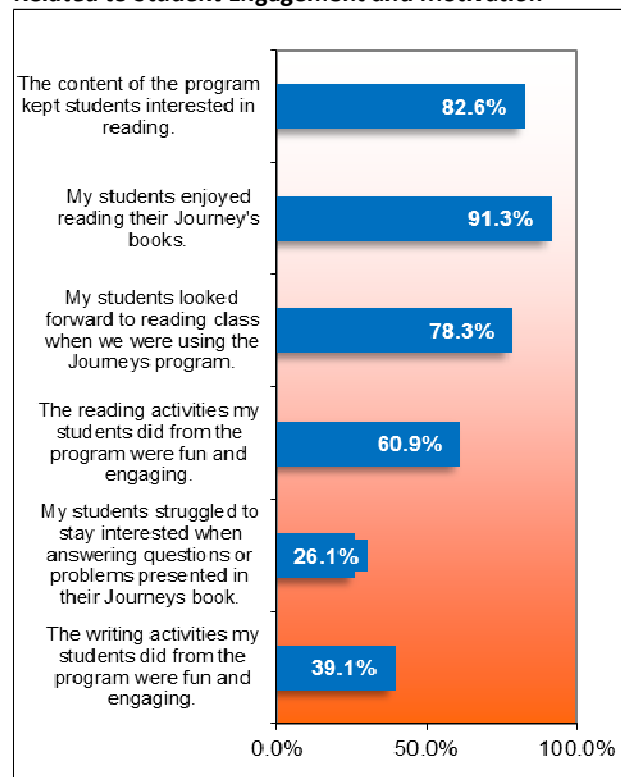


Higher scores indicate more agreement.

When Journeys teachers were asked about their students' interest and enjoyment of reading and writing, 91% reported that their students enjoyed their Journeys books and another 83% noted that the content kept their students interested. According to teachers, in general

reading activities and content within the Journeys program was engaging, see Figure 87. However, as previously noted, a minority of teachers (39%) perceived the writing activities as fun and engaging. When asked what specific components impacted students' level of interest, teachers reported that the illustrations and literature were entertaining and captured students' interest.

Figure 87. Journeys Teachers' Agreement to Statements Related to Student Engagement and Motivation



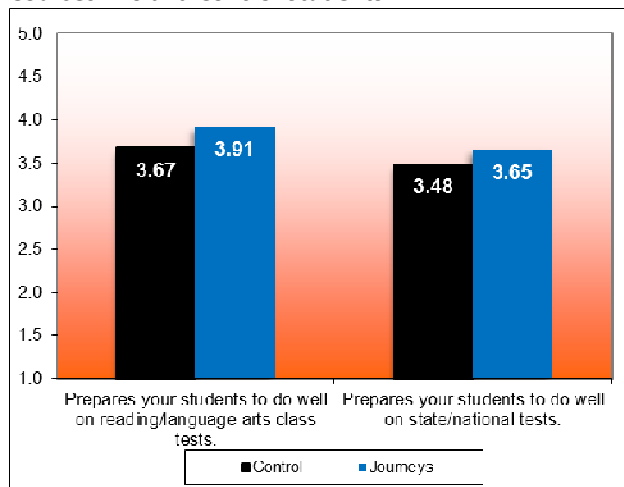
- ◆ *"They (students) all get excited about it (Journeys), they all definitely have their favorite stories that they get excited to going back to re-read." - 2nd Grade Teacher, AZ*
- ◆ *"I love the book selections; they have been very interesting for the children." - Kindergarten Teacher, LA*
- ◆ *"When I tell them (students) to take out their readers they are always so excited." - 1st Grade Teacher, AZ*

While treatment and control students reported similar levels of engagement, Journeys teachers reported that the reading component was very engaging, particularly the literature and illustrations.

PREPARATION FOR FUTURE TESTS

Analysis of teacher surveys revealed that although differences were not statistically significant, Journeys teachers felt that their program prepared their students for future tests, including state assessments, more so than control teachers, see Figure 88. Anecdotal information obtained from Journeys teachers indicates that the multiple-choice tests available through the Journeys program helped prepare their students for high stakes exams.

Figure 88. Perceptions of the Degree to Which Science Program Helped Students Prepare for Future Tests and Courses: PIS and Control Students



Higher scores indicate more agreement.

According to Journeys teachers, the program helped their students to do well on state/national tests and future reading/language arts tests.

TEACHER LEVEL OF PREPAREDNESS

Teachers were asked about how prepared they felt to: 1) engage in different types of best practice teaching strategies; and 2) teach the five elements of reading and language arts in the Spring. As shown in Figure 89, only one significant difference emerged for instructional strategies. Specifically, Journeys teachers reported being more prepared to use small, leveled groups than control teachers. No other significant differences were found in responses patterns between treatment and control teachers in terms of preparedness. Thus, Journeys and control teachers felt adequately prepared to use best practice strategies and to teach the various components of reading and language arts.

Figure 89. Teacher Preparedness to Teach Via Best Practice Strategies

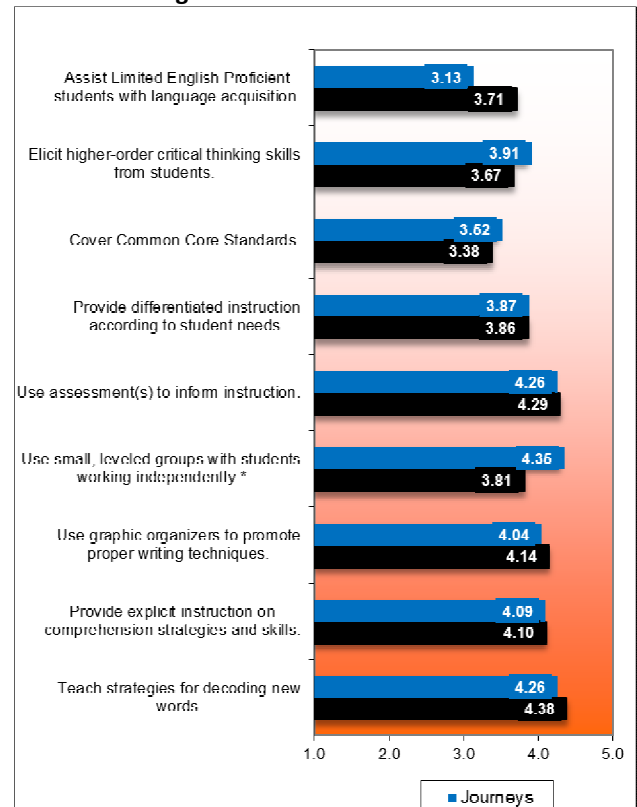
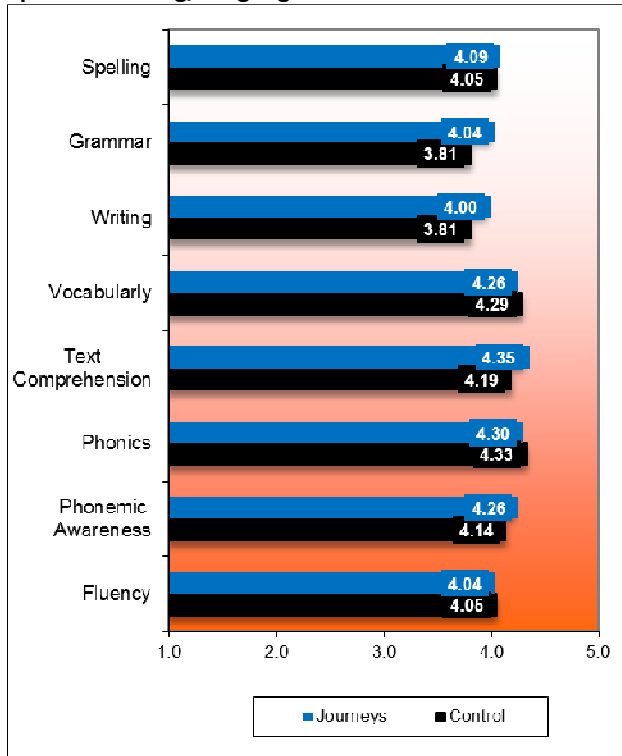


Figure 90. Treatment Teacher Preparedness to Teach Specific Reading/Language Arts Content Areas

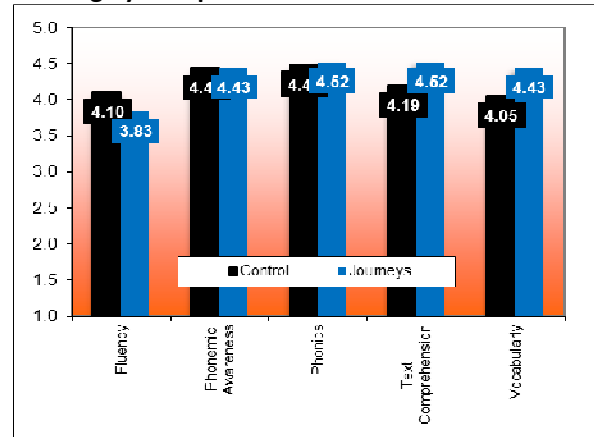


Journeys teachers reported being more prepared to use small, leveled groups than control teachers. No other significant differences were found in responses patterns between treatment and control teachers in terms of preparedness.

INSTRUCTIONAL PRACTICES

Teachers were also asked about the emphasis they placed in their instruction on the five elements of reading. Analyses of the Spring survey showed that while Journeys teachers tended to emphasize comprehension and vocabulary to a greater extent than control teachers, and that control teachers tended to emphasize fluency to a greater extent than Journeys teachers, these differences were not significant, $p > .05$, see Figure 91.

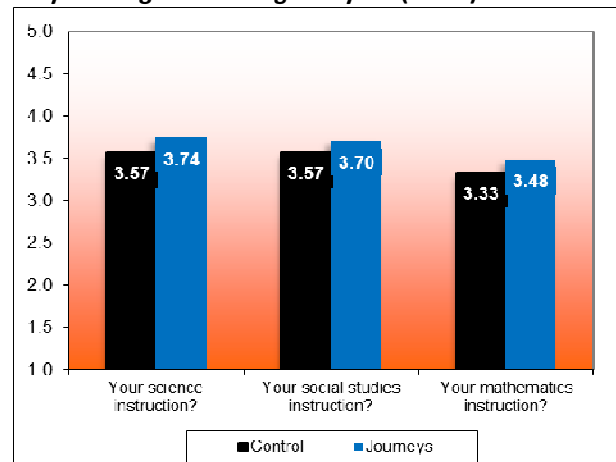
Figure 91. Teacher Emphasis on Five Elements of Reading By Group



Higher scores indicate more emphasis.

Teachers were also asked the extent to which they integrated reading with other subject areas including science, social studies and mathematics. While no significant differences were observed, Journeys teachers tended to integrate more of their reading instruction with other subject areas as compared to control teachers, see Figure 92. Indeed, this was perceived as a strength of the program by Journeys teachers. They reported that integration was more seamless with the Journeys program as it was embedded within the lessons and resources. As well, such connections are an important component of the Common Core State Standards.

Figure 92. Teacher Responses to Item “To what extent do you integrate reading into your (other) instruction?”



Higher scores indicate more integration.

- ◆ *“This program (Journeys) integrates social studies and science and I really like that.” – 1st Grade Teacher, AZ*

Journeys teachers felt that the Journeys program integrated well with other subject areas, allowing them to make important connections to enhance student understanding.

Anecdotal information obtained from Journeys teachers revealed that teachers experienced changes in their instructional practices. For example, Kindergarten teachers reported focusing more on writing which was not something they had done in the past. As a result, they saw improvements in these areas. Other teachers indicated that their instruction was more structured and streamlined as compared to prior years. Teachers also reported that as a result of the embedded grammar instruction within Journeys, they were held more accountable to teach this.

- ◆ *“This is my 2nd year teaching 2nd grade; it (Journeys Program) made my reading instructions more focused.” - 2nd Grade Teacher, RI*
- ◆ *“I had never thought to do figurative language with kindergarten, never even crossed my mind to teach them (students) that, so stressing vocabulary more with them and the meaning of words. I am doing that more because it is in front of me saying do it this way, so that has strengthened my teaching.” - Kindergarten Teacher, LA*
- ◆ *“The wording, even in the teacher’s guide is in a way teaching me as well which I then use those words a lot, which teaches them to the students.” - Kindergarten Teacher, DC*

Common Core State Standards

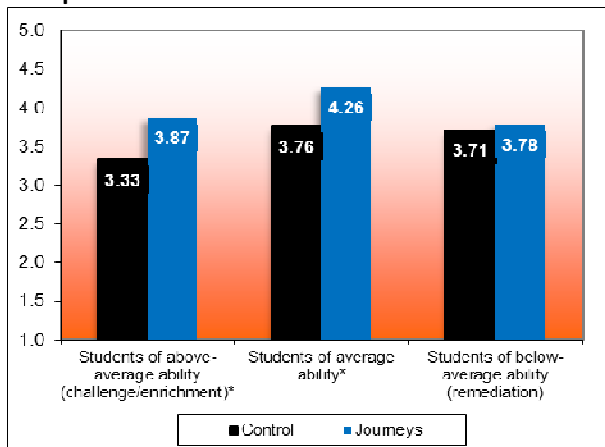
As previously noted, the Journeys program is aligned to the Common Core State Standards (CCSS). In order to assess whether teachers using the Journeys program were better able to meet these standards as compared control teachers, survey data was analyzed. Results showed four significant differences, $p < .05$. Specifically, Journeys teachers reported being able to meet the following four standards to a greater extent than control teachers:

- ◆ **K-1: Writing Standard:** Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
- ◆ **K-1: Language Standard:** Determine the meaning of unknown and multiple-meaning words and phrases by analyzing meaningful word parts as appropriate for grade level.
- ◆ **Grade 2-3: Literature Standard:** Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- ◆ **Grade 2-3: Literature Standard:** Compare and contrast different texts by same author or similar texts by different authors.

Differentiated Instruction

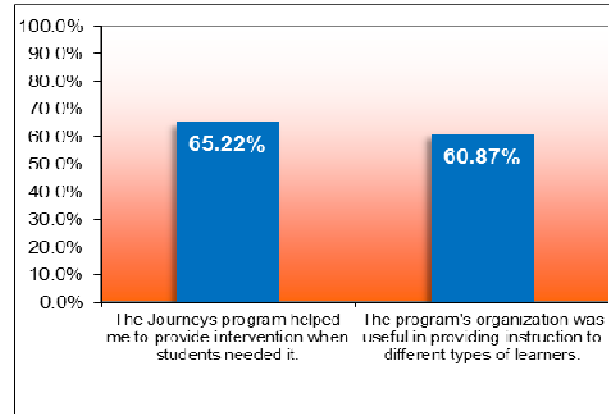
In general, teachers also reported that their reading/language arts program provided them with assistance to provide differentiated instruction to students at all levels (low, average and advanced) – however, when treatment and control comparisons were made there were two significant differences, $p > .05$. Journeys teachers generally felt that their program provided more assistance with differentiated instruction to above average and average students as compared to teachers using other elementary programs, see Figure 93.

Figure 93. Teacher Perceptions of the Degree to which Program Helped with Differentiated Instruction By Group



When Journeys teachers were asked explicitly the extent to which the program helped them to reach different learners and provide intervention, over 60% reported that the Journeys program was useful in these respects, see Figure 94. As will be discussed later in this report, while most teachers felt Journeys was helpful, especially with the leveled readers, they also felt that more enrichment and intervention resources were needed.

Figure 94. Teacher Perceptions of Journeys Program Assistance with Differentiated Instruction



- ◆ *“My higher students can go above while I’m working with the other students at different levels, I really like that.” - 2nd Grade Teacher, DC*
- ◆ *“It was eye opening for the low students who are now able to read the on level books like everyone else.” - 1st Grade Teacher, AZ*

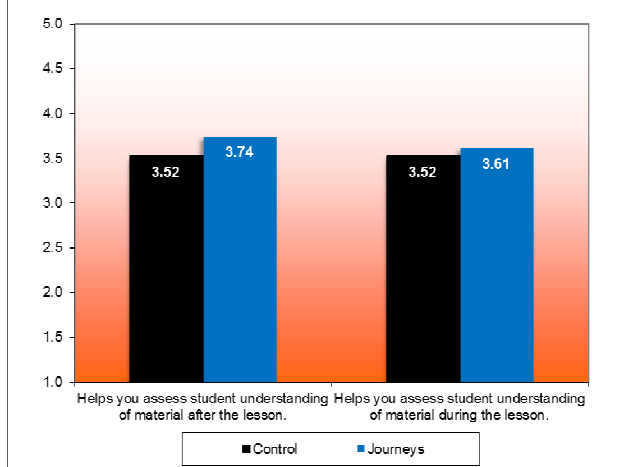
Over 60% of Journeys teachers felt that the program provided them with assistance to provide differentiated instruction. Moreover, Journeys teachers generally felt that their program provided more assistance with differentiated instruction to above average and average students as compared to teachers using other elementary programs.

Progress Monitoring

When analyzing perceptions about the assistance of reading/language arts programs provided in assessing student progress and learning, results from teacher surveys indicated that generally Journeys teachers perceived greater assistance from their programs, although differences were not significant, $p > .05$. Of note, Journeys teachers felt that the embedded questions and assessments were useful in monitoring student understanding. Furthermore, teachers who used the Running Records felt

these were very useful in monitoring student fluency over the school year.

Figure 95. Teacher Perceptions About Extent to Which Program Helped Them Monitor Student Progress By Group

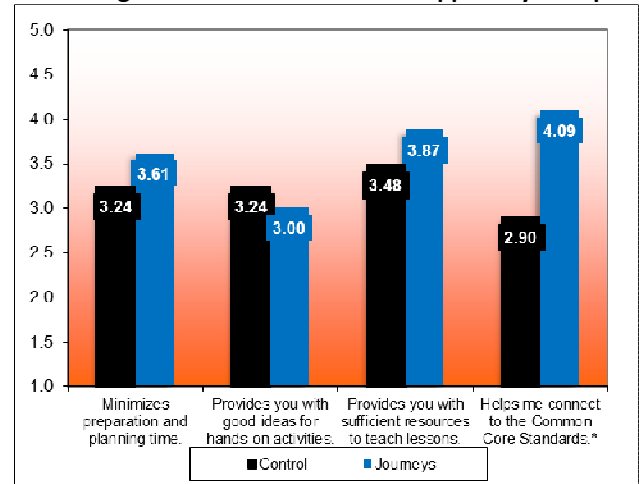


No significant differences were observed in perceived assistance from their reading/language arts programs in helping them assess student understanding.

Teacher Support

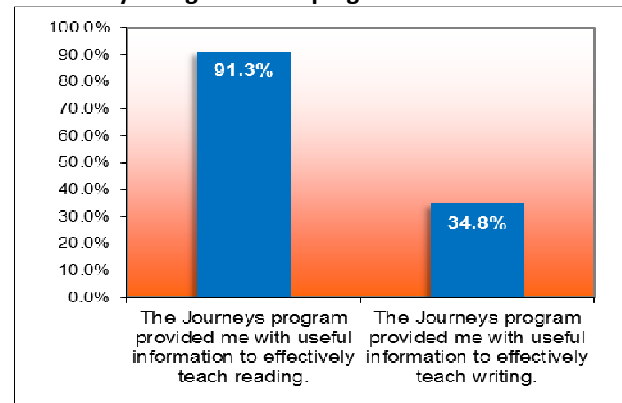
Teachers were also asked about the extent to which their reading/language arts programs provided them with support (e.g., in lesson planning, in selecting activities, etc.). As shown in Figure 96, there was one significant difference between treatment and control teachers – Journeys teachers reported greater assistance in helping them connect to the Common Core Standards than control teachers. In general, Journeys teachers also reported greater assistance from their program in minimizing preparation time and providing them with sufficient resources to teach lessons. However, control teachers tended to report that their programs provided more good ideas for hands-on activities than Journeys teachers.

Figure 96. Teacher Perceptions of the Degree to Which their Program Provided Them with Support By Group



Journeys teachers were further asked if the program had provided them with useful information to effectively teach reading and writing. As shown in Figure 97, while 91% of teachers reported that the program helped them provide effective reading instruction, only 35% felt the same way about writing. As noted, the writing component of Journeys was perceived as a weakness.

Figure 97. Journeys Teachers Perceptions of Usefulness of Journeys Program in Helping Them Teach



◆ *“It’s (Journeys Program) given me some guidelines, being a first year teacher, and helped me make sure I wasn’t missing anything.” - 1st Grade Teacher, RI*

- ◆ *“I like how it (Journeys) is very scripted for me, I can know what I am doing each day and I don’t need to be too worried about planning, because I know each lesson is going to look essentially the same.” - 2nd Grade Teacher, AZ*

Journeys teachers reported significantly greater assistance with their program in connecting to the Common Core State Standards as compared to teachers using other reading/language arts programs.

What do users of Journeys think about the program? What aspects of the program do they find most useful? Least useful? What, if any, suggestions for program improvement do they have?

STUDENT PERCEPTIONS

Analysis of student surveys showed that although differences were not statistically different, students who used the Journeys program generally liked their program more (79%) as compared to students using other elementary reading/language arts programs (75%), see Figure 98. Furthermore, Journeys students reported enjoying the stories (79%), vocabulary flash cards (72%), and writing activities (77%) more than control students (75%, 62%, and 75% respectively). With the exception of vocabulary flash cards, differences were not statistically significant, however a trend was observed whereby Journeys students enjoyed their reading/language arts program to a greater extent than students using other programs. As well, the vast majority of Journeys teachers reported that their students spoke highly of the program and enjoyed Journeys, see Figure 99.

