

**An Evaluation of the Intensive Phonics Program at  
Iron Springs Elementary School**

**Year Three Report**

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and  
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## Introduction

In the summer of 2006, Iron School District, in partnership with the Utah State Office of Education, awarded the Institute for Behavioral Research in Creativity (IBRIC) a contract to evaluate the implementation and impact of the Intensive Phonics program at Iron Springs Elementary School. The evaluation has taken place over a three-year period, with reports produced after each of the three project years. The present report covers the project through year three (school year 2008-2009) and builds on the earlier reports with documentation of results from criterion-referenced tests (CRTs) as of the spring of 2009 and norm-referenced tests as of the fall of 2009. It was the judgment of the authors that project-year one findings should be taken as tentative information, since the school was in the process of implementing the system and training teachers for much of that school year. Last year's report (Nelson, Fox, and Haslam, 2008) and this final report reflect the impact of the fully implemented Intensive Phonics program.

The findings reported in this document cover the results from administrations of the state Language Arts CRTs each spring, 2005 through 2009. Norm-referenced test results are also reported. Further, the report examines student attitudes toward reading plus teacher attitudes about the training conducted and other aspects of the program.

Intensive Phonics (Full title: *Discover Intensive Phonics for Yourself*) was developed initially for use with adults who lacked reading skills. Subsequently, curriculum materials and related courseware were prepared for a wider range of ages. The program focuses on decoding skills; students are instructed in marking words using specific rules to determine how the words should be pronounced. The phonics aspect of both reading and spelling are included in the program.

## Literature Review

At a general level, the importance of phonics instruction is indisputable. Ehri, Nunes, Stahl, and Willows (2001), concluded the following from a meta-evaluation of phonetics instruction:

A quantitative meta-analysis evaluating the effects of systematic phonics instruction compared to unsystematic or no-phonics instruction on learning to read was conducted using 66 treatment-control comparisons derived from 38 experiments. The overall effect of phonics instruction on reading was moderate,  $d = 0.41$ . Effects persisted after instruction ended. Effects were larger when phonics instruction began early ( $d = 0.55$ ) than after first grade ( $d = 0.27$ ). Phonics benefited decoding, word reading, text comprehension, and spelling in many readers. Phonics helped low and middle SES readers, younger students at risk for reading disability (RD), and older students with RD, but it did not help low achieving readers that included students with cognitive limitations. Synthetic phonics and larger-unit systematic phonics programs produced a similar advantage in reading. Delivering instruction to small groups and classes was not less effective than tutoring. Systematic phonics instruction helped children learn to read better than all forms of control group instruction, including whole language. In sum, systematic phonics instruction proved effective and should be implemented as part of literacy programs to teach beginning reading as well as to prevent and remediate reading difficulties. [p. 393]

### *Evaluations of Intensive Phonics*

However beneficial phonics instruction might be on a general level, an exhaustive search of the national literature on studies of specific reading programs revealed no substantial evaluations of the Intensive Phonics program. The program's publisher lists several small case studies on its website ([www.readinghorizons.com/](http://www.readinghorizons.com/research) research). None of these small studies is a thorough evaluation, and many are several years old. Slavin, Lake, Chambers, Cheung, and Davis (2009), in a broad overview of evaluations of early reading programs, also found no thorough empirical evaluations of Intensive Phonics. In

fact, Slavin, et al, found an extraordinary dearth of evidence for numerous popular reading programs.

As part of its effort to help schools prepare for the federal Reading First Program, the Florida Center for Reading Research ([www.fcrr.org](http://www.fcrr.org)) accomplished a content analysis of Intensive Phonics. This analysis is rather thorough, and the full report is included in this report as Appendix A.

The Florida Center for Reading Research came to the same conclusion as the present authors concerning the absence of empirical studies on the program:

There are several implementation trials of *Discover Intensive Phonics for Yourself*; the absence of randomized control groups and statistical information however, make it impossible to draw a conclusive statement about the efficacy of the program. Although phonics instruction used within the program is consistent with findings reported by the National Reading Panel (2000), future studies with sound experimental designs including control groups may determine the efficacy of *Discover Intensive Phonics for Yourself* in the classroom. [Florida Center for Reading Research, 2007]

The FCRR analysis concludes with a summary of the Intensive Phonics program strengths from the point of view of the FCRR authors:

- The design of the program enables teachers to strengthen their understanding of the underlying phonetic structure of our language.
- Instruction is explicit, systematic, and builds cumulatively, progressing from simpler skills to more complex.
- Through the use of simple diacritical markings, students learn to decode one syllable and multisyllabic words by analyzing the internal structure of the word.
- Once a strong foundation of most common sounds and spelling patterns has been built, students are taught to be flexible when decoding words with variant vowel spelling patterns and with variant pronunciations.
- The speech to print connection is reinforced by listening, seeing, saying, and then printing the letter, letter patterns, and/or words.

- Instruction is highly interactive and multisensory, which can increase student motivation and time on task.
- Materials are organized, highly detailed, and teacher friendly. [Florida Center for Reading Research, 2007]

### ***Intensive Phonics Use in Utah***

Over the last two decades there have been several examples of Utah schools or individual teachers using aspects of Intensive Phonics. Unfortunately, none of these efforts is well documented, and in no case was a thorough evaluation of the program accomplished. The Iron Springs program implementation and this evaluation appear to be the only truly systematic effort to evaluate Intensive Phonics conducted in Utah or nationally.

