

**ALMADINA LANGUAGE CHARTER SCHOOL  
OGDEN CAMPUS**

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The Almadina Language Charter School literacy project expanded from its base in Mountain View School in the autumn of 2012. This project was done in collaboration with the Reading Foundation in Calgary. The project mostly entailed incorporating the Reading Foundation's program called *Discover Reading*© into selected classrooms and into intervention programs with individual students.

At Ogden School, the students were in Grades 5 and 7. Their classroom teachers identified them as appropriate candidates for the program; in need of help in learning to read better. It is well known that students beyond the primary school years who are delayed in reading are likely never to catch up to where they need to be unless they receive direct, systematic, intensive instruction in basic reading skills. Otherwise, they fall victim to a phenomenon referred to as the Matthew Effect. If students learn to read well early (hopefully in Grade 1, but no later than Grade 3), their reading gets better and better as they go through school. However, if students don't learn to read early, by comparison with their normally-achieving peers, their reading appears to be poorer, and this widening gap is difficult to close. The Matthew Effect is sometimes described by the familiar aphorism, "The Rich get Rich and the Poor get Poorer." The purpose of our intervention with the students was to provide them with the appropriate training that could close or minimize this gap.

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Two Educational Assistants were trained in Discover Reading. In early November, 2012, they started working with 10 students on a 1:1 basis every day for one classroom period. The students' basic reading skills were tested at the outset of the intervention and again at the end of the school year – a period of about seven and a half months. The end-of-year assessments have now been completed and this report will provide an analysis of the findings and evidence of student growth in reading ability.

Listening and speaking are two sides of oral language that humans learn and develop naturally. The counterparts in written language are reading and spelling. Written language is based on oral language, but it is an invention, it doesn't develop naturally, and it must be taught. Every word we speak or hear is made up of individual sounds. So every word that is written is made up of representations or spellings of the sounds (phonemes). The various combinations of letters for spelling the sounds constitute the English alphabet "code." We must help our students learn this code, and in the case of English it can be quite difficult because we have so many sounds and so many different ways to spell the sounds. Written English as a result, is said to be "opaque", whereas many other alphabet languages, such as Spanish, are said to be "transparent" because their codes are easier to learn since the relationship between letters and sounds is invariant.

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Putting sounds together to make words (/k/ /a/ /t/ → /kat/) is a skill called blending, and identifying the phonemes or sounds in a word so we can read and spell them is called segmenting (e.g. “please” is segmented as /p/ /l/ /ee/ /z/). Blending and segmenting are two of the essential phonemic skills a student needs to learn in order to read and spell. Most programs of reading instruction do not include direct and explicit instruction in phonemic awareness or the various nuances of the English alphabet code. As a result, students with stronger phonemic awareness to begin with easily pick up the “code” and “fill in the gaps” almost on their own.

Fluency is another essential skill a student must have to read well. Fluency refers to the rate and accuracy of decoding words. If the decoding is too slow or has too many errors, the meaning is lost. Therefore, one of the goals in teaching and learning to read is to know the code so well that words can be decoded automatically and the student’s cognitive energy can be put into understanding (comprehending) what he is reading. (There are other skills, as well that a student needs for comprehension, but comprehension is strongly supported by the basic skills discussed above. These are strongly emphasized in the Discover Reading program.)

The assessment instruments used in the Almadina project measure the skills discussed above: blending, segmenting, code knowledge, and fluency. Some of the instruments are

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standardized and some are informal. Explanation of these types of tests will be appended.

Student achievement is denoted in grade equivalent terms for the findings of standardized tests, and in percentages for the informal tests. The findings of each testing variable are discussed separately. The results are presented:

- 1) in averages for all participants,
- 2) for the Grade 5 students, and
- 3) for the Grade 7 students.

We are interested in seeing how much of the “gap” has been closed.

