## Fundations® Overview and **Studies of Program Effectiveness**



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## Program Overview

Wilson Fundations provides all students in K-3 classrooms with a systematic program in the foundational skills for reading and spelling, emphasizing phonemic awareness, phonics-word study, high frequency word study, fluency, vocabulary, handwriting, and spelling. Although it includes comprehension strategies, it must be combined with a core/literature-based language arts program for an integrated and very comprehensive approach to reading and spelling.

The power of this supplemental program is that it uses an integrated approach to teaching skills so that a daily lesson teaches and then reinforces corresponding skills. Fundations is a multisensory, structured, systematic, cumulative, and explicit program with a clear and thoroughly documented research basis. The program focuses on student development by differentiating instruction, and actively engaging students in their learning.

Fundations is integral to a multi-tiered systems of support (MTSS) model, providing scientifically based instruction in Tier 1 as well as an early intervention program for students at risk for reading difficulties. MTSS is a prevention-based model that acknowledges the diversity of reasons for why a child might struggle to learn, with a specific learning disability being only one of several possible causes. The use of an MTSS model allows educators to identify and intervene early to prevent students from developing more invasive reading deficits, and helps to more accurately identify those students who struggle to learn as a result of a specific learning disability (Fletcher & Vaughn, 2009). The overall goal is to prevent the domino effect of children developing weaknesses in foundational skills that over time give rise to deficits in higher-level reading skills, such as the comprehension of complex text.

To aid in the implementation of an MTSS model, progress monitoring is built into Fundations. This allows students requiring a more intensive program to be identified early before undergoing years of struggle.

The Second Edition of Fundations was published in the summer of 2012. This edition includes all of the successful components of the First Edition with significant updates to specifically address college- and career-readiness standards, including the Common Core State Standards (CCSS). It provides specific, measurable learning objectives which are aligned to the CCSS.

#### **Fundations Implementation**

## Tier 1: Supplemental instruction for universal instruction (general education)

Fundations provides all students with a strong, evidence-based foundation in reading and spelling skills.

- It is delivered to all students in the general education classroom for 30 minutes per day as a supplemental program or the word study block to the core literacy program.
- Fundations is universally designed to serve all students in the regular education classroom. The standard lesson plan is accessible to all students because the concepts are taught and practiced in ways that integrate multiple learning modalities.
- The lesson is flexible in that teachers select specific words to teach based upon the needs of the students in their classrooms.
- Specific guidelines are provided to address the needs of advanced students, English Language Learners (ELL), and struggling students who may need differentiated support.

#### Tier 2: Intervention

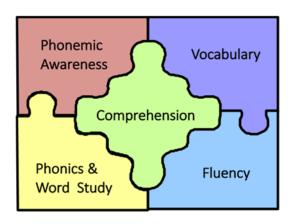
For at-risk students in need of strategic intervention, Fundations is conducted in a small group setting by the classroom teacher and/or interventionist.

- If Fundations is already provided in a Tier 1, whole-class setting, this strategic intervention consists of targeted lessons in a small group for an additional 30 minutes, 3-5 times per week.
- In schools using Fundations in Tier 2 only, the Fundations standard lesson must be scheduled 5 days per week, 30 minutes each time, in small groups. The additional intervention (targeted) lessons should then be scheduled as determined by progress monitoring.

# Scientific Basis

At Wilson, we align the content of our reading programs to the science of reading. We do so because this helps to ensure the success of the educators using Wilson programs to teach individuals with diverse learning abilities to read.

Figure 1. Five Components of Reading



As depicted in Figure 1, reading is the intersection of five critical components: phonemic awareness and phonics (also referred to as alphabetics), fluency, vocabulary, and comprehension. These skills are specified in the Common Core State Standards (National Governors Association Center for Best Practices and Council of Chief State School Officers, 2010), a

recent review of the research on adult and adolescent literacy instruction published by the National Institute for Literacy (Kruidenier, MacArthur, & Wrigley, 2010) and the report of the National Reading Panel (National Institute of Child Health & Human Development (NICHD), 2000). The scientific evidence reviewed in these and other documents reveal that focusing on some of these skills while neglecting others is insufficient to teach reading (Stuebing, Barth, Cirino, Francis, & Fletcher, 2008). Rather, all children should receive direct, systematic instruction in phonemic awareness, phonics, fluency, vocabulary and reading comprehension during grades K-3.

These skills form the foundation upon which the higher-level reading skills critical to success in college and the workforce are built. Without an ability to fluently pull print from the page and comprehend it, students lack the requisite skills to comprehend complex text, one of the best predictors of college success (ACT, Inc., 2006). It is because of the solid scientific evidence confirming direct instruction in the foundational skills of reading that we incorporated them into Wilson Fundations.

