

IMPLEMENTING A READING PROGRAM

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Nicki Salfer

Nova University 2006

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

Abstract:

The present study examined ten kindergarten students in a charter school. The program was developed to provide reading intervention to 10 students and study the results. The goal of the intervention was to create literacy groups based on their assessment scores and successfully master foundations level K. Methods to gather data included review of Kindergarten Readiness Assessment-Literacy (KRAL) and Dynamic Indicators of Basic Early Literacy Skills (DIBELS) scores, needs assessment and interviews by teachers. The objectives of the program include: administering KRAL and DIBELS assessment. Results showed that the intervention program fulfilled the following objectives: Students were able to identify lower case letters by pointing, and naming lower case letters, correctly articulate the sounds of lower case letter, and form letters properly 90% or better after twelve weeks of classroom instruction. The target students improved their score of twenty five percent on the DIBELS mid-year assessment.

Setting:

This is a school designed for any student in grades K–12 who lives in Ohio, but gives preference to students who are “at risk” academically. The school’s charter defines “at risk” as students who are facing academic challenges, which include, but are not limited to, chronic or terminal illness and either academic or economic disadvantage, or both. Typically at risk students are unable to achieve in their regular academic or technical program. Students have the opportunity to come to a center and experience face-to-face instruction with teachers in addition to an online curriculum.

The school impacts the State’s public educational system by:

- 1) Meeting the educational needs of children in Ohio who are not being adequately served by traditional school systems;
- 2) Expanding the vision of online schools to include extensive teacher-student (face-to-face) interactions; and
- 3) Re-engaging students into the State’s educational system who have been distanced due to physical, emotional, and behavioral disabilities.

The ethnic composition of the students in school is 55% African-American students, 45% White students. This school is widely recognized within the Cleveland area for its innovative approach to the development of literacy, cultural awareness, and academic achievement. It strives to empower young people to affect change and growth.

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

The school began in September 2004 with an enrollment of 25 students. By the end of the 2004–2005 school year, 375 students were in the school; currently the enrollment is 722 students. The school is physically located in Cleveland Heights (a suburb of Cleveland) in an office building that has been converted to classrooms. Students come by public transportation or are dropped off by their caregivers. The school has a separate K–3 building with a total of 45 students.

The setting for this study is in the two kindergarten classes that are part of the morning program. These students attend school from 9:00am to 1:00pm Monday through Thursday. Students are provided a computer and are reimbursed for the Internet connection by the school. In the morning program, the student-teacher ratio is one to five. After school students are expected to work on the computer-based curriculum. The computer-based curriculum requires that the child use the internet to access the PLATO program. PLATO is an online educational program that is designed for school age children. The Software includes a tutorial and assessment of skills in all academic subjects.

Target Population:

The target population is the 10 morning kindergarten children. The purpose of this study is to assess the progress of these students with the reading intervention program. They are being selected based on the fact that the school has The Kindergarten Reading Assessment—Literacy (KRAL). This program is a part of Ohio’s Assessment System testing results (Center for Curriculum Assessment, 2004). All of the students are attending the intervention program. All 10 children have the following risk factors: they did not attend preschool, they live in an urban setting, and parent’s income is in the low socioeconomic level.

Discrepancy Statement:

Data from the 2004–2005 school year suggests that, on average, our students currently function at the upper limit of the “low average” range as compared to the national norm group of the Woodcock Johnson Test of Achievement III (Woodcock, McGrew, & Mather, 2001). Results of state proficiency tests for the students showed that they were significantly behind in their reading scores.

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

As part of a review of the last school year, it was determined that the school needed to implement a research-based method of teaching reading. These students come from numerous school districts and have numerous levels of deficiencies. If the school can succeed in standardizing their grade levels, the school will have to standardize the students' reading levels and expectations for each level. Whether caused by dyslexia, some other language-based learning difficulty, a late introduction to the English language or over-reliance on whole language programs, this deficit can be corrected by direct, multisensory, structured language teaching.

During the summer and throughout the school year all of the teachers received training in a multisensory approach to teaching reading. In order to do this, the school instituted during the 2005–2006 an across-the-board utilization of the Wilson Reading Method Foundations (Wilson, 2002) program, a system primarily used in dyslexia intervention. By offering it to all students, the school's goal is to help the students learn to read and to standardize their grade level expectations. Every student attending the center will spend the first hour in multisensory literacy training. Once the students are brought up to grade level, they will be able to work independently more successfully. Because the students have faced difficulties prior to coming to the program, it would give them the added self-confidence they need to strive toward success.

