PATHWAYS TO READING INSTRUCTION INCREASING MAP SCORES

By

HEIL, STEPHANIE

Submitted to

The Educational Leadership Faculty
Northwest Missouri State University Missouri
Department of Educational Leadership
College of Education and Human Services
Maryville, MO 64468

Submitted in Fulfillment for the Requirements for

61-683 Research Paper
Spring 2013
April 22, 2014
Abstract

The purpose of this study was to analyze the Communication Arts MAP scores for third grade students in a specific district outside of the Kansas City area. The research includes findings for the question, “Is there a difference in 3rd grade Communication Arts MAP scores between students who have received direct phonics instruction through the Pathways to Reading Program and students who have not?” The research was conducted using an administrators report from Missouri’s Department of Elementary and Secondary Education on MAP student Achievement Level for Communication Arts of all the third graders in the district for the years 2012-2013. The findings were analyzed through Microsoft Excel and A Statistical Program (ASP) software. Findings indicate that there is not a difference in Communication Arts MAP scores for students who have received direct phonics instruction through Pathways to Reading and students who have not.
Introduction

Background, Issues and Concerns

Superintendents, principals, teachers and even students feel the pressure in today’s society to achieve high test scores. This may be high scores on the Missouri Assessment Program (MAP) assessments at the elementary and middle school level or End of Course (EOC) exams at the high school level. There is a huge push for school districts to earn high marks on Adequate Yearly Progress (AYP). The more students that achieve proficient and advance the better the districts chance to have a higher AYP. Teacher’s may wonder if there is connection between student’s scoring proficient or advanced on their MAP assessments and receiving direct phonics instruction. There are many researchers that agree.

Practice under Investigation

The practice under investigation will be looking at the 2012 3rd grade Communication Arts MAP scores of students who did not receive direct phonics instruction and the 2013 3rd grade Communication Arts MAP scores of students who have received three years of direct phonics instruction through the Pathways to Reading Program.

School Policy to be Informed by Study

Every school district in the state of Missouri must meet the AYP standards on the Missouri Assessment Program (MAP) and EOC tests, so if there is a significant difference in test scores based on phonics instruction teachers should make sure they are continuing the direct instruction through the Pathways to Reading program.

Conceptual Underpinning

Most students enter school feeling excited and anticipate learning. But eventually for many it becomes frustrating. Reading becomes more and more difficult and learning turns into a
chore and they begin to hate coming to school. These students may quickly lose their motivation and begin to fail. As teachers this is unacceptable. All students deserve the chance to be successful and to feel a sense of pride when reading. Direct phonics instruction through the Pathways to Reading program is one way to increase student’s reading scores and self-esteem. Naturally, it is difficult to teach children how to read only by using sounds or only by using letters. Pathways to Reading uses both phonemic awareness and phonics instruction to teach children how to become efficient readers (Jackson, n.d.)

Statement of the Problem

If there is a significant difference on the performance of the 2013 3rd grade Communication Arts MAP assessment compared to the 2012 3rd grade Communication Arts MAP assessment then teachers need to know phonics instruction through the Pathways to Reading program is a necessary component of students learning to be successful readers.

Purpose of the study

To find if there is a significant difference in Communication Arts MAP scores based on students who have received Pathways to Reading direct instruction and those who have not.

Research questions

RQ#1: Is there a difference in 3rd grade Communication Arts MAP scores between students who have received direct phonics instruction through the Pathways to Reading Program and students who have not?

Null hypothesis

There is no difference in 3rd grade Communication Arts MAP scores between students who have received direct phonics instruction through the Pathways to Reading Program and students who have not.
Anticipated benefits of the study

If there is a difference in 3rd grade Communication Arts MAP scores between students who have received direct phonics instruction through the Pathways to Reading Program and those who have not then continued phonics instruction should occur.

Definition of Terms

**EOC**- End of Course Exam- exams given in the state of Missouri at the end of certain courses created in 2009 (Algebra I, Geometry. English I, English II, Biology, Government)

**MAP**-Missouri Assessment Program-all grades 3-8 take a grade level assessment in the areas of Communication Arts and Math to determine if schools are meeting state standards

**CA**-Communication Arts-the study of human communication

**AYP**- As required by No Child Left Behind, an indication if the school: receives federal Title I funding; achieved Adequate Yearly Progress (AYP) in the previous year; and if the school has been identified as “in school improvement” or other special status.

**DESE**- Department of Elementary and Secondary Education- is the administrative arm of the State Board of Education.

**DRA**-Developmental Reading Assessment- is an individualized reading assessment that enables teachers to evaluate growth in student reading performance over time. The DRA identifies a student's independent reading level. This is the level at which a student can read successfully without assistance.

