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## Leveled Literacy Intervention (LLI)

Reading Progress for LLI students in the Fort Fairfield Elementary School in Fort Fairfield Maine  
2009-2010

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### Introduction

The following report describes reading gains for students enrolled in the Leveled Literacy Intervention (LLI) program in the Fort Fairfield Elementary school in the MSAD # 20 School District in Fort Fairfield, Maine. Fort Fairfield is a mixed rural and small town community located in the northeast region of the United States. Fort Fairfield Elementary serves approximately 275 students (97% White, 1% Black, 1% Hispanic, and 1% Native American). Out of the total student population, 62% of the students are characterized as low income.

Data were collected from two teachers who agreed to submit individual data forms for their 47 students who participated in LLI during the 2009-2010 school year. The completed data forms were sent to the author of this report by the individual LLI teachers.

### What Is Leveled Literacy Intervention?

LLI is a short-term, small-group, supplementary intervention developed by Irene Fountas and Gay Su Pinnell. LLI is designed to serve struggling readers in grades K-2, although some school districts may use the intervention with older students (see Table 1). LLI is built around the text reading gradient designed by Fountas and Pinnell; this system designates leveled texts from A (the easiest texts) to Z (the most difficult).

LLI is described as a *system* because it includes reading, writing, and word study, each used together and systematically across increasingly difficult levels of texts. Three LLI systems currently exist:

- Orange, recommended for Kindergarten, levels A to C;
- Green, recommended for Grade 1, levels A to J; and
- Blue, recommended for Grade 2, levels C to N.

The K-2 LLI systems are designed to provide 14 to 20 weeks of daily, intensive extra reading lessons (beyond classroom service) that result in accelerated progress with flexible decision making about student entry and exit. Students enrolled in LLI participate in daily (five times per week), 30-minute literacy lessons taught by an LLI trained teacher. The recommended group size is three students at a time with one teacher to allow for close observation and differentiated response to student strengths and needs. Because of restrictions or limited resources, some school districts may alter these requirements but the goal of 1:3 and 5 lessons per week is highly recommended for the strongest outcomes.

The objective of LLI is to help students reduce the gap between their current instructional reading level and their expected instructional reading level.

The intended term of the intervention ranges from about 14 to 18 weeks after which time the students are released if approximate grade level expectations are met. At the end of this time period, students who have made progress but do not yet meet expected instructional reading levels for grade and time are re-evaluated. The evaluation may suggest more time in LLI lessons or an alternative intervention (such as

individual tutoring). Students who have not received a full program of services and are in the intervention at the end of the school year may continue to receive service at the beginning of the next school year. Some students who are taken in to the intervention may have achievement levels more than a year below grade level. Though grade level performance may not be achieved in the short term, if resources allow for service to continue, steady progress may warrant longer term service.

## LLI Teachers

Data were voluntarily reported on 47 LLI students taught by two LLI teachers at the Fort Fairfield Elementary School. Both LLI teachers reported serving the role of Title 1 teacher at Fort Fairfield. Within the LLI Systems, lesson guides, professional development tutorials and DVD examples of lessons are provided. One of the Fort Fairfield Elementary LLI teachers was trained by Heinemann for 36 hours. The other LLI teacher did not report the source or amount of their LLI training.

## Student Characteristics

Data were submitted for 47 kindergarten through third grade students. Of the total group, 55.3% were male and 44.7% were female, 95.7% were White, 2.1% were Black, and the ethnic background of 2.1% of the students was reported to be “other.” As an indication of students’ economic status, information on free/reduced lunch was collected and 59.6% fell into this category. Refer to Table 1 for a summary of the LLI student sample size by grade and refer to Table 2 for a summary of the student demographics.

Student Sample Size			
Kindergarten	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade
40.4% (n=19)	25.5% (n=12)	23.4% (n=11)	10.6% (n=5)

Table 1. Student Sample Size.

Student Demographics					
% Male	% Female	% White	% Other	% Black	% Free/Reduced Lunch
55.3% (n=26)	44.7% (n=21)	95.7% (n=45)	2.1% (n=1)	2.1% (n=1)	59.6% (n=28)

Table 2. Student Demographics.

Of the total group of LLI students, 8.5% ( $n = 4$ ) had individualized education plans that mandated that they receive support for Reading and 21.3% ( $n = 10$ ) of the LLI students had an IEP for other support services which included math, spelling, and writing.

