The effects of an integrated language arts instructional program on reading comprehension skills of learning lab students were examined using the Analytical Reading Inventory, and their attitudes toward recreational and academic reading were assessed using the Elementary Reading Attitude Survey. Subjects were at-risk fifth and sixth grade students, ranging in age from 12 to 16 years, who were enrolled in a single, self-contained learning lab class in southeast Mississippi. The integrated language arts instructional treatment period lasted for 9 months, with students responding to pre- and post-measures in September and May, respectively. Results of correlated t-tests revealed significant improvement in five out of six comprehension areas: ability to recall main ideas, ability to recall factual information, vocabulary development, inferential skills, and drawing conclusions. Ability to recognize cause-effect relationships was not significantly affected. Also, students improved significantly in their oral, independent-reading performance as well as in their word recognition skills. Students did not improve significantly in their attitudes toward recreational and academic reading. (One table of data is included; 14 references are attached.) (Author/RS)
Effects of an Integrated Language Arts Instructional Program On Learning Lab Students' Reading Comprehension

Dana G. Thames           Carolyn Reeves-Kazelskis
University of Southern Mississippi
Hattiesburg, Mississippi

A Paper Presented at the Twenty-Second Annual Conference of the Mid-South Educational Research Conference
New Orleans, Louisiana
November 10-12, 1993

Running Head: Reading Comprehension
Effects of an Integrated Language Arts Instructional Program On Learning Lab Students' Reading Comprehension

Abstract

The effects of an integrated language arts instructional program on reading comprehension skills of learning lab students were examined using the Analytical Reading Inventory, and their attitudes toward recreational and academic reading were assessed using the Elementary Reading Attitude Survey. Subjects were at-risk fifth and sixth grade students, ranging in age from 12 to 16 years, who were enrolled in a single, self-contained learning lab class. The integrated language arts instructional treatment period lasted for nine months, with students responding to pre- and post-measures in September and May, respectively.

Results of correlated t-tests revealed significant improvement in five out of six comprehension areas: ability to recall main ideas ($p < .001$), ability to recall factual information ($p < .01$), vocabulary development ($p < .01$), inferential skills ($p < .01$), and drawing conclusions ($p < .03$); ability to recognized cause-effect relationships was not significantly effected. Also, students improved significantly ($p < .04$) in their oral, independent-reading performance as well as in their word recognition skills ($p < .01$). Students did not improve significantly in their attitudes toward recreational and academic reading.
Reading Comprehension

Effects of an Integrated Language Arts Instructional Program On Learning Lab Students' Reading Comprehension

Rationale

Massive amounts of money are spent each year in an attempt to teach children and adults to read. The goal of literacy projects, funded by federal, state, and local governments, is to secure the "right to read" for all individuals. In spite of these efforts, large numbers of people remain illiterate or are severely limited in their reading skills.

The results of numerous studies provide evidence that the number of students failing to learn to read adequately is between 20-25% of the school population (Stedman & Kaestle, 1987). While teachers may do a relatively adequate job of teaching students to decode words, we find that many students lack the skills required to "read to learn" information and to read for pleasure. Teaching an individual to read does not mean, solely, to enable or to empower that person to recognize words in print. Indeed the notion of reading encompasses a far broader definition; reading goes beyond mere word recognition and includes higher order thinking, a complex process involving, "elaborating, adding complexity, and going beyond the given" (Resnick, 1987). Students who are taught to read from this perspective of reading are able to utilize reading to help them solve problems and to expand their knowledge of the world. Since one of the National
Goals for Education is to assist citizens in becoming critical thinkers who are capable of problem solving in order to assist with resolutions to issues that continuously confront our society, we must develop students' abilities to comprehend written discourse at inferential, analytical, evaluative, and appreciative levels (Ogle, 1992). These levels of reading comprehension include the ability to analyze and evaluate written information for its accuracy, its breadth of coverage, its usefulness, and its connection to other sources of information.

Why do many students fail to develop reading comprehension skills that are needed to read successfully, whether it be for pleasure or for learning information? Three factors that impede the development of higher-level reading comprehension skills are: (1) negative attitudes toward reading, (2) lack of prior knowledge about topics addressed in written discourse, and (3) lack of vocabulary to understand the writer's message.

Reading attitudes have been defined as those feelings that cause a reader to approach or avoid a reading situation (Readence, Bean, & Baldwin, 1985). The attitude that students bring to the printed page or to the world of print affects even the smallest academic task. Negative attitudes toward reading are very quickly developed when students begin to experience reading difficulties and are almost impossible to overcome, especially as the student gets older. Thus, negative attitudes toward reading become a critical deterrent to reading potential and ability. In many instances, it is not clear which developed
first, poor reading comprehension or poor attitudes toward reading. However, it is clear that as poor attitudes toward reading increase reading comprehension suffers and that lack of reading comprehension ability exacerbates the development of poor attitudes.

