The paper discusses the need for training in critical thinking and the effects of debate training across the curriculum as a teaching tool and learning mechanism. The debate training provided through the Oral Communication Program at Virginia's Radford University is described (design, implementation, results), along with data from a report on the opinions of students (N=1,814) in six areas of non-speech courses that utilized debate as a learning tool. Results indicate that such training offers potential benefits for both curricular development and improved student oral communication skills. Recommendations for incorporating debating teaching methods across the curriculum as an aid to learning are provided. Includes 34 references. (GLR)
Debating to Learn Across the Curriculum:
Implementation and Assessment

Michael Cronin, Ph.D.
Department of Communication
Radford University
Radford, VA 24142
(703) 831-5750 (O)
(703) 268-5726 (H)
April, 1990

Paper presented at
the Southern States Communication Association
Convention, Birmingham, Alabama
Debating To Learn

Debating to Learn: Across the Curriculum:
Implementation and Assessment

Abstract

This paper examines the need for training in critical thinking and the effects of debate training across the curriculum on critical thinking. The debate training provided through the Oral Communication Program at Radford University is described along with a report of student assessment data from six sections of non-speech courses using debate to learn. Results indicate that such training offers potential benefits for both curricular development and improved student oral communication skills. Recommendations for incorporating debating to learn across the curriculum are provided.
THE NEED FOR TRAINING IN CRITICAL THINKING

"We state emphatically that, upon its intellectual side, education consists in the formation of wide-awake, careful, thorough habits of thinking" (Dewey, 1933, p. 78). Training students to think is likewise espoused by most contemporary educators as a primary pedagogical goal (Heller, 1987). Many business, professional and educational organizations including the New York State Regents, the National Council of Teachers, The Presidential Commission on Excellence in Education, the College Board, the University/Urban Schools National Task Force, the Carnegie Foundation for the Advancement of Teaching, the Exxon Education Foundation, the American Federation of Teachers, the Association of American Colleges, the National Institute of Education, the U.S. Department of Education, the Association of Superintendents and Curriculum Developers and the National Endowment for the Humanities (Ruggiero, 1988) recommend that thinking skills be taught throughout the educational system.

Training in critical thinking is essential to improve the quality of life (National Assessment of Educational Progress Report, 1981); to improve instruction (Norris, 1985); to enhance individual and public decision-making (Ziegelmueller, Kay & Dause, 1990); and to enhance career success.

Business will always prefer people who have broad-based skills--people who can think critically, who can adapt well to new situations, and who can teach themselves. A person who is taught today's skills may
Debating is one of the best methods of learning and applying critical thinking skills (Freeley, 1986). Training in debate develops students' ability in all (or most of) the critical
thinking dispositions identified by Ennis (1987):

- Seek a clear statement of the thesis or question.
- Seek reasons.
- Try to be well informed.
- Use and mention credible sources.
- Consider the total situation.
- Try to remain relevant to the main point.
- Keep in mind the original or basic concern.
- Look for alternatives.
- Be open-minded.
- Take a position (and change a position) when the evidence and reasons are sufficient to do so.
- Seek as much precision as the subject permits.
- Deal in an orderly manner with the parts of a complex whole.
- Use critical thinking abilities (skills).
- Be sensitive to others' feelings, level of knowledge and degree of sophistication.

Training and reinforcement of critical thinking skills and dispositions enable students to "learn to consider it natural that people differ in their beliefs and points of view and they can learn to grasp this not as a quaint peculiarity of people but as a tool for learning. They can learn how to learn from others, even from their objections, contrary perceptions, and differing ways of thinking" (Paul, 1984, p. 12).

While debate training is designed to develop critical thinking skills, most students receive no training in debate
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unless they enroll in an argumentation and debate course or participate in intercollegiate debate. The need to teach such essential skills across the curriculum is discussed below.

DEBATING ACROSS THE CURRICULUM: RATIONALE

The use of debate as a teaching/learning tool across the curriculum is designed to enhance learning of course content and improve critical thinking ability. Grice and Jones (1989) summarize the four major arguments of advocates of this "pervasive approach." First, higher-order thinking should be encouraged in every course. Second, since the transfer of thinking skills across subject matter is difficult for many students, teachers in various subjects across the curriculum may be best able to apply critical thinking skills to their course material. Third, applications of critical thinking in teaching create involvement and motivate students to learn the subject matter. Fourth, higher-order thinking is so important that it must be emphasized by teachers at all levels across the curriculum if students are to develop their thinking skills.

