Effects of a Content Area Reading Course on Teacher Attitudes and Practices

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Citation
Effects of a content area reading course on teacher attitudes and practices: A four year study

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Efforts have been made during the past 10 years to develop the teaching skills of secondary teachers in the area of reading. Not just those designated as reading specialists but other secondary teachers have been called upon to devote more attention to reading skill development in their classes.

Numerous certification agencies have also decided to mandate reading requirements for secondary certification. Estes and Piercey (1973) reported in 1973 that 30% of the 50 U.S. state certification agencies had or were considering secondary reading requirements for content area teachers. This figure had increased to 62% in 1979 and to 74% in 1981 (Certification Requirements in Reading, 1979, 1981).

Given this situation, it becomes more important to assess the value of familiarizing secondary personnel with content area reading practices.

A number of studies have investigated the attitudes of secondary personnel toward teaching reading in the content areas. Studies by Lipton and Liss (1978) and Usova (1978) revealed that attitudes differ by subject area. Usova later (1979) found that reading specialists had significantly more favorable attitudes than either principals or teachers.

In studies of teachers who had completed course or inservice work in reading, O'Rourke (1980) and Dupuis and Askov (1978) discovered that such experiences can improve teacher attitudes toward teaching reading in the content areas. Similar results were obtained by Welle (1981)

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in her study of the effects of a required reading methods course on the attitudes of undergraduate secondary education majors.

In summary, much of the recent research in content reading has investigated the attitudes of subject matter teachers who have either recently completed or have never taken a content area reading course. Some questions still remain unanswered. The following study addressed three questions.

1. Do subject matter specialists along with teachers in such areas as reading, elementary classroom, and special education find value in completing a content area reading course?

2. Do the number of years elapsed since a content area reading course was completed have any effect on the attitudes, perceived benefits, and the extent to which certain practices are used?

3. Are there differences in both the attitudes and instructional practices of content teachers who have completed a reading methods course and those who have not?

Elementary teachers are included in the first question because they also provide instruction in the subject areas. Reading specialists and special education teachers are included because they occasionally need to interact with content teachers, especially at the secondary level. The third question follows from O'Rourke's (1980) recommendation that studies be conducted to measure the relationship between teacher attitudes and content reading practices used.

A four-part survey
A questionnaire was developed and sent to 268 graduate students who had completed a three credit content area reading course between 1977 and 1981. A total of 138 usable questionnaires was obtained. Demographic data on the respondents appear in Table 1.

A comparison field-based group of 43 subject matter specialists from three school systems in Rhode Island who had never taken a methods course with content reading as the major focus volunteered to fill out a different form of the questionnaire (with three parts instead of four).

Survey instruments
Two instruments were developed for this study. The first, a 35-item Likert-type questionnaire, was given to teachers who had completed a content area reading course. It had four sections: demographic data (Table 1), attitudes toward issues in content area reading, benefits derived from completing a content reading methods course, and instructional practices used.

The second part of the questionnaire, which measured teachers' attitudes toward issues in content area reading, consisted of 7 items, based on an instrument by Vaughan (1977). A 7-point Likert-type scale provided a range of distinction.

As Vaughan recommends, the items were both positive and negative in nature. Here are the four positive items.

It is realistic to expect teachers of subject matter to teach students how to read material in the content areas.

Teachers of subject matter are obligated to help students improve their reading skills.

Course work in reading in the content areas should be required for secondary teaching certification.

Additional course work or inservice programs are needed to help teachers integrate the teaching of reading skills and subject matter.
Table 1
Demographic data on respondents

<table>
<thead>
<tr>
<th>Date of course</th>
<th>Number of respondents</th>
<th>Percent of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>16</td>
<td>12%</td>
</tr>
<tr>
<td>1978</td>
<td>14</td>
<td>10%</td>
</tr>
<tr>
<td>1979</td>
<td>44</td>
<td>32%</td>
</tr>
<tr>
<td>1980</td>
<td>43</td>
<td>31%</td>
</tr>
<tr>
<td>1981</td>
<td>21</td>
<td>15%</td>
</tr>
</tbody>
</table>

Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of respondents</th>
<th>Percent of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary classroom</td>
<td>23</td>
<td>17%</td>
</tr>
<tr>
<td>Reading specialist</td>
<td>43</td>
<td>31%</td>
</tr>
<tr>
<td>Special education</td>
<td>20</td>
<td>15%</td>
</tr>
<tr>
<td>In a subject area</td>
<td>39</td>
<td>28%</td>
</tr>
<tr>
<td>Other school position</td>
<td>6</td>
<td>4%</td>
</tr>
<tr>
<td>Missing cases</td>
<td>7</td>
<td>5%</td>
</tr>
</tbody>
</table>

The negative statements were

Subject matter teachers should concentrate on content and not concern themselves with the teaching of reading skills.

There is little that subject matter teachers can do to help students with reading problems.

One three-credit course is sufficient in helping teachers integrate the teaching of reading skills and subject matter.