The program publisher currently has a working agreement with the University of Utah to provide a brief workshop on the program for teachers who wish to be trained.

## **Program Implementation as of 2009**

The purpose of this study was to evaluate the implementation of and outcomes related to the Intensive Phonics program at Iron Springs Elementary School in Utah. Iron Springs is using the program with students at kindergarten through grade three, with multiple teachers at each grade level.

Iron Springs is a relatively new school, having opened in the fall of 2006. In addition to the expected teaching and administrative staff, the school has the services of a staff developer who focuses on reading.

The school began installation of the program in summer/fall of 2006. Several teachers on the staff had some previous exposure to the Intensive Phonics program in other schools, as did the staff developer. Initially, teachers at grades kindergarten through three received several days of in-service training in the use of the Intensive Phonics program; additional in-service training was delivered as the implementation proceeded. The school uses Harcourt-Brace as a basal reading text at grades one through three.

## **Method**

### ***Measurement Strategies and Experimental Design***

As described in Table 1, IBRIC used numerous types and sources of information over the full course of this evaluation. Included was a variety of test information housed at the State Office of Education, such as the Utah Core Criterion-Referenced Test results in reading at grades one through three and norm-referenced test scores.

The experimental design employed in the study had several dimensions. The first featured an examination of the performance of the experimental school versus the performance of a control school matched on relevant demographics (e.g., SES elements and a similar suburban location). In addition, the experimental school served as its own control as IBRIC examined performance at several points in time.

The central concepts found in the research on scientifically-based reading instruction guided the creation of teacher surveys used in the study. IBRIC's central role in the development of the Profile of Scientifically-Based Reading Instruction for the primary grades and the proprietary use of the two levels of that instrument were key and unique aspects of this study. Another key measurement device used in the study was the Elementary Reading Attitudes Survey. This instrument was administered to students at grades one through three four times over the course of the study. Included were administrations in the fall of 2006 and spring of 2007, 2008, and 2009.

### ***Description of Experimental and Control Schools***

Table 2 describes the two schools involved in the program evaluation. This profile shows that the experimental school and its control were well matched in terms of the total number of students enrolled (school size) and the percentage of students

Table 1

**Sources of Measurement Information for the Iron Springs Intensive  
Phonics Program Evaluation**

<p><b>Outcomes</b></p>	<ul style="list-style-type: none"> <li>▪ USOE-Administered Norm-Referenced Tests (ITBS)</li> <li>▪ USOE-Administered Criterion-Referenced Tests in Reading and Language Arts</li> <li>▪ Other USOE Data Warehouse information</li> <li>▪ Custom IBRIC-developed surveys for:             <ul style="list-style-type: none"> <li>- Teachers</li> <li>- Students</li> </ul> </li> <li>▪ Interview data</li> </ul>
<p><b>Implementation</b></p>	<ul style="list-style-type: none"> <li>▪ IBRIC Proprietary Measurement Instruments             <ul style="list-style-type: none"> <li>- Profile of Scientifically-Based Reading Instruction</li> <li>- Staff Developer Reading Strategy Description Forms</li> <li>- Teacher Reading Program Description and Feedback Form</li> </ul> </li> <li>▪ Custom developed surveys for:             <ul style="list-style-type: none"> <li>- Teachers</li> <li>- Students</li> </ul> </li> <li>▪ Interview data</li> </ul>
<p><b>SES and Demographic Data</b></p>	<ul style="list-style-type: none"> <li>▪ USOE Data Warehouse and other USOE sources</li> </ul>

Table 2

**Demographic Characteristics of Iron Springs Elementary and the Control School at the Beginning of the Project**

<b>School</b>	<b>Total Enrollment for October 2006</b>	<b>Percentage of Total Enrollment Qualifying for Free and Reduced Lunch</b>
Iron Springs Elementary	496	39.2%
Control Elementary School	580	35.2%

participating in the free or reduced lunch program (a measure of SES). The two schools also exist in similar suburban neighborhoods, although in different Utah school districts.

## **Results**

### ***Overall Proficiency Results on State Language Arts CRTs***

Tables 3-5 present Language Arts CRT results in terms of the percentage of students attaining an overall score at the “proficient” level. Results are shown for students at Iron Springs, the matched control school, and Iron District, plus all state test takers. Table 3 presents grade one results from spring 2007. Iron Springs first graders substantially outperformed the control school in terms of the percentage of students achieving proficiency. The Iron Springs results were comparable to those of the entire Iron District and were better than those achieved by first graders statewide. Unfortunately, Utah dropped the grade one CRT for 2008 and beyond.

Table 4 shows that second graders in the control school outperformed their peers at Iron Springs in 2007. Both Iron Springs and the control school underperformed Iron District and the state as a whole at grade two. Grade two scores for 2008 show a marked increase for Iron Springs, while the control declined. Scores for both increased in 2009, with the control school again higher than Iron Springs.

Table 5 shows that Iron Springs third graders had a slightly higher percentage of students scoring at the overall proficient level than did the control in both 2007 and 2008, and that, although on par with the state as a whole, the two schools under-performed Iron District both years. In 2009, Iron Springs third graders performed at much higher levels than the control school, Iron district, and the state.