In summary, by changing the school's method of reading instruction, the school can positively impact the students' chances for academic success. This study will specifically focus on the reading progress of the kindergarten students by tracking their DIBELS results and teacher and principal interviews (Good & Kaminski, 2002).

Literature Review:

It is the school's philosophy to attempt early intervention where possible. The school subscribes to the belief that when implementing a multisensory reading program for kindergarten students, it is important to incorporate several techniques. A key element to success is the use of qualified personnel.

Pinnell, Lyons, DeFord, Bryk, and Seltzer (1993) reviewed a research study that utilized four treatment groups for a reading intervention. These groups were:

- 1) Reading Recovery, which was individual tutoring;
- 2) A Reading Recovery-like intervention, which was individual tutoring by a teacher trained in an alternative and short setting;

***Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School***

- 3) A Reading Recovery small-group intervention; and
- 4) A basic skills small group intervention.

Reading Achievement scores before and after the intervention were collected simultaneously in 40 different sites. The study demonstrated that Reading Recovery, with individual tutoring by trained teachers, was the only treatment that had a significant effect. Positive effects were found when the students were measured the following fall. This study supports the school's belief in the value of trained teachers working one-on-one with students. Other programs offer unskilled help, which this study shows is not effective.

A school-based assessment system helps to identify and validate the need for support, plan the support, evaluate and modify the support, and review the outcomes. This is especially true in a school where children enter in kindergarten. In addition to properly trained teachers, the school uses Dynamic Indicators of Basic Literacy Skills (DIBELS) assessments are intended to provide school-based data to inform instruction and to review school level outcomes. The school utilizes qualified individuals to administer the assessments. Good, Kaminski, Simmons, Kame'enui and Wallin (2002) reviewed the usefulness of DIBELS and concluded that school-based reports from the DIBELS system help to periodically evaluate a school's professional development needs. DIBELS reports also assist administrators determining the percentages of students needing additional reading intervention (Good, Kaminski, Simmons, Kame'enui & Wallin, 2002).

In addition to DIBELS, early screening to predict future reading ability is important. Testing in a child's early school years to predict concurrent and later reading achievement can identify children who need extra help. The authors analyzed two studies. The first study was Prediction of Concurrent and Future Reading Achievement Scores in a Population-Based Longitudinal Sample. The second study was Cross-Validation of the Concurrent Prediction in a Nationally Representative Kindergarten Through Third Grade Sample, N=500. Both studies demonstrated the value of testing. Once testing has been performed, intervention is the next step (Wood, Hill, Meyer & Flowers, 2005).

Irausquin, Drent, and Verhoevan (2005) examined the effects of computer-presented automatization exercises in a group of 14 poor readers. These children were compared with a second group of 14 poor readers who received computer-presented exercises. These exercises

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

were aimed at the use of context for word identification and comprehension. Training took place over a three-month period, with students having three 15 minute sessions a week.

The study revealed that students who received the computer intervention, or the “speed” group, progressed further than other group in word and text reading efficiency. In addition, the effect transferred to more complex word types. This study supports our school’s belief that computer-supported automatization exercises can be an effective tool in reducing reading problems of poor students in a short period of time. The students did better than the trained control group that received context oriented exercises. This study supported the researchers’ belief that the use of computer-assisted automatization training for children who demonstrate slow and effortful decoding at an early stage in reading allows the teacher more time to assist other pupils. In our school’s case, it supports our belief in the positive effects of computer-assisted intervention (Irausquin, Drent, & Verhoevan, 2005).

Another study by Segers and Verhoeven (2005) presented the value of early intervention for the development of phonological awareness in Dutch kindergarteners. This study supported the usefulness of computer programs in intervention. In this study, 16 native and 26 immigrant Dutch children worked with computer software for 15 minutes a week over the course of a year. A control group consisted of 22 native and 36 immigrant children. Discovery games were available for half the time and learning games were always available. The study showed that computer use was helpful in enhancing children’s linguistic abilities, regardless of ethnicity. Immediate results were found in rhyming and grapheme knowledge.

During a retest in first grade, the experimental group consisted of 13 native and 21 immigrant children. The control group consisted of 13 native and 21 immigrant children. The retest showed significant positive affects of intervention on early literacy in first grade. Two advantages of computer usage were the computers’ ability to provide endless repetition and direct feedback. This study supports the school’s program because it demonstrates that using computer programs in an intervention helps to develop phonological awareness.

This study showed, however, that computer programs did not take the place of human intervention. Human intervention has been found to be an effective intervention method in several studies. One example of human intervention is through the use of Phoneme awareness and letter sound training.