## Results – Reading Progress

Below is a summary of the reading progress of 47 students who received LLI during the 2009/2010 school year. Some of the data submitted by the LLI teachers contained missing or incomplete information. The reported results below exclude cases with missing data.

## LLI Groups and Student Attendance

LLI was designed to be delivered in a group of three students with one teacher, five days per week; however, the delivery of LLI at Fort Fairfield Elementary varied somewhat. Overall, each of the LLI groups was comprised of between one and four students ( $M = 2.9$ ,  $SD = .7$ ) and the groups met five days a week for 30 minutes per session (see Table 4). Additionally, 97.9% of the LLI students received additional small group reading instruction in their classrooms (*range*: 4-5,  $M = 4.8$  lessons per week,  $SD = .5$ ).

The LLI students who completed the full set of LLI sessions offered to them and for whom attendance information was available received LLI for an average of 16.5 weeks (*range*: 9-35,  $SD = 4.0$ ) and they attended an average of 74.1 LLI lessons (*range*: 36-151,  $SD = 17.0$ ) (see Table 4). It should be noted, however, that some students were not able to receive the full intervention as the school year ended and their LLI teachers indicated that they would receive more LLI the following year.

## Reading Progress

The data were collected and reported for LLI students only. No control group was identified and assessed and therefore, the Fort Fairfield Elementary School LLI student growth was compared to Fountas and Pinnell grade level criteria for satisfactory progress (see Table 3). Each student's reading progress was determined by looking at their pre- and post- LLI instructional reading levels (ranging from Pre-A to Z) which are based on the Fountas and Pinnell leveled text system.

- **Obtaining Fountas and Pinnell Instructional Reading Levels**  
The F&P instructional reading levels were obtained through the teachers' reports of their students' instructional reading levels which were determined by administration of the Fountas and Pinnell Benchmark Assessment System.
- **Conversion to Time Equivalent (TE) Score**  
Once each child's instructional level at entry and exit was obtained, the levels were converted to a Time Equivalent (TE) score which represents the number of months of school a typically progressing student is expected to have completed when they demonstrate the reading behaviors associated with each level according to Fountas and Pinnell guidelines. The TE scores represent the number of months the student was in school and are based on a ten month school year because children are not in school for two months of each year. If an instructional reading level is expected over more than one month, the TE score reflects the middle point of the expected band of time that the particular level is expected (see Table 3). For example, level C is expected at months eight, nine, and ten during Kindergarten and the time equivalent for level C is month nine.
- **Calculating Reading Gain**  
The difference between the entry and exit TE score reflects the gain (number of months of progress) the student made between entry and exit from LLI. For example, a student who enters LLI at level A and exits at level C has progressed from what is expected in the fourth month of Kindergarten to what is expected in the ninth month of Kindergarten and thus, the student's reading gain is five months.

<b>Fountas and Pinnell Instructional Level Expectations for Reading and Time Equivalent Scores (months) for each Level</b>										
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10
<b>Kindergarten</b>	<b>Pre-A</b> TE=2	<b>Pre-A</b> TE=2	<b>Pre-A</b> TE=2	<b>A</b> TE=4	<b>A/B</b> TE=5	<b>B</b> TE=6.5	<b>B</b> TE=6.5	<b>C</b> TE=9	<b>C</b> TE=9	<b>C</b> TE=9
<b>1<sup>st</sup> Grade</b>	<b>C/D</b> TE=11	<b>D</b> TE=12	<b>E</b> TE=13	<b>E/F</b> TE=14	<b>F</b> TE=15	<b>G</b> TE=16	<b>G/H</b> TE=17	<b>H</b> TE=18	<b>I</b> TE=19.5	<b>I</b> TE=19.5
<b>2<sup>nd</sup> Grade</b>	<b>I/J</b> TE=21	<b>J</b> TE=22.5	<b>J</b> TE=22.5	<b>J/K</b> TE=24	<b>K</b> TE=25	<b>K/L</b> TE=26	<b>L</b> TE=27.5	<b>L</b> TE=27.5	<b>M</b> TE=29.5	<b>M</b> TE=29.5
<b>3<sup>rd</sup> Grade</b>	<b>M/N</b> TE=31	<b>N</b> TE=33	<b>N</b> TE=33	<b>N</b> TE=33	<b>O</b> TE=36	<b>O</b> TE=36	<b>O</b> TE=36	<b>P</b> TE=39	<b>P</b> TE=39	<b>P</b> TE=39
<b>4<sup>th</sup> Grade</b>	<b>P/Q</b> TE=41	<b>Q</b> TE=43	<b>Q</b> TE=43	<b>Q</b> TE=43	<b>R</b> TE=46	<b>R</b> TE=46	<b>R</b> TE=46	<b>S</b> TE=49	<b>S</b> TE=49	<b>S</b> TE=49
<b>5<sup>th</sup> Grade</b>	<b>S/T</b> TE=51	<b>T</b> TE=53	<b>T</b> TE=53	<b>T</b> TE=53	<b>U</b> TE=56	<b>U</b> TE=56	<b>U</b> TE=56	<b>V</b> TE=59	<b>V</b> TE=59	<b>V</b> TE=59