**PTR**-Pathways to Reading Program- is a Teacher Professional Development Training Program and reading curriculum for beginning readers in grades K-2 and struggling readers in upper grades. The reading curriculum is comprehensive including manuals, lesson plans, assessments, and small group and large group instruction strategies created by Terry Clinefelter.
Summary

A study was conducted to see if there was a significant difference in 3rd grade Communication Arts MAP test scores of students who had received three years of direct phonics instruction through the Pathways to Reading Program and those who had not. If the t-test concludes there was a significant difference, teachers should teach direct phonics instruction so every student can perform at a high level of achievement. After this study is completed, school districts can benefit by looking at the performance data and providing professional development to teachers direct phonics instruction through the Pathways to Reading Program if needed.
Pathways Instruction

Review of Literature

Each year the state of Missouri requires third grade to be assessed in the areas of Communication Arts and Mathematics to show growth in AYP. At the end of every April the MAP is given to each and every child in all school districts in Missouri. School districts are faced with the challenge of implementing instructional programs that will increase student scores on these assessments. A child must be able to read on grade level to be successful on either test.

The English language is very complicated to learn how to read and spell. Teachers will teach student’s one rule one day and then a new rule the next day that contradicts what was taught the previous day.” Unlike vision or speech, we have no genetic program for reading” (Dooner, 2012, p. 32). We are not born with a ‘reading’ gene; but our neural pathways have been able to ‘re-wire’ in such a way that allows our brain to learn to read” (Dooner, 2012, p. 32).

Learning the alphabet and letter sounds are the foundational building blocks to learning how to read. “For most children, their first experiences with letters and words dictate how the brain establishes neural networks that may become habitual pathways as reading skills develop” (Herron, 2008, p. 79). “Many studies have established that phonemic awareness (the ability to identify the individual sounds in words) and phonics (the representation of those sounds with letters) are essential for skilled reading” (Herron, 2008, p. 80).

Phonics instruction is often a subject in education that cycles in and out. Many teachers use phonics in their classrooms. Good teachers use the balanced reading approach which includes five elements: phonemic awareness, phonics instruction, vocabulary knowledge, reading fluency and reading comprehension. To be able to make use of letter-sound information, children need phonemic awareness. (Panel, 2011). “Once children can hear phonemes, they learn to assign a letter to represent it. The easier the decoding process for the child, the more working
memory is left for comprehension” (Dooner, 2012, p. 33). This in turn increases vocabulary, fluency and comprehension which will increase test scores.

“It has been suggested that explicit instruction of basic reading skills should begin in kindergarten, especially for those children who are at risk of failing to develop reading skills” (Noltemeyer, Joseph, & Kunesh, 2013). Students have to be able to blend sounds to understand how to decode words. “Early reading instruction that is high in quality and quantity can prevent children from experiencing significant delays” (Noltemeyer, Joseph, & Kunesh, 2013, p. 122).

There was a phonics instruction study conducted by Noltemeyer, Joseph and Kunesh in a large city in the Midwest USA (2013). Seven kindergarten students were unsystematically assigned to two different experimental groups. “The dependent variables in the study were: (1) number of words retained following each instructional session, (2) number of words retained at one week, and (3) number of control words read correctly” (Noltemeyer, Joseph, & Kunesh, 2013, p. 124). Instructional approach was the independent variable. Students were either in the phonics group or the control condition group. In order to get baseline data, each student was given twenty words plus a group of six control words.

Once a set of uncommon words were identified the students began small group phonics instruction for exactly ten minutes. After their instruction an assessment of the words were given and again one week after instruction. These sessions took place one time a week for five weeks. The control group also met once a week for five weeks and were asked to read the same set of twenty words plus the six control words.

“The results of the study indicated that the phonics treatment resulted in gains in the number of words recalled compared to the number of pre-test and control words read correctly for all participants. In fact, after the sessions, the mean number of treatment words recalled per
session during the phonics condition was 4.20 (SD= 1.555) out of a possible score of 6” (Noltemeyer, Joseph, & Kunesh, 2013, p. 128).

The Pathways to Reading Program (PTR) is a phonics program created by Terry Clinefelter. “Pathways to Reading is a Teacher Professional Development Training Program and reading curriculum for beginning readers in grades K-2 and struggling readers in upper grades. The reading curriculum is comprehensive including manuals, lesson plans, assessments, and small group and large group instruction strategies” (Clinefelter, 2014, p. 1). The focus for this program is to help teachers understand how to teach and apply the five components of reading (Clinefelter, 2014).

Teachers need to ensure that the students are making reading gains from the phonics instructions. When using the Pathways to Reading program each day requires record keeping and there are quarterly assessments to be given as well. A district often requires more than just one type of assessment to determine a child’s reading level. A common assessment used by many districts is the Developmental Reading Assessment (DRA).

The Developmental Reading Assessment Second Edition Plus (DRA 2+) is an effective evaluation tool to determine student’s current reading ability. Teachers can quickly determine each student’s instructional needs and based on those needs decide where the focus of instruction should be. (Developmental Reading Assessment®, 2nd Edition PLUS (DRA2+), 2013) From this a teacher is able to see if phonics instruction is working and have a good prediction of whether or not their students are reading on grade level and if they will be able to read and comprehend the MAP assessments.
Research Methods

Research Design

A study was conducted to see if there was a relationship between 3rd grade students who had direct phonics instruction through the Pathways to Reading Program and the Communication Arts MAP tests scores. The independent variable being tested was phonics instruction, while the dependent variable tested was 3rd grade Communication Arts MAP exam scores. If the difference is found significant in scores based on direct phonics instruction, teachers should be given professional development and training on how to best incorporate the Pathways to Reading program in their classrooms.