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

Elbow and Petersen's study (2004) targeted an intervention for kindergarten children from dyslexic families. A training program was written and tailored to meet the needs of children with relatively poor language skills. Thirty-five at risk children who attended 26 different classes participated in an intensive 17-week program in their kindergarten classes. The program was designed to help the children improve in phoneme awareness.

The study included 47 untrained at-risk control children. This was a longitudinal study that tested the students in the beginning of kindergarten, first, second, third and seventh grades. The study indicated that phoneme awareness training may have long lasting, positive effects. Positive effects were even found seven years after the completion of the training. This study is beneficial to the school because the positive effects were found with children attending whole classes taught by their ordinary kindergarten teachers. It also demonstrates the importance of ensuring that teachers continue to work with students on phoneme awareness and letter sound training.

In another study that supports the school's program (Leafstedt, Richards & Gerber, 2004) the effects of intensive phonological awareness instruction were examined for kindergarten English learners. The setting of the study was a semi-rural community that is composed of primarily Spanish-speaking families. The school was a Title I school that serves 74 percent Spanish-speaking students. Sixty-four kindergarten students participated in the study. Forty-six served as a control group and 16 students were in an intervention group, after two moved.

The intervention group made up one entire class. Over a 10 week period, they were given a total of approximately 300 minutes of intensive instruction in phonological awareness. The researcher who reviewed the intensive instruction showed that compared with the control group, those receiving phonological awareness instruction showed significant improvement in word reading. This was true not only for high-performing students, but middle- and low-performing students as well.

This study is especially relevant with respect to the ESL students in the school. Students who enter school and are required to learn English struggle to learn to read at the same level as their native-English speaking peers. Early intervention positively affects ESL students as well as native-speakers. Even lower-performing students made growth in phoneme awareness.

Smit-Glaude, van Strien, Licht and Bakker (2005) examined 141 year one kindergarten children at risk of developing language problems and administered the Dutch version of the

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

Florida Kindergarten Screening Battery. Types of intervention made a difference, with right hemisphere stimulation causing some improvement in early word, late word, and late text reading. Early reading was not affected by any treatment. While this study supports several predictions, it supports the notion that early testing is important in identifying children at risk of reading problems.

Summary:

In conclusion, early intervention is a vital factor in achieving long-term positive effects. Keys to intervention are proper employee training and the use of several methods of intervention. Recent research demonstrated that the school is on the right path in the intervention methods of using qualified teachers coupled with computer intervention. However the studies had limitations. They did not have a very large sample size of children from urban communities. They did not specifically study the Foundations and the computer program used by the school. The interventions that were done in these studies were not done in school. They were experimental and the interventions were done in a lab or a tutoring program outside of school. The training of the teachers was not specified in detail. The teachers were not certified by the state of Ohio. There are many types of professional development for staff and depending on the program will produce different results. The program that was done in the school did not have a control group. The state mandated the intervention. The school could never have had a group of children who did not get services. The research studies did not have sample size of children diagnosed with learning disabilities.

Methods:

The purpose of this school program is to provide reading intervention for the Kindergarten students. The school is designed for any Ohio student in grades K–12. The school gives preference to students who are “at risk” academically. It is currently in the second year of operation. The test results show that a majority of the kindergarteners require reading intervention. Many of these children did not attend preschool, live in an urban setting, and their parents’ income is in the low socioeconomic level.

The research review provided documentation for the school of the importance of implementing a research based method of teaching reading so that students’ reading levels could

***Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School***

improve. Teachers were provided training in multisensory approach to teaching reading because research showed that this type of training provides positive results. The school instituted an across-the-board utilization of the Wilson Reading Method Foundations program, a system primarily used in dyslexia intervention. The school reading tracks the reading process through DIBELS, which research has shown to be successful in providing school-based data to inform instruction and to review school level outcomes. Goals of the program are to create literacy groups based on student assessment scores, to improve reading so that all kindergarten students successfully master Foundations Level K, and to have all students improve their score 25% on the DIBELS mid-year assessment.