### ***Experimental Versus Control Comparisons on State Language Arts CRTs***

Table 6 provides results of tests for differences between Iron Springs and the matched control school in terms of the average percent correct obtained by students of

Table 3

**Percent Proficient on the State Language Arts CRT  
Grade 1**

2007<sup>1</sup>

<b>School</b>	<b>n</b>	<b>Percent Proficient</b>
Iron Springs	86	81%
Control	83	55%
Iron District		83%
State		74%

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<sup>1</sup> The State of Utah dropped grade 1 CRTs in 2008.

Table 4

**Percent Proficient on the State Language Arts CRT  
Grade 2**

2007 – 2009

School	n			Percent Proficient		
	2007	2008	2009	2007	2008	2009
Iron Springs	104	80	85	68%	79%	86%
Control	104	80	79	75%	66%	91%
Iron District				80%	83%	85%
State				78%	77%	79%

Table 5

**Percent Proficient on the State Language Arts CRT  
Grade 3**

2007 – 2009

School	n			Percent Proficient		
	2007	2008	2009	2007	2008	2009
Iron Springs	90	113	85	77%	77%	93%
Control	82	96	82	71%	72%	69%
Iron District				83%	84%	88%
State				78%	77%	80%

Table 6

**Differences between Iron Springs and the Control School on State  
Language Arts CRTs**

Spring 2007 - 2009

School	Grade 1 <sup>1</sup>			Grade 2			Grade 3		
	n	Average Percent Correct	<i>t</i>	n	Average Percent Correct	<i>t</i>	n	Average Percent Correct	<i>t</i>
<b>2007</b>									
Iron Springs	84	86%	3.69**	104	78%	-0.63	90	78%	1.53
Control	83	77%		103	79%		82	74%	
<b>2008</b>									
Iron Springs				80	84%	3.83**	113	79%	1.91
Control				80	75%		96	75%	
<b>2009</b>									
Iron Springs				85	86%	-0.56	85	84%	4.57**
Control				79	87%		82	74%	

<sup>1</sup> The State of Utah dropped grade 1 CRTs in 2008.

these schools at each of grades one, two, and three for 2007 through 2009. As might have been expected from the examination of proficiency information in Table 3, the average percent correct scores for Iron Springs first graders in 2007 were higher than those of the control to a highly statistically significant degree. In 2007, differences between the two schools at grade two and at grade three were relatively small and not statistically significant.

In 2008, the state dropped the grade one CRTs; hence, Table 6 has no grade one results for that year. The 2008 grade two results show a substantial and significant difference in average percent correct favoring the experimental school. The grade three results again favor Iron Springs, but not to a statistically significant degree. The 2009 results show no significant difference at grade two, but a highly significant difference favoring Iron Springs at grade three.

### ***Proficiency Level Results for State Language Arts CRTs***

Tables 7-9 present percentages of students attaining various proficiency levels on the state Language Arts CRTs for grades one, two, and three. The results presented for Iron Springs for 2005 and 2006 are actually for students who would eventually be enrolled at Iron Springs when it opened in fall of 2006. Thus, these results are labeled “Future Iron Springs Students.”

The grade one results presented in Table 7 show that eventual Iron Springs students outperformed their peers at the control school, sometimes by a large margin. This is exemplified by a difference in the 2005 “substantial” level of 52% for future Iron Springs students compared to 24% for the students at the control school. The 2006 results were similar for the two schools, with 41% of the future students at Iron Springs

Table 7

**Percentage of Students Attaining the Various Proficiency Levels on  
State Language Arts Criterion-Referenced Tests  
Grade 1**

Spring 2005 – 2007<sup>1</sup>

School	Number Tested	Proficiency Level			
		Minimal (1)	Partial (2)	Sufficient (3)	Substantial (4)
<b>2005</b>					
Future Iron Springs Students <sup>2</sup>	50	8%	12%	28%	52%
Control	70	14%	24%	37%	24%
<b>2006</b>					
Future Iron Springs Students	88	5%	17%	38%	41%
Control	99	12%	18%	30%	39%
<b>2007</b>					
Iron Springs	86	7%	12%	38%	43%
Control	83	18%	27%	29%	27%

<sup>1</sup> The State of Utah dropped grade 1 CRTs in 2008.

<sup>2</sup> Scores for students who would eventually be enrolled at Iron Springs

Table 8

**Percentage of Students Attaining the Various Proficiency Levels on  
State Language Arts Criterion-Referenced Tests  
Grade 2**

Spring 2005 – 2009

School	Number Tested	Proficiency Level			
		Minimal (1)	Partial (2)	Sufficient (3)	Substantial (4)
<b>2005</b>					
Future Iron Springs Students <sup>1</sup>	56	0%	14%	38%	48%
Control	66	9%	21%	27%	42%
<b>2006</b>					
Future Iron Springs Students	74	1%	20%	30%	49%
Control	72	4%	15%	40%	40%
<b>2007</b>					
Iron Springs	104	8%	24%	36%	33%
Control	104	10%	15%	30%	45%
<b>2008</b>					
Iron Springs	80	6%	15%	27%	51%
Control	80	11%	23%	30%	36%
<b>2009</b>					
Iron Springs	85	1%	13%	41%	45%
Control	79	5%	4%	33%	58%

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<sup>1</sup> Scores for students who would eventually be enrolled at Iron Springs

Table 9

**Percentage of Students Attaining the Various Proficiency Levels on  
State Language Arts Criterion-Referenced Tests  
Grade 3**

Spring 2007 – 2009

School	Number Tested	Proficiency Level			
		Minimal (1)	Partial (2)	Sufficient (3)	Substantial (4)
<b>2007</b>					
Iron Springs	90	9%	14%	29%	48%
Control	82	15%	15%	34%	37%
<b>2008</b>					
Iron Springs	113	5%	17%	34%	43%
Control	96	8%	20%	38%	34%
<b>2009</b>					
Iron Springs	85	0%	6%	44%	51%
Control	82	15%	18%	35%	32%

scoring at the “substantial” level compared to 39% of the control students. The information for 2007 is for students who were actually enrolled as first graders at Iron Springs contrasted with first-grade control students. These last results reflect one year of instruction under the program, and Iron Springs had greater numbers of first graders at the “sufficient” and “substantial” levels of proficiency than did the control school. As noted previously, the state abandoned the grade one CRT for 2008 and beyond.