In response to widespread calls for increased training in oral communication, a small but growing number of colleges and universities have instituted oral communication across the curriculum programs.¹ Analogous to the more established writing-across-the-curriculum movement, this approach encourages faculty in all academic areas to incorporate oral communication activities into courses as a means of enhancing learning and providing students additional opportunities to practice and
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improve such skills as public speaking, critical thinking, discussion and listening. Although not without its risks and drawbacks, communication across the curriculum offers several benefits. It may enhance the communication skills of participating students, foster deeper appreciation among other disciplines for speech communication, improve student mastery and retention of course materials, improve students' course satisfaction, and motivate students to enroll in additional speech courses.

The rationale for an oral communication across the curriculum emphasis is discussed more fully elsewhere (Roberts, 1983; Roberts, 1984; Steinfatt, 1986; Hay, 1987; Weiss, 1988; Cronin & Glenn, 1990). The rationale is summarized briefly as follows: Oral communication skills are best developed if emphasized in a variety of courses. Most undergraduates take at most one course emphasizing oral communication skills. Furthermore, although active oral communication represents a fundamental mode of learning (Modaff & Hopper, 1984), it often is underrepresented in lecture-oriented college courses. Students may have little or no opportunity for additional structured practice with competent evaluation to reinforce the skills learned in oral communication courses. Since "the act of creating and communicating a message is at the heart of the educational experience" (Steinfatt, 1986, p. 465), it is essential to improve the quality and expand the application of meaningful oral communication activities to enhance learning
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across the curriculum.

No empirical studies have been reported on the effect of debating across the curriculum on developing critical thinking skills of college students. However, Johnson and Johnson (1985) conducted a study with sixth graders on the effects of discussion, debate and individual study on learning. Debate was found to be more beneficial than discussion and individual study in developing students' ability to co-operate and learn from each other. Schnoeder and Ebert (1983) used debate in fifteen different business courses. They report that debating stimulated students to do research and helped students to learn to think logically and organize thoughts. Moeller (1985) used debate to explore controversial issues in two of his developmental psychology courses. Students rated the value of the debating activity as a learning experience on a ten-point scale. Students assessed their participation in debate as a valuable learning experience (mean 7.34, standard deviation 2.07). They also rated listening to the class debates that they observed as a valuable learning experience (mean 7.28, standard deviation 1.82).

While these studies suggest potential benefits of incorporating debating across the curriculum at the college level, more rigorous investigations of the effects of such pedagogy on critical thinking and learning must be initiated. Researchers must investigate what specific treatments result in better critical thinking and what specific aspects of critical thinking are improved (Norris, 1985).
The following sections detail the Radford response to debating across the curriculum in terms of program (1) design, (2) implementation and (3) results.

DEBATING ACROSS THE CURRICULUM:
FORMAT AND BASIC INSTRUCTION

Radford University has established the largest, most comprehensive Oral Communication Program (OCP) in the nation. The OCP assists faculty in incorporating oral communication activities as an integral part of courses throughout the university. Debate, oral reports, listening and group discussion represent some of the oral communication formats which can enhance the learning of any academic subject. In addition, increased utilization of these formats under the supervision of trained evaluators can improve students' overall effectiveness in oral communication. The OCP has two major goals:

1. to provide programming, facilities and professional expertise to help faculty, staff and students improve oral communication skills;

2. to promote and facilitate the incorporation of oral communication as a teaching and learning tool throughout the undergraduate curriculum.

One of the most successful programs offered by the OCP is debating to learn across the curriculum. The OCP sponsored six sections in which debate was incorporated as a teaching/learning pedagogy during the spring 1988 and fall 1989 semesters. Two sections of a senior-level marketing course, Contemporary Issues
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in Marketing (MKTG 448); one section of a graduate course in Nursing, Theoretical Foundations of Nursing (NURS 520); one section of an upper-level course in Design, Housing: Economic and Governmental Aspects (DSNI 366); and two sections of an upper-level course in Economics, Labor Problems (ECON 480) were involved in this project. Each student participated in two debates in MKTG 448 and one debate in the other courses. Affirmative and negative teams were each composed of three or four students. The typical debate included a 12-15 minute constructive speech by the affirmative and the negative followed by an 8-10 minute rebuttal by each team and concluded with a 3-5 minute summary by each team. Each team was required to provide a one page outline of its major constructive arguments to the class immediately before the debate and a bibliography of its research to the instructor after the debate. A discussion of the major issues involved in the debate and a critique were provided following each debate.