Journeys students rated their program more favorably than control students. In general, students liked the Journeys program and found it engaging.

Figure 98. Percentage of Students Who Agreed They Liked Reading Program

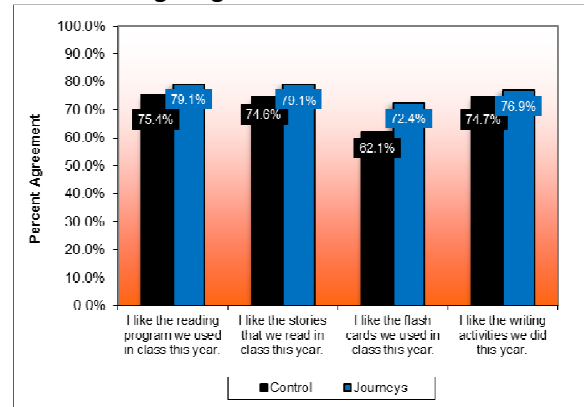
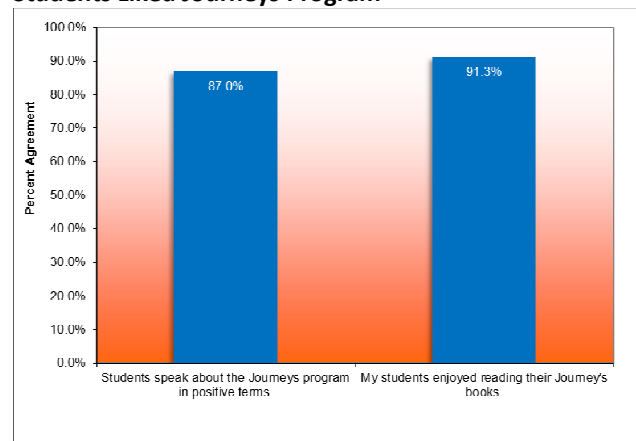


Figure 99. Percentage of Teachers Who Reported That Students Liked Journeys Program



- ◆ *“Except for the really, really, low students, I think the majority of them (Journeys students) liked it. The routine and repetition helps them feel secure, they know what to expect and can be more independent with their work.” - 2nd Grade Teacher, RI*
- ◆ *“They (Journeys students) like the stories, they are fun for kids to learn about, they are funny so they get a kick out of it and I think they remember*

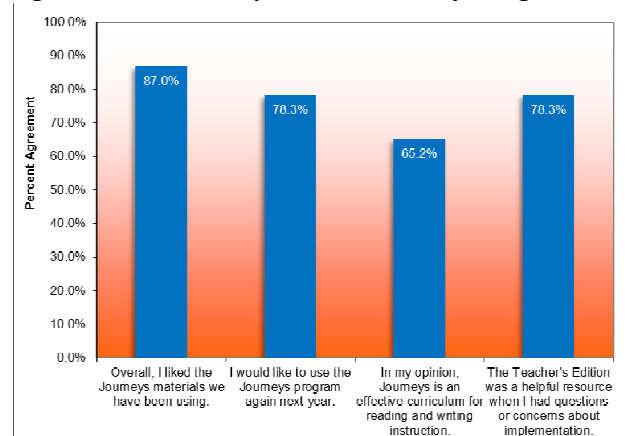
things from months ago.” - 2nd Grade Teachers, AZ

- ◆ *“The (Journeys) students like the books more and they want to go through the big books more, the books are beautiful.” - Kindergarten Teacher, DC*
- ◆ *“They (students) like it (Journeys) a lot, because the materials that are presented are fun, colorful and very appealing to them. One of the stories made me cry it was so touching.” - 1st Grade Teacher, AZ*

TEACHER PERCEPTIONS

The majority of teachers reported that they liked the Journeys program and would like to use it again in the upcoming school year. Teachers indicated that the program was user-friendly and included everything they needed to teach reading. They also liked the structure of the program and how all the components tended to “fit together,” for example, the connections made between the main reading selection used in whole group and the leveled readers used in small groups. As shown in Figure 100, 87% of teachers liked the Journeys program, 78% would like to use it during the upcoming school year, and 78% felt the Teacher’s Edition was a helpful resource. Approximately 65% felt the program was an effective curriculum for reading and writing; however, the relatively lower rating may be more of an indictment of the writing component which, as discussed later in this section, was not viewed highly.

Figure 100. Teacher Opinions on Journeys Program



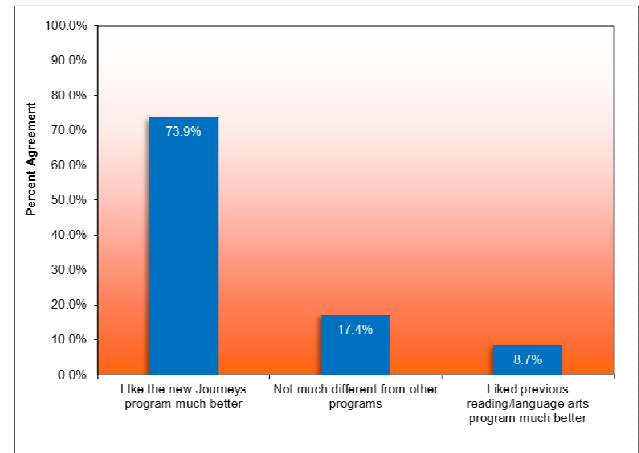
- ◆ *“I like how structured it (Journeys) is and how review is built right into it.” - 2nd Grade Teacher, AZ*
- ◆ *“It’s (Journeys) very complete. It makes our planning and life a lot easier. I love the confidence that everything is being covered and everything is there. I like the materials and that they are fun.” - 1st Grade Teacher, AZ*
- ◆ *“I love it (Journeys), this is more rigorous for students, high standards, laid out nicely. Extra work sheet was awesome and the leveled readers are awesome.” - 2nd Grade Teacher, DC*

Teachers also reported that they liked the way the program is comprehensive in targeting numerous skills, including phonics, phonemic awareness, comprehension, fluency, spelling, writing, and grammar. The program provides explicit instruction in these areas and, as previously noted, teachers noted this as beneficial as they did not always emphasize instruction in grammar or writing. Furthermore, Journeys teachers reported that the alignment of the program to the Common Core State Standards was a definite strength of the program by allowing them to meet these standards without taking much planning or preparation time.

- ◆ *“(Journeys) defiantly helped me be able to target each (Common Core State Standard) standard. It made me more comfortable to have a pacing guide from the start of the year.” - 1st Grade Teacher, AZ*
- ◆ *“I really like that the program is aligned to Common Core Standards.” – Kindergarten Teacher, AZ*
- ◆ *“What I liked best is that Journeys is comprehensive and aligns well with common core.” – 1st Grade Teacher, AZ*

When asked to compare the Journeys program to other reading/language arts programs they have used in the past, 74% of treatment teachers reported that the Journeys program was much better. Another 17% thought the Journeys program was similar to prior reading/language arts programs, and only 9% preferred their prior reading/language arts program, see Figure 101. Thus, the Journeys program was viewed more favorably than other programs teachers used in the past. As illustrated by the quotes below, a number of teachers reported that Journeys was much more rigorous as well as engaging as compared to other programs. Several Journeys teachers also noted that they felt they had flexibility in teaching with this program and liked the abundance of materials and resources available with the Journeys program.

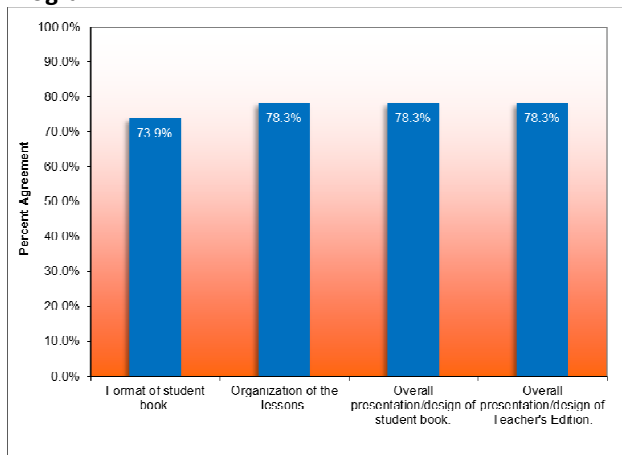
Figure 101. Comparison of Journeys and Prior Reading/Language Arts Program: “How did Journeys Compare to Other Reading/Language Arts Programs You Have Used in the Past?”



- ◆ *“This program (Journeys) is much better. We had (other program) and it’s not even close to what this program (Journeys) is. I would highly recommend this program, I love it!” - Kindergarten Teacher, AZ*
- ◆ *“The program we used before did not have interesting stories at all, so I am so grateful that this programs (Journeys) stories are fun to read and that we can relate them to our lives and they are interesting. Also having text in their hand earlier in the year is great.” - Kindergarten Teacher, LA*
- ◆ *“(Other program) was more surface stuff, but Journeys really digs in deep. The Journeys’ skills are far more advanced and a lot more practiced.” - Kindergarten Teacher, DC*
- ◆ *“It’s (Journeys) 100 times better (than other programs); I think it’s much more update, I don’t feel like I have to add as much.” - 1st Grade Teacher, AZ*
- ◆ *“I’ve used other programs for 9 years. I’ve seen more of a progression in difficulty with Journeys, it is the most intense program I’ve seen.” - 1st Grade Teacher, AZ*

Teachers also liked the overall format, design and presentation of the books, see Figure 102. Journeys teachers commented that the overall layout of the program, design and illustrations were visually appealing to their students. Teachers also liked the layout of the Teacher’s Editions and felt that the sequence of the lessons provided a nice flow from one lesson to the next. Teachers reported that the layout of the Teacher’s Edition was also easy to follow and appreciated the predictability of the structure of the program.

Figure 102. Teacher Feedback on Format and Design of Program



- ◆ *“The Teacher Edition lays everything out, it was easy to use and I love it; I could easily pick and choose what I wanted to use.” - 1st Grade Teacher, AZ*
- ◆ *“The Teacher Guide is exceptionally teacher friendly, love the lesson plans and the weekly planners and the student’s stories are well done.” - 2nd Grade Teacher, AZ*
- ◆ *“They (students) really love the books and CD’s, they love how it’s highlighted and it’s easier for them to learn the sight words, and they like hearing a different voice than mine.” - 1st Grade Teacher, AZ*

The majority of teachers enjoyed using the Journeys program, would like to use the program during the following school year, and felt that it was a better program compared to what they used previously. Teachers liked the overall layout and design of the program, and reported that the Student Editions captured their students’ interest.

FEEDBACK SPECIFIC TO JOURNEYS COMPONENTS

Usefulness of Resources

When asked to rate the usefulness of the specific components of the Journeys program, in general teachers thought that many of the program components were useful. The top rated components included: 1) program overall, 2) main selection story of the lesson, 3) inclusion of Common Core State Standards, 4) Essential Questions, and 5) Stop and Think activities, see Table 9. Among the resources, the top rated resources were the Teacher’s Edition, Student Book, and Leveled Readers. The least favorably rated resources were the Journeys Digital resources and Ready Made Workstations. These components and resources are discussed in more detail in the following section.

- ◆ *“The extensive resources make it easy to plan and reach all types of learners.” – 1st Grade Teacher, DC*
- ◆ *“I love how everything fits together (in Journeys), especially the level readers. The comprehensions are the same, site words are the same, phonics strategies and the spelling patterns are the same too.” - 1st Grade Teacher, AZ*

Table 9. Teacher Ratings of Usefulness of Journeys Components

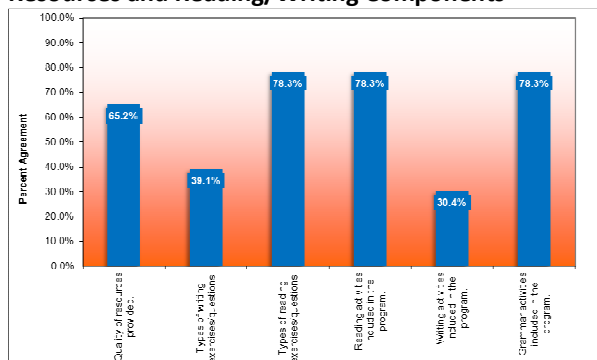
Journeys Lesson Features	Not at all useful	A little useful	Somewhat useful	Useful	Very useful	Useful to Very Useful
The Journeys program as a whole.	0.0%	0.0%	4.3%	39.1%	56.5%	95.7%
Main Selection story of the lesson.	0.0%	0.0%	8.7%	13.0%	78.3%	91.3%
Inclusion of Common Core Standards	0.0%	0.0%	9.1%	27.3%	63.6%	90.9%
Essential Question at the beginning of every lesson.	0.0%	4.3%	8.7%	47.8%	39.1%	87.0%
Stop and Think activities in the Main Selection story.	0.0%	0.0%	13.0%	34.8%	52.2%	87.0%
The target skill and target strategy feature in every lesson.	0.0%	8.7%	8.7%	30.4%	52.2%	82.6%
Comprehension strategies included in the Teacher's Edition.	0.0%	4.3%	13.0%	13.0%	69.6%	82.6%
Your Turn activities following the Main Selection	0.0%	8.7%	8.7%	52.2%	30.4%	82.6%
Companion selection story following the Main Selection.	0.0%	4.3%	13.0%	21.7%	60.9%	82.6%
Introduction of the Big Idea at the beginning of every lesson.	0.0%	13.0%	8.7%	30.4%	47.8%	78.3%
Journeys Resources	Not at all useful	A little useful	Somewhat useful	Useful	Very useful	Useful to Very Useful
Teachers Edition.	0.0%	0.0%	0.0%	26.1%	73.9%	100.0%
Student book.	0.0%	0.0%	8.7%	26.1%	65.2%	91.3%
Leveled Readers.	0.0%	4.3%	4.3%	13.0%	78.3%	91.3%
Vocabulary Readers.	0.0%	4.5%	4.5%	18.2%	72.7%	90.9%
Big Book (K only)	12.5%	0.0%	0.0%	0.0%	87.5%	87.5%
Vocabulary in Context cards.	0.0%	0.0%	13.0%	21.7%	65.2%	87.0%
Read Aloud Book	0.0%	0.0%	14.3%	19.0%	66.7%	85.7%
Decodable Readers.	4.3%	0.0%	13.0%	13.0%	69.6%	82.6%
Practice Book.	4.3%	0.0%	13.0%	34.8%	47.8%	82.6%
Interactive Instructional Flip Chart	9.1%	0.0%	9.1%	9.1%	72.7%	81.8%
Grab and Go!	9.5%	9.5%	0.0%	42.9%	38.1%	81.0%
Graphic Organizers.	0.0%	9.1%	13.6%	36.4%	40.9%	77.3%
Journeys Unit Benchmark Assessments	5.0%	10.0%	10.0%	25.0%	50.0%	75.0%
Weekly Assessments included in the Grab and Go Kit	10.0%	10.0%	5.0%	25.0%	50.0%	75.0%
Literacy Tool Kit	11.8%	5.9%	11.8%	47.1%	23.5%	70.6%
Running Records included in the Grab and Go Kit.	13.3%	6.7%	13.3%	26.7%	40.0%	66.7%
Focus Wall.	4.8%	19.0%	14.3%	23.8%	38.1%	61.9%
Write-in Reader.	7.7%	15.4%	15.4%	30.8%	30.8%	61.5%
Reading Adventures magazine	6.7%	13.3%	20.0%	40.0%	20.0%	60.0%
Journeys digital online companion.	20.0%	10.0%	20.0%	10.0%	40.0%	50.0%
Journeys Digital.	28.6%	0.0%	28.6%	28.6%	14.3%	42.9%
Ready Made Workstation group activities.	42.9%	28.6%	14.3%	7.1%	7.1%	14.3%

The top rated lesson components in terms of usefulness were: 1) program overall, 2) main selection story of the lesson, 3) inclusion of Common Core State Standards, 4) Essential Questions, and 5) Stop and Think activities. Among the resources, the top rated resources were the Teacher's Edition, Student Book, and Leveled Readers. The least favorably rated resources were the Journeys Digital resources and Ready Made Workstations.

Reading, Writing, and Grammar Activities

Teachers were asked about the extent to which they liked various components of the Journeys program. As shown in Figure 103, teachers gave higher ratings to the reading and grammar activities and exercises/questions as compared to the writing component. These findings are consistent with those observed in the prior pilot study as well. In general, Journeys teachers felt that the writing component of the program was lacking -- while teachers liked that the writing component is tied to the reading, they felt that the writing portion was not well put together and it seemed more like “an after thought.” According to these teachers, it lacked rigor, consistency, and clear alignment to national writing standards. Teachers, particularly Kindergarten teachers, also reported that the program needs a stronger focus on handwriting. That said, a few teachers also commented that their Kindergarten students benefited from early exposure to grammar and writing rules. These teachers did not teach writing and grammar explicitly in the past, and were quite pleased with the progress students made in these areas.

Figure 103. Teacher Feedback on Quality of Resources and Reading/Writing Components



- ◆ *“The Grammar is excellent, but the writing exercises didn’t make sense they jumped from something easy to writing a poem.” - 1st Grade Teacher, RI*

- ◆ *“The Journeys series is not as strong in hand writing, so I think next year I will supplement the writing. I was disappointed that the Journeys practice books didn’t have the arrows to show them (students) the way to trace (the letters for writing).” - Kindergarten Teacher, LA*
- ◆ *“Still questioning writing, I don’t feel like we’re writing enough.” - 2nd Grade Teacher, RI*
- ◆ *“I never thought about teaching kindergarteners about nouns, verbs, adjectives, the writing process to edit their papers or drafting. I never thought they could do that, but now after going through the program (Journeys) I was like wow they can really do this. They were actually doing it, they are happy and willing to do it and also excited.” - Kindergarten Teacher, AZ*
- ◆ *“The biggest improvement for my students I would say is writing, the writing component was great.” - Kindergarten Teacher, DC*

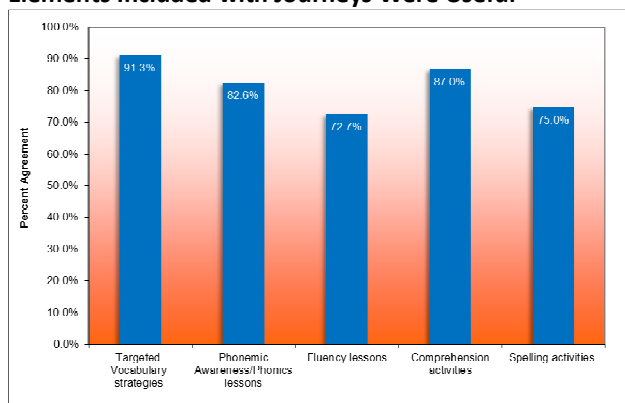
While the majority of Journeys teachers liked the quality of the resources, especially the reading and grammar activities and exercises/questions, only about 1/3 liked the writing components. However, a few Kindergarten teachers also reported that the early exposure to writing and grammar really helped their students.

Literature, Comprehension, Spelling, Phonics, Fluency and Vocabulary

Teachers felt that the literature was engaging and appreciated the inclusion of non-fiction stories as this is something that is more difficult to find in elementary literature. The connections made with other

readings (e.g., paired selections) and subject areas (drama, art, social studies, science, etc.) was viewed as a bonus and helped keep students' interest. Teachers reported that the tying of lessons across different components (e.g., sight words, spelling, comprehension strategies, etc. were all tied to main selection) also helped students understanding and acquisition of reading skills. In particular, the explicit instruction in phonics (including site words), fluency, and phonemic awareness was reported as being essential in students' growth in reading. The vocabulary and spelling lessons were also frequently mentioned by teachers as being an extremely useful part of the Journeys program. That said, a few teachers commented that they would have liked more spelling words and at times had to supplement. With respect to vocabulary, teachers reported that they liked that the program wasn't "dumbed down." Students were presented and expected to learn vocabulary terms that they would need to know at higher grade levels. As previously noted, the attention given by the program to grammar, vocabulary, and writing has helped enrich teacher's practices by giving them higher expectations for what their students can do and learn.

Figure 104. Percent of Teachers Who Felt Reading Elements Included with Journeys Were Useful



- ◆ *“I appreciated that the reading comprehension strategies matched that of the*

story for the week, along with the sight words and spelling patterns.” – 2nd Grade Teacher, DC

- ◆ *“I liked the vocabulary in context cards and the fact that those words appeared in most reading selections.” Kindergarten Teacher, LA*
- ◆ *“I would say I never talked about genre, before. The wild thing is that vocabulary, strategies, antonyms, synonyms, nouns, verbs, and adjectives were all new parts. Past and present tense was never something I thought to teach at a kindergarten level, but it works.” - Kindergarten Teacher, DC*
- ◆ *“I like the site word activities, I like the phonics because that’s the part when you do it on your own, it’s scattered and this makes it easier.”- 1st Grade Teacher, RI*
- ◆ *“The biggest improvement I notice is in fluency, because the site words and phonics patterns show up in every story and they build on each other, they (students) gradually become more comfortable.” - 1st Grade Teacher, AZ*
- ◆ *“It (Journeys) doesn’t dumb down the vocabulary, so rather than talking about realism and fantasy, it talks about fiction and non-fiction, it shows them the words they are going to know later on.” - 1st Grade Teacher, AZ*

Differentiated Instructional Resources

When teachers were asked what they liked best about the Journeys program, one of the most cited responses were the resources available for differentiated instruction, particularly the leveled readers. Teachers felt these books were engaging, connected well with the main selection and strategies being taught via the whole group lessons, and in general, aligned well with

average level students. That said, some teachers also reported that there were insufficient number of leveled readers provided (6 per level). Some teachers noted that the low level readers were not low enough (students were 1 or more grade level behind) and/or the high level readers were not high enough. Thus, they had to supplement with other readers or borrow books from teachers at other grade levels. Other teachers reported that they would have preferred more enrichment and intervention resources. Nevertheless, they liked that they could provide differentiated instruction during small group centers through use of the leveled readers. Furthermore, teachers who taught English Language Learners felt the program provided sufficient resources to meet their needs and saw noteworthy improvements over the school year.