Objectives for these goals are as follows. As part of the goal of creating literacy groups based on students' assessment scores, the reading specialist administers KRAL Assessments and DIBELS Assessments in initial sound fluency and letter naming fluency. As part of the goal to have the kindergarteners master Foundations Level K, the objectives include having the students identify and name lower case letters and score 90% or better, as well as correctly articulate the sounds of the lower case letters and form them, scoring 90% or better. As part of the goal to have all target students improve their score 25% on the DIBELS mid-year assessment, objectives include having students score at least "10" on the Initial Sound Fluency DIBELS assessment, a 15 on the Letter Naming Fluency DIBELS assessment, a score of at least "7" on the Phoneme Segmentation Fluency DIBELS assessment, and at least "5" on the Nonsense Word Fluency DIBELS assessment. Another objective is to have teachers implement the *Phonological Awareness Training for Reading* once a week in order to aid students in their mastery of onset and rhymes.

Activities that were utilized in order to achieve the goal of creating literacy groups based on assessment scores are administering the KRAL and DIBELS Assessments and then placing students in groups according to results. Activities designed to help us meet the goal of having students successfully master Foundations Level K include 12 weeks of classroom instruction. The goal of improving students' scores 25% on the DIBELS mid-year assessment will be accomplished through teaching the foundations program and assessing students with the unit Foundations tests. The success of the objectives will be measured by the DIBELS results at the mid-year assessment.

***Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School***

Evaluation Plan:

The methods for evaluating the implementation process of this program were done in the following ways: the principal and reading specialist of the school were required to observe the classrooms and meet weekly with the teachers, and the teachers were given needs assessments/evaluation forms of Literacy Hour (see appendix A).

The methods for evaluating the progress and final outcomes involved the reading specialist testing all of the kindergarten students in September using the KRAL (pre-test), and then administering the DIBELS assessment in November and in February. The school psychologist reviewed all of the scores, ran correlation statistics, and summarized the results in a report (see appendix C). The evaluation criteria were based on the fulfillment of the goals and objectives (see appendix A).

The first goal of the program is to create literacy groups based on student's assessment scores. The reading specialist will administer the KRAL Assessment and the DIBELS Assessment. The first goal and the objectives were easily assessed by collecting the results of these assessments from the literacy specialist. The first goal and the objectives were met. All of the children were administered the KRAL Assessment and the DIBELS Assessment. The students were divided into two reading groups based on the results of these tests. The feedback from the staff about this goal suggested the following: The KRAL was given in September and the DIBELS tests were given in November and February. The reading groups were redone according to ability in February. The teachers would like to see the students tested before the beginning of the year and begin in September with reading groups set up according to the student's ability. The second suggestion was that the school should create a preschool literacy program so that in the future, the school's children will be better prepared for kindergarten.

The second goal of the program is for the students to successfully master Foundations Level K (Unit 1). The objectives for that goal were the following:

- ▶ Students will identify lower case letter by pointing and will score 90% or better after twelve weeks of classroom.
- ▶ Students will successfully name lower case letters scoring 90% or better after twelve weeks of instruction.
- ▶ Students will correctly articulate the sounds of lower case letter scoring 90% or better.
- ▶ Students will form letters properly scoring 90% or better.

Implementing a Multisensory Reading Program for Kindergarten Students in Charter School

The objectives were assessed by teachers administering the end of Unit One Foundations Assessment and filling out a questionnaire about each student in February. The results of the assessments and the questionnaire show that all of the students mastered unit one of foundations and fulfilled the second goal and objectives of Literacy hour. The teachers reported on their questionnaires that the Foundations program was very successful and effective in teaching the students. When creating the two groups in February, the reading specialist divided the students according to their scores of the Unit One Foundation Assessment. The reading specialist felt that five students required additional review and that they were still struggling with the unit (see results, Appendix B). She suggested that the teacher spend an additional two weeks with the lower group before moving on. She also encouraged the teacher to constantly review the material from that unit.

The third goal of the program was that all target students will improve their score 25% on DIBELS mid-year assessment. The objectives were the following:

- ▶ Students will score at least “10” on the Initial Sound Fluency DIBELS assessment;
- ▶ Students will score at least “15” on the Letter Naming Fluency DIBELS assessment;
- ▶ Students will score at least “7” on the Phoneme Segmentation Fluency DIBELS assessment; and
- ▶ Students will score at least “5” on the Nonsense Word Fluency DIBELS assessment.

The last objective is that teachers will implement the phonological awareness Training of Reading once a week aid in mastery of onset and rhymes. The DIBELS report shows that the students mastered the first two objectives. The second two objectives were not met because the students could not be tested for these objectives until later in the year. The reading specialist was hopeful that these two objectives would be met before the end of the kindergarten year. The teachers did report implementing the Phonological Awareness Training for Reading program. They reported using a variety of games in the classroom that are a part of this program. The staff made the following suggestions for this goal: all ten children attend a Title One reading program for additional reading training, parents attend literacy training, and the school should continue the small teacher-pupil ratio.

***Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School***

Conclusion:

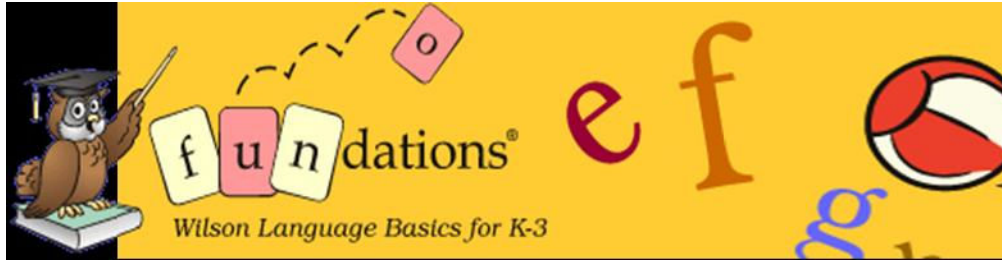
In conclusion, the school has a higher percentage of children in need of early intervention because it specializes in working with children who are “at risk” academically. Early intervention is a vital factor in achieving long-term positive effects. Key to the success of the program is proper employee training and use of several methods of intervention. The program was designed with three discrete goals in mind: to create literacy groups based on students’ assessment scores, to encourage students to successfully master Foundations Level K (Unit 1) with a score of 90% or better after twelve weeks of in-class instruction, and to have students increase their score on the DIBELS mid-year evaluation by 25%. The first two goals were met; the third was partially met. However, given how far the students had come, the program was considered successful. Additional services will be provided so that these 10 children can continue on their positive paths toward literacy. Important suggestions for the improvement are the following: teachers continue to need literacy training, the school should set up a pre-school so that the children are more prepared for kindergarten, kindergarten testing should be done before the beginning of kindergarten, students should be put into ability groups for the literacy hour, and parents should be required to attend literacy training seminars.

***Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School***

References

- Center for Curriculum and Assessment. (2004). *Ohio's assessment system: Resource manual for the kindergarten Readiness Assessment-Literacy*. Columbus, OH: Ohio Department of Education.
- Elbro, C., & Petersen, K. (2004). Long-term effects of phoneme awareness and letter sound training: An Intervention Study With Children at Risk for Dyslexia. *Journal of Educational Psychology, 96*, 660-670.
- Good, R.H., & Kaminski, R.A., Smith, S., Simmons, D., Kame'enui, E., & Wallin, J. (In press). Reviewing outcomes: Using DIBELS to evaluate a school's core curriculum and system of additional intervention in kindergarten. In S.R. Vaughn & K.L. Briggs (Eds.), *Reading in the classroom: Systems for observing teaching and learning*. Baltimore: Paul H. Bookes.
- Good, R.H., & Kaminski, R.A. (Eds.). (2002) *Dynamic Indicators of Basic Early Literacy Skills* (6th ed.) Eugene, OR: Institute for the Development of Educational Achievement.
- Iraquin, R.S., Dent, J., & Lerhoeven, L. (2005). Benefits of computer presented speed training for poor readers. *Annals of Dyslexia, 55*, 246-265.
- Leafstedt, J. M., Richards, C. R., & Gerber, M. M. (2004). Effectiveness of explicit phonological-awareness instruction for at-risk English learners. *Learning Disabilities Research and Practice, 19*, 252-261.
- Pinell, G.S. (1989). Reading recovery: Helping at risk children learn to read. *The Elementary School Journal, 90*, 161-181.
- Segers, E., & Verhoeven, L. (2005). Long-term effects of computer training of phonological awareness in kindergarten. *Journal of Computer Assisted Learning, 21*, 17-27.
- Smith-Glaude, S.W.D., Van Strier, J.W., Licht, R., & Bakker, D.J. (2005). Neuropsychological intervention in kindergarten children with subtyped risks of reading retardation. *Annals of Dyslexia, 55*, 246-265.
- Wood, F.B., Hill, D.F., Meyers, M.S, & Flowers, D.L. Predictive assessment of reading. *Annals of Dyslexia, 55*, 193-216.
- Woodcock, R.W., McGrew, k.s., & Mather, N. (2001). *Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside Publishing
- Wilson, B. (2002). *Foundations*. Mibury, MA: Wilson Language Training Corporation.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*



Appendix A
Fundations Level K
Goals/Objectives

School Year 2005–2006 (February)

Goal: Create literacy groups based on their assessment scores.