Table 3. Fountas and Pinnell Instructional Level Expectations for Reading and Time Equivalent Scores (months) for each Level.

Overall, the LLI students progressed an average of 7.7 months ( $n = 47$ ,  $SD = 3.6$ ) from entry until exit from LLI. This growth was achieved during participation in LLI for an average of 16.5 weeks. It should be noted that while the LLI teachers strived to provide all scheduled LLI lessons each week, vacation and absentee days often made this impossible. In spite of this, the LLI students progressed an average of almost eight months in a little more than four months. At all grade levels, the LLI students moved forward at an accelerated pace when compared to typical reading progress over time according to Fountas and Pinnell guidelines (see Table 4 and Chart 1 below).

<b>All LLI Students: Average: Number of Students in Group, Number of Weeks of LLI, Number of LLI Lessons per Week, Number of LLI Lessons, Student Growth</b>					
	Average # of Students in Group	Average # of Weeks of LLI	Average # of LLI Lessons Per Week	Average # of LLI Lessons	Average Student Growth in Months
Kindergarten	M = 3.1 n = 19 SD = .6	M = 16.3 n = 19 SD = 2.0	M = 5.0 n = 19 SD = 0	M = 74.1 n = 19 SD = 8.5	M = 6.1 n = 19 SD = 2.2
Grade 1	M = 2.9 n = 12 SD = .3	M = 16.3 n = 12 SD = 3.9	M = 5.0 n = 12 SD = 0	M = 70.3 n = 12 SD = 18.4	M = 7.9 n = 12 SD = 2.5
Grade 2	M = 2.6 n = 11 SD = .9	M = 17.8 n = 11 SD = 6.6	M = 5.0 n = 11 SD = 0	M = 81.6 n = 11 SD = 26.7	M = 10.6 n = 11 SD = 4.8
Grade 3	M = 3.4 n = 5 SD = .6	M = 14.4 n = 5 SD = .6	M = 5.0 n = 5 SD = 0	M = 66.8 n = 5 SD = 3.3	M = 6.7 n = 5 SD = 3.8
Grades K-3	M = 2.9 n = 47 SD = .7	M = 16.5 n = 47 SD = 4.0	M = 5.0 n = 47 SD = 0	M = 74.1 n = 47 SD = 17.0	M = 7.7 n = 47 SD = 3.6

Table 4. Average Number of Students in Group, Average Number of Weeks of LLI, Average Number of LLI Lessons per Week, Average Number of LLI Lessons, and Average Student Growth in Months, by Grade.

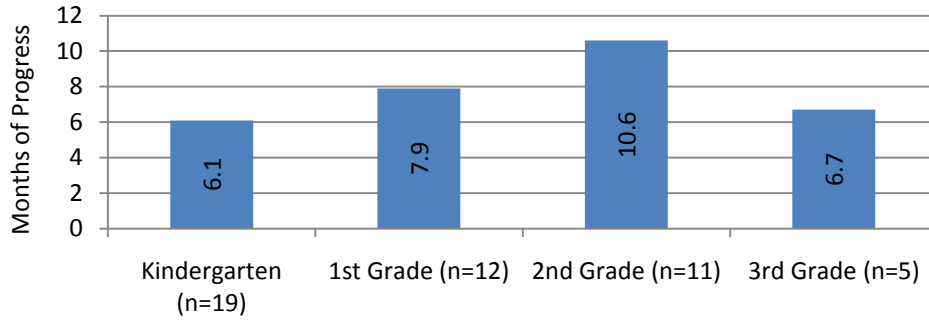


Chart 1. Student Growth (in months) by Grade (n=47)

The instructional reading level gain for the LLI students is depicted in Chart 2 below. 72.4% of the LLI students demonstrated an instructional reading level at least three levels higher than their pre-LLI level (see Chart 2).