Research findings indicate that the older students become the more difficult it is to replace their negative attitudes toward reading with positive attitudes because they often have a tendency to put forth less effort which, in turn, produces a cyclic pattern of continued failure (Butkowsky & Willows, 1980; Dweck & Bemphechat, 1983). It may be that the typical instructional approach used to improve students' reading comprehension skills and, hopefully, their attitudes toward reading should be replaced. Most remedial reading programs for students in the middle grades continue to focus instruction around the basic skills of word recognition. Students are taken back to the "beginning" and exposed again to the subskills of reading (e.g., sound-symbol correspondence, single syllable sight words, blends, syllabication, etc.)—no thought is given to the fact that this approach did not work last year or the years before. To make matters worse, while this instruction is taking place, the students are still responsible for learning the material that was covered while they were receiving special reading training, making them fall twice as far behind. The student's perception of this situation is likely, "I leave class during the reading period to go learn how to read, but when I
come back I have to catchup with the rest of the class on what I missed in reading while I was out learning how to read"---this makes perfect sense, doesn't it? It is easy to understand how situations like this increase poor readers' negative attitudes toward reading. As a result, it is not uncommon for poor readers to become so frustrated with school that they drop out of school. The importance of prior knowledge as an aid to reading comprehension has been addressed by reading authorities (Beck, Omanson, & McKeown, 1982; Pearson, Hansen, & Gordon, 1979). Lack of prior knowledge about a subject, or a topic, adversely affects a student's ability to comprehend written discourse about the subject. The need to apply what one already knows to what one intends to learn is essential in moving beyond mere word recognition and on to the processes of critical thinking and active interaction with written discourse. Prior knowledge serves as the medium through which new material is filtered, then interpreted, and ultimately stored in a fashion where retrieval is related to the manner in which the information was processed. Many students involved in reading to learn tasks not only have little prior knowledge about the topic, or ideas being presented, but much of what they "know" is inaccurate which further compounds the problem of comprehension. When a student lacks prior knowledge, or has inaccurate information, the new material being filtered through the student's existing knowledge base often finds no place to "fit," so the new material is discarded because of its lack of meaning to the student (Beck & Dole,
Reading Comprehension

Therefore, without sufficient prior knowledge the act of reading becomes meaningless.

The development of appropriate technical and general vocabularies is essential for reading comprehension to take place (Readence, Bean, & Baldwin, 1985). The ability to use technical and general vocabularies, both expressively and receptively, allows individuals to communicate interactively with information being read, written, heard, or spoken. As students progress in school it becomes increasingly important for them to receive vocabulary instruction prior to reading subject-matter texts, so that they will have the technical and general vocabulary to understand what they read.

Teaching a new word to students involves more than merely explaining what it means. In fact, new vocabulary words must be introduced in terms of how they relate to the information being studied in a subject-matter area or textbook. Since most words have multiple meanings, it is unrealistic for a teacher to assume that the mere explanation of what a word means will suffice in terms of making it part of the student's usable repertoire. Students are constantly being bombarded with new vocabulary terms in each subject being taught, on a daily basis. Teachers can facilitate students' reading comprehension of subject-matter texts by using a variety of instructional strategies, such as webbing, dramatization, word games, etc., prior to having students read the texts. An understanding of new vocabulary terms and how the terms relate to what is being taught increases
Reading Comprehension

the student's reading comprehension which, in turn, increases his/her knowledge of the topic, and thus expands the student's ability to utilize the knowledge gained for solving problems, both in and out of school.

By focusing on the improvement of students' attitudes toward reading, expansion of prior knowledge, and vocabulary acquisition through an integrated language arts approach it may be possible to improve the reading comprehension skills of poor readers. The extent to which such an approach would be effective with older students who exhibit poor reading comprehension skills merits investigation. This study was designed to explore the effects of an integrated language arts instructional program on the reading comprehension skills of fifth and sixth-grade students enrolled in a Learning Lab classroom. Three questions were addressed by the study:

(1) Will there be a significant difference between the means of pre- and post-measures of reading attitudes of Learning Lab students?

(2) Will there be a significant difference between the means of pre- and post-measures of oral reading performance at the independent reading level of Learning Lab students?