Objective: Administer KRAL Assessment

Objective: Administer DIBELS Assessment

*Initial Sound Fluency

*Letter Naming Fluency

Goal: Successfully Master Fundations Level K (Unit 1)

Objective: Students will identify lower case letters by pointing and will score 90% or better after twelve weeks of classroom instruction

Objective: Students will successfully name lower case letters scoring 90% or better after twelve weeks of instruction

Objective: Students will correctly articulate the sounds of lower case letters scoring 90% or better)

Objective: Students will form letters properly scoring 90% or better)

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Goal: All target students will improve their score 25% on the DIBELS mid-year assessment

Objective: Students will score at least "10" on the Initial Sound Fluency DIBELS assessment.

Objective: Students will score at least "15" on the Letter Naming Fluency DIBELS assessment.

Objective: Students will score at least "7" on the Phoneme Segmentation Fluency DIBELS assessment.

Objective: Students will score at least "5" on the Nonsense Word Fluency DIBELS assessment.

Objective: Teachers will implement the *Phonological Awareness Training for Reading* once a week aid in the mastery of onset and rhymes.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Student Name _____
Date of Birth _____
Age _____

Student Needs Assessment
September 2005

(Alphabet Knowledge)

Was the student able to identify any letters at the beginning of the school year?

(Writing)

Was the student able to write left to right and top to bottom?

Was the student able to write a variety of letters, numbers, and words?

Was the student able to write his/her first and last name?

Did the student make letter-like formations?

(Letter-Sound Relationships)

Was the student able to represent sounds heard at word beginnings?

Was the student able to represent sounds heard at word endings?

Was the student able to represent sounds heard in the middle of words?

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

(Literacy Knowledge)

Was the student able to understand print directionally?

Did the student have knowledge of punctuation?

Was the student able to understand the correspondence of upper-case with lower-case letters?

(Phoneme Segmentation)

Was the student able to identify the initial sound in any CVC (Consonant Vowel Consonant) words?

Was the student able to identify the final sound in any CVC (Consonant Vowel Consonant) words?

Was the student able to separate the phonemes in words?

(Basic Word Knowledge)

Was the student able to identify any of the following most basic words in English?

the	of	and	to	a	in
is	that	it	was	for	you
he	on	as	are	they	with
be	at				

Was the student able to read a twenty word connected text?

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Student Name _____
Date of Birth _____
Age _____

Student Needs Assessment
February 2006

(Alphabet Knowledge)

Is the student able to identify all of his/her letters?

(Writing)

Does the student to write left to write and top to bottom?

Is the student able to write all his/her letters, numbers and words?

Can the student able to write his/her first and last name?

Does the student make letter-like formations?

(Letter-Sound Relationships)

Can the student able to represent sounds heard at word beginnings?

Can the student able to represent sounds heard at word endings?

Can the student able to represent sounds heard in the middle of words?

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

(Literacy Knowledge)

Does the student understand print directionally?

Does the student have a knowledge of punctuation?

Is the student able to understand the correspondence of upper-case with lower-case letters?

(Phoneme Segmentation)

Can the student identify the initial sound in any CVC (Consonant-Vowel-Consonant) words?

Can the student separate the phonemes in words?

(Basic Word Knowledge)

Is the student able to identify any of the following most basic words in English?

the	of	and	to	a	in
is	that	it	was	for	you
he	on	as	are	they	with
be	at				

Can the student read a twenty word connected text?

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Teacher _____
Date _____

Teacher Needs Assessment

Evaluation of Literacy Hour
February 2006

How would you as the teacher rate this class level of reading in the beginning of the year? What data are you using to base your answer?

How would you compare the class level of reading at the beginning of the year to the class level of reading now, (February)? What data are you using to base your answer?

Do you as the teacher feel that the Foundations program has been successful? Why or why not?

What are you using to measure the success of the Foundations program?

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

How many Units have been completed this year?

How many Units do you expect to finish at the conclusion of the year?

Are all five of your students on the same level? If not, explain.

Approximately how long does each unit take to cover?

Specifically, what concepts did you cover while teaching Foundations Unit One?

Do you find the materials in the Foundations kit helpful? Explain.

Do you use all of the materials provided in the Foundations kit? Explain.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Do you send the Home Support Pak home each week?

How many of your students in your class review work at home?

Describe the degree of parent involvement in your classroom.

Explain what teaching strategies worked.

Explain any distractions that might have interfered with your instruction.

Evaluate what you would do differently next year as you teach Foundations Unit One.