Each section was assigned a speech communication faculty member as a debate consultant. This individual provided debate training for both the instructor and the students including:

1) Meeting with the course instructor to plan the debate format, evaluation procedures, wording of debate resolutions, specific debate training to be provided students in each course and when such training would be provided to each class.

2) Providing lecture, discussion and handout materials to
students during regular class meetings on: the value of debate, presenting an argument, stock issues, flow sheeting, affirmative strategy and negative strategy.

3) Arranging for the video taping of the classroom debates when requested by the participants.

4) Working with students seeking individual assistance in preparing for the debate.

5) Providing both oral and written critiques of each debate.

6) Meeting with students outside of class after the debates to discuss the critiques and answer questions about their debate.

STUDENT ASSESSMENT OF PERCEIVED OUTCOMES

The Director of Student Assessment Programs at Radford University surveyed students in each of the six sections during the last week of the semester. The specific survey items and a summary of responses are provided in Table 1.

Enhancement of Communication Skills

The data appear to support the value of debate training in enhancing students' perceived improvement in communication skills. Most students (74%) either strongly agreed or agreed that the debate experience helped them improve their oral communication skills (see item 4-Table 1). Only 8% of the respondents indicated that debating did not enhance their oral communication skills.3
<table>
<thead>
<tr>
<th>Response Choice</th>
<th>No. in class (%)</th>
<th>No. all classes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MKTG 448</td>
<td>DSNI 366</td>
</tr>
<tr>
<td></td>
<td>No. %</td>
<td>No. %</td>
</tr>
<tr>
<td>1. Overall evaluation of oral communication activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXCELLENT</td>
<td>23 33</td>
<td>5 14</td>
</tr>
<tr>
<td>GOOD</td>
<td>42 61</td>
<td>25 69</td>
</tr>
<tr>
<td>FAIR</td>
<td>4 6</td>
<td>6 17</td>
</tr>
<tr>
<td>POOR</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>VERY POOR</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>2. Without Oral Communication activities, I would have learned:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MORE</td>
<td>3 4.4</td>
<td>0 0</td>
</tr>
<tr>
<td>ABOUT THE SAME</td>
<td>22 32.8</td>
<td>13 36</td>
</tr>
<tr>
<td>LESS</td>
<td>42 62.7</td>
<td>23 64</td>
</tr>
<tr>
<td>3. Oral communication should not be used again in this course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRONGLY AGREE</td>
<td>2 3</td>
<td>0 0</td>
</tr>
<tr>
<td>AGREE</td>
<td>0 0</td>
<td>1 3</td>
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<tr>
<td>NEUTRAL</td>
<td>5 9</td>
<td>9 25</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>32 46</td>
<td>15 42</td>
</tr>
<tr>
<td>STRONGLY DISAGREE</td>
<td>42 62</td>
<td>11 31</td>
</tr>
<tr>
<td>4. Oral communication activities have helped me improve my communication skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRONGLY AGREE</td>
<td>23 33</td>
<td>2 6</td>
</tr>
<tr>
<td>AGREE</td>
<td>34 49</td>
<td>18 50</td>
</tr>
<tr>
<td>NEUTRAL</td>
<td>9 13</td>
<td>10 28</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>1 1</td>
<td>5 14</td>
</tr>
<tr>
<td>STRONGLY DISAGREE</td>
<td>2 3</td>
<td>1 3</td>
</tr>
<tr>
<td>5. Feelings on participation in oral communication activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIKED</td>
<td>49 71</td>
<td>21 58</td>
</tr>
<tr>
<td>NEUTRAL</td>
<td>15 22</td>
<td>14 39</td>
</tr>
<tr>
<td>DISLIKED</td>
<td>5 7</td>
<td>1 3</td>
</tr>
<tr>
<td>6. I think this course is better because of the inclusion of oral communication activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRONGLY AGREE</td>
<td>20 29</td>
<td>6 17</td>
</tr>
<tr>
<td>AGREE</td>
<td>36 52</td>
<td>14 39</td>
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<tr>
<td>NEUTRAL</td>
<td>9 13</td>
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</tr>
<tr>
<td>STRONGLY DISAGREE</td>
<td>2 3</td>
<td>1 3</td>
</tr>
</tbody>
</table>
Enhancement of Learning of Course Content

Most students (66%) felt that they would have learned less without the debate component of the course (see item 2-Table 1). Only 3 students (2%) indicated that they would have learned more if they had not debated major course topics.