- ◆ *“I really liked the leveled readers that I used often for small group activities.” – Kindergarten Teacher, RI*
- ◆ *“I liked the ease of organization of the leveled readers (each marked for the lessons on the back cover).” – 2nd Grade Teacher, AZ*
- ◆ *“I think the program has been good for the ELL students, because it is so intentional and so repetitive. The higher level students do not seem bored at all.” - 2nd Grade Teacher, AZ*
- ◆ *“It (Journeys) targeted ELL learners and provided a lot of differentiated instruction opportunities for students.” – 1st Grade Teacher, AZ*

Assessments

In general, Journeys felt that the assessments available through the Journeys program were useful. Teachers reported that there were a lot of assessment activities to draw from. That said, teachers also reported that sometimes they did not teach all concepts taught within a lesson or the tests were too long and therefore, customization had to occur which was challenging (e.g., they had to cut and paste specific test items in order to make them more accessible). Some teachers also reported that they would have liked to see more variation in the types of items, as opposed to being only multiple-choice. That said, a few teachers also commented that testing via multiple-choice items provided needed test preparation for their students. Some teachers noted the Running Records as one of the best aspects of the Journeys program.

- ◆ *“I liked the Grab and Go -- it provided weekly assessments that were easy to use and assess my students comprehension.” – 2nd Grade Teacher, RI*
- ◆ *“I really liked the tracking system (Running Records) Journeys has. I did not implement it quickly enough this year, because I didn’t realize I had it. I am excited to do the tracking system from the beginning next year because it’s really well organized, (and) helps me know where my students are at.” - 1st Grade Teacher, AZ*
- ◆ *“I really like the tests, I think it’s really going to make the difference in their standardized testing scores, because there will be less test taking anxiety, because they do it (testing) all the time.” - 1st Grade Teacher, AZ*

Feedback on Journeys Online Resources

Teachers rarely used the online companion; only 43% of teachers reported using the Online Digital Companion at least once. This was primarily due to teachers not having the time and proper training to fully utilize the online materials. Among the teachers that did use the online activities, 50% of teachers reported that the online resources were useful. Teachers who did not find it useful reported that while the technology was entertaining for students, they also felt that educational value was limited.

- ◆ *“I turn on the interactive games, and put it on the screen and the kids think they are watching cartoons and they interact with it; it’s really neat to watch.” - Kindergarten Teacher, AZ*
- ◆ *“The online stuff is ok, but I don’t really see that the kids get much out of it other than a break from lessons.” – 2nd Grade Teacher, AZ*

Ready Made Workstations

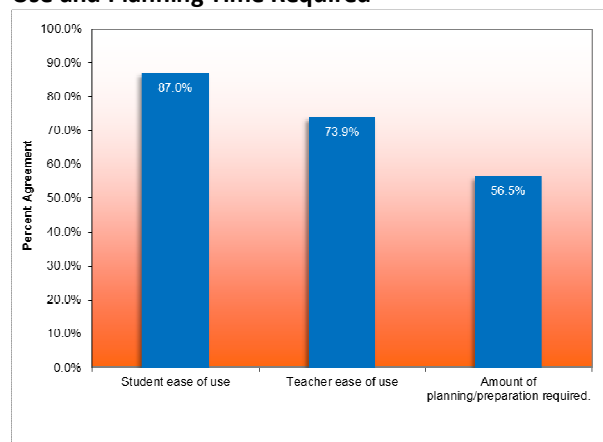
Similar to the findings observed in the pilot study, 40% of teachers reported that they did not use the Ready Made Workstations because they required students to independently work on their own, which was challenging at K-2. In addition to being difficult to do independently, teachers reported that the centers themselves were not well-planned because they were either too short (5 minutes) or too long (30 plus minutes) – thus, they lacked consistency. Furthermore, teachers reported that some activities were simply not engaging or were too easy. Thus, teachers tended to supplement with other center activities.

- ◆ *“The Ready Mades are not that helpful; I don’t think the kids can really use them. Even a group of 4 could not be engaged for 20 min.” - Kindergarten Teacher, LA*
- ◆ *“It’s (Ready Made Centers) laid out in a way I had a hard time with, independent activities are not always appropriate for a first grader. The kids cannot read the directions to themselves, especially at the beginning of the year, so they need someone with them, but if I am pulling groups on the rug how is that supposed to happen?” - 1st Grade Teacher, LA*

Ease of Use & Pacing

In general, teachers found the Journeys program as user-friendly and teachers were able to quickly integrate Journeys into their literacy block. As shown in Figure 104, teachers also thought the program was easy to use by students. That said, 56.5% of teachers reported that the amount of planning and preparation time was reasonable. The remaining teachers reported that the program required more time than they would have liked. That said, such findings are typical during the first year of implementation. Researchers will examine if this is still an issue following the second year of this study.

Figure 105. Percent of Teachers Who Liked Ease of Use and Planning Time Required



With respect to pacing, the majority of teachers felt the pacing was reasonable and they were able to complete what was needed from the program. A few teachers felt the program went too fast or too slow; however, this was primarily due to the level of students in their classes (e.g., one teacher had a lot of lower level students and therefore, she had to go slower than directed).

- ◆ *“I didn’t have to search for correlated independent practice: it reduced the amount of me planning.” - 1st Grade Teacher, AZ*
- ◆ *“The program (Journeys) at the first of the year is paced too quickly. I have some lower level students and my lowest readers don’t get what they need so I have to supplement a lot for them.” - 1st Grade Teacher, AZ*
- ◆ *“Pacing was too quick for topics that students enjoyed - needed more time for more in depth studies.” – 2nd Grade Teacher, DC*

RECOMMENDATIONS

While overall teachers liked the Journeys program, they also had some very useful feedback about the program and potential areas for improvement. The primary area(s) that teachers noted as needing improvement were the Ready Made Stations, leveled readers, and writing component. In particular, teachers commented that writing activities and prompts need to be improved and more graphic organizers provided. As well, more focus on handwriting, especially at the Kindergarten level, is needed. With respect to readers, a number of teachers would have liked more varied levels (high and low for students 1+ grade above/below) and a larger library. One teacher also suggested perhaps tailoring selections according to school/teacher needs rather than providing a “basic kit.” As previously noted, the Ready

Made Workstations also need to be more consistent with respect to time requirements and they also should be revamped so that more engaging activities that are clearly aligned to the daily lesson are available.

A few teachers also reported that they would like to see more resources available online. These teachers felt the program was too “paper heavy” and would like to have access to resources digitally. Additional student online activities that are aligned to lessons were also recommended.

Conclusion

The results obtained from the first year of the two year randomized control trial indicate that Journeys is significantly related to positive student outcomes. Elementary students using the program showed significant growth in reading and language arts skills from pre- to post-testing. Moreover, significant differences were observed between Journeys and control students' performance. Students using Journeys showed significantly more improvement than control students in the areas of reading comprehension (K-2), vocabulary (K-2), spelling (1-2), and word recognition (K-Reading Words).

Results also showed a number of significant differences between treatment and control students who were African American and Hispanic, in Kindergarten, 1st and 2nd grades, female, in Special Education, of Limited English Proficiency, and receiving free/reduced lunch. In particular, students in these subgroups that used Journeys showed greater growth in performance from pre- to post-testing as compared to students that did not use Journeys. Furthermore, students who scored above the 66th percentile and below the 33rd percentile during pretesting showed more accelerated gains in comprehension, vocabulary, spelling and word recognition than students at these levels who used other reading programs.

Results also showed that Journeys students and teachers felt their program had a positive impact on student vocabulary skills to a greater extent than the control group. While not statistically significant, Journeys teachers also reported that the program helped with students' inquiry skills and ability to make connections to other subject areas, but was lacking in the area of

writing. Journeys teachers also reported being more prepared to use small, leveled groups than control teachers. Furthermore, Journeys teachers reported significantly greater assistance with their program in connecting to the Common Core State Standards as compared to teachers using other reading/language arts programs.

A trend was also observed whereby Journeys students enjoyed their reading/language arts program to a greater extent than students using other programs. As well, the vast majority of Journeys teachers reported that their students spoke highly of the program and enjoyed the program. The Journeys program was also viewed favorably by the vast majority of teachers. Teachers indicated that the program was user-friendly and included everything they needed to teach reading effectively. Teachers also reported that they liked the way the program is comprehensive in targeting numerous skills (e.g., phonics, phonemic awareness, comprehension, fluency, spelling, writing, and grammar). Furthermore, Journeys teachers reported that the alignment of the program to the Common Core State Standards was a definite strength of the program by allowing them to meet these standards without taking much planning or preparation time.

The effect sizes for the main program effects ranged from .15-.39. However, only one effect exceeded the threshold (.25) for educational significance – the effect on the word recognition (Reading Words) subtest. While these can be classified as small effects, it should be noted that such small effects are typical of educational curricular research, particularly when comparisons are being made across similar content and classrooms, and the fact that these findings come from the first year of a two year

evaluation. Indeed, positive program effects were observed despite the following:

- This was a new program for the schools and they only implemented it for one school year. Program effects take time to develop as teachers and their students become more accustomed to the program and its resources.
- The content that was taught was similar. After all, these are not supplemental programs but core reading/language arts curricula. As such, teachers, regardless of program, will be teaching comprehension, fluency, and so forth. Because of this, comparisons of two programs (Journeys versus controls) which teach similar content are likely to yield small effect sizes. Typically, effect sizes for educational programs range from small to moderate (or .20-.50).

Given these caveats, the consistency in findings across multiple outcome measures and subpopulations is noteworthy and indicates that the Journeys program is effective in helping students attain critical reading skills.

Appendix A

Technical Appendix

Overview of the Technical Appendix

The purpose of this appendix is to provide fellow researchers with additional technical information to fully evaluate the scientific rigor of this study. Specifically, this appendix is written for technical audiences so that they may examine the statistical procedures employed as well as make more informed judgments of the internal and statistical conclusion validity of this study. It is *not* written for lay people. This *Technical Appendix* contains the following information:

- Analytical goals of these analyses
- Analytical framework
- Results of data analyses by analytical framework

Analytical Goals

The evaluation of the Journeys program focuses on the following broadly-framed goals:

1. *Assessment of effectiveness of the Journeys Program:* The Journeys program is examined in comparison to other elementary reading/language arts programs. The analytical framework used to identify the effectiveness of the Journeys program is causal in a numbers of ways:

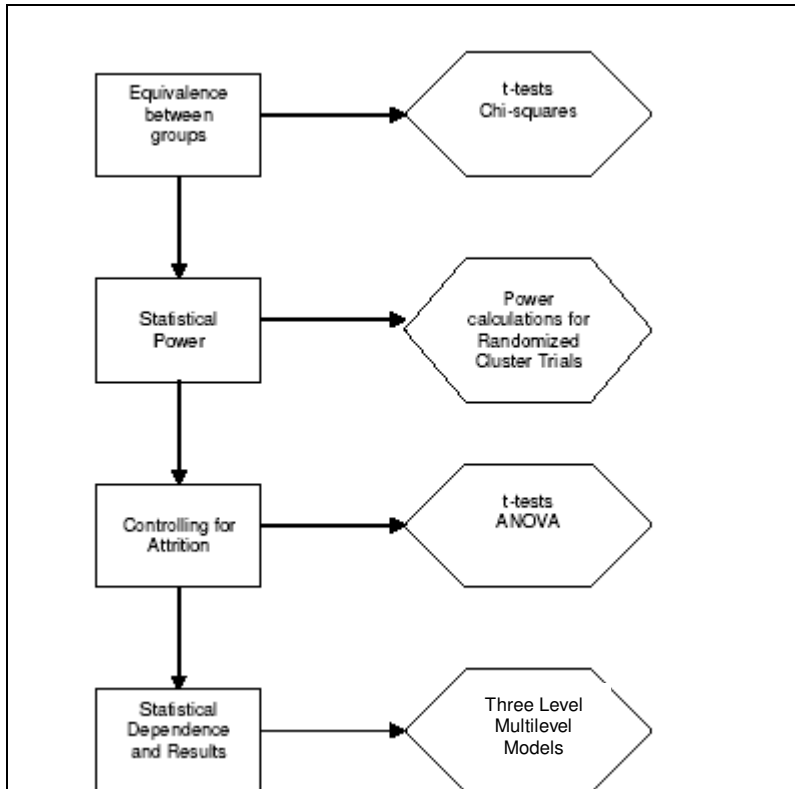
- (i) As described in the body of this final report, a well-planned randomized control trial was implemented;
- (ii) The analytical procedures pay close attention to multiple threats to internal validity including selection effects and attrition (Shadish, Cook, and Campbell, 2002);
- (iii) Given that students are “nested” within classrooms, the data are unlikely to be independent across students; dependence in outcomes is modeled by implementing hierarchical linear models (Raudenbush and Bryk, 2002);

2. *Knowledge development:* The implemented design also provides an opportunity to examine student and classroom/program measures that may be associated with program effectiveness for the Journeys program. This relationship between student and classroom characteristics and program effectiveness is viewed as primarily associative and not causal for two reasons: (a) The implemented design is focused on estimating causal *main effects* for the program; the statistical power to identify program effects within subgroups is much lower; (b) There have been very few studies that have examined subgroup effects of the Journeys program as well as reading/language arts interventions as a whole. In the absence of a strong program theory, the subgroup effects are viewed as empirical patterns that need theoretical frameworks and other rigorous experimental designs in the future to be estimated “causally.”

Analytical Framework

Figure A1 below and accompanying narrative show the four-step analytical procedures that were implemented to evaluate the effectiveness of the Journeys program.

Figure A1. Description of Analytical Framework



- (i) *Establishing group equivalence:* The differences in the treatment and control group were examined by conducting t-tests and chi-square analyses at the student, class and teacher levels on a range of baseline outcomes and other student and teacher characteristics. Care was taken to ensure that measures on which the groups differed significantly were used as covariates in subsequent analyses.
- (ii) *Statistical power:* Dependency in the data decreases the statistical power to detect significant differences. Specifically, increased values of intra-class correlations (higher dependency in the data) results in reductions in statistical power. The power to detect significant differences in clustered random trials was calculated for a range of intra-class correlations and effect sizes, and also with and without a cluster covariate.¹⁹
- (iii) *Controlling for attrition:* In this step, consideration is given to attrition as a potential threat to both internal and external validity of the study (Cook and Campbell, 1979).

¹⁹The use of a cluster-level covariate that is correlated with the outcomes of interest increases the power of the test (Raudenbush et al., 2005).

Both issues of measurement attrition (i.e., missing data due to student absences or lack of test administration) and dropout attrition (i.e., missing data due to students leaving the study) were examined.

Measurement Attrition

First, chi-square analysis was performed to determine if the proportion of measurement attrition was equivalent among both groups. In other words, this analysis examined whether there was a significant relationship between students who provided and did not provide data (at *each* time point) and group assignment (treatment vs. control). Second, ANOVAs were run to determine whether there were performance differences between those who completed the tests and those who did not by group using posttest measures (to examine those not providing pretest measures) and pretest measures (to examine those not providing posttest measures). An interaction between group and test completion status would be indicative of a bias because the type of treatment students who did not complete the test would be different than the type of control students who did not complete the test.

Dropout Attrition

The potential problems of overall attrition and differential attrition due to students leaving the study was first “diagnosed” using a simple statistical procedure; specifically, chi-square analysis was conducted to determine if the proportion of dropout attrition was equivalent among both groups. Second, in order to determine whether there was differential attrition on pretest measures, ANOVAs were run to determine if there was (1) a significant interaction between group and attrition status, and (2) a significant main effect for attrition status (Cook and Campbell, 1979). A significant interaction would indicate a threat to internal validity because the type of student dropping out of the treatment group would be different than the type of student dropping out of the control group. A significant main effect would indicate a threat to external validity because the students remaining in the study would be different than the students who dropped out of the study.

- (iv) *Statistical Dependency and Results:* Three-level multilevel models were implemented to estimate program effects. In the three-level model, student outcomes and characteristics were modeled at level 1, student level characteristics were modeled at level 2, and teacher characteristics were modeled at level 3. Appendix B describes the mathematical equations representing the three-level multilevel models.

Results

This section is organized according to the aforementioned analytical framework.

1. Establishing Group Equivalence

- a) The relationship between various student demographic variables and group status was examined. Results showed that one variable was significantly associated with group, $p < .05$. There was a higher proportion of control students who were Hispanic than Journeys students. Conversely, there was a lower proportion of control students who were African American than Journeys students. However, when students were categorized as minority and non-minority (White), no significant differences were observed. For more information, see Table 4 within the main report.
- a) Pre-test differences on the assessment measures were examined, see Table A1. Student level t-test analysis revealed one significant difference on the Word Analysis subtest, $p < .05$. Journeys students showed higher pretest scores than control students on this subtest. However, on all remaining subtests, there were no significant differences.

Table A1. Sample Size, Means, Standard Deviations, and t-test (Student Level) Results for Assessments at Pre-testing

Pretest*	Group	N	Mean	Std. Dev.	t	Sig. Level
Vocabulary Subtest	Journeys	493	136.69	19.91	0.71	.480
	Control	477	135.85	17.02		
Word Analysis Subtest	Journeys	495	138.20	23.38	2.79	.005*
	Control	480	134.25	20.75		
Reading Words Subtest (K only)	Journeys	169	126.59	10.31	1.85	.068
	Control	186	128.47	8.95		
Reading Comprehension Subtest	Journeys	497	139.29	19.89	0.26	.795
	Control	478	138.98	16.18		
Spelling Subtest (1-2 only)	Journeys	324	150.21	14.25	0.58	.561
	Control	294	149.53	14.95		
Language Subtest (1-2 only)	Journeys	325	144.29	14.24	1.34	.179

- b) Differences on other student characteristics were also examined. Results showed no significant differences in perceived parental support and school engagement, $p < .05$.
- c) With respect to teacher characteristics, there were no significant differences between control and treatment teachers in terms of perceptions of autonomy in setting instructional goals, $t(42) = .63, p = .54$, extent to which different types of students may hinder teaching, $t(42) = .10, p = .92$, preparation to teach using best practices, $t(42) = .31, p = .76$, preparation to teach the Common Core State Standards, $t(42) = 1.38, p = .18$, teaching experience, $t(42) = .17, p = .86$, participation in professional development in the prior three years, $t(41) = .14, p = .89$, gender, $\chi^2(1) = .004, p = .95$, minority status $\chi^2(1) = .73, p = .39$, and highest degree earned $\chi^2(1) = .102, p = .75$. However, differences were observed in teacher familiarity with NRP's five elements of reading,

$t(42)=2.19, p=.03$. Control teachers reported being more familiar with these than treatment teachers.

- d) Implementation of various typical activities that occur in elementary reading/language arts classrooms were also analyzed based on information collected from the initial logs (August-Sept.) and pre teacher surveys. Results showed no significant differences between treatment and control classrooms in terms of diversity of student activities, $t(41)=1.28, p=.21$, amount of homework assigned, $t(42)=1.58, p=.12$, and percentage of students who turn in homework, $t(41)=1.50, p=.14$. There were also no differences in the amount of time spent on: a) reading activities, $t(42)=.34, p=.73$, b) writing activities, $t(42)=.15, p=.88$, c) whole group reading, $t(109)=1.37, p=.17$, d) small group reading, $t(106)=.62, p=.54$, and e) language arts, $t(107)=.89, p=.34$. No differences were also observed in the percentage of time spent on specific components of reading and writing (e.g., comprehension, phonics, vocabulary, grammar, spelling, etc.) nor emphasis placed in these various content areas, and in the frequency in which assessment occurred, $p>.05$. With respect to classroom environment, information obtained from the Fall classroom observations showed that there were no significant differences observed, $p>.05$. The only significant difference observed among all the comparisons conducted was in the number of days of week homework is assigned with control teachers assigning homework on 4 days average and treatment teachers assigning homework on 3 days average, $t(42)=2.29, p=.03$.

In sum, based on these preliminary analyses the two groups were very comparable in terms of baseline characteristics and outcomes.

2. Statistical Power

The following assumptions were used to calculate the power to detect effects:

- Significance level (α) = 0.05;
- 44 clusters (classes) with an average class size of 26.
- Calculations were done both without and with a cluster covariate. Our prior research has shown that this value can range from 0.32 to 0.80. The power analysis with a moderate cluster-level covariate was set at 0.50.
- The calculations were done on a range of intra-class correlations. Research conducted by PRES Associates has shown that this value can range from 0.07 to 0.55. In addition, the What Works Clearinghouse has set a default value of 0.20 when adjusting statistics for clustering.

The *Optimal Design* software was used in the calculations in this section (Raudenbush et al., 2005). This program is designed to determine the power of longitudinal and multilevel research. Figure A2 describes the power for a cluster randomized trial for a range of intra-class correlations *without* any cluster covariate for low, medium and high power (effect sizes corresponding to 0.2, 0.5, and 0.8 respectively). Figure A3 describes the power for a cluster randomized trial with a correlated cluster variable ($r = 0.50$). The key point from the graphics below is that there is enough power to reasonably detect a moderate to large effect size; however, there is not sufficient power to detect a small effect size of .20.