(3) Will there be a significant difference between the means of pre- and post-measures of reading comprehensions skills of Learning Lab students?
Methodology

Subjects
Students (n = 16) enrolled in a Learning Lab classroom were included in this study. Operated by a public school district in southeast Mississippi, the Learning Lab classroom offers an alternative classroom environment for male, at-risk students. Ranging in age from 12-16 years, the students enrolled in the Learning Lab classroom had been placed there for such reasons as: the inability to get along with classmates (e.g., fist fighting, verbal altercations, etc.); lack of parental involvement or concern; having been in juvenile detention centers; the need for a male role model, etc. The teacher of the self-contained Learning Lab classroom was a Caucasian male, approximately 28 years of age. The teacher's assistant was an African American female who worked full-time with the class and teacher. The Learning Lab was designated as a fifth/sixth grade classroom, with each student remaining in the classroom for two years. After which time, the student moved on to the local middle school if behavior and performance warranted the move. All of the students were reading below the fifth-grade reading level.

Instruments
A battery of formal and informal diagnostic instruments, administered individually, were used as pre- and post-measures of student progress. In order to determine the interests of each student, the Interest and Attitude Inventory (Cheek & Cheek, 1980) was administered. The Elementary Reading Attitude Survey
Reading Comprehension

(Moe & Woods, 1990) was administered to determine attitudes toward academic and recreational reading. Students' oral and silent reading abilities were assessed with the Analytical Reading Inventory (Woods & Moe, 1989). Form A was used for the silent, narrative portion, and Form B was used for the oral, narrative portion. Form S was used to measure students' silent, expository reading potential. Word recognition ability was assessed by using the Form A word list from the Analytical Reading Inventory and the revised Slosson Oral Reading Test (Slosson & Nicholson, 1990). Form B from the Analytical Reading Inventory was used to identify each student's oral reading miscues. Post-measures of student progress were obtained using parallel forms from the Analytical Reading Inventory, the Elementary Reading Attitude Survey, the Interest and Attitude Inventory, and the revised Slosson Oral Reading Test.

Procedures

The duration of the study was one academic year, beginning in September and ending in May. In early September, each Learning Lab student was assigned to a preservice teacher who was enrolled in a senior-level reading diagnosis/instruction course. During two 50-minute periods, each preservice teacher administered a battery of diagnostic reading instruments, as pre-measures, to his/her assigned student. Under the supervision of the course professor, each preservice teacher scored the instruments and identified the strengths and weaknesses of his/her assigned student; scores on the instruments and
interpretations of the scores were checked by two additional instructors to ensure accuracy.

Based on the results of the diagnostic measures, the preservice teachers designed lessons to teach specific reading skills to their students. The preservice teachers met with their students twice a week, 50 minutes per session, from September through May to provide individualized instruction. All instruction was provided on Tuesday and Thursday mornings in the school where the Learning Lab classroom was housed during the same time period that students normally received reading instruction; no other reading instruction was provided by the classroom teachers on Tuesdays and Thursdays.

Each instructional session included, listening, speaking, reading, and writing activities correlated with textual material (e.g., a book, newspaper, comic book, or magazine article) related to each student's personal area(s) of interest. All lesson plans were checked by the course professor prior to being taught to ensure that the lesson objectives and procedures addressed the reading weaknesses of the student. At the end of each week, the lessons which had been taught were analyzed and evaluated by the preservice teacher under the supervision of the course professor; based on student performance during the lessons, reading strengths and weaknesses were noted.

Each instructional session began with the introduction of three or four key words (which had been selected by the preservice teacher because the words were necessary to
understanding the content of the lesson); each word was presented in the context of a sentence. Presentation of the words in a sentence context was done in an effort to model for the students how context clues may be used to determine the meaning of an unknown word. After being introduced, the words were placed in the student's "word bank." Each student's word bank was constructed to reflect his/her particular interest. For example, one student had indicated a strong interest in basketball, during administration of the Interest and Attitude Survey, so his preservice teacher created a small bulletin board which contained a drawing of a basketball goal and as words were learned, they were stapled all around the goal. Each student's word bank was different in terms of its presentation format and motif, because students had varied interests and because the preservice teachers were very creative in their efforts to design the word banks. At the end of the year, the students were given their word banks to take home, hoping they would continue to add words to the banks.