Overall Evaluation of Debate Activities and the Course

Most students (65%) liked participating in the class debates (see item 5-Table 1); only 5% indicated that they disliked the activity. Furthermore, a majority of students (88%) rated the debate activities as excellent or good while no student rated the oral communication component of the course as poor or very poor (see item 1-Table 1).

Students appear to favor the use of debate as a teaching/learning tool in the courses. Most students (83%) felt that debate should be used again in the course (see item 3-Table 1). Only 4 students (3%) agreed or strongly agreed that debate should not be used again. Furthermore, a majority of respondents (71%) indicated that the course was better due to the inclusion of debate activities (see item 6-Table 1); only 9% disagreed or strongly disagreed with this conclusion.

In summary, students appear to enjoy participating in debate in their courses and rate such activities highly. They report that courses are improved due to the incorporation of debate as a teaching/learning activity and feel that debate should be used again in these courses. Students perceive that debating major course topics helps them learn more and helps improve their oral
communication skills. Such responses have educational implications for areas such as student motivation, student involvement, course evaluations, instructor evaluations, student transfer of thinking skills across academic disciplines, etc.

RECOMMENDATIONS

While students perceive debate as an effective teaching/learning technique, the limitations of self-report data necessitate more rigorous empirical research to assess both learning outcomes and skill development. It may be difficult to design controlled assessments and even more difficult to link debating across the curriculum to the enhancement of learning course content and improved oral communication skills. However, such research is essential to determine the actual educational outcomes of such oral communication interventions in courses across the curriculum.

The development of debating to learn across the curriculum requires substantial time and effort on the part of both the speech consultant and the course instructor. Such innovative approaches must be strongly encouraged, supported and rewarded by the administration. Without such support, it is unlikely that substantial numbers of faculty will be willing to participate in such activities.

Students must be provided sufficient training in debate to enable them to utilize this activity effectively. Classroom instruction in basic debate techniques such as those described earlier could be supplemented with reading assignments on debate
Debating To Learn

and videotapes of well-conducted debates. However, the primary goal of using debate to learn course content and the limited class time available for debate training will necessarily limit the depth and scope of debate instruction in most classes.

Evaluation criteria should be clearly specified for all students participating in debating across the curriculum. The course instructor should work closely with the speech consultant in developing such criteria. Even with four-person teams, it may be difficult to evaluate individuals fairly due to limited and often unequal participation in the class debates. Instructors may wish to supplement their evaluations of class debates with individual written assignments relevant to the debate topic and/or team ratings of individual members' contributions.

Debate resolutions must be clearly worded, limited in scope to the time available for debate, controversial (to allow strong defense of a variety of positions), central to the course, and of sufficient interest to a majority of the debaters. There should be a sizable amount of information readily available to students on the topic. Students should be allowed to select the topic and side that they prefer to debate, whenever possible, to enhance motivation.

CONCLUSION

Educators are calling for an increased emphasis on training in critical thinking in our school system. Debating is one of the best methods of learning and applying critical thinking skills. Improved critical thinking skills combined with the
novelty, involvement and motivation provided by debate can enhance learning of course content. Self-report data on non-speech courses incorporating debating to learn indicate that students feel that such activities improve their learning and communication skills. Programs of oral communication across the curriculum should consider including debate as one of the oral communication options available for improving teaching and learning throughout the institution.
NOTES

1 See Weiss (1988) for a description of some of these programs.
2 Several empirical studies of the effects of intercollegiate debating or a course in argumentation and debate have been reported in the literature, see, for example, Brembeck (1949); Jackson (1961); Phillips (1962); and Colbert (1987).
3 A study by Combs and Bourne (1989) of debating in marketing courses reports that students perceived significant improvement in their oral communication skills after participating in class debates. The significance level for the pre and post-debate measure comparing perceived public speaking skills with other students was .0155. Similar measures of students' level of comfort in public speaking before and after the debates indicated significant perceived improvement (.0148).
4 Estaville (1988) utilized a direct-clash debate format in several of his geography courses at Clemson University. He reports that "in every one of my classes that have engaged in debate, the students have indicated in their teaching evaluations that the debates were the highlight of the course" (p. 4).
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