The third part of the questionnaire measured general reactions to the benefits of completing a methods course. Participants responded to statements in subsection A if they were in positions to make use of the content area teaching strategies with students, to items in subsection B if they were in positions to help other teachers make use of the strategies, or to both subsections if they functioned in both roles. The same 7-point scale was employed. Here, too, statements were both positive and negative in nature. The three positive statements were

I have used the strategies presented in the course.

The teaching suggestions presented in the course were practical and useful.

My students have benefitted from the strategies I learned in the course.

The two negative statements were

There was not enough time to teach reading skills in the content areas.

This course presented theoretical principles that do not work out in practice.

The items in subsection B were similar to those in A except for some minor changes in wording to reflect the respondent's role as a consultant/resource to other teachers.

In Part IV the respondents indicated to what degree they had made use of certain instructional practices introduced in the course. These 9 items included preparing students for reading assignments, preteaching and reinforcing vocabulary, developing higher level as well as lower level comprehension skills, using reading guides to develop comprehension skills, showing students how to organize information, structuring a lesson so as to integrate the teaching of reading skills and subject matter, using different grouping patterns, assessing student strengths and weaknesses, and selecting appropriate subject matter materials.
This fourth section was also divided into two subsections, with 9 items each. As in Part III, participants were asked to respond to either one or both subsections based on their perceived role in a school. A 7-point scale was used with an appropriate set of descriptors. All of the statements were positive in nature.

The second questionnaire, a 16-item Likert-type survey, was developed for subject matter teachers who had never taken a content area reading course. It consisted of three parts: demographic data, attitudes toward issues in content area reading, and instructional practices used. Items in the attitudes section were the same as in the first questionnaire. Statements in the practices section paralleled those found in Part IV-A of the first questionnaire.

### Data analysis

When the data from the first questionnaire were analyzed, mean point values for each section were obtained for content area teachers, elementary teachers, reading specialists, special education teachers, and for the total. For the arithmetic average, the total score for all items was divided by the number of responses. Teachers in school positions with low \( N \)s, i.e. guidance counselors, teachers not identifying their occupation, and teachers not responding to every item in a category, were not included in the analysis.

The Tukey **h**ad procedure compared the mean section ratings between each teacher group that was significantly different. It was performed only if the \( F \) from the analysis of variance was significant at the .05 level. Also, for each statement in a section, the percent of response to each value on the 7-point scale for the total group of respondents was computed. Because some items were positive and some negative, the negative items were scored in reverse, so that a score of 7 indicated strong disagreement with a statement. The figures report the percentage of teachers who rated each statement 5, 6, or 7.

Data from the first and second questionnaires was used to compare

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### Table 2

Mean section ratings of survey items for teacher groups

<table>
<thead>
<tr>
<th>Teacher group</th>
<th>Attitude toward issues in content reading (7 items)</th>
<th>Perceived course benefits</th>
<th>Use of content area reading practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( N )  Mean</td>
<td>( N ) Mean</td>
<td>( N ) Mean</td>
</tr>
<tr>
<td>Current</td>
<td>37  5.54</td>
<td>37  5.64</td>
<td>15  5.12</td>
</tr>
<tr>
<td>Elementary classroom</td>
<td>23  5.30*</td>
<td>19  5.68</td>
<td>4  4.40</td>
</tr>
<tr>
<td>Reading</td>
<td>40  5.67</td>
<td>34  5.71</td>
<td>22  5.53</td>
</tr>
<tr>
<td>Special education</td>
<td>20  6.00*</td>
<td>17  5.66</td>
<td>14  5.43</td>
</tr>
<tr>
<td>Total</td>
<td>120 5.62</td>
<td>107 5.67</td>
<td>55 5.31</td>
</tr>
</tbody>
</table>

Scoring scale: 1-7, where 7 = strongly favorable attitudes, strong course benefits, many practices used.

* Pairs of groups significantly different at the .05 level.
Positively responses

Attitudes. The results indicated a positive attitude toward issues in content area reading among each group of teachers surveyed. Table 1 shows that special education teachers responded most positively (mean = 6.00 out of 7). In a multiple comparison of pairs of groups (Tukey hsd) special education teachers and elementary classroom teachers were the only two groups that differed significantly ($p < .05$).

The majority of respondents supported all of the positive statements and rejected the negative ones. Over 80% selected response values of 5-7. The exception was the item “Completion of one three-credit course is sufficient,” where 67.2% of the respondents disagreed with this statement.

Benefits. The means for teachers who worked with students revealed a positive perception of the benefits of completing a content reading methods course. No two groups were significantly different. A large majority of teachers supported all of the positive statements and rejected the negative ones. Except for the item “Not enough time to teach reading in the content areas,” where the figure was 66.4%, 89% or more of the respondents selected response values of 5-7 for each of the statements in this section.

Comparable results were obtained with the teachers who assisted other teachers. Here too, mean ratings were positive. In addition, no two groups were significantly different and a large majority of the respondents supported all of the positive statements and rejected the negative ones.