What are you using to supplement Foundations during Literacy Hour? Explain.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Unit One Assessments

Appendix B Kindergarten

Name	Letter Identifying	Letter Naming	Letter Sounds	Letter Forming	Weakness
Michael Ward	100%	100%	100%	100%	none
Lavar Younger	100%	100%	100%	80%	writing b & g
Ya'al Israel	100%	100%	80%	100%	/f/ & /v/
Angel Thompson	100%	100%	100%	80%	reversals g & h
Aaliyah Shelton	100%	100%	90%	80%	/e/ & reversals
Nate Collier	100%	100%	80%	90%	/w/ /z/ letter forming g
Larzell Williams	100%	90%	90%	70%	vowels overall review
Jalen Dennis	100%	100%	80%	60%	overall review
Dhamerra Abdul-Hakim	100%	70%	80%	80%	overall review
Masau McCreary	90%	100%	70%	60%	overall review

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*



Appendix C

VSH Mid-Year Progress Towards Literacy Objectives

Based on DIBELS Fall 2005 and Winter 2006 assessments

Compiled January, 2006 by Joel Pomerantz, M.A., Psy.S. and Nicki Salfer, MA, P. A.

VSH School Psychologist and Director of Learning Concepts

Thank to the wonderful work of our VSH center teachers and support staff, we are excited to report that VSH center program DIBELS early literacy screening assessments were highly successful. More importantly, the data suggest that our literacy instruction has been successful and overall, our students are making progress!

Class by class results are being given directly to the teachers; the goal of this summary is to report on those tests for which we have data from both the fall and winter benchmark assessments. We will report the descriptive statistics, correlations, and levels of statistical significance between the results of these two measurements (**paired** ("dependent") **t-tests** for means and **Pearson correlations** were utilized). It should be noted that statistical significance should not be confused with magnitude of effect- that is to say, it is possible that the difference between the mean scores of each assessment could be different enough that we can be statistically certain that this difference is not due to chance (statistical significance) YET, this does not mean that the students have made "enough" progress and are now "where they should be" in terms of meeting early literacy benchmark goals (in fact, when analyzing the level of intervention recommended by the authors of DIBELS, it occurred several times that the student made what seemed to be significant progress, yet the recommendation remained the same, or even increased (e.g. from "strategic" to "intensive"). This does not imply that the student has not progressed, but rather that the student has not progressed quickly enough as compared to peers to be at the established benchmarks. Often this is largely due to the level at which they started- not how well our intervention has worked. *The key here is that, for the most part, these results demonstrate that we **have** made a **difference** in the emergent literacy*

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

skills of our students, however, the majority of these students remain "at risk" with much work to be done.

Below are the results by grade level. (Note: all data with only one of the points (either fall or winter) were deleted for the purpose of this analysis; also, only DIBELS tests which were administered in both fall and winter were considered.)

Kindergarten

Tests: 1) ISF (initial sound fluency) 2) LNF (letter naming fluency)

Initial sound fluency:

Mean Fall score	Mean Winter score	Pearson correlation	P value (two tailed test)	Significant?
3.43	11.44	.52	.004	Yes

n = 10

Letter naming fluency:

Mean Fall score	Mean Winter score	Pearson correlation	P value (two tailed test)	Significant?
10.6	20.8	.78	.003	Yes

n = 10

(Note: the higher the correlation between the scores from the two administrations, the more even the change was across the distribution of scores; put another way, the correlation is a measure of how even the progress was across the class. It is important to realize that in classrooms with several severely disabled students, the lack of progress by those students relative to peers, which would be expected, will reduce the value of the correlation.)

Pearson correlations between KRAL raw scores and DIBELS winter benchmark assessment tests:

	ISF	LNF	PSF	NWF
KRAL	.65	.72	.45	.64

n = 10

As a "ballpark" interpretive guideline: correlations of .10 - .39 = "Low"; .40 - .69 = "Moderate"; .70 and higher = "Strong"

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Analysis of “instructional recommendations” as per DIBELS authors’ research:

In the DIBELS manual, the authors present recommendations for each possible pattern of DIBELS scores, by grade level. The recommendations fall in three categories: 1) Benchmark, at grade level 2) Strategic, additional intervention 3) Intensive, needs substantial intervention;

It is important to note that even if students made significant progress, their “instructional recommendations” may have stayed the same, or even “went down” (e.g. from “strategic” to “intensive”). This is due to the fact that the overall level of most of our students is below the “benchmarks” that are established; thus, the older they get, the higher the “bar” is raised, and the more they will appear to “fall behind” as far as achievement of benchmark standards is concerned. Thus, caution should be exercised in making any judgments or determinations about our methodology based on this data. The more accurate approach is to consider the changes that have occurred in terms of magnitude, degree of “evenness” (i.e. was progress even across students or did some gain more than others) and statistical significance.