Table 8 presents a similar analysis for second graders. Again, the 2005 and 2006 comparisons were based on students who would eventually be enrolled at Iron Springs, and, for those years, the future experimental students had higher percentages at the “substantial” level than did the controls. This changed for 2007, however, as the control school had greater numbers of students scoring at the “substantial” level. In 2008 there was another reversal, and Iron Springs had a markedly higher percentage of second grade students scoring at the “substantial” level. For 2009 the results reversed yet again to favor the control school.

Table 9 shows grade three results for 2007 through 2009. For all three years at this grade level, Iron Springs students demonstrated better performance with higher percentages at the “substantial” level than was the case at the control school.

### ***Concept Score Results from the State Language Arts CRTs***

Tables 10-12 present concept score performance on the Language Arts CRTs for students in grades one through three. In each table, the performance of Iron Springs is contrasted with the performance of the control school, Iron District, and all state test takers. All results are expressed as the average of percent correct scores. At grade one, where only 2007 information is available, Iron Springs students outperformed students in

Table 10

**State Language Arts CRT Concept Scores  
Grade 1**

<b>Concept</b>	<b>Average Percent Correct 2007<sup>1</sup></b>			
	<b>Iron Springs n=86</b>	<b>Control School n=83</b>	<b>Iron District</b>	<b>State</b>
Oral Language	90%	85%	92%	89%
Concepts of Print	83%	82%	91%	87%
Phonological and Phonemic Awareness	86%	74%	85%	81%
Phonics and Spelling	84%	79%	87%	83%
Vocabulary	86%	78%	89%	85%
Comprehension	79%	69%	82%	78%
Writing	85%	81%	88%	84%

<sup>1</sup> The State of Utah dropped grade 1 CRTs in 2008.

Table 11

**State Language Arts CRT Concept Scores  
Grade 2**

Concept	Average Percent Correct			
	Iron Springs	Control School	Iron District	State
<b>2007</b>				
	n=104	n=104		
Oral Language	78%	77%	80%	79%
Phonics and Spelling	82%	85%	86%	86%
Vocabulary	81%	83%	87%	84%
Comprehension	74%	72%	79%	77%
Writing	74%	80%	78%	76%
<b>2008</b>				
	n=80	n=82		
Oral Language	84%	68%	83%	79%
Phonics and Spelling	87%	79%	86%	85%
Vocabulary	87%	77%	88%	84%
Comprehension	83%	67%	80%	77%
Writing	78%	72%	78%	76%
<b>2009</b>				
	n=85	n=79		
Oral Language	84%	84%	85%	81%
Phonics and Spelling	86%	88%	85%	85%
Vocabulary	91%	90%	90%	87%
Comprehension	87%	87%	87%	84%
Writing	79%	83%	77%	76%

Table 12

**State Language Arts CRT Concept Scores  
Grade 3**

Concept	Average Percent Correct			
	Iron Springs	Control School	Iron District	State
<b>2007</b>				
	n=90	n=82		
Oral Language	71%	73%	74%	74%
Phonics and Spelling	89%	84%	86%	85%
Vocabulary	80%	73%	78%	76%
Comprehension	75%	70%	78%	76%
Writing	77%	75%	79%	78%
<b>2008</b>				
	n=113	n=96		
Oral Language	87%	81%	86%	85%
Phonics and Spelling	86%	80%	87%	85%
Vocabulary	79%	72%	80%	75%
Comprehension	78%	74%	81%	76%
Writing	77%	75%	79%	76%
<b>2009</b>				
	n=85	n=82		
Oral Language	89%	82%	88%	86%
Phonics and Spelling	82%	69%	82%	80%
Vocabulary	82%	72%	79%	77%
Comprehension	86%	76%	85%	80%
Writing	83%	73%	83%	79%

the control school on every language arts concept. However, Iron Springs trailed its district in every concept except Phonological and Phonemic Awareness.

Table 11 presents a similar analysis for students at grade two, where the concept results were somewhat mixed. In 2007, Iron Springs students scored slightly higher on Oral Language and Comprehension, but the control school second graders scored higher on Phonics and Spelling, Vocabulary, and Writing. Both schools were outscored by Iron District and the state on nearly every concept score area; the exception was in favor of the control school on Writing. From the 2008 results, Iron Springs second graders clearly out-scored the control school in every concept area. Iron Springs also outscored the state on all five score areas in 2008. Results for 2009 were again mixed, and few comparisons that can be made in that portion of the table account for differences of more than one or two percentage points.