Practices. Mean point values for Part IV-A revealed a slightly above average use of content reading teaching practices by teachers who worked with students. No two groups were significantly different. Highly rated practices were preteaching and reinforcing the key vocabulary (86%), preparing students for reading assignments (80%), developing higher as well as lower comprehension skills (76%), and assessing student strengths and weaknesses (72%). Items which earned lower ratings were structuring a lesson so as to integrate the teaching of reading skills with subject matter (65%), selecting appropriate subject matter materials (58%), using reading guides to develop comprehension skills (58%), showing students how to organize information (58%), and using different grouping patterns in the classroom (56%).

The section averages for teachers who assisted other teachers were lower and the degree to which certain content area reading strategies were used was also lower. Helping teachers develop higher as well as lower level comprehension skills received the highest rating (60%), while helping teachers to use different grouping patterns in the content classroom earned the lowest rating (43%).
Comparison of content teachers

**Attitudes.** Results revealed statistically significant differences between the attitudes of subject matter specialists who had completed a reading methods course \((N = 37)\) and those who had not \((N = 43)\), \(t(78) = 3.69, p < .001\). In an item-by-item comparison of each group's responses in the attitude section of both questionnaires, group differences were significant on 5 of the 7 statements, \((p < .05)\), with the course takers always responding more positively. There were no significant differences in attitude toward the statement “There is little that subject matter teachers can do to help students with reading”—most of the content teachers disagreed with this statement.

**Practices.** In regard to teaching practices, there was a significant difference in the mean values of the two groups of content teachers, \(t(78) = 2.74, p < .008\). Those who had studied reading reported more use of the techniques.

In an item-by-item comparison of reading practices used by the two groups, there were significant group differences on 4 of the 9 statements: preparing students for reading assignments, \(t(77) = 2.39, p < .019\); developing higher level as well as lower level comprehension skills, \(t(75) = 3.05, p < .003\); using reading guides to develop comprehension skills, \(t(77) = 4.33, p < .001\); and structuring a lesson to integrate the teaching of reading skills with subject matter, \(t(77) = 3.38, p < .001\).

On the remaining 5 items, even though no significant differences were revealed, it was found that teachers who had completed a reading methods course always used content reading practices to a higher degree, including such practices as showing students how to organize information, preteaching and reinforcing the vocabulary, using different grouping patterns, assessing student strengths and weaknesses, and selecting appropriate subject matter materials.

**Time as a factor**

The year in which a reading in the content areas course was completed generally did not result in differences in attitude, perceived benefits, or the extent to which various instructional practices were used. No two groups were significantly different at the .05 level in almost all of the comparisons made. The exception was with practices used by teachers who worked with students, where two pairs of groups were significantly different at the .05 level (1978 and 1980, 1978 and 1981).

**Conclusions**

Five conclusions can be drawn from the data. First, various groups of teachers can benefit from completing a content reading methods course. Reading specialists, elementary classroom teachers, special education teachers, as well as content area teachers all find value in this type of course. Special education teachers had the highest ratings for both the attitude and instructional practices portions of the survey. In part, this may be attributed to special education personnel becoming more involved with instruction of students with learning problems in the content classroom.

Second, the positive attitudes that teachers have toward content reading do not always result in high use of these instructional practices. Perhaps a single course may not be sufficient to help teachers integrate the teaching
of reading skills and subject matter. Additional course work or inservice programs may be needed, possibly as part of a multi-year plan to fully differentiate instruction in the content classroom.

Third, classroom teachers use content reading practices more than do teachers who serve as resource persons. This is not surprising since it is usually more difficult to effect changes in the teaching practices of others than it is to modify one's own approach.

Fourth, time elapsed since completion of a content area reading course has little effect on attitudes, perceived benefits, and reading practices. Positive teacher reactions are maintained over a period of years.

Finally, subject matter specialists who complete a content area reading course have more positive attitudes toward issues in content reading and use the instructional practices more than do teachers who have not taken such a course. At the same time, it may also be possible to conclude that differences exist in the classroom practices of teachers who have positive attitudes toward content reading when compared with the classrooms of teachers whose attitudes are not as positive.

In summary, the data from this study show that content specialists and other groups of teachers generally consider the completion of a content reading methods course as a worthwhile experience. These results support government efforts to mandate reading requirements for secondary certification and justify state certification agency acceptance of a content reading course for meeting certain requirements for elementary, reading, and special education teachers.

Does integrating reading into content classrooms lead to significant gains in student achievement? Research on this is needed; only then will we know the true value of teaching reading in the content areas.

To obtain copies of the questionnaires, send a self-addressed, stamped envelope to Dr. Ezra L. Stiegitz, Rhode Island College, 600 Mt. Pleasant Avenue, Providence, RI 02908, USA.

References
Certification Requirements in Reading, 2nd and 3rd eds. Newark, Del.: International Reading Association, 1979, 1981.
Usosa, George M. "Comparing Attitudes toward Reading Instruction among Secondary Principals, Reading Specialists, and Content-Area Teachers." Reading Improvement, vol. 16 (Summer 1979), pp. 169-74.

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