Study Group Description

Communication Arts MAP scores were obtained from 3rd grade students attending a school district centrally located in the state of Missouri in the years 2012 and 2013. The 3rd grade students in 2012 had little to no phonics instruction while the 3rd grade students in 2013 had three years of direct phonics instruction though the Pathways to Reading Program. The district had 412 students in the elementary building in the school year 2012-2013. Of the 412 students, 36.7% of the students are on free or reduced lunch and 97.3% of the students are white.

Data Collection and Instrumentation

MAP scores in the area of Communication Arts were obtained from the elementary principal in the fall of 2013.

Statistical Analysis Methods

A t-test was conducted to find if there is a significant difference in 3rd Communication Arts MAP test scores based on direct phonics instruction. The source was broken into two categories: 3rd grade students who have received three years of direct phonics
instruction through the Pathways to Reading Program and 3rd grade students who have received little to no phonics instruction.
Findings

A t-test was conducted to determine whether there was a difference in performance on the 2012 and 2013 Communication Arts MAP test based on direct phonics instruction from the Pathways to Reading Program. The following table depicts the organized findings based on the statistical raw data provided by the elementary principal through the DESE website. There are only two years of data to look at since the 2013 class was the first class to receive three full years of direct phonics instruction.

Figure 1

t-Test Analysis Results for 2012 (little to no phonics instruction) and 2013 (three years of Pathways to Reading instruction) Communication Arts MAP scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>Mean D</th>
<th>t-Test</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA MAP 2012 (76)</td>
<td>2.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA MAP 2013 (81)</td>
<td>2.73</td>
<td>33</td>
<td>0.78</td>
<td>157</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Note: Significant when p<=0.25

Two years of Communication Arts MAP assessment results for third graders in a small rural district outside of the Kansas City area were studied. The data collected from the Missouri DESE website contained student names and scores ranging from below basic to advanced. The scores were turned into numbers. Below basic=1, Basic=2, Proficient=3 and Advanced=4. The mean Communication Arts score for the 2012 group was 2.63, while the mean Communication Arts score for the 2013 group was 2.73. The difference between the mean scores (Mean D) was 33. The t-test value was 0.78. The degrees of freedom were 157. The null hypothesis was: There is
no difference in 3rd grade Communication Arts MAP scores between students who have received direct phonics instruction through the Pathways to Reading Program and students who have not. The null is not rejected because the p-value is 0.44, which is greater than the alpha level of 0.25. This means that there is not a significant difference between 3rd grade student’s MAP scores and whether or not they received direct phonics instruction.

Figure 2

The mean of the 2013 students’ Communication Arts MAP test scores were 2.73. This means that average student scored between Basic and Proficient on the scoring rubric for this standardized test. The pie chart shows that the average number of student Communication Arts MAP test scores in 2012 was not significantly lower with a mean of 2.63.
Conclusions and Recommendations

The outcomes reported from this study show that there is no statistical difference in the Communication Arts MAP test scores from students in 2012 who had received little to no phonics instruction and students in 2013 who had received extensive phonics instruction. The t-test results from the 2012 and 2013 testing years indicated that the p-value was 0.44 which was much higher than the alpha level set at 0.25; therefore, the null hypothesis tested is indefinitely accepted with confidence. There is a not difference between Communication Arts MAP scores of students who have received direct phonics instruction and students who have not.

The conceptual underpinning that students will perform better on assessments if they are able to read fluently is not supported by the findings in this study. It was believed that direct phonics instruction is a way to increase student’s reading scores and self-esteem. The findings may not support this actual statement; however this study did not determine that phonics instruction doesn’t foster better readers.

After completing this study, there are still questions that could be asked and further studies that could be conducted. It would be interesting to see if the scores of students that took the Communication Arts MAP test in 2013 would increase in 2014. There might be better data in tracking the same student’s progression rather than one grade versus another grade. Third grade is the first time that they are exposed to such a formal testing situation. This study could also go more in depth. Gender studies could be conducted as well as the comparing scores of all third graders across the United States after the new common core assessment is initiated in 2015.

Professional development should continue in the area of direct phonics instruction. There is no evidence that direct phonics instruction is not reaching struggling readers. As long as
teachers are able to see growth data, the Pathways to Reading program should continue in this particular district. Great teachers will see improvements in student reading one way or another.
References

http://www.pathwaystoreading.com/about/#content-top


http://ezproxy.nwmissouri.edu:2062/ehost/pdfviewer/pdfviewer?vid=2&sid=b5fa433c-ba22-452b-a4f9-1761bf0e62ab%40sessionmgr4002&hid=4109