Figure A2. Power vs. Intra-Class Correlations for a Range of Effect Sizes (No Cluster-Level Covariate Included)

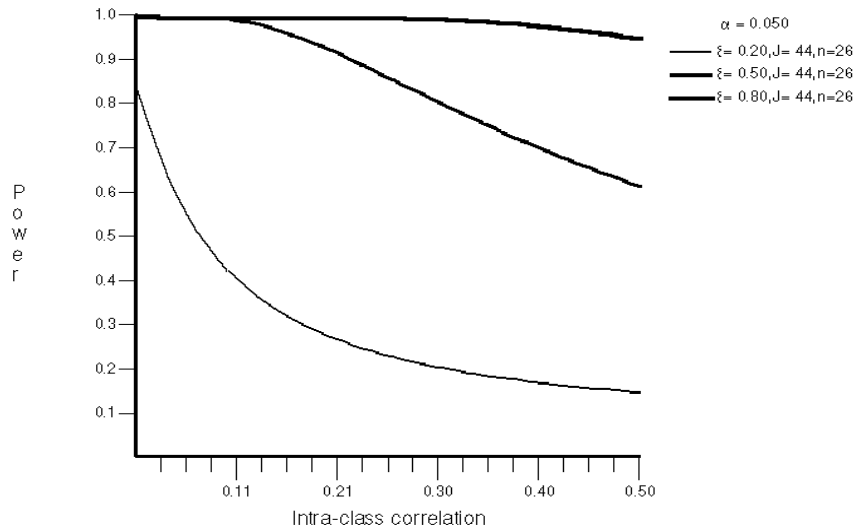
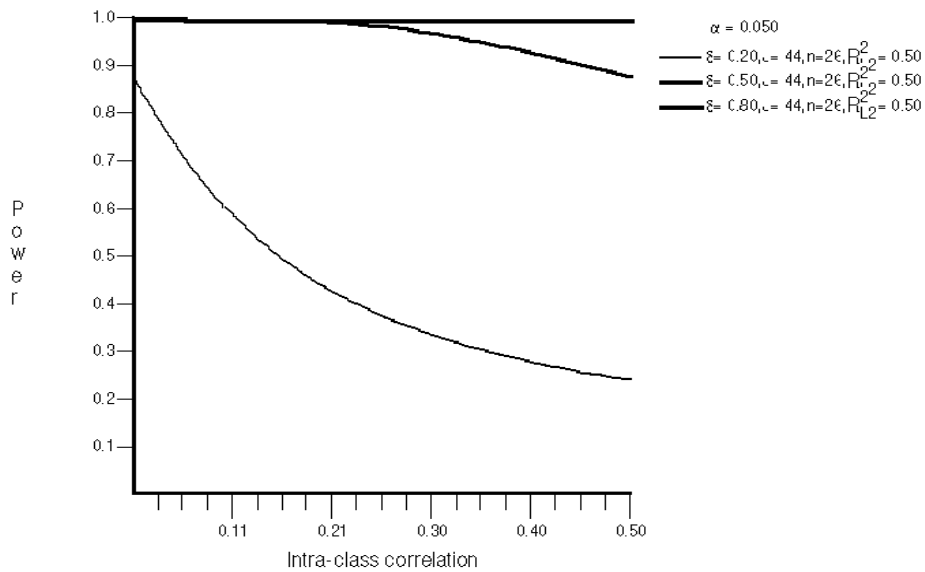


Figure A3. Power vs. Intra-Class Correlations for a Range of Effect Sizes (Cluster-Level Covariate Included)



Note: In figures A2 and A3, J refers to number of clusters, n refers to the average cluster size, δ refers to the effect size, α is the significance level, and r^2 is the correlation coefficient between the cluster-level covariate and the individual-level outcomes.

3. Attrition Analysis

As previously noted, both measurement attrition (i.e., missing data due to students not completing assessments) and dropout attrition (i.e., missing data due to students leaving the study) were examined. The approach taken in this project was to seek a consistent pattern of results of program effects across a range of methods. In this section, the observed pattern of differential attrition is examined to determine if it can explain the pattern of the observed results.

Measurement Attrition

A small portion of the students did not have data available at pre or post test due to absences on test administration days. Table A2 lists the number (and percent) of students who were in the study throughout the school year but did not provide pre or post tests. Chi-square analyses showed a significant relationship. Specifically, there were more treatment students who did not take the pretest *and* posttest as compared to control students.

Furthermore, to examine if there were any *performance* differences between those who completed tests and those that did not by group, ANOVAs were run on the post-test measures (to examine those not providing pretest measures) and on pretest measures (to examine those not providing posttest measures). Significant interactions between measurement attrition status and group assignment would suggest a bias. Results showed no significant interactions on each of the ITBS subtests. Thus, results are not likely to be biased due to measurement attrition.

Table A2. Number of Students Who Did Not Provide Pre and Post Data

	Admin Time	N (%) Who Did Not Take Test			Chi-Square	ANOVA for interaction
		Control	Journeys	Total		
ITBS	Pre (N=987)	21 (4.2%)	38 (7.0%)	59 (5.6%)	$\chi^2(1)=4.03$, $p=0.045$	Fvocabp(1, 976)=.067, p=.80 Fwordp(1, 971)=.071, p=.79 Fcompp(1, 973)=.016, p=.90 Fspellp(1, 611)=2.09, p=.15 Flangp(1, 631)=1.27, p=.26
	Post (N=1012)	4 (0.8%)	30 (5.5%)	34 (3.3%)	$\chi^2(1)=18.76$, $p<0.001$	Fvocab(1, 966)=1.53, p=.22 Fword(1, 971)=1.53, p=.22 Fcomp(1, 971)=.276, p=.60 Fspell(1, 614)=.836, p=.36 Flang(1, 615)=.008, p=.93

Dropout Attrition

There was an overall attrition of 6.9% due to students leaving school, transferring out of study classrooms, or moving from a treatment to control classroom (or vice versa). Analyses were performed to examine if there was *differential attrition* as a result of students leaving. First, analyses were performed to examine if the proportion of dropout attrition was equivalent among both groups. As shown in Table A3, results showed that this was the case.

Table A3. Number of Students by Enrollment Status*

	Students		
	Control	Treatment	Total
Total students enrolled in Fall	537 (100.0%)	586 (100.0%)	1123 (100%)
Students who moved/left/transferred out	32 (6.0%)	45 (7.7%)	77 (6.9%)
Total students remaining throughout school year	505 (94.0%)	541 (92.3%)	1046 (93.1%)

* $\chi^2(1) = 1.298, p = .26$

Secondly, analyses were performed to examine whether baseline performance differences existed between students who remained in the study and those who left and group assignment. Of interest in these ANOVAs were the interactions of group assignment and attrition status and the main effect for attrition status. A significant interaction would indicate a threat to internal validity. Similarly, a main effect for attrition status would suggest a threat to external validity.

Examination of the *interactions* showed one significant group by attrition status interaction on spelling skills. Specifically, control students who left had lower spelling scores than control students who remained in the study. In contrast, the treatment students who left and remained showed similar spelling scores, see Table A4. No other differences were observed on the remaining outcome measures.

Table A4. ANOVA Results for Pre-Tests by Group and Attrition Status

Measure	Attrition Status	Group	N	Mean	Sd.	ANOVA for interaction	ANOVA for main effect
ITBS-Vocabulary (K-2 nd)	Attrition	Control	30	130.430	15.58	F(1, 1039)=0.365, p=0.55	F(1, 1039)=3.22, p=0.07
		Treatment	43	134.00	14.60		
	No change	Control	477	135.85	17.02		
		Treatment	493	136.69	19.91		
ITBS-Word Analysis (K-2 nd)	Attrition	Control	30	134.33	22.21	F(1, 1044)=2.08, p=0.15	F(1, 1044)=1.99, p=0.16
		Treatment	43	130.47	18.81		
	No change	Control	480	134.25	20.75		
		Treatment	495	138.20	23.38		
ITBS-Comprehension (K-2 nd)	Attrition	Control	31	137.71	14.06	F(1, 1045)=.008, p=0.93	F(1, 1045)=.45, p=0.50
		Treatment	43	137.63	15.62		
	No change	Control	478	138.98	16.18		
		Treatment	497	139.29	19.89		
ITBS-Spelling (1-2 nd grades)	Attrition	Control	20	140.20	13.60	F(1, 659)=4.74, p=0.03*	F(1, 659)=3.81, p=0.051
		Treatment	25	150.72	14.18		
	No change	Control	294	149.53	14.95		
		Treatment	324	150.21	14.25		
ITBS-Language (1-2 nd grades)	Attrition	Control	20	137.60	11.21	F(1, 660)=.73, p=0.40	F(1, 660)=2.78, p=0.10
		Treatment	25	142.60	9.51		
	No change	Control	294	142.83	12.74		
		Treatment	325	144.29	14.24		

In summary, there was some evidence for dropout attrition. However, given that this difference was observed on a single outcome (out of 5) and students were fairly equivalent on all other measures, this threat is considered minimal. There was also no strong evidence of bias due to measurement attrition since there were no significant performance differences between those who completed tests and those that did not by group.

4. Statistical Analysis of Outcomes Measures

Analysis of Growth among Treatment Students

Paired t-tests for Change from Pretest to Posttest

Table A5 presents the means obtained for treatment students using Journeys at pre- and posttest as measured by the ITBS subtests. Paired sample t-tests were conducted to examine whether there was significant change from pretest to posttest. Results showed significant growth (i.e., improvement in performance) on all outcome measures. However, this analysis is only intended to be descriptive.

Table A5. Pre-Post Scores for Treatment Students (Paired Sample t-test Results)

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
ITBS Vocabulary subtest – Grades K-2	Pre	137.55	20.04	454	-21.40	453	0.000
	Post	153.19	21.45	454			
ITBS Word Analysis subtest – Grades K-2	Pre	139.61	23.13	453	-22.86	452	0.000
	Post	159.30	25.99	453			
ITBS Reading Words subtest- Grade K	Pre	126.82	10.69	144	-12.89	143	0.000
	Post	141.70	13.78	144			
ITBS Reading Comprehension subtest – Grades K-2	Pre	139.89	20.13	457	-20.63	456	0.000
	Post	155.12	20.46	457			
ITBS Spelling subtest – Grades 1 and 2	Pre	150.83	14.60	282	-14.56	281	0.000
	Post	162.36	16.52	282			
ITBS Language subtest – Grades 1 and 2	Pre	144.46	14.34	303	-14.51	302	0.000
	Post	157.15	21.61	303			

Growth Analysis of Subgroups of Treatment Students

Exploratory analysis was also performed to examine the relationship between Journeys and subgroup performance. That is, the results summarized in this section deal with the performance among treatment students only. It is important to note that due to the small sample sizes, no causal, conclusive statements should be made. Nevertheless, these results are presented for preliminary, exploratory purposes. Analyses were performed for the following subgroup

categories: gender, ethnicity, free/reduced lunch status, special education status, Limited English Proficiency status, grade level, and students at various reading levels.

The accompanying tables (A6-A13) include the paired t-tests' results. For these analyses, only treatment students within these subgroups are included. This provides preliminary information on whether students in these subgroups show growth in reading performance.

Gender

Table A6. Paired t-test Results for Treatment Students by Gender

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
Male							
ITBS Vocabulary Subtest- Grades K-2	Pre	137.27	19.94	229	-14.061	228	0.000
	Post	151.07	21.54	229			
ITBS Word Analysis Subtest –Grades K-2	Pre	138.73	22.85	225	-16.78	224	0.000
	Post	158.40	26.33	225			
ITBS Reading Words Subtest – Grade K Only	Pre	126.83	10.41	76	-9.47	75	0.000
	Post	141.72	13.67	76			
ITBS Reading Comprehension subtest- Grades K-2	Pre	139.18	19.60	228	-13.41	227	0.000
	Post	153.34	20.39	228			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	149.88	14.95	137	-8.82	136	0.000
	Post	160.85	17.56	137			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	143.32	13.35	151	-8.84	150	0.000
	Post	154.56	21.76	151			
Female							
ITBS Vocabulary Subtest- Grades K-2	Pre	137.90	20.33	216	-16.042	215	0.000
	Post	155.31	21.36	216			
ITBS Word Analysis Subtest –Grades K-2	Pre	140.15	23.52	218	-15.64	217	0.000
	Post	160.21	26.01	218			
ITBS Reading Words Subtest – Grade K Only	Pre	126.73	11.20	66	-8.45	65	0.000
	Post	141.35	13.75	66			
ITBS Reading Comprehension subtest- Grades K-2	Pre	140.73	20.74	220	-15.79	219	0.000
	Post	157.15	20.61	220			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	151.87	14.22	141	-12.14	140	0.000
	Post	163.94	15.52	141			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	145.78	15.28	148	-11.72	147	0.000
	Post	159.91	21.43	148			

Grade Level

Table A7. Paired t-test Results for Treatment Students by Grade Level

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
K							
ITBS Vocabulary Subtest- Grades K-2	Pre	126.13	10.44	146	-12.53	145	0.000
	Post	140.94	15.71	146			
ITBS Word Analysis Subtest –Grades K-2	Pre	123.59	15.01	143	-18.68	142	0.000
	Post	147.99	21.22	143			
ITBS Reading Words Subtest – Grade K Only	Pre	126.82	10.69	144	-12.89	143	0.000
	Post	141.70	13.78	144			
ITBS Reading Comprehension subtest- Grades K-2	Pre	123.05	13.70	144	-11.64	143	0.000
	Post	141.22	13.18	144			
1st							
ITBS Vocabulary Subtest- Grades K-2	Pre	131.36	16.24	156	-14.535	155	0.000
	Post	150.63	20.47	156			
ITBS Word Analysis Subtest –Grades K-2	Pre	135.00	15.13	157	-11.73	156	0.000
	Post	151.92	21.93	157			
ITBS Reading Comprehension subtest- Grades K-2	Pre	137.17	12.45	156	-12.15	155	0.000
	Post	150.77	15.35	156			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	141.87	10.33	131	-9.54	130	0.000
	Post	151.76	11.74	131			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	135.62	9.91	151	-7.73	150	0.000
	Post	145.18	16.70	151			
2nd							
ITBS Vocabulary Subtest- Grades K-2	Pre	154.86	19.02	152	-10.391	151	0.000
	Post	167.57	18.79	152			
ITBS Word Analysis Subtest –Grades K-2	Pre	159.31	22.16	153	-11.13	152	0.000
	Post	177.43	24.24	153			
ITBS Reading Comprehension Subtest- Grades K-2	Pre	158.03	16.08	157	-12.52	156	0.000
	Post	172.19	18.44	157			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	158.60	13.26	151	-11.124	150	0.000
	Post	171.56	14.45	151			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	153.24	12.56	152	-13.29	151	0.000
	Post	169.05	19.26	152			

Free-Reduced Lunch Status

Table A8. Paired t-tests Results for Students by Free/Reduced Lunch Status

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
Not Eligible for Free or Reduced Price Lunch							
ITBS Vocabulary Subtest- Grades K-2	Pre	142.48	22.39	191	-13.901	190	0.000
	Post	157.15	24.41	191			
ITBS Word Analysis Subtest –Grades K-2	Pre	145.29	25.79	191	-16.63	190	0.000
	Post	165.12	26.21	191			
ITBS Reading Words Subtest – Grade K Only	Pre	129.41	10.60	76	-10.85	75	0.000
	Post	142.96	13.08	76			
ITBS Reading Comprehension subtest- Grades K-2	Pre	140.98	24.58	191	-13.55	190	0.000
	Post	157.72	22.19	191			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	153.94	15.78	106	-8.11	105	0.000
	Post	164.80	16.68	106			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	150.22	16.50	113	-9.71	112	0.000
	Post	164.34	23.67	113			
Eligible for Free or Reduced Price Lunch							
ITBS Vocabulary Subtest- Grades K-2	Pre	133.89	17.36	254	-16.030	253	0.000
	Post	150.11	18.57	254			
ITBS Word Analysis Subtest –Grades K-2	Pre	134.98	19.89	252	-16.18	251	0.000
	Post	154.87	25.29	252			
ITBS Reading Words Subtest – Grade K Only	Pre	123.76	10.17	66	-7.93	65	0.000
	Post	139.92	14.23	66			
ITBS Reading Comprehension subtest- Grades K-2	Pre	139.17	16.13	257	-15.61	256	0.000
	Post	153.35	19.10	257			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	149.01	13.52	172	-12.16	171	0.000
	Post	160.94	16.42	172			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	141.09	11.65	186	-10.7	185	0.000
	Post	152.87	19.27	186			

Race/Ethnicity

Table A9. Paired t-tests Results for Students by Race/Ethnicity

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
White							
ITBS Vocabulary Subtest- Grades K-2	Pre	142.73	23.77	175	-11.25	174	0.000
	Post	157.67	23.91	175			
ITBS Word Analysis Subtest –Grades K-2	Pre	145.90	26.64	173	-13.05	172	0.000
	Post	162.68	26.26	173			
ITBS Reading Words Subtest – Grade K Only	Pre	126.72	9.30	50	-8.43	49	0.000
	Post	141.52	13.62	50			
ITBS Reading Comprehension subtest- Grades K-2	Pre	143.03	23.26	176	-13.12	175	0.000
	Post	159.33	23.40	176			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	150.53	16.06	120	-10.09	119	0.000
	Post	161.43	16.07	120			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	146.73	16.37	120	-14.35	119	0.000
	Post	162.23	20.22	120			
Hispanic							
ITBS Vocabulary Subtest- Grades K-2	Pre	129.65	13.57	127	-12.33	126	0.000
	Post	143.76	17.86	127			
ITBS Word Analysis Subtest –Grades K-2	Pre	129.40	17.62	128	-12.36	127	0.000
	Post	149.81	23.97	128			
ITBS Reading Words Subtest – Grade K Only	Pre	122.80	8.53	44	-6.59	43	0.000
	Post	137.16	11.33	44			
ITBS Reading Comprehension subtest- Grades K-2	Pre	135.91	14.99	128	-10.82	127	0.000
	Post	148.38	17.03	128			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	148.01	12.67	73	-6.11	72	0.000
	Post	158.53	17.71	73			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	139.75	10.69	84	-5.09	83	0.000
	Post	148.19	19.38	84			

Table A9 Cont. Paired t-tests Results for Students by Race/Ethnicity

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
Black							
ITBS Vocabulary Subtest- Grades K-2	Pre	138.89	18.13	119	-13.89	118	0.000
	Post	156.85	18.65	119			
ITBS Word Analysis Subtest –Grades K-2	Pre	141.23	20.32	119	-13.68	118	0.000
	Post	164.55	25.97	119			
ITBS Reading Words Subtest – Grade K Only	Pre	129.14	13.30	35	-6.98	34	0.000
	Post	146.49	13.97	35			
ITBS Reading Comprehension Subtest- Grades K-2	Pre	141.17	19.72	120	-10.40	119	0.000
	Post	156.88	18.24	120			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	153.78	13.46	74	-8.13	73	0.000
	Post	167.30	15.92	74			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	146.29	13.83	84	-6.19	83	0.000
	Post	158.93	23.95	84			
Asian/Other							
ITBS Vocabulary Subtest- Grades K-2	Pre	135.33	16.44	24	-4.325	23	.000
	Post	151.21	19.39	24			
ITBS Word Analysis Subtest –Grades K-2	Pre	137.30	17.18	23	-5.08	22	.000
	Post	159.39	25.67	23			
ITBS Reading Words Subtest – Grade K Only	Pre	134.15	10.40	13	-2.30	12	.040
	Post	143.23	16.69	13			
ITBS Reading Comprehension subtest- Grades K-2	Pre	132.71	17.41	24	-5.80	23	.000
	Post	153.13	17.85	24			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	154.45	14.61	11	-4.35	10	.001
	Post	166.10	11.66	11			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	144.00	12.19	11	-3.88	10	.003
	Post	158.10	17.72	11			

Limited English Proficient

Table A10. Paired t-tests Results for Students by Limited English Proficient Status

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
Not Limited English Proficient							
ITBS Vocabulary Subtest- Grades K-2	Pre	139.71	21.01	361	-18.82	360	0.000
	Post	155.51	21.66	361			
ITBS Word Analysis Subtest –Grades K-2	Pre	141.92	23.86	361	-19.40	360	0.000
	Post	160.94	26.54	361			
ITBS Reading Words Subtest – Grade K Only	Pre	126.96	10.60	111	-11.18	110	0.000
	Post	142.24	14.11	111			
ITBS Reading Comprehension subtest- Grades K-2	Pre	141.04	21.21	365	-18.90	364	0.000
	Post	157.08	21.34	365			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	152.10	14.59	237	-13.11	236	0.000
	Post	163.37	16.70	237			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	146.40	14.38	246	-15.20	245	0.000
	Post	159.67	20.76	246			
Limited English Proficient							
ITBS Vocabulary Subtest- Grades K-2	Pre	129.06	12.70	86	-9.467	85	0.000
	Post	143.12	17.61	86	-12.004	83	
ITBS Word Analysis Subtest –Grades K-2	Pre	129.55	17.42	84	-6.235	30	0.000
	Post	152.04	23.03	84	-8.220	84	
ITBS Reading Words Subtest – Grade K Only	Pre	126.16	11.43	31	-6.550	41	.000
	Post	139.07	11.76	31	-3.554	53	
ITBS Reading Comprehension subtest- Grades K-2	Pre	135.66	14.06	85	-9.467	85	.000
	Post	147.28	14.25	85	-12.004	83	
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	144.00	12.49	42	-6.235	30	.000
	Post	157.31	15.12	42	-8.220	84	
ITBS Language Subtest – Grades 1 and 2 Only	Pre	136.07	10.71	54	-6.550	41	.001
	Post	146.02	22.51	54			