Experimental versus control concept score results for third grade students, presented in Table 12, favored Iron Springs in every area except Oral Language in 2007. In most cases, the differences were small, and both schools scored near the levels of Iron District and the state. The 2008 third grade results continued to show superior performance for the experimental school over the control; Iron Springs typically under-performed its district by a slight margin, but slightly exceeded the state's performance. The 2009 grade-three results strongly favored Iron Springs, which scored higher than the control school on every concept by substantial margins.

### ***Extended Analysis of Language Arts Performance***

Table 13 presents an examination of the latest Language Arts CRT results for a broader range of grade levels at Iron Springs and the control school; the purpose is to

Table 13

**Extended Analysis of Language Arts CRT Results**

Spring 2009 Percent Proficient for  
Iron Springs and the Control School Across Grade Levels

	<b>Iron Springs</b>			<b>Control School</b>		
	School	Iron District	State of Utah	School	District	State of Utah
Grade 2	86%	85%	79%	91%	79%	79%
Grade 3	93%	88%	80%	69%	82%	80%
Grade 4	78%	86%	79%	69%	79%	79%
Grade 5	88%	82%	77%	67%	77%	77%

provide an indication of longer-term effects from the Intensive Phonics Program. This profile shows that Iron Springs outperformed the control to very pronounced levels at grades three, four, and five. Table 13 suggests that the program continues to influence reading skills positively beyond the initial primary grade emphasis. Note that third graders as of the spring of 2009 (assuming individuals were always at Iron Springs) benefited from three full years of program implementation. And, even those at the fifth grade as of spring 2009 were formally in the program as third graders during the first year of implementation. Further, there is the possibility that the program influenced the school beyond the formal implementation at grades K through three.

### ***Iowa Tests of Basic Skills Results***

Table 14 presents results for key subtests on the Iowa Tests of Basic Skills from various administrations, 2006 through 2009. All but the latest results are for grade three only. The 2006 results represent a baseline for Iron Springs, since the school had just opened when the tests were administered. In 2006, Iron Springs outscored the control school in Reading and on the Composite score; the schools scored at the same level in Language. The 2007 results favored the control school on Reading, Language, and the Composite. With the subsequent fall administrations, each successive grade three class at Iron Springs showed higher scores for these tests, both in comparison to the previous year's Iron Springs class and in comparison to the control. Iowa reading tests were administered in the spring of 2008 and 2009; however, this was an abbreviated form of the test, and the norms used for interpreting scores were based on interpolations. In the judgment of the authors, comparing spring results to those from fall testing situations may not be meaningful.

Table 14

**Results on the Iowa Tests of Basic Skills**

Grade 3 Fall 2006, Fall 2007, Spring 2008, Fall 2008, Spring 2009, and Fall 2009, and  
Grade 5 Fall 2009

School	Subtest	National Percentile Rank <sup>1</sup> / n						
		Grade 3						Grade 5
		Fall 2006	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Fall 2009
Iron Springs	Reading	54 <sup>th</sup> / 83	44 <sup>th</sup> / 103	61 <sup>st</sup> / 113	58 <sup>th</sup> / 80	68 <sup>th</sup> / 86	67 <sup>th</sup> / 85	55 <sup>th</sup> / 106
	Language	40 <sup>th</sup> / 86	33 <sup>rd</sup> / 110		57 <sup>th</sup> / 80		61 <sup>st</sup> / 85	52 <sup>nd</sup> / 106
	Composite	54 <sup>th</sup> / 82	50 <sup>th</sup> / 102		63 <sup>rd</sup> / 80		68 <sup>th</sup> / 84	59 <sup>th</sup> / 106
Control	Reading	46 <sup>th</sup> / 76	48 <sup>th</sup> / 95	59 <sup>th</sup> / 94	42 <sup>nd</sup> / 75	50 <sup>th</sup> / 82	56 <sup>th</sup> / 70	46 <sup>th</sup> / 90
	Language	40 <sup>th</sup> / 77	46 <sup>th</sup> / 97		36 <sup>th</sup> / 81		42 <sup>nd</sup> / 73	38 <sup>th</sup> / 90
	Composite	43 <sup>rd</sup> / 71	52 <sup>nd</sup> / 90		43 <sup>rd</sup> / 75		55 <sup>th</sup> / 67	44 <sup>th</sup> / 88

<sup>1</sup> Fall results are based on 2005 norms; spring results are based on an abbreviated form of the test and interpolated norms.

The last column in Table 14 shows the latest grade five results for the two schools. Again, this is a way of examining longer-term impact of the program. Fall 2009 grade five Iron Springs students (who likely had been in the formal program as second and third graders and in the building for the complete period during which the grade K through three program was implemented) scored much higher than corresponding students at the control school on Reading, Language, and the Composite score.

Table 6 opened the door for the alternate hypothesis that observed differences favoring the Intensive Phonics program on CRT scores could be a function of the pairing of a high performing cohort at Iron Springs, grade one, and a lower performing grade-one cohort at the control school when the program began (school year 2006-2007). The extended results reported above in Table 13 and here in Table 14 tend to rebut that alternate hypothesis. And, as a further example, the fall 2009 results shown in Table 14 for grade three (the cohort that was in grade two at the end of the 2008-2009 school year) indicate positive results for the program on the national norm-referenced tests that did not show in the state's CRTs the previous spring.