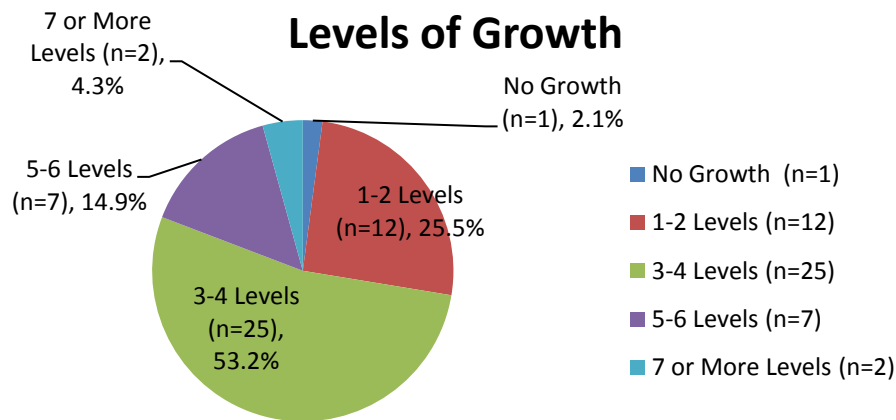


Chart 2. Levels of Growth (n=47).

### Grade Level Attainment

The percentage of students who were below grade level or at or above grade level at entry and exit from LLI is depicted below (see Table 3 and Chart 3). Overall, 85.1% were at or within one text reading level of their expected instructional reading level when their LLI instruction ended (see Table 3 and Chart 3). These results indicate accelerated progress even if students only closely approached expected grade level reading.

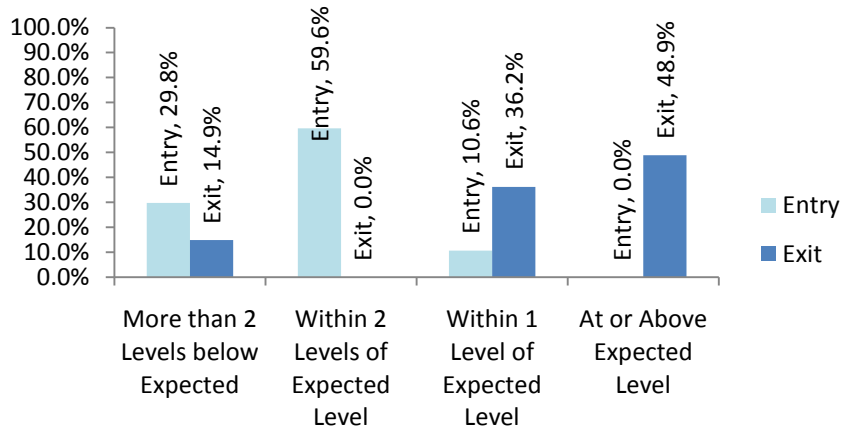


Chart 3. Instructional Reading Level at Entry (n=47) and Exit (n=47).

### Key Findings

- On average, the 47 Fort Fairfield Elementary School LLI students demonstrated reading progress over the span of time they participated in the intervention which is comparable to expected reading progress over 7.7 (almost eight) months during the school year. This progress was achieved during participation in LLI for an average of 16.5 weeks or just over four months.
- Post-LLI, 72.4% of the LLI students demonstrated an instructional reading level at least three levels higher than their pre-LLI level.
- Post-LLI, 85.1% of the LLI students were within one text reading level of grade level expectation, according to Fountas and Pinnell guidelines.

### Conclusions

Results of this evaluation indicate that as a group, the 47 Fort Fairfield Elementary School struggling readers who received Leveled Literacy Intervention supplementary instruction demonstrated accelerated progress over the period they received LLI. Overall, the LLI students made almost twice the amount of reading progress, on average, when compared to typical reading progress over time (Fountas and Pinnell 10 month guidelines). In addition, only a very small percentage made no growth and almost three quarters of the students made significant progress. Furthermore, post-LLI, more than three quarters of the LLI students reached were within one text reading level of grade level expectation.