Special Education Status

Table A11. Paired t-tests Results for Students by Special Education Status

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
No Individualized Education Plan							
ITBS Vocabulary Subtest- Grades K-2	Pre	137.38	19.96	415	-21.260	414	0.000
	Post	153.33	21.37	415			
ITBS Word Analysis Subtest –Grades K-2	Pre	139.75	23.30	413	-22.11	412	0.000
	Post	159.74	26.20	413			
ITBS Reading Words Subtest – Grade K Only	Pre	126.72	10.69	135	-12.64	134	0.000
	Post	141.85	13.86	135			
ITBS Reading Comprehension subtest- Grades K-2	Pre	140.14	20.24	417	-20.37	416	0.000
	Post	155.56	20.44	417			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	150.96	14.63	260	-14.03	259	0.000
	Post	162.51	16.50	260			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	144.71	14.34	276	-14.75	275	0.000
	Post	157.87	21.36	276			
Individualized Education Plan							
ITBS Vocabulary Subtest- Grades K-2	Pre	140.20	22.24	30	-3.172	29	0.004
	Post	150.30	23.90	30			
ITBS Word Analysis Subtest –Grades K-2	Pre	135.07	21.16	30	-5.99	29	0.000
	Post	153.03	25.23	30			
ITBS Reading Words Subtest – Grade K Only	Pre	128.00	12.62	7	-1.91	6	0.104
	Post	135.71	7.27	7			
ITBS Reading Comprehension subtest- Grades K-2	Pre	137.23	19.18	31	-3.90	30	0.001
	Post	150.58	22.04	31			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	149.83	14.42	18	-3.74	17	0.002
	Post	161.00	18.35	18			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	142.57	14.80	23	-1.73	22	0.098
	Post	149.22	24.91	23			

Reading/ Language Arts Levels

Table A12. Paired t-test Results for Treatment Students by Reading/Language Arts Skill Level at Pretest

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
Low Level (Bottom 33%)							
ITBS Vocabulary Subtest- Grades K-2	Pre	130.23	12.58	214	-15.67	213	0.000
	Post	146.09	16.27	214			
ITBS Word Analysis Subtest –Grades K-2	Pre	131.09	14.30	213	-17.37	212	0.000
	Post	150.66	20.32	213			
ITBS Reading Words Subtest – Grade K Only	Pre	124.00	11.98	77	-15.50	76	0.000
	Post	142.81	13.61	77			
ITBS Reading Comprehension subtest- Grades K-2	Pre	126.68	13.92	216	-19.04	215	0.000
	Post	147.77	14.50	216			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	144.05	10.35	120	-8.27	119	0.000
	Post	154.78	13.87	120			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	137.61	8.75	132	-7.36	131	0.000
	Post	147.36	14.82	132			
Average Level (Mid 33%)							
ITBS Vocabulary Subtest- Grades K-2	Pre	140.95	17.71	101	-11.26	100	0.000
	Post	154.65	19.22	101			
ITBS Word Analysis Subtest –Grades K-2	Pre	143.81	21.12	102	-9.882	101	0.000
	Post	162.87	26.27	102			
ITBS Reading Words Subtest – Grade K Only	Pre	126.65	5.25	17	-3.33	16	0.004
	Post	136.18	13.44	17			
ITBS Reading Comprehension subtest- Grades K-2	Pre	146.58	12.15	103	-10.19	102	0.000
	Post	159.45	18.96	103			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	151.08	13.02	79	-10.39	78	0.000
	Post	165.96	15.46	79			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	145.30	11.18	81	-9.36	80	0.000
	Post	159.79	18.87	81			
High Level (Top 33%)							
ITBS Vocabulary Subtest- Grades K-2	Pre	147.04	25.84	136	-10.51	135	0.000
	Post	163.91	25.22	136			
ITBS Word Analysis Subtest –Grades K-2	Pre	150.64	29.70	134	-11.44	133	0.000
	Post	171.01	28.68	134			
ITBS Reading Words Subtest – Grade K Only	Pre	131.22	8.35	50	-6.54	49	0.000
	Post	141.88	13.98	50			
ITBS Reading Comprehension Subtest- Grades K-2	Pre	155.57	19.46	138	-6.10	137	0.000
	Post	163.39	25.06	138			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	161.06	15.83	80	-6.70	79	0.000
	Post	170.78	16.23	80			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	154.85	17.36	86	-8.47	85	0.000
	Post	170.71	24.81	86			

Implementation Fidelity Levels

Table A13. Paired t-test Results for Treatment Students by Level of Implementation

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
Low Fidelity of Implementation							
ITBS Vocabulary Subtest- Grades K-2	Pre	124.23	9.80	64	-6.483	63	0.000
	Post	135.42	14.55	64			
ITBS Word Analysis Subtest –Grades K-2	Pre	119.52	10.80	62	-8.65	61	0.000
	Post	139.44	19.34	62			
ITBS Reading Words Subtest – Grade K Only	Pre	123.83	7.15	42	-6.04	41	0.000
	Post	131.95	6.44	42			
ITBS Reading Comprehension subtest- Grades K-2	Pre	130.75	10.94	63	-4.92	62	0.000
	Post	139.90	15.42	63			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	141.33	6.78	21	-5.41	20	0.000
	Post	152.33	9.65	21			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	133.52	4.88	21	-6.76	20	0.000
	Post	147.52	10.99	21			
Moderate Fidelity of Implementation							
ITBS Vocabulary Subtest- Grades K-2	Pre	134.74	15.66	134	-12.70	133	0.000
	Post	151.71	19.83	134			
ITBS Word Analysis Subtest –Grades K-2	Pre	136.62	18.58	132	-15.75	131	0.000
	Post	161.92	25.40	132			
ITBS Reading Words Subtest – Grade K Only	Pre	128.50	10.72	42	-7.89	41	0.004
	Post	144.31	14.08	42			
ITBS Reading Comprehension subtest- Grades K-2	Pre	139.92	16.09	137	-13.49	136	0.000
	Post	155.18	16.70	137			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	150.67	14.44	72	-9.33	71	0.000
	Post	163.85	17.20	72			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	142.16	12.30	92	-5.44	91	0.000
	Post	153.70	25.07	92			

Table A13 Cont. Paired t-test Results for Treatment Students by Level of Implementation

Test	Time	Mean	Std. Deviation	N	t	df	Sig.
High Fidelity of Implementation							
ITBS Vocabulary Subtest- Grades K-2	Pre	142.35	22.13	256	-16.158	255	0.000
	Post	158.40	21.27	256			
ITBS Word Analysis Subtest –Grades K-2	Pre	145.94	24.34	259	-15.24	258	0.000
	Post	162.71	25.65	259			
ITBS Reading Words Subtest – Grade K Only	Pre	127.73	12.34	60	-9.38	59	0.000
	Post	146.70	13.99	60			
ITBS Reading Comprehension Subtest- Grades K-2	Pre	142.11	23.02	257	-15.82	256	0.000
	Post	158.81	21.67	257			
ITBS Spelling Subtest – Grades 1 and 2 Only	Pre	151.95	14.95	189	-10.67	188	0.000
	Post	162.91	16.56	189			
ITBS Language Subtest – Grades 1 and 2 Only	Pre	146.78	15.22	190	-14.23	189	0.000
	Post	159.89	20.17	190			

Analysis of Program Effects

Prior to discussing the results found, it is important to understand the differences and similarities of the *Journeys* and control curricula/classes. This will assist the reader in interpreting the results and effect sizes found. As described in more detail in the body of the main report, control and treatment classes generally were exposed to the same content within schools. This is due to teachers following curriculum pacing guides that dictate what content to cover at each grade level which was similar across the *Journeys* and control programs, with a few exceptions such as a stronger emphasis in writing and grammar at the Kindergarten level. However, in general all teachers emphasized the same amount of comprehension, phonics, phonemic awareness, spelling, and vocabulary instruction.

In addition, differences existed with respect to the pedagogy employed. Specifically, *Journeys* delivers lessons driven by a Big Idea and Essential Question and the specific skills and activities within the lesson support this larger concept. While control programs 1, 4 and 5 followed a similar organizational structure around a unit theme, these programs did not incorporate an overarching concept. Similarly, lessons within control programs 2, 3 and 6 contain themes within their lessons, but these themes do not prompt students to think about the big picture. Other notable differences between *Journeys* and the control curricula include: a) the emphasis of daily small group activities in *Journeys*, b) the greater cohesiveness between the different elements of the *Journeys* program (e.g., the writing, reading, vocabulary, and phonics components), and c) the embedded alignment of the *Journeys* program to the Common Core State Standards.

In terms of specific instructional activities, there were only a few differences between the groups in terms of how the lessons were structured or delivered. While the teachers reported a similar flow in their lesson schedule, treatment teachers reported a significantly stronger emphasis on enrichment activities for advanced students. With regards to utilizing technology in the classroom, control teachers were significantly more likely to report having students use technology to practice reading and writing in the classroom despite availability of Journeys Digital. Otherwise, while teaching styles varied for some teachers, the instructional sequence and practices employed was comparable across treatment and control classes, and from teacher to teacher.

In summary, Journeys and control classes were fairly similar to one another in terms of structure and content taught. Given this information, and the fact that the duration of the study and exposure to the program occurred during *one* school year, small effect sizes were expected. After all, even with training provided, there is a learning curve for teachers in their first year of implementing a new program. Indeed, it is recommended that *cumulative* student exposure be examined to determine the sustainability of effects observed. Indeed, as a two year study, stronger effects are expected following two years of exposure.

Independent Sample t-tests

Table A14 describes the means for the treatment and control groups for the six outcomes at post-testing. Independent sample t-tests were conducted for each of the outcomes. Statistically significant differences in favor of the treatment group were obtained for five subtests. However, these differences do not account for clustering. The multilevel models described below incorporate dependency issues described above as a result of the hierarchical nature of the data.

Table A14. Sample Size, Means, Standard Deviations, and t-test (Student Level) Results for Assessments at Post-testing

Test	Group	Mean	Std. Deviation	N	t	df	Sig.
ITBS-Comprehension (K-2nd)	Control	150.49	18.75	479	-3.37	976	.001*
	Journeys	154.68	20.15	499			
ITBS-Vocabulary (K-2nd)	Control	148.76	20.09	482	-3.18	979	.001*
	Journeys	152.96	21.15	499			
ITBS-Word Analysis (K-2nd)	Control	152.27	25.46	482	-4.11	974	<.001*
	Journeys	159.00	25.70	494			
ITBS-Spelling (1-2nd grades)	Control	158.33	16.98	301	-2.61	614	.009*
	Journeys	161.88	16.74	315			
ITBS-Language (1-2nd grades)	Control	154.71	19.53	301	-1.03	634	.31
	Journeys	156.38	21.25	335			
ITBS-Reading Words (grade K)	Control	138.05	11.70	183	-2.80	338	.005*
	Journeys	141.99	14.19	157			

* = $p < .05$

Multilevel Models

Three-level multilevel models were implemented to examine program impacts. The three level model focuses on both the *levels* in outcomes at baseline and *change* in outcomes from baseline to follow-ups²⁰. In this model, the first level incorporates changes over time for each individual. The second level includes student level covariates. The third level incorporates teacher/school level information. This first set of initial models examines only the direct effects of the program (see Appendix B for mathematical description of the model). Separate multilevel models were run for each of the following assessments.

Outcome measures in the model include:

- ITBS Reading Comprehension, Vocabulary, Word Analysis, Reading Words, Spelling, and Language subtests

Student level covariates in the model include:

- Group (Treatment=1; Control=0)

Other individual level covariates including Limited English Proficiency status, special education status and free/reduced lunch status were also available. However, due to small sample sizes and/or missing data for these variables, these covariates were excluded from the multilevel analysis as this would reduce the analytical sample. Teacher level covariates were not included in the model given the similarities observed on various teacher characteristics measured at baseline.

The direct effects multilevel model was run on each of the measures noted above. Table A15 summarizes the results of the main program effects. Note that each measure in Table A15 corresponds to the program effect coefficients estimated for that dependent variable from a separate multilevel model. Significant differences (at the .05 level) in the slope (growth rates) at were observed between the treatment and control groups for the following measures: Reading Comprehension, Vocabulary, Spelling and Reading Words. Specifically, growth was greater in the treatment group as compared to the control group.

Note that unlike the results presented in Table A14, these analyses incorporate student and teacher level information. When this is done via multilevel modeling, significant differences are obtained as described above. The effect sizes are also calculated; the effect sizes for the effect of Journeys on student performance ranged from .15 to .39. However, only the Reading Words subtest was above the educational significance threshold of .25. That said, it is expected that stronger effects will be obtained following two years of Journeys usage.

²⁰ Note that although significant differences were observed for the Word Analysis subtest at pre-testing via the t-tests, analyses of pretest differences via the multilevel models showed no significant baseline differences. Therefore, three level models were run on the Word Analysis subtest. That said, two-level models controlling for pretest performance on Word Analysis were also conducted and revealed consistent results.

Table A15. Main Program Effects from Multilevel Models^a

Outcome Measures	Coefficient	Std. Error	t-ratio	df	Sig. Level	Effect Size²¹
ITBS Reading Comprehension Scale Score - Pretest	0.02	4.30	0.004	997	1.00	
ITBS Reading Comprehension Scale Score – Slope Year 1	3.87	0.97	4.015	911	0.001*	0.20
ITBS Vocabulary Scale Score - Pretest	0.65	4.27	0.152	997	0.88	
ITBS Vocabulary Scale Score – Slope Year 1	3.10	1.00	3.104	911	0.002*	0.15
ITBS Word Analysis Scale Score - Pretest	3.96	5.14	0.771	997	0.44	
ITBS Word Analysis Scale Score - Slope Year 1	1.90	1.21	1.572	911	0.12	--
ITBS Spelling Scale Score - Pretest	0.93	3.94	0.235	997	0.81	
ITBS Spelling Scale Score– Slope Year 1	2.54	1.06	2.400	911	0.02*	0.15
ITBS Language Scale Score - Pretest	1.59	4.76	0.355	997	0.74	
ITBS Language Scale Score – Year 1	0.41	1.13	0.360	911	0.72	--
ITBS Reading Words Scale Score - Pretest	-1.08	2.85	-0.379	997	0.71	
ITBS Reading Words Scale Score – Year 1	5.06	1.37	3.681	911	<0.001*	0.39

* $p < .05$

Multilevel Models of Subgroup Effects

Subgroup effects were analyzed via multilevel modeling. The main effects multilevel models were re-specified to re-estimate program effects for the following subgroups: gender (*female*), ethnicity, grade, free/reduced lunch status, special education status, Limited English Proficiency, and reading ability level. Given strong correlations between the various interaction terms and multicollinearities in the model, the subgroup effects were obtained by adding the interaction term(s) corresponding to each subgroup separately. Thus, separate models were run to obtain subgroup effects.

It is important to view this analysis as exploratory for a number of reasons: (i) the treatment and control groups were not randomized by subgroups; (ii) the sample sizes for a number of the subgroups are quite small; and (iii) differences were obtained between the treatment and control groups at baseline for some of the subgroups.

Tables A16-A20 summarize the results of the subgroup analyses for the key outcome measures. Only statistical significant results are presented. In addition, to ease in the presentation of findings, only coefficients associated with the interaction between subgroup designation and group are presented in the tables.

Significant effects were obtained for all subgroups. Specifically, Hispanics showed positive effects on comprehension, vocabulary, and reading words; similarly, African Americans showed positive impacts on comprehension, and spelling. Females showed positive program effects on the comprehension, vocabulary, and reading words subtests. Kindergarten and 2nd grade students also showed positive program effects on comprehension, 2nd grade students showed positive

²¹ Formula for calculating the effect size is in Appendix A.

effects on spelling, and 1st grade students showed positive effects on vocabulary. High reading level students (those performing over the 66th percentile at baseline) also showed positive effects on both the vocabulary and spelling subtests. Among low level students, positive impacts were observed on comprehension, vocabulary, and reading words. Special education students and students with Limited English Proficiency showed a positive program effect on spelling. The most consistent pattern observed was among free/reduced lunch students. Students receiving this aid showed positive program effects on all outcomes, with the exception of language.

In sum, these results suggest that Journeys may be more effective with certain subgroups (e.g., free/reduced lunch students) as compared to other elementary programs, additional research is needed before more definitive conclusions about the impact of Journeys on subgroups of students can be made.

Table A16. Subgroup Effects from Multilevel Models: Reading Comprehension (K-2)

	Coefficient	Std. Error	t-ratio	Sig. Level
African American				
Baseline	0.01	2.79	0.004	1.00
Follow-up	4.39	2.01	2.182	0.03*
Hispanic				
Baseline	-1.40	2.80	-0.499	0.62
Follow-up	4.08	1.71	2.390	0.02*
Grade (K)				
Baseline	-5.33	3.97	-1.341	0.18
Follow-up	8.26	1.63	5.056	<0.001*
Grade (2 nd)				
Baseline	1.95	3.85	0.505	0.61
Follow-up	3.30	1.71	1.929	0.05*
Free-Reduced Lunch				
Baseline	-4.58	1.70	-2.697	0.007*
Follow-up	3.50	1.32	2.658	0.008*
Female				
Baseline	-1.11	1.44	-0.773	0.44
Follow-up	3.82	1.38	2.767	0.006*
Low Level Readers				
Baseline	--5.17	1.37	-3.786	<0.001*
Follow-up	5.34	1.32	4.030	<0.001*

Table A17. Subgroup Effects from Multilevel Models: Vocabulary (K-2)

	Coefficient	Std. Error	t-ratio	Sig. Level
Hispanic				
Baseline	-4.14	3.07	-1.349	0.18
Follow-up	3.70	1.77	2.087	0.04*
Grade (1 st)				
Baseline	-0.97	5.11	-0.19	0.85
Follow-up	6.06	1.77	1.929	0.05*
Free-Reduced Lunch				
Baseline	-2.13	1.89	-1.132	0.258
Follow-up	3.67	1.36	2.698	0.031*
Female				
Baseline	-1.81	1.60	-1.128	0.260
Follow-up	4.10	1.42	2.894	0.004*
Low Level Readers				
Baseline	-4.15	1.85	-2.240	0.025*
Follow-up	2.99	1.49	2.001	0.046*
High Level Readers				
Baseline	1.08	1.93	0.561	0.575
Follow-up	4.47	1.76	2.533	0.011*

*p<.05

Table A18. Subgroup Effects from Multilevel Models: Spelling (1-2)

	Coefficient	Std. Error	t-ratio	Sig. Level
African American				
Baseline	0.65	3.21	0.202	0.84
Follow-up	4.41	2.20	2.005	0.045*
Grade (2 nd)				
Baseline	-0.14	2.99	-0.048	0.96
Follow-up	3.17	1.47	2.159	0.03*
Special Education				
Baseline	-4.63	3.35	-1.382	0.167
Follow-up	7.81	3.84	2.035	0.04*
Limited English Proficiency				
Baseline	-5.61	2.59	-2.164	0.03*
Follow-up	6.15	2.45	2.513	0.012*
Free / Reduced Lunch				
Baseline	-3.60	1.91	-1.880	0.06
Follow-up	4.64	1.35	3.428	<0.001*
High Level Readers				
Baseline	-2.86	2.13	-1.341	0.18
Follow-up	5.30	2.09	2.531	0.012*

*p<.05

Table A19. Subgroup Effects from Multilevel Models: Reading Words (K)

	Coefficient	Std. Error	t-ratio	Sig. Level
Hispanic				
Baseline	-5.95	3.13	-1.901	0.06
Follow-up	7.72	2.57	3.001	0.003*
African American				
Baseline	-3.90	3.14	-1.241	0.22
Follow-up	8.11	2.94	2.756	0.006*
Free-Reduced Lunch				
Baseline	-6.64	2.43	-2.728	0.006*
Follow-up	6.13	2.13	2.875	0.004*
Low Level Readers				
Baseline	-4.72	2.15	-2.191	0.03*
Follow-up	6.21	2.05	3.022	0.003*

*p<.05

Table A20. Subgroup Effects from Multilevel Models: Word Analysis (K-2)

	Coefficient	Std. Error	t-ratio	Sig. Level
Free / Reduced Lunch				
Baseline	-5.00	2.29	-2.185	0.029*
Follow-up	3.55	1.65	2.158	0.031*

*p<.05

Appendix B

Mathematical Details of Multilevel Models

The Structure of the Three-level Multilevel Model for Program Effects

The three-level multilevel model had the following structure (note that the variable names are described in the text):

Level-1 Model

$$\text{Outcome}_{ij} = \pi_{0ij} + \pi_{1ij} * (\text{TIME}_{ij}) + e_{ij}$$

Level-2 Model

$$\pi_{0ij} = \beta_{00j} + \beta_{01j} * (\text{GROUP}_{ij}) + r_{0ij}$$

$$\pi_{1ij} = \beta_{10j} + \beta_{11j} * (\text{GROUP}_{ij})$$

Level-3 Model

$$\beta_{00j} = \gamma_{000} + u_{00j}$$

$$\beta_{01j} = \gamma_{010}$$

$$\beta_{10j} = \gamma_{100}$$

$$\beta_{11j} = \gamma_{110}$$

Note that γ_{110} is a measure of program impact.

Effect Size

Following the guidelines set forth by the What Works Clearinghouse (2008), the effect sizes were calculated using the following formula:

Hedges's g for intervention effects estimated from HLM analyses is defined in a similar way to that based on student-level ANCOVA: adjusted group mean difference divided by unadjusted pooled within-group SD. Specifically,

$$g = \frac{\gamma}{\sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{(n_1 + n_2 - 2)}}}$$

where γ is the HLM coefficient for the intervention's effect, which represents the group mean difference adjusted for both level-1 and level-2 covariates, if any; n_1 and n_2 are the student sample sizes, and S_1 and S_2 are the posttest student-level SDs for the intervention group and the comparison group, respectively.