	Fall Results
% at “Benchmark”	9%
% at “Strategic”	73%
% at “Intensive”	18%
n = 11	

	Winter Results
% at “Benchmark”	8%
% at “Strategic”	42%
% at “Intensive”	50%
n = 12	

When comparing these levels between fall and winter, out of ten students who participated in both assessments: six remained at the same level; three dropped one level (e.g. from “strategic” to “intensive”); and one went up a level.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

First Grade

Tests: 1) PSF (Phoneme Segmentation Fluency) 2) NWF (Nonsense Word Fluency)

Note: the Letter Naming Fluency test was administered at Benchmark 1 and the Oral Reading Fluency test was administered at Benchmark 2; because there was only one administration of each, they were not included in this analysis.

Phoneme Segmentation Fluency:

Mean Fall score	Mean Winter score	Pearson correlation	P value (two tailed test)	Significant?
14.25	20.5	.62	.163	NO

n = 8

Nonsense Word Fluency:

Mean Fall score	Mean Winter score	Pearson correlation	P value (two tailed test)	Significant?
13.38	33	.90	.0001	Yes

n = 8

It is important to point out that Nonsense Word Fluency is a measure of actual letter-sound correspondence (phonics) ability, i.e. it is actually "reading" as apposed to phoneme segmentation, which is actually phonemic awareness (PA). PA ability is highly correlated with reading outcomes, but isn't actual reading.

The following summarizes the recommendations made by DIBELS based on patterns of scores:

	Fall Results
% at "Benchmark"	20%
% at "Strategic"	30%
% at "Intensive"	50%
n = 10	

	Fall Results
% at "Benchmark"	22%
% at "Strategic"	11%
% at "Intensive"	67%
n = 9	

Of the eight students who participated in both fall and winter benchmark assessments, six remained at the same recommendation level, and two went to the more intense recommendation level.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Second Grade

Tests: DIBELS Oral Reading Fluency (DORF)

Oral reading fluency:

Mean Fall score	Mean Winter score	Pearson correlation	P value (two tailed test)	Significant?
19.73	28.82	.99	.008	Yes

n = 11

(Note: the correlation here is incredibly high!! This is because out of 11 students who took the assessment in both fall and winter, only one student's score did not increase. Great work, Second Grade!!!!)

The following summarizes the instructional recommendations based on the DIBELS manual:

	Fall Results
% at "Benchmark"	9%
% at "Strategic"	0%
% at "Intensive"	91%
n = 11	

	Fall Results
% at "Benchmark"	7%
% at "Strategic"	0%
% at "Intensive"	93%
n = 14	

Despite even and statistically significant improvement, there were no changes in instructional recommendations from fall to winter assessments. In order to meet benchmark (grade level) criteria, DIBELS expects 44 or more words correct per minute (WCPM) at the beginning of second grade, and 68 or more WCPM by mid second grade. This is a very high standard for our at-risk population.

*Implementing a Multisensory Reading Program
for Kindergarten Students in Charter School*

Third Grade

Tests: DIBELS Oral Reading Fluency (DORF)

Oral reading fluency:

Mean Fall score	Mean Winter score	Pearson correlation	P value (two tailed test)	Significant?
43.33	47.67	.99	.046	Yes

n = 6

It should be noted that of six students who participated in both assessments, only one student's score did not increase. This accounts for the extremely high correlation. It also explains the finding of statistical significance, despite the small magnitude of difference (difference between means = 4.34; largest words correct per minute increase was 11 WCPM (mean change between fall and winter was 4.33, standard deviation was 4.03)

The following summarizes the instructional recommendations for these students for fall and winter. Of the six students who took the assessment at both times, one's rating went from "strategic" to "intensive" and the rest had no change.

	Fall Results
% at Benchmark	0%
% at "Strategic"	50%
% at "Intensive"	50%
n = 6	

	Fall Results
% at Benchmark	0%
% at "Strategic"	.38%
% at "Intensive"	.62%
n = 8	

Overall the results of the DIBELS program demonstrate our K-3 students have made statistically significant progress on measures of early literacy outcomes. The magnitude of the change was not often large- but the change was there. We should be greatly encouraged that our efforts are having a positive effect, while at the same time realizing the challenge that we face.

Congratulations VSH teachers and students and we look forward to the spring benchmark assessments!!