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**BLENDING**

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Average scores for all 10 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
40%	99%	59%

Average scores for the Grade 5 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
48%	98%	50%

Average scores for the Grade 7 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
43%	100%	57%

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**SEGMENTING**

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Average scores for all 10 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
38%	96%	58%

Average scores for the Grade 5 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
49%	98%	49%

Average scores for the Grade 7 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
21%	93%	72%

The above scores for blending and segmenting indicate excellent growth in these essential skills. These students now understand very well how the written code works, and as a result, can more easily proceed to read and spell.

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**WORD ATTACK**

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Average scores for all 10 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
2.54	11.23	8.69

Average scores for the Grade 5 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
1.2	12.0	10.8

Average scores for the Grade 7 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
1.3	10.0	8.7

The findings of the Word Attack test show remarkable results. At the outset of the program, the Grade 5 students were more than four years behind in decoding skills. (The testing was done in Grade 5, 3<sup>rd</sup> month, and their average score was Grade 1, 2<sup>nd</sup> month.) The Grade 7 students were 6 years behind in decoding skills. Besides closing the gap, they have progressed beyond their grade placements, having advanced about nine grade levels.



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TEST OF WORD READING (TOWRE)

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Real Words

Averages for all 10 Students

<u>Pre</u>	<u>Post</u>	<u>Growth</u>
2.2	6.2	4.0

Averages for the Grade 5 Students

<u>Pre</u>	<u>Post</u>	<u>Growth</u>
1.9	4.6	2.7

Averages for the Grade 7 Students

<u>Pre</u>	<u>Post</u>	<u>Growth</u>
2.7	8.7	6.0

Pseudo Words

Averages for all 10 Students

<u>Pre</u>	<u>Post</u>	<u>Growth</u>
1.5	7.7	6.2

Averages for the Grade 5 Students

<u>Pre</u>	<u>Post</u>	<u>Growth</u>
1.1	6.8	5.7

Averages for the Grade 7 Students

<u>Pre</u>	<u>Post</u>	<u>Growth</u>
2.1	9.2	7.1

The TOWRE requires students to read lists of real words and pseudo words of increasing difficulty. The test is timed, so it is a measure of fluency, and the psychometrics behind this test show that its results correspond closely to comprehension tests.

When the scores are combined for real words and pseudo words, the average for all 10 students at the start of the program was Grade 1, 9<sup>th</sup> month, and at the end of the program the average reading level was Grade 7, 3<sup>rd</sup> month, a growth of more than five grade

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levels. These are averages, so some students gained more and some students gained less; however, it is an indication of extraordinary success for the Discover Reading program, and the delivery of the program by the Educational Assistants.

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**SPELLING**

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Average scores for all 10 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
3.1	12.1	9.0

Average scores for the Grade 5 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
2.7	12.9	10.2

Average scores for the Grade 7 students:

<u>Pre-Test (November)</u>	<u>Post-Test (June)</u>	<u>Amount of Growth</u>
3.6	11.1	7.5

Spelling (encoding) is the reciprocal of reading (decoding) and is taught in that fashion in the Discover Reading program. For this reason we included a standardized spelling test in our assessment battery. At the outset of the program the Grade 5 students were 2½ years behind in spelling ability, and the Grade 7 students about 4½ years behind. According to the post-testing results, both groups are now well beyond the expectations for their grades.

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The overall growth on the variables uses is remarkable. All but one student completed the entire Discover Reading program so they have learned some very advanced skills including prefixes, suffixes and morphology. Knowledge of morphology is very useful for building vocabulary which helps comprehension.

The Grade 5 students are now in Grade 6, and the Grade 7 students are in Grade 8. Although they have done exceedingly well, there is still some delay, especially with the Grade 5's. They certainly do now have the necessary basics for competent reading, but after this initial, but essential instruction, the students require practice. Like most things we learn in life, we learn them by doing them – so reading is learned by reading.

These students should be individually assessed at the beginning of the school year with a more in-depth battery which includes contextual reading. Following the assessment, guidance can be provided to the Educational Assistants to further develop their overall reading, spelling and writing.

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**CONCLUSION**

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It is highly unlikely that the students in this project would have made the same gains without the specialized intervention. If they had acquired one grade level per year, the students would have been at their appropriate grade level in the fall. However, the testing shows that they were several years behind, so even if they gained one grade level this year without intervention, they would still be several grade levels behind. The students who were fortunate enough to be selected for the project this year are well on their way to closing the gap and not allowing the Matthew Effect to prophecy their future.