Appendix C:

Journeys
Implementation Guidelines

Journeys RCT Study
Implementation Guidelines

Introduction

Welcome and thank you for participating in the Randomized Control Trial being conducted by PRES Associates on the Houghton Mifflin Harcourt *Journeys* literacy program. We hope your experience with our study will be rewarding and enjoyable. Not only will you contribute to cutting-edge research, but you will also benefit from targeted professional development provided by Houghton Mifflin Harcourt professional training specialists.

We realize that it can be challenging to change former teaching practices, implement a new reading program and understand that there may be associated obstacles and challenges with the beginning of implementation of any new program. For these reasons, we want and need to hear from you so that we can help guide you through any initial challenges you might encounter. In fact, it is critical that any problems you come across be addressed as soon as possible to ensure that this program is being implemented to its full potential. Feel free to contact PRES Associates via e-mail at studies@presassociates.com if you have any questions, problems or concerns. We greatly appreciate the time and effort you will contribute towards making this study a success

The following provides answers to some common questions teachers may have related to this study. Please read through all of these and should you have further questions, please contact PRES Associates.

Why Is This Research Being Done?

As you are aware, the No Child Left Behind Act (NCLB) of 2001 requires that educational materials and strategies used by educators in the classroom *must be proven by scientific research to improve student achievement in the classroom*. Houghton Mifflin Harcourt has developed a strong research model for determining that their programs are scientifically-based. As part of this research agenda, Houghton Mifflin Harcourt has contracted with PRES Associates²², an external educational research firm, to conduct a randomized control trial (RCT) focused on a rigorous evaluation the effectiveness of the *Journeys* Literacy program in helping elementary school students (grades K-3) attain critical reading/language arts skills.

²² PRES Associates is an external, independent, educational research firm with an established track record in conducting large-scale, rigorous evaluations on the effectiveness of curriculum materials.

Why Do I Need Training?

It takes more than a good curricular program to provide effective and meaningful lessons in reading/language arts. It also takes good teachers with a thorough understanding of the curriculum, who are supported by professional development, school administrators, and parents/guardians. To this end, it is hoped that through the professional development training session provided by Houghton Mifflin Harcourt on the use of its reading/language arts program, all teachers participating in the study will gain the knowledge and skills to successfully implement this program right from the start.

As you will soon learn, this reading program provides numerous teaching resources, support services and materials. In order to implement this program successfully, it is essential that teachers have a thorough understanding of the resources provided by the *Journeys* program. Rather than having teachers figure it out on their own, professional trainers will guide you through this process, offering examples of when to use certain materials, how to manage and supplement classroom instruction, what types of assessments to administer, and so forth.

Why Do I Need To Follow These Implementation Guidelines?

The Teacher Implementation Guidelines were developed as part of the *Journeys* Randomized Control Trial (RCT). The guidelines are designed for teachers to use when implementing the new program in their class(es). The guidelines point out key program components that *must* be implemented during reading instruction. These core program components have the greatest influence on student learning and performance, and therefore should be implemented. In addition, it is critical to ensure that all teachers are implementing a similar instructional model. That is, if teachers are modifying the program to an extent that it no longer resembles the original program, the study will not provide accurate information on the effects of the *Journeys* program. In sum, by providing these implementation guidelines, we are attempting to (1) maximize the potential of this reading program to help your students, and (2) ensure that the program is being implemented with fidelity across all teachers using the program. To reiterate, *it is essential that all teachers using the program fully apply the following implementation guidelines as prescribed*. That being said, there are optional parts to the program as well as ancillary resources that provide you with the flexibility you need to address unique student needs or contexts. *We trust your professional judgment and ask that you try to implement the program as best you possibly can while meeting your students' instructional needs.*

Again, thank you for your participation in this study. You are an integral part of this endeavor and we appreciate your assistance. We look forward to working with you.

IMPLEMENTATION GUIDELINES

I. PACING

There are 6 Units. Each Unit in Journeys is organized into five lessons. Each lesson focuses on specific vocabulary words, a target skill and a target strategy. In general you should refer to the Suggested Weekly Plan in your TE as a guideline for pacing your lesson. **It is suggested that one lesson be completed in 5 days of regular classroom instruction.** If you have difficulty with this pacing, please inform PRES Associates so that we can arrange for support.

II. TEACHING THE LESSON

Each lesson is organized around Whole Group Reading activities, Small Group Reading activities and Whole Group Language Arts Activities. **Items in bold below are critical core instructional activities that have been identified as necessary for optimal use of the Journeys program and as a study participant we will need you to incorporate these instructional activities into your lessons. Note that for some components there is flexibility in how the material is covered.** *Items italicized below have been identified as optional activities, and are not required for use as part of the study.* If you are able to incorporate them great, if not, that's ok too. Review the Suggested Weekly Plan and refer to the daily activities to structure Whole Group and Small Group Instruction while paying attention to the items in the Grab n Go.

The following guidelines have been prepared for 1.5 hours (90 minutes) of reading activities (Whole Group and Small Group) and 30 minutes of language arts (grammar, writing, spelling). This is the minimum time allotted for these activities in typical elementary schools. However, if your school allows for more (or less) time, please communicate this with the trainer and PRES Associates so that suggestions can be provided on pacing. **Note: Times are approximations and are only provided to help your instruction.**

Note: The listing below may vary for different lessons (e.g., Phonics may come after Comprehension) or different grade levels (e.g., Daily High Frequency words not in 3rd grade). However, we ask that you complete these components as they appear in your TE.

A. Whole Group Reading Activities (Approximately 45 minutes)

- **The Big Idea and Essential Question** appear throughout each lesson. Make sure to discuss these when directed in your TE.

Day 1

- ➔ **Opening Routines** – This activity is meant as a quick “wake-up” for students, and should take no more than 5-10 minutes. Point out the day’s goals and try to complete at least the Daily Phonemic Awareness/Phonics and Daily High Frequency words components, but if there is sufficient time also complete the Daily Vocabulary Boost.
- ➔ **Teacher Read Aloud** - There are typically three skill areas that appear: a) Modeling Fluency, b) Vocabulary, and c) Listening Comprehension. We ask that you

instruct/demonstrate at least one skill area. What is important is that the *teacher* read the entire selection, modeling fluency and then *following* the reading, the teacher can point out vocabulary and/or listening comprehension questions. In short, how this section is completed is left to the discretion of the teacher but should be based on student needs. This section should take approximately 10-15 minutes depending on how many skill areas are taught.

- **Words to Know / Vocabulary** – High Frequency words/Target vocabulary words are identified and repeated throughout the lesson and will follow the student through the Leveled Readers. There are several options for introducing the vocabulary (e.g., may use the Vocabulary in Context Cards and corresponding Routine Activities (Grab N Go), Practice Book, show words on Smart Board, etc.) – you may use any Journeys method for this section. This should take approximately 10 minutes.
- **Phonemic Awareness (Grades K-2; Letter Naming-K) and/or Phonics:** This section should also take approximately 10 minutes. Teachers may need to skip subsections (e.g., Apply or Guided Practice) depending on time – this is ok because Phonemic Awareness/Phonics is taught every day.
 - **NOTE:** A *Decodable Reader* (Grades K-2) lesson may also show in your TE. It is recommended that these activities be completed in small groups and only for those students in need of additional phonics practice. That said, if there is sufficient time left and you feel such skills are needed, you may teach this section as directed.

Day 2

- **Opening Routines** – Try to keep to 5 minutes.
- **Phonemic Awareness (Grades K-2; Letter Naming-K) and/or Phonics** – approximately 10 minutes.
- *Develop Background* – *While this activity is optional, please note that if you have struggling readers or do not have the background, it is strongly recommended that you cover this section (approximately 10-15 minutes).*
- **Comprehension Skills/Strategies** – This is a very important element of the program, follow the structure as outline in the TE. This should take approximately 10 minutes, and teachers may need to skip subsections (e.g., Apply) depending on time.
- **Main Selection Story** – NOTE: For upper grades (2-3), it may be that the entire section is not completed on Day 2. This is ok and can be made up on Day 3. Remember that the main purpose of this section is that students get through the selection, while developing comprehension; this should not be hurried. In addition, there are various ways that the selection can be read: for example, you may use teacher read aloud, partner reading, silent reading, use the audio CD or Digital Path (online). See “Reading the Selection” for ideas on how the reading can be completed.
 - **Develop Comprehension** – Throughout the selection, Develop Comprehension questions are numbered. **Teachers should ask all the questions that have a checkmark next to them** as these pertain to the Target Skill. Teachers should pick and choose from the remaining questions, based on student needs.
 - **Stop and Think** – (Grades 1-3) This applies the concept taught in the lesson to the selection. Complete these as they appear in your TE

- **Your Turn** – This section promotes critical thinking skills. Note that you can do this section (or portions of) in small groups.

Day 3

- ➔ **Opening Routines** – 5-10 minutes
- ➔ **Phonemic Awareness** (Grades K-2; **Letter Naming-K**) and/or **Phonics** – approximately 10 minutes.
- ➔ **Fluency** – **This section should take approximately 5-10 minutes.**
 - **NOTE:** A *Decodable Reader* (Grades K-2) lesson may also show in your TE. It is recommended that these activities be completed in small groups and only for those students in need of additional phonics practice. That said, if there is sufficient time left and you feel such skills are needed, you may teach this section as directed.
- ➔ **At this point, if you did not complete all the Day 2 activities (e.g., need to finish the reading, ask important Develop Comprehension questions, complete Stop and Think or Your Turn), please use this time to complete. It is very important that students comprehend the story and Target Skill prior to Deepening Comprehension.**
- ➔ **Deepen Comprehension** – This section reinforces the comprehension target skill/concept. This may take approximately 10-20 minutes (use less time if making up for Day 2).

Day 4

- ➔ **Opening Routines** – 5-10 minutes
- ➔ **Phonemic Awareness** (Grades K-2; **Letter Naming-K**) and/or **Phonics** – approximately 10 minutes.
- ➔ **Paired Selection** – This section is usually titled “Connect to…” and includes **Making Connections**. This section addresses the Common Core Standards (making connections between text to text, text to self, text to world, etc.). Activity should take approximately 15-20 minutes.
- ➔ **Vocabulary Strategies** – This section helps students develop strategies to learn vocabulary words in the lesson. It should take approximately 10 minutes to complete.

Day 5

Following the Opening Routine, you can use this day to: 1) Connect and Extend, 2) complete an assessment, 3) review or reinforce concepts that students are struggling with (e.g., use ancillary materials), 4) make-up work -- do lesson/activities that were not completed during the week, or 5) treat it as an “off” day (e.g., if there was a holiday during the week). You can also choose not to do a small group on this day for additional time.

- ➔ **Opening Routines** – 5-10 minutes
- ➔ *Connect and Extend* – Extends the concepts taught in the week’s lesson.
- ➔ *Assessment* – (see Assessment section below)

B. Small Group Reading Activities (Approximately 45 minutes)

Small Group activities are an important part of the Journeys program and should occur 5 days of the week. It is recommended that teachers have 3 groups (15 minute rotation) or 4 groups maximum (10 minute rotation). For lower primary, you may need to first model small group instruction, have students practice, and provide immediate feedback until a routine process has been established (note this may take a few weeks during the beginning of the school year). If you are having difficulties in implementing small groups, please contact PRES Associates so that support can be provided.

The TE has outlined options for small group time in the Suggested Small Group Plan. You are free to use the suggested Journeys activities or other Journeys materials, along with small group activities that have worked for your students in the past. However, we do ask that you incorporate the bolded readers below into your groups.

- ➔ **Leveled Readers** – (On, Above, Below and ELL): provide leveled text with reinforcement of the comprehension skills and vocabulary taught in the main selection. Note: If you find that your above level readers are quickly and easily getting through the advanced readers, you should have them read a more advanced, authentic text (e.g., from library, book room, etc). Remember that the goal is for students to read fluently, with comprehension, and enjoy reading – feel free to challenge your students with other reading texts. Similarly, if the low level readers are not low enough, feel free to select other texts (e.g., leveled readers from the grade level below).
- ➔ *Vocabulary Readers (K-3)* —provide another exposure to target vocabulary in context; one for each selection in core (teaching support found behind small group tab). These should be used as needed to benefit those who are struggling with vocabulary.
- ➔ *Decodable Readers* – provide for additional phonics practice. These should be used as needed.
- ➔ *Individualized Instruction with Struggling Readers* – It is recommended that you use small groups to individualize instruction for struggling readers.
- ➔ *Ready Made Work Stations* – 3 Flip books per level with Word Study, Think and Write and Comprehension, and Fluency activity stations. The Journeys Digital Center can also be used as a station during small group activities.
- ➔ *Leveled Practice* – using the Practice Book for On Level Readers and resources from the Grab and Go! Kit for Struggling, Advanced and English Language Learners

C. Language Arts (Approximately 30 minutes)

- ➔ Language Arts activities occur on Days 1-4 of each lesson. **We ask that you complete sections of the Grammar, Spelling and Writing activities** (if you do not have time to complete all, you can cut sections such as “Apply”). You may also use a combination of whole group and small group instruction to complete. For example, you may choose to do Grammar as whole group (full 30 minutes), and do the writing as a small group center activity.

III. ASSESSMENTS

The Journey’s program includes many options for student progress monitoring. The TE has outlined assessment options that can be used with this program. You may choose any of the assessments noted below, however, we ask that you administer the Unit Benchmark Assessment (3 times over the course of the year).

- ➔ **Unit Benchmark Assessments** –Group administered, criterion referenced tests that measures unit reading and writing skills. Benchmark test (3X per year, Units 1, 3 & 5) track progress in essential reading skills
- ➔ *Emerging Literacy Survey (K-1)*—use this Diagnostic instrument to assess basic reading skills
- ➔ *Diagnostic Assessment*—Individually Administered tests that diagnose basic reading skills plus passages for reading in context
- ➔ *Comprehensive Screening Assessment* – Group-administered tests that act as in initial screening of previous year’s skills (Language Arts, Phonics, and Writing, plus passages for Comprehension and Vocabulary)
- ➔ *Weekly Assessments* – (included in the Grab and Go kit) Assess assesses five essential elements. Comprehension is tied to main selection and includes cold reads.
- ➔ *Running Records* – optional (included in the Grab and Go kit)

IV. UNIT ACTIVITIES

- ➔ *Launch Unit* – Prior to the beginning of each Unit, you have the opportunity to “Launch the Unit” (see TE) which provides an introduction to the new Unit. This is an optional activity. If it is completed, it is recommended that it be done on the Friday *prior to* Lesson 1 of the new Unit.
- ➔ *Unit Project* – An engaging activity that can be used to tie concepts in Unit.
- ➔ *Reading Power*—The end of each unit has a test prep passage (6). This is a cold read with an extended-response question. This is found as a BLM in the Grab and Go.

OPTIONAL ANCILLIARIES

The following consists of a listing of additional ancillaries that you will have access to. However, these are considered **optional** – feel free to try them out but they are not required to be used.

JOURNEY'S DIGITAL

The Journey's digital online companion reinforces print resource activities and can be used for in class whole group/small group instruction as well as at home. Use of the digital activities and resources are considered optional.

COMPREHENSIVE LANGUAGE AND LITERACY GUIDE

A Readers Workshop Approach designed by consulting author Irene Fountas. A Grade level teaching guide that provides reading mini-lessons, interactive Read-Alouds (using Journeys literature) and genre study. Suggested Menu structures whole group, small group (guided reading) and independent options. Refers back to Journey's materials for whole group word work lessons (vocabulary and phonics, literature (core reader and TE read-aloud), leveled reader database (Journeys leveled readers).

INTERVENTION

Strategic intervention lessons for each Unit are found in the back of the TE under the Intervention tab. Use these materials to provide additional targeted instruction. Intervention activities and lessons should be used where applicable.

- ➔ Strategic Intervention: Tier II
 - Journeys Write in Reader – Interactive Worktext for Skills Support
 - Curious About Words – Intensive Oral Vocabulary
- ➔ Intensive Intervention Tier III
 - Reading Tool Kit – Helps to provide a different approach for children who need Tier III intensive intervention

ENGLISH LANGUAGE LEARNERS

Use the ELL support materials to ensure that children acquire social and academic language proficiency. ELL lessons for each Unit are found in the back of the TE under the English Language Learners tab. ELL lessons and activities should be used where applicable.

- ➔ Language Support Card—Helps to pre-teach critical skills and support a variety of ELL vocabulary needs.
- ➔ Leveled Reader
- ➔ Scaffolded Support – Notes throughout the TE scaffold instruction to each language proficiency level
- ➔ Vocabulary in Context Cards – Provides visual support and additional practice for high-frequency words.

Appendix D:
Case Study of Site Visits

Case Study of Site Visits

Site visits are crucial in terms of helping us better understand the context in which a program is being used. In addition, environmental factors (e.g. school factors, local history effects) can influence the results of a study making it necessary, at the very least, to document such factors. The case study of site visits is accomplished by triangulating the data from the site/classroom observations, post-observation interviews, the implementation logs, and capturing the perspectives of various participants²³. The following provides information about each of the sites, collected from the participating teachers, school administrators, and our own school-related research.

School A

About the School: School A is a small public charter school located in a lower to middle class urban area in Arizona. The school is housed in a newer building and consists of students in grades K-8. During the 2011-2012 school year enrollment at School A was 317.

In 2012, Arizona used the Arizona's Instrument to Measure Standards (AIMS) to test students in grade 3 in reading and language arts; of the 3rd graders who took the AIMS reading and language arts test, 73% of 3rd graders were proficient compared to the state average of 76%. The student population is relatively diverse:

- 46% White, not Hispanic
- 35% Hispanic
- 3% American Indian/Alaskan Native
- 11% Black, not Hispanic
- 5% Asian/Pacific Islander

Approximately 57% of the students at the school were eligible for free or reduced-price lunches and 7% were noted as Limited English Proficiency.

Study Participants: During year one, six teachers participated in the study. There were two teachers at each grade level for kindergarten, first and second grades. Each grade level had one treatment and one control teacher. The six classes contained approximately 150 students, with an average class size of 25, and a range of 22 to 27.

Teachers characterized their classes as a mix of students. Specifically, two classes were a mix of abilities with mostly average students, two were a mix of all levels of students, there was one class with a mix of abilities, but leaning towards high performing and a class with a mix of abilities, but leaning towards low performers, with some high-performing and low-performing students. Classes were also noted as typical of the student population at the school. Technology

²³ It is important to note that, when interpreting information from such qualitative data collection techniques, the data reported consist of recurrent and shared themes that emerged. That is, comments from a single individual which are not reflective of a larger proportion of respondents are not identified as a finding or "theme."

was used in all of the control classes to some extent and only one treatment teacher utilized technology.

Reading and language arts Curriculum and Resources: The first grade control teacher used a basal reading and language arts program copyright 2001 as the main reading-writing curriculum. In general this teacher taught most of the themes/lessons included in the program but did not always cover each lesson completely as she would pull resources where needed.

There were many similarities between the control program used and the Journeys program. Both programs are basal reading language arts programs organized by a weekly lesson plan structured around a five day school week, with daily emphasis on reading, comprehension, vocabulary and writing. Similar to Journeys, this program includes read aloud stories, leveled readers, vocabulary readers and decodable texts. Differences in the control program and the Journeys program include the Common Core Standards alignment and the strong emphasis on daily small group instruction. While the control program includes resources and ideas for small group instruction, the Journeys program contains structured daily small group lesson plans as well as ready-made work stations.

The Kindergarten and second grade control curricula consisted of a 2002 phonics based program that teachers used in conjunction with their own teacher created materials. There were few similarities between this control program and the Journeys program. Similarities included an emphasis on phonics, phonemic awareness and vocabulary. Unlike Journeys this program also emphasizes letter formation and handwriting practice. In general Journeys is a comprehensive reading language arts program while this control program is recommended to be used in conjunction with a literature based reading program.

No school pacing guidelines were in place and the majority of control and treatment teachers paced their classes based on the main reading and language arts program they used, with one exception. One control teacher used the state standards to direct her pacing. Use of technological resources in the treatment classes was rare. Treatment teachers indicated this was due to timing and perceived lack of technological training. One treatment teacher did incorporate projectables and audio CDs from the Journeys program. In contrast, each of the control teachers utilized technology in their reading and language arts programs via the computer lab where students used a variety of leveled online programs to practice reading, grammar and spelling games. This was done on a weekly or bi-weekly basis.

Instructional Practices and Strategies: Reading and language arts instruction occurred throughout the day depending on the teacher and took approximately 2-2.5 hours. Instruction occurred during the same time each day for the duration of the year. All students had sufficient copies of reading and language arts resources (e.g., student textbooks, worksheets, etc.).

Reading and language arts instruction in control classrooms was relatively consistent though some variations occurred by grade level. For example, Kindergarten classes focused more on phonemic awareness and phonics activities while 2nd grade classes placed more emphasis on grammar. In general however, teachers began instruction with a short grammar, phonics/phonemic awareness, or spelling lesson. This was followed by small group centers

where teachers would work with groups of students in guided reading while other students completed literacy activities independently. Vocabulary and/or writing instruction/practice occurred following small groups. Whole group reading and instruction occurred later in the day and depending on the day of the week, this would also include shared reading and independent practice – this occurred for approximately 30 minutes. Time was also set aside for silent, independent reading.