## Studies of Program Effectiveness

Since the publication of Fundations, several impact and efficacy studies have been performed in schools across the United States. The consensus across these studies is that, when implemented properly, students using Fundations achieve greater gains in foundational literacy skills compared to students using programs previously implemented by the schools. The section that follows summarizes the results of these studies.

### STUDY OF IMPLEMENTATION AT TIER 1: IMPACT STUDY IN SCHOOL DISTRICT OF INDIAN RIVER COUNTY, FL

The School District of Indian River County, Florida, partnered with Wilson Language Training (WLT) to implement Fundations with fidelity and sustainability in 11 elementary schools. In these locations, Fundations was implemented as the foundational skills component of the total literacy plan. To gauge the effect of Fundations on student outcomes, the school district undertook an impact study, contrasting the gains in literacy skills made by kindergarten and first grade students using Fundations to the gains made by kindergarten and first grade students prior to the implementation of Fundations. On average, kindergarten and first grade students made greater gains in literacy skills when Fundations was being used as the foundational skills program.

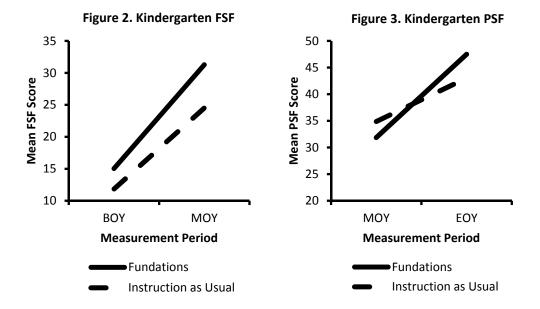
#### Addressing the needs of kindergarten students

Student outcome data from a total of 3,115 kindergarten students were included in this impact study. Of these students, 1,584 attended kindergarten prior to the implementation of Fundations and received a different program for foundational literacy skills (i.e., instruction as usual). The remaining 1,700 kindergarten students attended the 11 schools after the adoption of Fundations and received foundational literacy skills instruction using Fundations.

As depicted in Figure 2, kindergarten students who received Fundations instruction made larger gains in the DIBELS First Sound Fluency (FSF) measure from the beginning of the school year (BOY) to the middle of the year (MOY). The DIBELS First Sound Fluency measure is not administered at the end of the year. On average, students receiving Fundations gained 16 points, whereas students who did not receive Fundations gained 12 points. In addition, while the average FSF score for both groups was above benchmark at the beginning of the year, students using Fundations were able to maintain benchmark during the year. By the middle of the year, the average FSF score of students who received

Fundations instruction was still above benchmark, whereas the average FSF score of students who did not receive Fundations instruction fell below benchmark.

As illustrated in Figure 3, students who received instruction using Fundations also made larger gains in the DIBELS Phoneme Segmentation Fluency (PSF) measure from the middle to end of the school year (EOY), gaining on average 16 points. In contrast, students who did not receive Fundations instruction gained only 8 points on average.



#### Addressing the needs of first grade students

Student outcome data from 2,720 first grade students were also included in the impact study. Of these students, 1,460 attended first grade prior to the adoption of Fundations and received a different program for foundational literacy skills. The remaining 1,260 first grade students attended the 11 schools after the implementation of Fundations and received foundational literacy skills instruction using Fundations.

As depicted in Figure 4, first grade students who received Fundations instruction made larger gains from the middle to the end of the school year in the number of words they correctly read on the DIBELS Oral Reading Fluency (ORF) measure.

Compared to the middle of the year,
Fundations students read, on average, 23
more words correctly at the end of the year.
In contrast, students who did not receive
Fundations only read 18 additional words
correctly.

### Addressing the needs of kindergarten English Language Learners

The School District of Indian River County provides instruction to ELL students, allowing for a contrast to be made between the gains in literacy skills obtained by ELL students who did and did not receive Fundations instruction. In kindergarten, there were 93 ELL students who did not receive Fundations instruction and 301 ELL students who did.

As illustrated in Figure 5, ELL students who received Fundations instruction made greater gain in FSF relative to ELL students who received instruction as usual. ELL students who received Fundations instruction gained 19 points from the beginning to the middle of the year. In contrast, students who did not receive Fundations instruction gained 9 points.

### Addressing the needs of first grade English Language Learners

There were 31 first-grade ELL students who did not receive Fundations instruction and 265 who did. As depicted in Figure 6, ELL students who received Fundations instruction made greater gains from the middle to the end of the year in the numbers

Figure 4. 1st Grade ORF

65
60
55
45
40
35
MOY EOY
Measurement Period
Fundations
Instruction as Usual

Figure 5. ELL Kindergarten FSF

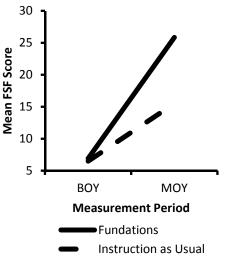
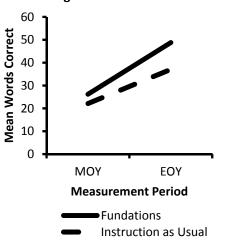


Figure 6. First Grade ELL ORF



of words they could correctly read on the DIBELS ORF measure. On average, Fundations students correctly read an additional 23 words at the end of the year. In contrast, students who did not receive Fundations only read an additional 15 words correctly.