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**RECOMMENDATIONS**

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Subjective feedback and objective data strongly support the value of continuing with and expanding the Discover Reading literacy/reading project. While it has been primarily used at a one to one intervention at the Reading Foundation clinic, the use of the Discover Reading Program with Smart Board technology in the Almadina Project clearly demonstrates that the program can be delivered to all students in a classroom with very positive outcomes – outcomes in most cases that were double those from the regular classrooms. Discover Reading enhances the progress of regular students. It can prevent reading failure in many cases where students are “at risk” initially. Finally, it can also help to close the gap between struggling readers who are significantly delayed in their reading and help them come closer to grade-level competency. Students enjoyed the many interactive features of the program and were engaged and excited about it. In light of the data and the positive response from students and teachers, we think the following recommendations are in order:

1. Expand the literacy project by providing training in Discover Reading for all teachers who request it.

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2. Provide on-going support and consultation for the literacy program throughout the year. This requires more in-depth training of the current Educational Assistants.
3. Provide more support for the classroom teachers in terms of refining teaching procedures with classroom observations and supportive feedback from trained personnel from The Reading Foundation.
4. Train new Educational Assistants more thoroughly to ensure that all students receive the amount of individual support they require to succeed.
5. Provide teachers with information about and workshops in comprehension strategies. These are part of the Discover Reading program but do not receive as much attention as does the code knowledge portion, so further training in comprehension strategies useful in a classroom would be appropriate.
6. There are students who decode well but comprehend poorly. These students do not require more Discover Reading. Instead, the Reading Foundation uses another program called Discover Meaning to deal with comprehension issues. Identify students through a systematic assessment process who might require remedial support from Discover Meaning.

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7. Overall, additional support time from Reading Foundation Trainers/Consultants should be contracted for next school year in order to assist with the recommendations above. A strong relationship between The Reading Foundation and Almadina is of benefit to both parties. Together, we can increase the efficiency and efficacy of what has already shown to be an exciting and worthwhile literacy project and provide even stronger gains for all students.



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**APPENDIX**

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Assessment

For this project, two types of assessment instruments were used: formal, standardized tests, and informal processing tests.

Standardized Tests

These tests have been given to thousands of people of a wide age and grade range, over a wide geographical area, and to people of the cultures represented in North America. Statisticians use the findings of these tests to determine appropriate scores for all ages and grades and these are set down in tables so we can look up a student's score and compare it to the score of hundreds of others the same age and grade. So we measure students against other students with standardized tests.

Informal Tests

These are considered informal because they are not standardized. Informal tests are designed to measure the processes being taught so they can be more specific than

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standardized tests and provide valuable information. These tests are very helpful in telling us precisely what a child has learned about a subject or a process and what he still needs to learn.

The Word Attack Test

The Word Attack Test is a standardized test. It measures understanding of the complex code of English, and how well a student can decode nonsense words compared to other students. This test uses nonsense words, not real words, very deliberately. Real words are sometimes memorized as entire units – so when a child reads real words, there is a chance that he is using words learned by sight and not using the ability to decode by automatic analysis of the individual sound representations in the word, which is more desirable.

Test of Word Reading Efficiency (TOWRE)

This test requires a student to read lists of real words and pseudo words. It is similar to the Word Attack Test except that the TOWRE is timed. Therefore, this test measures decoding ability and fluency (accuracy and rate). Fluency comes from automaticity with

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the code. It is important to know the code so that a student doesn't need to think about the decoding aspect of reading. He is able to use his cognitive resources to comprehend what he is reading and not be using his resources to figure out what the words are.

Blending and Segmenting Tests

These are two of the most essential skills that one needs to read and spell and are taught explicitly in the Discover Reading program.

These are informal tests because they are not standardized but they measure directly what the student was taught in the program.

The Discover Reading program provides much practice in these skills and moves logically and systematically from simple syllable words, to complex syllable words and then to multisyllable words.