### ***Adequate Yearly Progress Results***

For the two schools included in this evaluation, Table 15 summarizes Adequate Yearly Progress data required under the federal No Child Left Behind act. Results are presented for each of the school years ending in spring of 2007, 2008, and 2009. The data show that both Iron Springs and the control school achieved adequate yearly progress in both language arts and mathematics for 2007; however, the control school failed to meet either criterion in 2008. In 2009, Iron Springs failed to make AYP in language arts, due to diminished performance of one group, "students with disabilities."

Table 15

**Summary of Federal Adequate Yearly Progress (AYP) Results**

2007 – 2009

School	School Achieved AYP					
	Language Arts			Mathematics		
	2007	2008	2009	2007	2008	2009
Iron Springs	Yes	Yes	No <sup>1</sup>	Yes	Yes	Yes
Control	Yes	No	Yes	Yes	No	Yes

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<sup>1</sup> Iron Springs did not meet AYP in Language Arts in 2009 due to failure to meet the expected standard for “students with disabilities.” The school did meet the standard for all other groups.

### ***UPASS Total School Results***

Table 16 presents UPASS total school results for each of the academic years ending in 2007 through 2009. While neither school reached the state's overall proficiency criterion in either 2007 or 2008 (requiring at least 80% attaining proficiency), in 2007 both schools achieved the state's expected performance standard by scoring within the confidence interval for schools of their size. The control school slipped further with the 2008 results, and failed to achieve the performance level expected by the state. The 2009 results favored Iron Springs by a considerable margin, even though both schools met the expected performance level. Overall then, total school performance in language arts at Iron Springs was superior to the control school for each year examined.

### ***Elementary Reading Attitude Survey Results***

Table 17 shows that grade one reading attitudes at Iron Springs were actually less positive at the end of the first full year of project implementation than they had been at the beginning of the school year. First graders' Academic Reading attitude scores from the spring 2007 administration were significantly lower than those of the national norm group, as well. Interestingly, the group of first graders the next year had significantly higher reading attitude scores than the national group. But, the 2009 first grade results were back near those of the national norm group.

In general, reading attitudes declined over the first year of implementation at Iron Springs for second graders, but the scores remained high enough in the spring of 2007 for the Academic Reading and Total Reading attitude average scores of these students to be still higher than those of the national norm group. Second grade students the next spring

Table 16

**Summary of UPASS Total School Performance Results**

2007 – 2009

<b>School</b>	<b>Year</b>	<b>Overall Proficiency<sup>1</sup></b>	<b>Overall Progress<sup>2</sup></b>	<b>Achieved Expected Level of Performance</b>	<b>Language Arts Performance</b>
Iron Springs	2007	77%	188	Yes	80%
	2008	76%	207	Yes	77%
	2009	81%	206	Yes	85%
Control	2007	71%	194	Yes	74%
	2008	65%	176	No	70%
	2009	64%	181	Yes	69%

<sup>1</sup> The state’s absolute “acceptable” level requires 80% or better.

<sup>2</sup> Scores below 190 are considered “low” by the state.

Table 17

### Results from the Elementary Reading Attitude Survey

Score	Iron Springs, Grade 1												Norm Group	
	Fall 2006, n=74			Spring 2007, n=79			Spring, 2008, n=68			Spring 2009, n=87			n=2518	
	Mean	NPR	z <sup>1</sup>	Mean	NPR	z	Mean	NPR	z	Mean	NPR	z	Mean	NPR
Recreational Reading	31.9	58	1.3	30.4	44	-0.9	33.0	65	2.8**	30.6	52	-0.6	31.0	50
Academic Reading	30.2	49	0.1	28.2	39	-2.5*	32.6	63	3.0**	30.2	49	0.2	30.1	50
Total Reading	62.2	52	0.9	58.7	43	-1.8	65.8	66	3.4**	60.8	49	-0.1	61.9	50
	Iron Springs, Grade 2												Norm Group	
	Fall 2006, n=86			Spring 2007, n=99			Spring, 2008, n=76			Spring 2009, n=73			n=2974	
	Mean	NPR	z	Mean	NPR	z	Mean	NPR	z	Mean	NPR	z	Mean	NPR
Recreational Reading	32.9	68	4.2**	30.8	56	0.9	28.8	44	-2.3*	31.8	62	2.2*	30.3	50
Academic Reading	31.1	62	3.1**	32.4	67	5.2**	28.1	46	-0.9	30.5	62	2.1*	28.8	50
Total Reading	64.0	66	3.9**	63.1	63	3.4**	56.8	45	-1.7	62.9	63	2.7**	59.1	50
	Iron Springs, Grade 3												Norm Group	
	Fall 2006, n=0			Spring 2007, n=78			Spring, 2008, n=97			Spring 2009, n=79			n=3151	
	Mean	NPR	z	Mean	NPR	z	Mean	NPR	z	Mean	NPR	z	Mean	NPR
Recreational Reading				31.2	57	1.8	30.9	57	1.5	29.3	45	-1.1	30.0	50
Academic Reading				30.8	69	4.1**	29.9	63	3.2**	27.9	52	0.2	27.8	50
Total Reading				62.3	64	3.5**	61.3	61	3.1**	57.7	51	-0.1	57.8	50

\* p<.05, \*\* p<.01

<sup>1</sup> z score for Iron Springs mean compared to the norm group mean and standard deviation

(2008) had noticeably lower attitude scores, followed by significantly positive result for 2009's second graders.

Only spring scores were available for grade three students at Iron Springs during the first year of project implementation. As with the second graders, these showed attitudes in Academic Reading and Total Reading significantly higher than the national norm group. That pattern was repeated with the next group of third grade students at the end of the second study year, only to have the final group fall near the national norm sample in 2009.