#### STUDY OF IMPLEMENTATION AT TIERS 1 & 2:

#### URBAN ELEMENTARY SCHOOL, BROOKLYN, NY-RESPONSE TO INTERVENTION FRAMEWORK INITIATIVE, NYC DEPARTMENT OF **EDUCATION**

Working closely with the NYC Department of Education, Office of Special Education Initiatives, an RTI framework was established at an urban elementary school as a city-wide pilot initiative to improve student outcomes, reduce unnecessary referrals to special education, and to improve data-based decision making to inform instruction.

Fundations was implemented as the evidence-based program in Tiers 1 and 2. All students in grades K-3 received daily instruction in Fundations in the Tier 1 general education classroom. Students identified for Tier 2 instruction received Fundations Double Dose instruction (at least 3 sessions weekly in small groups of 3-6 students).

To ensure successful implementation, all teachers were provided Fundations training that included workshops and coaching by Wilson trainers. During the initial year of implementation, the school performed an efficacy study to characterize the gains made by kindergarten and first grade students receiving Fundations.

#### **Outcomes**

Figures 10 to 13 present kindergarten and first grade student performance data on the DIBELS Phoneme Segmentation Fluency

Figure 10. Kindergarten PSF

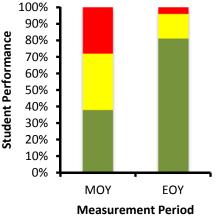
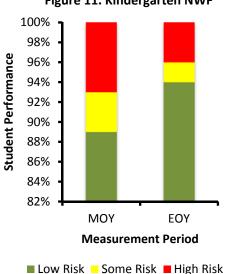
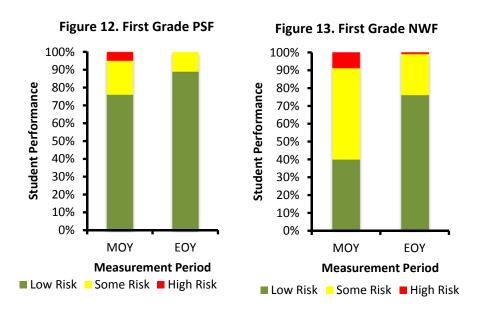


Figure 11. Kindergarten NWF



(PSF) and Nonsense Word Fluency (NWF) measures obtained during Year 1 of Fundations' implementation. From the middle to the end of the year, students who were at risk for future reading deficits made substantial gains, with the majority of these students no longer classified as at risk by the end of the year.



Additionally, the gains achieved by the students during the initial year of implementation were sustained. As evidenced in Figure 14, after three years of implementation, there was improvement in student performance in grade 3 based on the 2008-2009 New York State ELA Assessment when compared to the year prior to the implementation of Fundations (i.e., 2005-2006). In 2009, no students were at Level 1 (not meeting learning standards) compared to 7.8% of 3rd graders in 2005-2006. There was also a 7% increase in the number of students in grade 3 scoring at Levels 3 & 4 (meeting learning standards, Level 3; and meeting learning standards with distinction, Level 4).

Figure 14. Student performance after three year of Fundations implementation

Urban Elementary School, NYC, Grade 3 End of Year ELA Performance

	Level 1	Level 2	Level 3	Level 4	Level 3 & 4			
0 yrs of Fundations (2005-2006)	7.8	7.8	72.5	11.8	84.3			
3 yrs of Fundations (2008-2009)	0	8.6	72.9	18.6	91.4			
Level 1: Not meeting learning standards Level 3: Meeting learning standards			Level 2: Partially meeting learning standards Level 4: Meeting learning standards with distinction					

Due to the success of the pilot schools working with the NYC Department of Education, RTI expanded to 29 more schools throughout the city. In fall 2009, the school was selected as a National Blue Ribbon School.

## STUDY OF IMPLEMENTATION AT TIERS 1 & 2: SMALL TOWN ELEMENTARY SCHOOL, NORTHEAST, US

An elementary school located in a small town in the northeastern United States adopted Fundations as the phonics and spelling component of its ELA block in general education kindergarten classrooms. In addition, the school adopted Fundations for use with students identified as "at-risk" for reading failure who were placed in an intensive reading and writing classroom. The school assessed the effect of Fundations on the success of these students in a pair of studies.