Lessons in the treatment reading and language arts classrooms were similar between classes, as teachers were following the Journeys program implementation guidelines to varying degrees. One treatment teacher was a high implementer (see Appendix C for a detailed description of implementation guidelines and lesson parameters) and followed the Journeys implementation guidelines explicitly. Another treatment teacher was a moderate implementer, skipping the Your Turn component, which was considered key. The final treatment teacher was a low implementer due to the fact that, while the teacher used all the key components, they were used with less frequency than prescribed due to self-reported time constraints.

Homework: Homework was fairly consistent between treatment and control classes. Students were given a packet at the beginning of the week containing homework assignments across a range of subjects (i.e. the packet contained homework related to reading and language arts, math, science, social studies, etc.) and were required to hand in the completed packet on Friday. The reading and language arts portion typically contained a reading log, site word practice, and grammar or comprehension worksheets. While all teachers, both control and treatment, assigned a similar range of reading and language arts related work as part of the weekly homework packet, two treatment teachers specifically included the leveled practice found in the Journeys program.

Assessment: In terms of assessment there were some similarities amongst treatment and control teachers, specifically both sets of teachers gave weekly spelling or site word tests and administered the DIBELS based on school requirements. Treatment teachers tended to give more unit tests and made use of the Running Records component of the Journeys program. Different than treatment teachers, control teachers at School A also tended to include monthly writing or dictation assessments. One control teacher indicated that she did not use many formal assessments.

Comparability: In terms of the comparability of control and Journeys program classrooms, teachers covered similar lessons related to reading and language arts, including independent reading, grammar, phonics, spelling and site words. Treatment classes tended to engage in a more structured reading and language arts schedule and included the introduction of advanced grammar at an earlier point in the year and focused to a greater extent on writing than the control classrooms.

Highlights: Teachers at site A did a very comparable job teaching both the control and treatment programs to their students. Due to the structured nature of the Journeys program, the explicit implementation guidelines and availability of related materials, treatment teachers tended to have a more concise delivery method of reading and language arts instruction than their control counterparts. No contamination was noted.

School B

About the School: School B is a small public charter school located in a lower to middle class urban area in Arizona. The school is housed in a strip mall in a newer building adjacent to commercial businesses. The school consists of students in grades K-8, with enrollment during the 2011-2012 school year being 315.

In 2012, Arizona used the Arizona's Instrument to Measure Standards (AIMS) to test students in grade 3 in reading and language arts; of the 3rd graders who took the AIMS reading and language arts test, 62% of 3rd graders were proficient compared to the state average of 76%. The student population is relatively diverse:

- 38% White, not Hispanic
- 20% Hispanic
- 7% American Indian/Alaskan Native
- 34% Black, not Hispanic
- 1% Asian/Pacific Islander

Approximately 73% of the students were eligible for free or reduced-price lunches. No data was available regarding number of students noted as Limited English Proficiency.

Study Participants: During year 1, six teachers participated in the study. There were two teachers at each grade level for kindergarten, first and second grades. Each grade level had one treatment and one control teacher. The six classes contained approximately 115 students, with an average class size of 19, and a range of 16 to 25.

For the most part teachers characterized their classes as having a mix of abilities. Control teachers had a mix that included a greater number of average abilities, while treatment teachers reported an even mix of abilities with one exception. One treatment class was characterized as having a mix of abilities with more high ability level students than low. Overall classes were noted as typical of the student population at School B.

Technology was utilized to a greater extent in control classrooms than treatment. Specifically the majority of control teachers had students work on leveled online reading and language arts games once a week in the computer lab or as a station during small group centers. One control teacher reported she did this less than others due to behavioral problems in the classroom. Treatment teachers utilized the interactive games (starting in the spring), listening stations and smartboards with one exception. One treatment teacher did not utilize technology at all.

Reading and language arts Curriculum and Resources: All control teachers used a basal reading and language arts program copyright 2006 as their reading-writing curriculum. However, the second grade control teacher noted that she mostly used her own teacher created resources and pulled from this program where needed. There were many similarities between the control program used and the Journeys program. Both programs are basal reading language arts programs organized by a weekly lesson plan structured around a five day school week, with daily

emphasis on reading, comprehension, vocabulary and writing. Similar to Journeys, this program includes read aloud stories, leveled readers, vocabulary readers and decodable texts. Differences in the control program and the Journeys program include the Common Core Standards alignment and the strong emphasis on daily small group instruction. While the control program includes resources and ideas for small group instruction, the Journeys program contains structured daily small group lesson plans as well as ready-made work stations. The Kindergarten and first grade also supplemented their reading language arts instruction with the 2002 phonics based program described in the Site A site summary.

Since there was no curriculum map in place at School B the majority of the teachers in the study, both control and treatment, paced their lessons based on the textbook they were using, with the exception of one control teacher who paced using the state standards. The control and treatment teachers who paced based on the textbook they were using followed the pacing as prescribed by the program.

Instructional Practices and Strategies: Reading and language arts instruction occurred throughout the day depending on the teacher and took approximately 2.5-3 hours. Instruction occurred during the same time each day for the duration of the year. All students had sufficient copies of reading and language arts resources (e.g., student textbooks, worksheets, etc.).

Reading and language arts instruction in control classrooms was relatively consistent. Teachers began instruction with phonics/phonemic awareness or spelling review. This was followed by the reading lesson, including comprehension and fluency via a main story selection (30-45 minutes) – activities and focus of lesson varied depending on the day of the week (e.g., Monday would be introduction to the story, Tuesday would be focused on comprehension, and so forth). Centers followed with students practicing literacy concepts at different centers for 30 minutes to one hour. During this time, teachers worked with leveled groups to provide differentiated instruction. Writing was also incorporated for approximately 20-30 minutes.

Lessons in the treatment reading and language arts classrooms were similar between classes with a few exceptions, as teachers were very conscience about following the implementation guidelines explicitly (see Appendix C for detailed implementation guidelines and daily lesson structure). One treatment teacher implemented the Journeys program to the fullest extent possible, consistently implementing the key components, as well as those components deemed recommended and supplemental. The other two treatment teachers implemented to a high and moderate degree respectively. The moderate implementer used the Teacher Read Aloud and Vocabulary with less frequency than prescribed and did not utilize the Deepen Comprehension, which was considered a key element of the Journeys program.

Homework: Homework was fairly consistent between treatment and control classes. Students were given a packet at the beginning of the week containing homework assignments across a range of subjects (i.e. the packet contained homework related to reading and language arts, math, science, social studies, etc.) and were required to hand in the completed packet on Friday. The reading and language portion usually consisted of a combination of reading comprehension, site word practice, grammar and phonics and changed somewhat depending on the week.

Additionally, treatment teachers tended to include leveled readers as part of the weekly homework packet.

Assessment: In terms of assessment both treatment and control classes were given weekly spelling tests. However, treatment classes tended to receive more unit, chapter and weekly reading tests, in addition to the weekly spelling tests, versus control classes. Control classes lacked the unit and chapter tests, but were comparable to their treatment counterparts in terms of weekly spelling and site word tests.

Comparability: In terms of overall comparability, both the Journeys program and the control classrooms were somewhat similar. Both control and treatment teachers placed emphasis on basic reading, spelling and writing skills, but treatment classrooms tended to include more grammar and writing exercises. Lessons in the treatment classes were more structured and included distinct lesson components that were centralized around big ideas; while control lessons were less structured and varied from day to day and week-to-week. As noted above, treatment teachers did not engage in technology via leveled online reading and language arts games and practice the way control teachers did.

Highlights: The teachers at School B were very competent and dedicated. While teachers in both control and treatment classes were skilled in delivering the reading and language arts curriculum, overall treatment teachers were especially successful at implementing the Journeys program to a high degree and this caused their classes to cover a greater range of skills in a more organized and cohesive manner.

School C

About the School: School C is a small public charter school located in a lower class urban neighborhood in Arizona. The school consists of grades K-8, with grades 1-8 being housed at the main campus in an older converted public building and several outbuildings, and kindergarten located less than a mile away in a portion of a converted public building. Technological capabilities at this school were below average to non-existent. During the 2011-2012 school year enrollment at School C was 407.

In 2012, Arizona used the Arizona's Instrument to Measure Standards (AIMS) to test students in grade 3 in reading and language arts; of the 3rd graders who took the AIMS reading and language arts test, 55% of 3rd graders were proficient compared to the state average of 76%. The student population is predominantly Hispanic:

- 9% White, not Hispanic
- 86% Hispanic
- 1% American Indian/Alaskan Native
- 4% Black, not Hispanic
- 0% Asian/Pacific Islander

Approximately 95% of the students at the school were eligible for free or reduced-price lunches, which is much higher than the state average of 51%. Approximately 28% of the student population was indicated as being of Limited English Proficiency, which is double the state average of 14%.

Study Participants: During year one, six teachers participated in the study. There were two teachers at each grade level for kindergarten, first and second grades. Each grade level had one treatment and one control teacher. The six classes contained approximately 141 students, with an average class size of 24, and a range of 20 to 25.

The majority of the classes in the study at School C were of mixed ability levels with a higher degree of average students than low or high with a few exceptions. There were two classes that contained a mix of abilities with more low and average students than high, and one class that was comprised of a mix of abilities with more students on the average to high side than low. All study classes at this school contained a greater degree of English language learners than other classes in the study. Classes in the study were representative of the general student population at School C.

Most control and treatment teachers did not have regular access to technology and therefore it was not utilized in either the treatment or control classes. While Site C did have a computer lab, the majority of teachers (both control and treatment) indicated they did not use it with one exception. One control teacher did take her students to the computer lab from time to time to use a leveled online program to practice reading, spelling and grammar.

Reading and language arts Curriculum and Resources: The Kindergarten and 2nd grade control teachers utilized a comprehensive language arts program (2003) that could be used with other literature based reading programs. There were very few similarities between this control program and the Journeys program. The noted similarities include a focus on reading comprehension and integration of spelling and writing activities. The Journeys program is designed as an all-encompassing reading language arts program that includes a wide variety of rich literature resources whereas this control program does not contain literature. The Kindergarten control teacher supplemented this program with teacher made resources while the second grade control teacher incorporated a 2000 basal reading language arts program. Similar to Journeys this program was organized round unit themes with 5 day week lessons plans. As well, both programs focus on literature, with a variety of reading genres and reading opportunities. Unlike Journeys, however, this program does not integrate phonemic awareness and does not emphasize daily small group activities.

The first grade control teacher used a different basal reading language arts program published in 2003. Similar to Journeys this program emphasizes a variety of literature through a variety of resources. As well both programs integrate writing, grammar and spelling lessons. Unlike the Journeys program, however, this program does not integrate vocabulary strategies and does not include formal and informal assessment opportunities.

Treatment teachers followed the Journeys program and related pacing, while two of the control teachers used their main textbooks and the school pacing guide. One control teacher paced solely on student needs. Neither control nor treatment teachers used technology for instruction related to reading and language arts with the exception of one control teacher who had her class utilize an online leveled reading program, consisting of games and site word and vocabulary practice, in the small computer lab. Teachers indicated that they did not readily have access to technology and therefore were unable to incorporate it into their lessons.

Instructional Practices and Strategies: Reading and language arts instruction occurred throughout the day and took approximately 2 hours. They occurred every day during the same time for the duration of the year. All students had sufficient copies of reading and language arts resources (e.g., student textbooks).

Reading and language arts instruction in the control classrooms was relatively consistent. Teachers used cards for phonics/phonemic awareness review. This was usually done as a game so that it was engaging for students. Reading instruction typically consisted of an introduction, read aloud and class discussion to promote comprehension. Teachers also modeled fluency. Grammar and/or writing activities also occurred daily. Spelling also was introduced and reviewed throughout the week.

Two of the three treatment teachers at School C followed the Journeys implementation guidelines to a high extent (see Appendix C for a detailed description of daily lesson structure), with one treatment teacher being a low implementer. While the low implementing teacher did use the Journeys program exclusively and followed the lesson plans of the program, she consistently omitted the key components Fluency, Big Ideas and Essential Questions from her reading and language arts lessons.

Homework: Homework assignment was similar between treatment and control classes. Teachers assigned homework four days a week consisting of spelling, reading and phonics practice. Control teachers generally sent home worksheets that students would complete and return. Similarly treatment teachers sent worksheets, but also used the Journeys Decodable Readers and Practice Books to assign homework from. At the lower grades letter writing practice was also assigned, this was consistent across both control and treatment classrooms.

Assessment: In terms of assessment, control and treatment classes were relatively similar. All teachers, both treatment and control did a weekly spelling test. In addition to the weekly spelling test treatment teachers also used the Journeys weekly assessments and unit tests. Control teachers, in addition to the weekly spelling test, also administered site word quizzes. One control teacher also had phonics and writing assessments every two or three weeks and another control teacher utilized the DIBELS assessment over the course of the year. Informal assessment (i.e. observation, checking homework, discussion, etc.) occurred with equal regularity and in similar ways.

Comparability: Both Journeys program and control classrooms were similar in terms of how reading and language arts were taught. Teachers covered similar lessons and topics including independent reading, grammar, phonics, spelling and site words. Treatment classes tended to

engage in a more structured reading and language arts schedule and included the introduction of advanced grammar at an earlier point in the year and focused to a greater extent on writing than the control classrooms. As well, treatment rooms more consistently included center activities in their reading and language arts program and leveled readers were used with more regularity. Technology was not incorporated to a great extent in either control or treatment classrooms in terms of reading and language arts content.

Highlights: In general, the teachers at School C tended to lean towards a more traditional style of teaching and appeared comfortable with teaching practices they had employed over the years. Behavioral issues were relatively non-existent at this school and teachers were adept at classroom management. Technology was not a focus at this school in general and this was evident in the classrooms. No evidence of contamination was indicated.

School D

About the School: School D is located in a middle class residential neighborhood of Washington D.C. The school is housed in an older building that was previously used for commercial purposes and currently houses grades PK-8. During the 2012-2013 school year School D will move into a new building in the same neighborhood. Enrollment was reported to be 524 for the 2011-2012 school year, with a student to teacher ratio of 18 to 1.

In 2011, the District of Columbia used the District of Columbia Comprehensive Assessment System (DC-CAS) to test students in grade 3 in reading and language arts; of the 3rd graders who took the DC-CAS reading and language arts test, 38% of 3rd graders were proficient compared to the state average of 42%. The student population is predominantly African-American:

- 71% Black;
- 28% Hispanic;
- <1% White;
- <1% Asian.

Approximately 80% of the students at the school were eligible for free or reduced-price lunches, which is slightly higher than the state average of 70%. Approximately 0% of the student population was indicated as being of Limited English Proficiency, which is less than the state average of 7%.

Study Participants: Six teachers in grades K-2 participated in the first year of this study: three treatment and three control teachers, with one treatment and one control class at each grade level. The six classes contained approximately 143 students, with an average class size of 24, and a range of 22 to 26.

Classes were not grouped by ability level, and all teachers reported having a broad mix of low, average, and high performing students. All teachers had a teaching assistant present for the majority of the school day. The teaching assistant supported the teacher as needed and also assisted with planning and instructional purposes.

Most control and treatment teachers did not emphasize technology as part of their reading and language arts curriculum. While all students had weekly access to the computer lab, reading and language arts were not necessarily the focus of their computer lab time (i.e. students might be working on math, science or technical literacy related activities). As well, teachers indicated that the Internet was often slow or down and this prevented them from taking full advantage of the available Smartboards or other technology.

Reading and language arts Curriculum and Resources: Control teachers reported using a basal reading language arts program (2003) as the basis for planning and instruction. In general they moved sequentially through the book, but noted supplementing with various online resources or teacher-created materials.

There were many similarities between the control program used and the Journeys program. Both programs are basal reading language arts programs organized by a weekly lesson plan structured around a five day school week, with daily emphasis on reading, comprehension, vocabulary and writing. Similar to Journeys, this program includes read aloud stories, leveled readers, vocabulary readers and decodable texts. Differences in the control program and the Journeys program include the Common Core Standards alignment and the strong emphasis on daily small group instruction. While the control program includes resources and ideas for small group instruction, the Journeys program contains structured daily small group lesson plans as well as ready-made work stations.

Instructional Practices and Strategies: Reading and language arts instruction occurred throughout the day depending on the teacher. Classes lasted for 90-120 minute periods and occurred every day during the same time for the duration of the year. All students had sufficient copies of reading and language arts resources (e.g., student textbooks). In the first and second grades reading occurred at a time separate from language arts.

In terms of control classes there was some age related variation that occurred at each grade level; such as Kindergarten classes focused more on phonemic awareness and phonics activities using songs, while second grade classes placed more emphasis on grammar and writing. In general however, teachers began instruction with group reading and comprehension, followed by independent work in consumable workbooks related to the group read aloud. This was often done in centers or small homogenous groups. Centers or group work was followed by phonics and often included a reinforcement activity such as a related worksheet at the kindergarten level or writing worksheets at the first and second grade level. At the kindergarten level students had access to supplementary computer resources such as leveled online practice. As well, teachers at each grade included time for silent, independent reading.

All of the treatment teachers at School D followed the Journeys implementation guidelines to a moderate degree (see Appendix C for implementation guidelines and a detailed description of daily lesson structure). During the first semester treatment teachers implemented the program over a two week time period, versus the one week timeline indicated in the implementation guideline and therefore, while treatment teachers were using most of the key components, they did so with less frequency than was prescribed. During the second semester, after receiving

additional training, all treatment teachers began implementing the Journeys program on a weekly basis as prescribed, but due to students needing somewhat slower pacing, continued to use some of the components with less frequency, specifically Stop and Think, Your Turn and Phonemic Awareness, which were all considered key components of the Journeys program.

Both control and treatment classes spent approximately one hour weekly in the computer lab, which sometimes included online, leveled games and practice related to reading and language arts. Beyond the weekly computer lab time, technology related to reading and language arts was limited, though control teachers tended to incorporate slightly more technology than treatment teachers. Specifically, one control teacher had students use leveled, online programs during centers and another control teacher used the audio CD from the main reading and language arts program along with the Smartboard to show reading and language arts related internet videos and PowerPoints. In contrast, only one of the three treatment teachers utilized technology in relation to reading and language arts and this was done through the use of a Smartboard as a presentation tool.

Homework: Homework assignment was similar between treatment and control classes. Teachers assigned homework five days a week consisting of a weekly packet at the kindergarten level and nightly assignments at the first and second grade levels. Homework across treatment and control classrooms contained spelling, phonics, reading and/or writing exercises from a variety of resources for control teachers, including their main textbook, black line masters or teacher created materials, and for treatment teachers consisted of Journeys related reinforcement materials or from time to time teacher created worksheets.

Assessment: In terms of assessment, control and treatment classes were similar based on the types of skills that were assessed, but differed in the types of assessments that were used. Control teachers used an assessment every three to four weeks that tested discreet skills related to phonics, comprehension and high-frequency words. In comparison treatment teachers gave weekly spelling and phonics tests, unit tests and used the Journeys Running Records with each lesson to assess oral fluency. In addition to the control assessments described above, one control teacher also utilized self-made quizzes.

Comparability: All study classes, both treatment and control, were comparable in terms of their reading and language arts lessons. Overall teachers covered similar topics such as, phonemic awareness, oral fluency, grammar, phonics, spelling and allowed plenty of time for group and independent reading. Because control teachers at School D mostly followed a basal textbook, their classes, like the treatment classes, tended to engage in a structured reading and language arts curriculum. Treatment classes were much more likely to introduce advanced grammar and writing opportunities earlier in the year, especially at the kindergarten level, than were control classrooms. As well, treatment classes used leveled readers with more regularity. Technology was not incorporated to a great extent in either control or treatment classrooms in terms of reading and language arts content, however overall, control teachers utilized more technology than their treatment counterparts.

Highlights: Student engagement across both control and treatment classrooms was high and there were few behavioral problems. Teachers at school D, both treatment and control, were

capable of providing meaningful and lasting instruction for their students and were observed in very effective instructional settings. No issues of contamination were present, although the commercially published basal program used by control teachers was similar in some aspects to the Journeys program.

School E

About the School: School E is a medium sized public charter school located in an urban neighborhood in Louisiana. The elementary school is housed in two locations, with two older buildings on the main campus consisting of grades K-6, and a secondary campus occupying the third floor of a local community building housing some K and first grade classes. During the 2011-2012 school year enrollment at School E was 1520, with a student to teacher ration of 15 to 1, which is slightly higher than average for the state of 14 to 1.

In 2011 New Orleans used the Integrated Louisiana Educational Assessment Program (iLEAP) to test students in grade 3 in English Language Arts; of 3rd graders who took the iLEAP English Language Arts test, 99% were proficient, which is significantly higher than the state average of 64%. The student population is relatively diverse:

- 52% White, not Hispanic
- 4% Hispanic
- 1% American Indian/Alaskan Native
- 39% Black, not Hispanic
- 5% Asian/Pacific Islander

Approximately 31% of the students at the school were eligible for free or reduced-price lunches. No data was available regarding number of students noted as Limited English Proficiency.

Study Participants: During year one, twelve teachers participated in the study. There were four teachers at each grade level for kindergarten, first and second grades. Each grade level had two treatment and two control teachers. The twelve classes contained approximately 273 students, with an average class size of 23, and a range of 16 to 26.

Teachers characterized their classes as average with mixed abilities, with some classes being slightly higher performing and others being slightly lower performing. Across treatment and control classes there was a relatively equal spread of slightly higher or lower performing students, but overall most classes contained a mix of abilities and performed at level for their grade with one exception. One treatment teacher had a class of mostly low level students.