In the spring of 2009, only Iron Springs second graders had better reading attitudes than the national norm group. Over the three years of the project, reading attitudes within grade-level cohorts were relatively constant. Some cohorts were more positive than others. In general, reading attitudes did not appear to be highly influenced, either positively or negatively, as implementation progressed. Comparing data from Table 17 to data in Table 6 suggests that the cohorts with the best average performance (relative to the corresponding control school classes) on the Language Arts CRTs were not necessarily the cohorts with the highest average reading attitude averages.

### ***Teacher Descriptions and Evaluations of the Intensive Phonics Program***

Table 18 profiles the responses of Iron Springs kindergarten and grade one through three teachers to a set of four survey items. With these items, teachers described the overall approach to reading used in their classrooms. Item 1 shows that, throughout the project, both kindergarten and grade one through three teachers indicated heavy use in their classrooms of a systematic approach to phonics.

Table 18

**Teacher Descriptions of their Overall Reading Program**

Percentage of Teachers Marking Each Option

**1. To what extent is a systematic (planned, structured, sequenced) approach to phonics used in your classroom?**

Option	Kindergarten			Grades 1-3		
	2007	2008	2009	2007	2008	2009
	n=3	n=2	n=2	n=11	n=8	n=10
A. Very heavy use		50%	100%	55%	63%	50%
B. Heavy use	67%	50%		27%		20%
C. Moderate use	33%			18%	25%	20%
D. Slight use						10%
E. No use						

**2. To what extent do you use the framework or outline in your basal series for teaching comprehension in your classroom?**

Option	Kindergarten			Grades 1-3		
	2007	2008	2009	2007	2008	2009
	n=3	n=2	n=2	n=11	n=8	n=10
A. Very heavy use				27%	25%	30%
B. Heavy use	33%			27%	25%	20%
C. Moderate use	67%	50%	100%	36%	50%	30%
D. Slight use		50%				10%
E. No use				9%		10%

Table 18, Continued

**Teacher Descriptions of their Overall Reading Program**

Percentage of Teachers Marking Each Option

**3. To what extent is computer-based instruction specifically for reading used in your class?**

Option	Kindergarten			Grades 1-3		
	2007	2008	2009	2007	2008	2009
	n=3	n=2	n=2	n=11	n=8	n=10
A. More than two hours per week						
B. About two hours per week						10%
C. About one and one-half hours per week						
D. About an hour per week				46%	25%	50%
E. Less than one hour per week				27%	63%	10%
F. Not at all	100%	100%	100%	27%	13%	30%

**4. How would you describe the books available for student self-selected, recreational reading in your classroom?**

Option	Kindergarten			Grades 1-3		
	2007	2008	2009	2007	2008	2009
	n=3	n=2	n=2	n=11	n=8	n=10
A. Very extensive – a very wide variety of interesting and exciting books	33%		100%	36%	38%	70%
B. Extensive		50%		46%	50%	20%
C. Moderate – A good number of interesting books		50%		9%	13%	10%
D. Limited	67%			9%		
E. Very Limited – Very few interesting books						

Item 2 asked about the degree to which the school's basal reading series was used as a foundation for teaching reading comprehension. In 2007, responses were mixed and ranged all the way from no use to very heavy use for teachers of grades one through three. The 2008 results were somewhat more positive for grade one-three teachers, but were less so for those teaching kindergarten. The 2009 results indicated no real pattern of systematic use of the basal for teaching comprehension.

Item 3 results show there has been little computer-based instruction in reading taking place at these grade levels in the school. Responses to Item 4, "How would you describe the books available for student self-selected recreational reading in your classroom?" were extremely varied, especially for the first two years of implementation. The 2009 results do show that teachers felt books were available that school year.

Table 19 profiles teacher attitudes about the professional development in reading they received as part of the Intensive Phonics program. Overall, the responses to the items in Table 19 were very positive for 2007 through 2009. Each time for example, 100% of teachers responding either agreed or strongly agreed that the reading professional development activities in which they had participated had changed the way they taught. Similarly, all of the teachers either agreed or strongly agreed that reading professional development at the school focused on students' needs. Teachers at the school were somewhat less positive concerning having sufficient time to plan and learn new reading instructional strategies; each year, a substantial percentage of the teachers indicated that they did not have sufficient time for planning and learning new instructional strategies.

Table 19

### Teacher Attitudes about Reading Professional Development for the Intensive Phonics Program

2007, n=14; 2008 n=10; 2009 n=12

Item	Year	Percentage Marking Each Scale Point			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1. The reading professional development activities in which I have participated have changed the way I teach.	2007	36%	64%		
	2008	30%	70%		
	2009	42%	58%		
2. Our school's reading professional development activities are piecemeal and fragmented.	2007			77%	23%
	2008		10%	60%	30%
	2009		8%	50%	42%
3. Reading professional development in our school builds on the knowledge and skill of all staff (certified, non-certified and administrators).	2007	31%	62%	8%	
	2008	40%	60%		
	2009	45%	45%	9%	
4. Reading professional development at our school focuses on students' needs.	2007	57%	43%		
	2008	90%	10%		
	2009	67%	33%		
5. I generally view reading professional development as a waste of time.	2007			29%	71%
	2008			50%	50%
	2009			45%	55%
6. I am given sufficient time to plan for and learn new reading instructional strategies.	2007		71%	21%	7%
	2008		60%	30%	
	2009	10%	50%	40%	
7. School administrators support me in <u>applying</u> what I have learned in reading professional development activities.	2007	43%	50%	7%	
	2008	60%	30%	10%	
	2009	18%	82%		
8. District sponsored reading professional development is responsive to my needs.	2007	14%	79%	7%	
	2008	10%	60%	10%	
	2009	18%	64%	18%	