#### Meeting student needs in the general education classroom (Tier 1)

To assess the success of Fundations in meeting the needs of their general education kindergarten students, the school conducted an impact study. It randomly assigned 17 kindergarten students to receive Fundations Level K, and 17 kindergarten students to receive instruction as usual. End-of-year DIBELS scores were compared between the two groups of students. Relative to students in the instruction-as-usual condition, a larger percentage of students in the Fundations condition scored at or above benchmark on the Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), and Nonword Fluency (NWF) measures of DIBELS as illustrated in Figure 8.

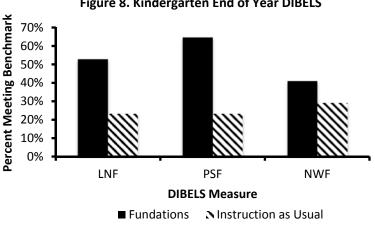


Figure 8. Kindergarten End of Year DIBELS

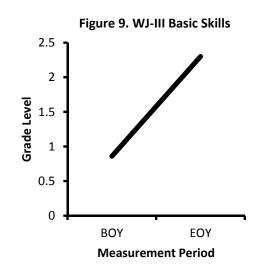
#### Meeting the needs of at-risk students (Tier 2)

First grade students identified as "at-risk" for reading failure were placed in an intensive reading and writing classroom, receiving Fundations as their primary decoding and spelling program. An efficacy study of Fundations was performed, and student data were collected at the beginning and end of the school year using the Woodcock Johnson III.

As illustrated in Figure 9, students made significant gains in their Basic Reading

Skills from the beginning to the end of the school year, gaining on average 1.4 grade levels. By the end of first grade, 16 out of 18 students had Basic Reading Skills at or above grade level.

Additionally, 15 out of 18 students had scored at or above benchmark on the end-of-year DIBELS Phoneme
Segmentation Fluency and Nonsense
Word Fluency measures.



# PROGRAM REVIEW BY FLORIDA CENTER FOR READING RESEARCH (FCRR)

Fundations was reviewed by the FCRR research committee. Under the direction of Dr. Joseph Torgesen, this center was one of three national technical assistance centers to support the implementation of research-based reading instruction. FCRR's report outlines how Fundations is aligned with research and lists the strengths and weaknesses. No weaknesses were noted.

Below is a summary from the report, which can be found at www.fcrr.org.

#### Strengths of the Fundations Program

- Fundations is highly systematic, both within lessons and across lessons.
- Fundations is derived from research that has been proven to be successful with a wide variety of learners.
- Multisensory methods are employed in teaching children sounds, their representative letters, and their combination into words, phrases, and sentences.

- Students learn a variety of techniques to analyze multisyllabic and unknown words, and words with spelling options.
- Frequent practice and review builds mastery in students.
- Fundations can be taught in a 1:1 setting, a small group, or to a whole class, and can be used for preventative, intervention, or immediate, intensive intervention purposes.
- Many lesson activities and games are geared toward whole class or group participation.
- Materials are very teacher-friendly, and the Wilson Learning Community
  gives excellent demonstrations of each of the teaching activity types used
  in the program. A teacher can thus review each technique as needed

#### Weaknesses of Fundations

None were noted

The FCRR summary rating for the Fundations program is as follows:

			Reading Components				
Program	Type of Program	Grade Reviewed	Phonemic Awareness	Phonics	Fluency	Vocab	Comprehension
Fundations	Supplemental or Intervention Program	K-3	+++	+++	+++	+++	++

#### Key

- some aspects of this component taught and/or practiced
- ++ most aspects of this component taught and/or practiced
- +++ all aspects of this component taught and/or practiced
- n/a Not Addressed in this program. In other words, this element of reading is not a goal of this program.

#### References

ACT, Inc. (2006). Reading between the lines: What the ACT reveals about college readiness in reading. Iowa City, IA: Author.

Fletcher, J. M., & Vaughn, S. (2009). Response to intervention: Preventing and remediating academic difficulties. *Child Development Perspectives, 3*(1), 30-37.

Kruidenier, J. R., MacArthur, C. A., & Wrigley, H. S. (2010). *Adult education literacy instruction: A review of the research*. Washington, DC: National Institute for Literacy.

National Governors Association Center for Best Practices and Council of Chief State School Officers. (2010). Common Core State Standards: Standards for English language arts & literacy in history/social studies, science, and technical subjects. Washington, DC: Author. Retrieved from http://www.corestandards.org/assets/CCSSI\_ELAStandards.pdf

National Institute of Child Health & Human Development (NICHD). (2000).

Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. (NIH Publication No. 004769). Washington, DC: U. S. Government Printing Office.

Stuebing, K. K., Barth, A. E., Cirino, P. T., Francis, D. J., & Fletcher, J. M. (2008). A response to recent reanalyses of the National Reading Panel Report: Effects of systematic phonics instruction are practically significant. *Journal of Educational Psychology*, 100(1), 123-134.