The integrated language arts lessons were built around selected themes in an effort to activate and build prior knowledge. This approach was used to help students make connections between the "known" and the "unknown," so that they could experience success during reading. Each preservice teacher attempted to select themes that reflected their assigned student's interest(s). However, some students indicated that they had no particular interest(s); in these cases, the
preservice teachers selected themes that they believed would interest their students. Reading selections were presented to the students using many instructional strategies, such as the Directed Reading Thinking Activity, ReQuest, List-Group-Label, the Directed Listening Thinking Activity, the Directed Inquiry Activity, the Venn Diagram, and the Semantic Feature Analysis Strategy. After using each instructional strategy to present the lesson, the preservice teachers discussed with the students the strategy that had been used during the lesson and taught the student how to use the instructional strategy for their own learning purposes. Preservice teachers and students would think of other learning situations in which the instructional strategy could be used to enhance learning. For example, after using the Semantic Feature Analysis Strategy to teach comparing and contrasting, the preservice teacher reminded the student that it would be helpful to create his/her own Semantic Feature Analysis Chart when preparing for a test which required an understanding of the similarities and differences between ideas, groups of things, situations, etc.

During each instructional session, students were praised for active, positive behavior and progress charts were used to document and reinforce appropriate learning behaviors. Progress charts were designed by the preservice teachers for their individual students. Each Progress Chart was unique and was created to represent an interest that the student had expressed during administration of the Interest and Attitude Survey. For
example, the young man who expressed an interest in basketball was given a progress chart that depicted the layout of a basketball court. At various points down the court were velcro dots where the preservice teacher would position a paper figure that was designed to look like the student. Each time the student did something well or in a positive fashion, the figure representing him was moved down the court with the "goal" being to reach the opposite end of the court to score a basket. Each time a basket was scored, points were recorded; for each point earned, the student was awarded a construction paper pennant which he fastened to the edge of the basketball court. Only positive behaviors were rewarded. The kinds of behaviors that were rewarded included: giving an appropriate answer to a question, participating in the lesson with a pleasant attitude, having a smile, making an attempt to solve a problem or answer a question, etc. The Progress chart was used throughout each instructional session. Also, the progress chart was sent home with the student at the end-of-the-year.

The last five minutes of each session was devoted to having the preservice teacher read to the student. The books that were read aloud were short, children's books which were topically related to the theme of the day. Chapter books were not used during this activity because the idea was to expose the students to a variety of books, authors, ideas, and writing styles. As the students became increasingly more comfortable with their own reading ability, they began requesting to read along with the
Reading Comprehension
teacher, take turns reading, or to read the book aloud to the
preservice teacher.

Results

Even though 16 students were involved in the study, complete
data was available for only 10 students. Results of correlated
t-tests revealed significant improvement in five out of six
comprehension areas: ability to recall main ideas ($p < .001$),
ability to recall factual information ($p < .01$), vocabulary
development ($p < .01$), inferential skills ($p < .01$), and drawing
conclusions ($p < .03$); ability to recognize cause-effect
relationships was not significantly effected. Also, students
improved significantly ($p < .04$) in their oral reading
performance at the independent reading level as well as in their
word recognition skills ($p < .01$). Students did not improve
significantly in their attitudes toward recreational and academic
reading. Table 1 shows the pre- and post-means associated with
each of the variables included in the study.

Discussion

The results of this study suggest that an integrated
language arts approach, centered around the interests of
students, has a positive effect on Learning Lab students' word
recognition skills, reading comprehension skills, and oral
reading performance at the independent reading level.
Significant improvement was made by the students in all levels of
reading comprehension except in the ability to recognize cause-
effect relationships. However, students did make progress in
their ability to recognize cause-effect relationships as indicated by the gain made between pre- and post-mean scores. Since this skill is the most complex of the skills measured, it may be that more time is needed to develop fully this skill, or it may be that students were not given enough opportunities during instruction to practice identifying cause-effect relationships. Future investigations should monitor instruction carefully to make sure that preservice teachers provide ample opportunities during instruction for students to use each of the higher-level comprehension skills. Based on student responses to the instruction, it appears that the integrated language arts approach as well as the instructional strategies encouraged assimilation and accommodation of information presented in the reading materials; the gains made by the students in the reading comprehension areas suggest that the students acquired strategies for making connections between their prior knowledge and information presented in reading materials.

Students improved significantly in their word recognition skills and in their oral reading performance at the independent reading level. It is likely that the gains made in vocabulary development and word recognition ability, especially in the area of context analysis, contributed to the gains in reading comprehension skills. As students expanded their technical and general vocabularies, they did not have to struggle to decode unknown vocabulary but could rely on context and critical thinking skills to obtain meaning. Similarly, as students gained
in their vocabulary development their oral reading performance improved because they had expanded their sight word knowledge.