Table 20 profiles teacher evaluations of Intensive Phonics program elements. Here again, teachers over all three years were generally very positive about the key areas listed. Of note were the positive responses to item 3, the degree to which teachers felt Intensive Phonics fostered better phonics skills; nearly all of the teachers responding indicated that the program was either effective or extremely effective in accomplishing this end, and positive endorsement improved each year. The usefulness of Intensive Phonics teacher manuals and the degree to which Intensive Phonics promotes active engagement of students were also typically rated at high levels. Each year, the degree to which the program fosters better comprehension skills was rated markedly lower than were the previous three items. Substantial percentages of the responses all three years indicated that the program was, at best, only fair in fostering better comprehension skills.

Table 20

**Teacher Evaluations of Intensive Phonics Program Elements**

2007, n=14; 2008 n=10; 2009 n=12

Element	Year	Percentage Marking Each Scale Point					
		Extremely Effective	Effective	Fair	Somewhat Ineffective	Very Ineffective	Not Sure
1. Usefulness of Intensive Phonics teacher manuals	2007	29%	64%	7%			
	2008	70%	30%				
	2009	58%	42%				
2. Degree to which Intensive Phonics promotes active engagement on the part of students	2007	50%	43%		7%		
	2008	90%					10%
	2009	50%	33%	17%			
3. Degree to which Intensive Phonics fosters better phonics skills	2007	36%	64%				
	2008	60%	30%	10%			
	2009	75%	25%				
4. Degree to which Intensive Phonics fosters better comprehension skills	2007		29%	57%	7%		7%
	2008	20%	10%	30%	20%		20%
	2009		42%	25%	25%		8%

## Conclusions

The following conclusions are based on an examination of all the information obtained during the three years of the Intensive Phonics program evaluation at Iron Springs Elementary School in Utah's Iron School District.

- An examination of demographic and achievement-test information across multiple sources indicated that the experimental and control schools participating in the study were well-matched on these dimensions. The two schools were essentially equivalent in terms of socioeconomic status and size.
- Both prior to and during project year one, the experimental school spent considerable time and effort in implementing the Intensive Phonics program. Such efforts continued during years two and three. The program can certainly be viewed as fully functioning at present.
- An examination of total language arts reading performance on the spring 2007 state criterion-referenced tests showed Iron Springs first graders significantly outperforming their peers at the control school. There were no significant differences at grades two and three.
- In the spring of 2009 – the end of project year three – third grade students at Iron Springs scored significantly higher than control school students in language arts. At grade two in 2009, Iron Springs students were slightly outscored by their controls, but not to a statistically significant degree.
- This report documents areas of both strength and weakness in language arts concept-level performance as measured by the state criterion-referenced tests. In 2007, Iron Springs first graders scored well on phonics-related concepts

and on reading comprehension compared to the control school. At grade two, the two schools had very comparable scores across reading concepts, while grade three concept results favored Iron Springs in four of the five reading areas. In 2008, Iron Springs second graders outscored the control students on every language arts concept area and showed particular strength in oral language and comprehension. Experimental school third graders also outperformed their controls on all concepts in 2008, but to a lesser degree than at grade two. The 2009 results were strong for Iron Springs at grade three across concepts. Grade two results were somewhat less impressive.

- Across the three years of the project, Iron Springs students frequently demonstrated somewhat more positive attitudes about reading compared to a national norm group. These results suggest that the program has no adverse impact on reading attitude, which is important for any program which stresses high levels of skill building activities.
- Kindergarten through third grade teachers at Iron Springs were very positive throughout all three years in evaluating the training they had received in the Intensive Phonics program and in evaluating the program's major elements. An area questioned by teachers in all three years was the program's ability to foster reading comprehension. If the program (including perhaps the basal series used) does not deal effectively in fostering comprehension skills, it must be supplemented in this vital area. While the latest CRT comprehension concept area results are not stellar for the experimental school, at the available grade levels they surpassed the district and the state.

- Iowa Tests of Basic Skills results for the fall of 2009 showed Iron Springs third and fifth graders substantially outscoring the control school in Reading, Language, and on the composite score.
- While the achievement results over all three years showed some peaks and valleys, a long term examination of both CRT language arts results and reading results from the Iowa Tests of Basic Skills at both grade three and grade five gave positive support for the effectiveness of the reading program which has been implemented at Iron Springs. Overall, it can be stated that the program continues to function well and that student achievement at the end of year three is superior at Iron Springs compared to a well-matched control. This is not an endorsement of Intensive Phonics as a total reading program. By itself, Intensive Phonics clearly lacks a meaningful comprehension element.
- Thus, the success of the three-year effort at Iron Springs is really attributable to a combination of Intensive Phonics strategies plus the considerable efforts of the school to build comprehension skills. This is a strong message to other schools considering Intensive Phonics. Clearly, it is only part of a complete reading program.

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## **Appendix A**

**Florida Center for Reading Research**  
*Discover Intensive Phonics for Yourself*