Technological resources were available in most classrooms, including smartboards, with the exception of one first grade classroom that did not have a smartboard. Both control and treatment teachers indicated they utilized their smartboards as part of reading and language arts instruction. Both control and treatment teachers indicated they used an online, leveled reading and language arts program with their students. All teachers emphasized technology in a similar

fashion, with the exception of a second grade treatment teacher who utilized technology to a slightly greater degree than her peers.

Reading and language arts Curriculum and Resources: Teachers used the same research based elementary reading and language arts program copyright 2003 for K-1 and 2006 for 2nd as their control curriculum. Teachers indicated they generally followed the pacing guidelines and lesson plans as outlined in the book, but sometimes added in special activities centered around a specific theme (like holidays) or included teacher selected reading materials they especially liked. Moreover, teachers indicated that they also used teacher created materials from time to time for additional reading and phonics practice, games, etc. on occasion or from resources collected over the years.

There were a few similarities between the control program used and the Journeys program. Similarities include the daily emphasis on reading, language arts and writing activities. As well both programs integrate fluency, phonics, reading comprehension and vocabulary in their daily lessons. Unlike Journeys, however, this program does not integrate phonemic awareness. Other differences between the control program and the Journeys program include the absence of activities for small group instruction and the opportunity for a variety of literature genres including non-fiction and informational text.

Use of technological resources was incorporated in both treatment and control classes, though a second grade treatment teacher used technology to a slightly larger degree than her counterparts. In treatment classes, teachers were observed following the Journeys program exclusively and adhering to the implementation guidelines to a strong degree. Treatment teachers at this school were overall high implementers, with the exception of one teacher who was a moderate to high implementer.

Instructional Practices and Strategies: Reading and language arts instruction occurred throughout the day and lasted for approximately 2.5 hours daily. All students had sufficient copies of reading and language arts resources (e.g., student textbooks) and the school's technology resources were able to support interactive and online instruction in classrooms. Of note, reading and language arts classes in the main school building were generally leveled though not exclusively (e.g., classes were classified as low-average or average-high). As such, students went to other classrooms for reading instruction with the exception of classes held in the community building. Note that comparable leveled groups were in the control and treatment condition.

Among control teachers, reading and language arts instruction varied somewhat according to the grade level. Kindergarten teachers began class with a morning message where they review what was done previously and what class was going to do today. They also worked on sentence structure and sounds. Typically, 1st grade teachers began classes with phonics instruction via whole group, then followed by practice. At the 2nd grade level, teachers began with "Daily Edit" which involves editing sentence(s) using grammar and spelling skills. This was followed by spelling and review of homework which entails reading and responding to reading selection. Reading of a main selection then occurred which incorporated comprehension questions. At the 1st and 2nd grades, this also involved partner reading or retelling stories to partners. Literacy

centers also were held but only at the Kindergarten level. 1st and 2nd grade classes used primarily paired groups. Language arts and writing typically occurred later in the day (e.g., journal writing).

Lessons in the treatment reading and language arts classrooms adhered to the Journeys implementation guidelines almost exclusively (see Appendix C for detailed implementation guidelines) with the exception of one teacher who used the fluency component less frequently and omitted the writing portion of the program.

Homework: Homework was relatively consistent between treatment and control classes and occurred four days a week, Monday through Thursday, over the course of the year in first and second grade classrooms. In kindergarten classes, homework was not assigned during the first semester, but was assigned four days a week, Monday through Thursday, during the second semester. Control students were similar to treatment students in terms of the type of homework that was assigned. That is control and treatment teachers assigned a combination of reading, word and spelling practice as homework. Sometimes reading was done as a “read and respond” exercise and/or incorporated leveled readers.

Assessment: In terms of assessment, treatment teachers tended to give more unit and chapter tests, while control teachers gave quarterly tests with a combination of small spelling, reading and grammar related tests on a weekly basis. Informal assessments occurred in all classrooms (e.g., observations, discussions, etc.).

Comparability: In terms of comparability both the Journeys program and the control classrooms, with the exception of the program-based activities, were similar. For example, vocabulary, phonics, independent reading and comprehension were equally emphasized in both types of classes. In addition, both types of classes incorporated interactive technology into their reading and language arts programs. Some differences were also noted, specifically treatment classes tended to more frequently engage in small group center activities on a regular basis and instruction that included more rigorous grammar lessons related to reading and language arts. Teachers at School E were equal in their drive and desire to provide a comprehensive reading and language arts program for the students and worked well as a cohesive team. No evidence of contamination was apparent.

Highlights: Classes at School E were quite comparable and included a mix of mostly on-level students with a few classes having a mix of abilities ranging on the lower or higher side, with one exception. One class was considered to be made up of lower performing students, however this class was significantly smaller than the average class sizes for other classrooms and allowed the teacher to spend more time working with each student, so while the class was lower, they were on pace with other classes at the school. Both control and treatment teachers at School E held themselves to a high standard of educational instruction and the administration was very supportive and hands on. No contamination was noted, though the structure of reading and language arts classes, whether treatment or control, was similar.

School F

About the Schools: School F is a medium sized public school located in a lower class, suburban neighborhood in Rhode Island. The school houses grades K-2 in a crowded, older building three blocks from the main campus, which houses grades 3-5. During the 2011-2012 school year, enrollment at School F was 215.

In 2011, Rhode Island used the New England Common Assessment Program (NECAP) to test students in 3rd grade in reading language arts. Of the 3rd graders who took the NECAP reading language arts test, 46% were proficient which is lower than the state average of 71%. The student population is relatively ethnically diverse:

- 33% White, not Hispanic
- 47% Hispanic
- 7% American Indian/Alaskan Native
- 12% Black, not Hispanic
- <1% Asian/Pacific Islander

Approximately 84% of the students at the school were eligible for free or reduced-price lunches. No data was available regarding number of students noted as Limited English Proficiency.

Study Participants: During year one, seven teachers participated in the study. There were two teachers at the kindergarten level, one treatment teacher with one participating half day study class (a.m.) and one control teacher who had two participating half day study classes (a.m. and p.m.), and three teachers at both the first and second grade level, with one control teacher and two treatment teachers for each grade (first and second). The nine classes contained approximately 212 students, with an average class size of 24, and a range of 21 to 25.

For the most part teachers characterized their classes as low or of mixed ability leaning towards the low side, with two exceptions. One treatment teacher had a class made up of students with a mix of abilities ranging towards average on-level students and another treatment teacher had a mix of abilities ranging towards high-level students. Of note, the three inclusion classes were spread across the control teachers. Overall classes were noted as typical of the student population at School F and behavioral problems, to some extent, were considered normal in most classes.

Technology was non-existent and did not occur in any of the treatment or control classrooms. This was due to the fact that teachers did not have access to technology and not because they did not want to utilize these types of resources.

Reading and Language Arts Curriculum and Resources: Control teachers used a mix of whatever resources they had collected over the years, both commercial and teacher made, for their reading and language arts program. There was not a commercial program in place at School F. Both control and treatment teachers followed the district curriculum map in order to structure the scope and sequence of their reading and language arts program, with treatment teachers

doing so within the organization of the Journeys program, that is, while they followed the district pacing map, they did so within the context of the Journeys scope and sequence.

There were a few similarities between the control program teachers created and the Journeys program. Similarities included opportunities for spelling practice, group and independent reading, vocabulary practice and phonics lessons. However, in general the Journeys program integrated more structure and writing to a larger degree than the control programs the teachers created. In addition, treatment teachers had very concise directions in terms of when and how to deliver reading and language arts lessons, while control teachers had to create and structure the lessons they taught based on what they considered necessary in order to follow the district curriculum map.

The majority of the teachers paced their classes (treatment and control) based on the curriculum map and student needs. However, for the most part treatment teachers followed the Journeys program and associated pacing. In treatment classes, teachers were observed following the Journeys program and mostly adhering to the implementation guidelines.

Instructional Practices and Strategies: Reading and language arts instruction occurred throughout the day depending on the teacher. Classes lasted for 60 to 120 minutes and occurred every day during the same time. All treatment students had sufficient copies of reading and language arts resources, while control students did not always have the amount of resources that the treatment students did. As indicated above, the technology resources at School F were non-existent and therefore unable to support online instruction or supplemental technology resources in reading and language arts classrooms.

Reading and language arts instruction in control classrooms was relatively consistent. Overall teachers would begin instruction with a whole class read aloud for 10-20 minutes, followed by site word and or vocabulary practice for 10-20 minutes. Next some type of independent reading activities or independent work in small groups occurred for 20-40 minutes. One control teacher also added centers and independent reading following the independent reading activities. The exception to this format was a control teacher who taught reading and language arts for 120 minutes each day and had a slightly different schedule than the other control teachers. This teacher started with a mini lesson followed by small group activities based on the mini lesson followed by the whole class read aloud, site word and vocabulary practice, etc. similar to the other control teachers. This control teacher also incorporated additional reading and language arts activities following the small groups, which included a language and grammar lesson, journal writing and sharing, and fluency. This teacher did not do reading centers.

In the treatment classrooms lessons were relatively similar, in part because most participating teachers followed the implementation guidelines and prescribed pacing and therefore the structure of the treatment lessons was similar, with a few exceptions. While the majority of the treatment teachers (3 out of 5) were high implementers (see Appendix C for a detailed description of implementation guidelines and lesson structure) and followed the implementation guidelines exactly, one teacher was a moderate implementer and one was a low implementer. The treatment teacher who moderately implemented the program skipped the “Your Turn” and “Making Connections” components of the Journeys program, but otherwise followed it as

prescribed. The treatment teacher who was a low implementer rarely used the following key components of the Journeys program: Words to Know, Vocabulary in Context Cards, Comprehension Strategies/Skills, Fluency, Deepen Comprehension, Paired Selection, Making Connections, Vocabulary Strategies, or Opening Routines. This teacher also rarely used the Stop and Think and Your Turn components of the Journeys program, which were also considered key parts of the program.

Homework: Homework was somewhat consistent between treatment and control classes, with a few exceptions. Both treatment and control teachers assigned homework four nights a week, Monday through Thursday. Homework across all teachers generally consisted of reading and word practice, which often included spelling or site words. One control teacher indicated that only word practice was assigned for homework and one treatment teacher indicated that only spelling was assigned for homework.

Assessment: In terms of assessment, control and treatment teachers were similar in some ways, but also had distinct differences. Specifically while both control and treatment teachers gave district prescribed diagnostic reading assessments and dictated sentence during the course of the year, the majority of treatment teachers also included Journeys chapter and unit tests, along with weekly spelling tests. There was one treatment teacher who used self-made quizzes for assessment purposes.

Comparability: In terms of comparability, the strategies and materials used in the control classrooms to teach reading and language arts, while encompassing some of the same concepts as the Journeys program, like reading, vocabulary, writing and phonics practice, was very different from the Journeys program in that there was no distinct structure or required consistency in terms of implementation, duration or delivery of strategies for the reading and language arts concepts being taught. As well, Journeys teachers were much more likely to incorporate writing and center activities on a more consistent basis than were control teachers. Journeys teachers were also more likely to introduce more advanced grammatical concepts earlier in the school year than their control counterparts. Journeys teachers also assessed their students more often and in greater variety of ways than did the control teachers. Because of technological constraints at the school, technology activities were not emphasized in either the control or treatment classrooms.

Highlights: Overall the school climate was one of uncertainty given planned changes in the district in terms of school closures. Unfortunately, teachers and administrators were only aware that changes would occur, but not when and how. As a result, this tended to create tension within the school climate which took some focus off of teaching and classroom/lesson structure. As well, academic expectations in reading and language arts were relatively low and the majority of the student population was just at or below average compared to other schools in the study. Because students were grouped by ELL status, instructional techniques varied slightly between teachers, and different teachers handled the behavioral responses of their students differently. No contamination was noted.

Appendix E:

Key Features and Resources for Treatment and Control Programs

Table D1. Program Features and Pedagogy of Treatment and Control Programs

	Journeys	Control Program 1: (2001, 2003, 2006)	Control Program 2: (2002)	Control Program 3: (2003)	Control Program 4: (2000)	Control Program 5: (2003)	Control program 6 (2003, 2006)
Key Program Features and Pedagogy	<ul style="list-style-type: none"> ▪ Aligned to Common Core Standards ▪ “Big Ideas” and “Essential Question” serve as the overarching concept for each lesson. ▪ Integrates 5 Reading Strategies: Fluency, phonics, phonemic awareness, reading comprehension, vocabulary ▪ Series of Leveled Readers leveled by Irene Fountas ▪ Decodable and vocabulary readers for additional reading selections ▪ 21st Century learning connections are emphasized ▪ Organized into 6 themed units, each with 5 lessons ▪ Lessons typically consist of the following elements: <ul style="list-style-type: none"> ○ Daily opening routines. ○ Engaging main story selections ○ Paired selection non-fiction/informational text ○ Vocabulary development ○ Sight word integration ○ Small Group Lessons ○ Comprehensive Spelling, Grammar and Writing activities ○ Diagnostic, formative and summative assessment opportunities 	<ul style="list-style-type: none"> ▪ Integrates Fluency, phonemic awareness, phonics, reading comprehension and vocabulary ▪ Leveled Readers ▪ Big books and decodable readers ▪ Organized into theme units ▪ Lessons typically consist of the following elements: <ul style="list-style-type: none"> ○ Daily opening routines ○ Main story selections ○ Vocabulary development ○ High frequency words ○ Small group resources ○ Spelling, writing and grammar activities ○ Diagnostic and ongoing informal assessments 	<ul style="list-style-type: none"> ○ Integrates Fluency, phonics, phonemic awareness and vocabulary ○ Emphasizes handwriting and letter formation ○ Lessons typically consist of the following: <ul style="list-style-type: none"> ○ Letter-keyword-sound activities ○ Word sounds ○ Word work 	<ul style="list-style-type: none"> ▪ Integrates reading comprehension ▪ Lessons typically consist of the following elements: <ul style="list-style-type: none"> ○ Spelling instruction ○ Writing instruction ○ Reading instruction 	<ul style="list-style-type: none"> ▪ Integrates Fluency, phonics, reading comprehension and vocabulary ▪ Leveled Readers ▪ Take home readers ▪ Organized into theme units ▪ Lessons typically consist of the following elements: <ul style="list-style-type: none"> ○ Main story selections ○ Spelling, grammar and writing activities ○ Cross curricular connections ○ Formal and informal assessments 	<ul style="list-style-type: none"> ▪ Integrates Fluency, phonics, phonemic awareness, and reading comprehension ▪ Leveled readers ▪ Decodable books ▪ Organized around themed units ▪ Lessons typically consist of the following elements: <ul style="list-style-type: none"> ○ Main story selections ○ Phonics and spelling ○ Writing and grammar activities ○ Daily language activities ○ Resources for small group instruction ○ Cross curricular connections 	<ul style="list-style-type: none"> ▪ Integrates fluency, phonics, reading comprehension and vocabulary ▪ Emphasis on handwriting practice at primary levels ▪ Lessons at primary levels consist of the following: <ul style="list-style-type: none"> ○ Shared story ○ Main Story ○ Language arts activities ○ Writing activities ▪ Lessons at secondary levels consist of the following: <ul style="list-style-type: none"> ○ Vocabulary ○ Writing activities ○ Fluency practice ○ Trade books ○ Response to literature

Table D2. Program Resources of Treatment and Control Programs

	Journeys	Control Program 1: (2001, 2003, 2006)	Control Program 2: (2002)	Control Program 3: (2003)	Control Program 4: (2000)	Control Program 5: (2003)	Control program 6 (2003, 2006)
Program Resources	<p><u>Student Resources</u></p> <ul style="list-style-type: none"> ▪ Student Editions ▪ Leveled Readers <p><u>Teacher Resources</u></p> <ul style="list-style-type: none"> ▪ Teacher’s Edition ▪ Grab n Go Blackline Masters and Additional Resources ▪ Decodable Reader Stories ▪ Vocabulary Reader ▪ Read Aloud Book (K) ▪ Big Book (K - 1) ▪ Interactive Instructional Flip Chart (K) ▪ Ready Made Work Stations ▪ Leveled Practice Book ▪ Vocabulary in Context Cards ▪ Focus Wall poster ▪ Progress Monitoring Assessments ▪ Benchmark Tests and Unit Tests (1-3) ▪ Diagnostic Assessment (1-3) ▪ Comprehensive Literacy Guide ▪ Language Support Cards ▪ Student Book Audio Text CD (1-3) ▪ Instructional Card Kit (1-3) ▪ Reading Tool Kit (1-3) ▪ ExamView CDROM (1-3) <p><u>Digital Resources</u></p> <ul style="list-style-type: none"> ▪ Student & Teacher Edition ▪ Teacher One-Stop ▪ Assessment Resources ▪ Phonemic Awareness/Phonics Activities ▪ Leveled Readers Online 	<ul style="list-style-type: none"> ▪ Teachers Guide ▪ Student edition ▪ Leveled readers ▪ Decodable Readers 	<ul style="list-style-type: none"> ▪ Teachers Editions 	<ul style="list-style-type: none"> ▪ Teachers Edition 	<ul style="list-style-type: none"> ▪ Teachers Editions ▪ Student Edition ▪ Leveled readers 	<ul style="list-style-type: none"> ▪ Teacher Editions ▪ Student Edition ▪ Leveled readers ▪ Decodable book 	<ul style="list-style-type: none"> ▪ Teachers edition ▪ Student trade books

*The program resources listed for control programs were noted by teachers as having access to. In addition, control teachers may have incorporated other program materials (other than the primary program).

Appendix F:

Use of Journeys Resources

Table F1. Percent of Usage of Key Journeys Program Components

	Did not do for any lessons	Rarely (only did for a few lessons)	Some (did for about 50% of the lessons)	Often (did for about 75% of the lessons)	All or almost all lessons
Opening Routines:DAY 1	2.0%	5.9%	6.4%	14.8%	70.9%
Teacher Read Aloud:DAY 1	3.0%	3.0%	4.9%	13.8%	75.4%
Words to Know/Vocabulary:DAY 1	3.4%	1.5%	5.9%	9.9%	79.3%
Vocabulary in Context Cards:DAY 1	3.9%	2.0%	8.4%	11.3%	74.4%
Phonemic Awareness/Phonics/Letter Naming (K):DAY 1	10.4%	5.4%	9.9%	15.3%	58.9%
Opening Routines:DAY 2	2.0%	5.4%	6.4%	15.8%	70.3%
Phonemic Awareness/Phonics/Letter Naming (K):DAY 2	11.4%	4.5%	10.9%	17.8%	55.4%
Develop Background:DAY 2	2.0%	2.0%	9.9%	33.5%	52.7%
Comprehension Skills/Strategies:DAY 2	2.0%	1.0%	8.4%	27.6%	61.1%
Main Selection Story:DAY 2	2.0%	1.0%	0.5%	15.3%	81.3%
Develop Comprehension:DAY 2	2.5%	0.5%	6.9%	28.1%	62.1%
Stop and Think:DAY 2	5.5%	9.0%	14.1%	31.7%	39.7%
Your Turn:DAY 2	6.4%	13.9%	29.7%	27.2%	22.8%
Opening Routines:DAY 3	3.4%	4.9%	5.4%	15.8%	70.4%
Phonemic Awareness/Phonics/Letter Naming (K):DAY 3	12.4%	5.4%	8.4%	16.8%	56.9%
Fluency:DAY 3	3.9%	7.9%	24.1%	26.6%	37.4%
Deepen Comprehension:DAY 3	3.4%	4.4%	17.2%	30.5%	44.3%
Opening Routines:DAY 4	2.0%	5.9%	6.4%	15.3%	70.4%
Phonemic Awareness/Phonics/Letter Naming (K):DAY 4	11.9%	5.0%	11.4%	13.9%	57.9%
Paired Selections:DAY 4	5.0%	4.0%	16.8%	26.7%	47.5%
Making Connections:DAY 4	4.4%	8.4%	14.3%	32.5%	40.4%
Vocabulary Strategies:DAY 4	3.0%	4.4%	13.8%	28.6%	50.2%
Opening Routines:DAY 5	3.0%	7.4%	6.9%	14.3%	68.5%
Connect and Extent:DAY 5	15.3%	24.6%	31.0%	11.8%	17.2%
Assessment:DAY 5	17.2%	4.9%	13.8%	10.3%	53.7%
Leveled Readers	6.4%	4.9%	15.8%	15.8%	57.1%
Vocabulary Readers	11.8%	6.4%	23.6%	17.2%	40.9%
Decodable Readers	7.4%	4.9%	17.7%	22.7%	47.3%
Ready Made Workstations	44.8%	23.6%	16.7%	7.4%	7.4%
Leveled Practice (from Grab & Go)	26.1%	14.8%	16.7%	17.2%	25.1%
Audio books (i.e., listening station)	59.1%	9.4%	11.3%	8.4%	11.8%
Journeys grammar or writing center	30.8%	17.4%	19.9%	20.4%	11.4%

*% reflects reported usage on monthly logs.

Table F2. Percent of Usage of Additional Journeys Program Components

	Percent Used*
Unit Benchmark Assessments	39.8%
Weekly Assessments included in the Grab and Go Kit	54.4%
Running Records included in the Grab and Go Kit	17.5%
Emerging Literacy Survey	5.3%
Diagnostic Assessment	4.4%
Comprehensive Screening Assessment	3.9%
Comprehensive Language and Literacy Guide	10.2%
Journeys Write in Reader	25.2%
Curious About Words	6.8%
Reading Tool Kit	21.8%
Language Support Card	25.7%
ELL Leveled Reader	24.8%
Scaffolded Support	16.0%
Vocabulary in Context Cards	73.8%
Journeys Online Companion (used at least once)	98.1%

* Percent reflects % of teachers reporting use of component at least once (on monthly logs)

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