It was disappointing to find that students did not improve significantly in their attitudes toward recreational and academic reading. Because the students appeared eager to do the instructional activities, and seemed to become increasingly more interested in reading, it was perplexing to find that their attitudes toward reading did not change more. A possible explanation is that one of the 16 students maintained very positive attitudes throughout the study, so his scores skewed the pre- and post-means. Also, it is possible that even though the students appeared to enjoy the reading activities and strategies included in the integrated language arts approach, they did not view reading tasks outside of this approach in a positive manner. Since their prior experiences with reading had been negative, they may have responded to the post measure of the Elementary Reading Attitude Survey from the perspective of prior reading experiences. Also, it may be that attitudes take longer to improve than do academic skills. This explanation is consistent with the work of other researchers who have found that it becomes more difficult to change the attitudes of poor readers as they progress in school (Butkowsky & Willows, 1980; Dweck & Bemphechat, 1983). Since the classroom teacher stated that the students had begun to check-out books from the library, volunteer to read aloud, and mention titles of books that they wanted to read, it may be that the students were beginning to change their
attitudes about reading.

Since there was not a comparison group included in this study, the results are inconclusive. However, considering the fact that these were older students who had not experienced much success in prior school experiences, it is encouraging to find that they made significant gains while participating in an integrated language arts instructional program in several reading comprehension areas, word recognition skills, and oral reading performance at the independent level. These findings are important especially when considering that many times students enrolled in remedial reading classes do not make significant progress over the course of a school year. An integrated language arts approach may offer a viable alternative to the traditional, decoding approach which characterizes most remedial reading instruction. Further research is recommended to examine the longitudinal effects of such an approach on the reading performance of learning lab students.
References


Reading Comprehension

background knowledge on young children's comprehension of explicit and implicit information. *Journal of Reading Behavior, 11*, 201-209.


Table 1
Means and Standard Deviations of Reading Performance Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre X</th>
<th>S.D.</th>
<th>Post X</th>
<th>S.D.</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERAS (Rec. Rdg.)</td>
<td>54.60</td>
<td>26.03</td>
<td>56.80</td>
<td>27.10</td>
<td>.53</td>
<td>.61</td>
</tr>
<tr>
<td>ERAS (Acad. Rdg.)</td>
<td>72.10</td>
<td>22.58</td>
<td>79.90</td>
<td>18.55</td>
<td>.90</td>
<td>.38</td>
</tr>
<tr>
<td>SORT (Word Recog.)</td>
<td>121.20</td>
<td>23.81</td>
<td>136.40</td>
<td>21.78</td>
<td>4.04</td>
<td>.01*</td>
</tr>
<tr>
<td>Oral Rdg. (Indep.)</td>
<td>2.40</td>
<td>1.27</td>
<td>2.00</td>
<td>2.71</td>
<td>2.39</td>
<td>.04*</td>
</tr>
<tr>
<td>Oral Rdg. (Inst.)</td>
<td>2.20</td>
<td>2.35</td>
<td>4.80</td>
<td>2.78</td>
<td>2.11</td>
<td>.06</td>
</tr>
<tr>
<td>Silent Rdg. (Indep.)</td>
<td>.50</td>
<td>1.27</td>
<td>1.70</td>
<td>2.75</td>
<td>1.22</td>
<td>.25</td>
</tr>
<tr>
<td>Silent Rdg. (Inst.)</td>
<td>4.10</td>
<td>2.08</td>
<td>5.10</td>
<td>2.28</td>
<td>1.10</td>
<td>.29</td>
</tr>
<tr>
<td>Main Ideas</td>
<td>51.00</td>
<td>27.26</td>
<td>90.40</td>
<td>9.48</td>
<td>5.37</td>
<td>.01*</td>
</tr>
<tr>
<td>Recall of Facts</td>
<td>53.10</td>
<td>20.74</td>
<td>76.50</td>
<td>12.77</td>
<td>3.11</td>
<td>.01*</td>
</tr>
<tr>
<td>Vocabulary Dev.</td>
<td>50.30</td>
<td>14.81</td>
<td>64.80</td>
<td>16.03</td>
<td>3.77</td>
<td>.01*</td>
</tr>
<tr>
<td>Cause-Effect Relat.</td>
<td>47.60</td>
<td>22.51</td>
<td>64.00</td>
<td>20.51</td>
<td>2.06</td>
<td>.07</td>
</tr>
<tr>
<td>Inferential Rdg.</td>
<td>50.70</td>
<td>21.04</td>
<td>78.70</td>
<td>18.49</td>
<td>4.50</td>
<td>.01*</td>
</tr>
<tr>
<td>Drawing Conclusions</td>
<td>50.30</td>
<td>32.54</td>
<td>77.10</td>
<td>27.54</td>
<td>2.61</td>
<td>.03*</td>
</tr>
</tbody>
</table>

N = 10, df = 9

*P = < .05

1ERAS = Elementary Reading Attitude Survey
SORT = Slosson Oral Reading Test (revised)