The Impact of Academic Controversy on Subsequent Conflict Resolution and Relationships Among Students

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The effects were studied of academic controversy versus individualistic learning on the constructive resolution of conflicts and the nature of relationships among students. For eight weeks participating students studied a leadership and citizenship curriculum using either academic controversy or individualistic learning. One-thousand-three-hundred-sixty-eight K-12 students in an inner-city school district participated in the study. A representative random sample of 176 students from grades 3, 4, 5, 9, and 11 was selected to be in the analysis. The results indicate that participating in academic controversies resulted in the use of more constructive conflict resolution strategies in future conflicts and improved the working relationship among students.

Many teachers avoid and suppress conflict among students during academic lessons. They tend to view conflict negatively, seeing it as interfering with learning and decreasing the quality of the learning environment. Yet there is evidence that conflict can have many positive outcomes, such as increasing motivation to learn and creative thinking (Deutsch, 1973; Johnson & F. Johnson, 2003). In training teachers in the use of effective instructional methods, the use of conflict to promote learning and enhance the learning environment is largely ignored. What is often taught is folklore and personal experiences rather than systematic programs based on theory and research. One of the few programs that is based on theory and research is academic controversy (Johnson & Johnson, 1979, 1995, 2000). Academic controversy exists when one individual's ideas, information, conclusions, theories, and opinions are incompatible with those of another and the two seek to reach an agreement (Johnson and Johnson, 1995). To engage in a controversy students must progress through the stages of (a) researching and preparing a position, (b) presenting and advocating their position, (c) engaging in a general discussion in which they refute the opposing position and rebut attacks on their own position, (d) reversing perspectives by presenting the best case for the opposing position, and (e) creating a synthesis on which all group members can agree. There is considerable evidence indicating that controversy, compared to concurrence-seeking discussions, debate, and individualistic study, tends to create higher achievement, greater retention, greater creativity, and more critical thinking and use of higher-level reasoning (Johnson & Johnson, 1979, 1995, 2000).

There are at least three shortcomings of the current research on controversy. The first is that there is no evidence as to whether the procedures and skills learned by engaging in academic controversies results in students being able to manage “real world” conflicts in a more constructive way. There is evidence that the more skillful participants are in engaging in the controversy procedure, the more positive the outcomes (Johnson & Johnson, 1989, 1995). Practice seems to make perfect. Thus, engaging in academic controversies tends to increase the competencies of participants to engage in future controversies. It is unknown, however, whether these skills will transfer to actual conflicts among students. The first purpose of this study, therefore, is to investigate this issue.

The second shortcoming is that there is very little evidence concerning the impact of engaging in academic controversies on the working relationships of participants. It is often assumed that conflict results in rejection, divisiveness, and hostility among participants (Collins, 1970). On the other hand, conflicts have been hypothesized potentially to strengthen relationships and increase the ability of individuals to work effectively with each other (Deutsch, 1962; Johnson, 1970; Johnson & Johnson, 1989, 1995). Working relationships among students include seeking out each other’s conclusions and helping each other
learn. There is, however, very little evidence as to whether conflict decreases or increases the working relationship of disputants. In this study, therefore, students' commitment to each other's learning was investigated.

The third shortcoming of the current research on academic controversy is that its generalizability is limited by the setting, the type of participants, and the number of teachers involved. The previous research has primarily consisted of small experimental studies conducted in research laboratories and suburban schools. The number of experimenters or teachers involved has typically been two or at the most four. There is a need to conduct field studies in which numerous teachers use academic controversy to determine if the procedure is effective in a large-scale implementation. In addition, almost all of the previous research has been conducted in suburban school districts. There is a need to conduct studies in urban schools. Finally, the previous research has been conducted primarily with participants from European-American backgrounds. There is almost no controversy research utilizing minority participants. In this study, therefore, an inner-city, primarily minority student population was studied in a large scale implementation involving over fifty teachers.

A fourth issue examined in this study was the impact of teaching a series of academic controversies focused on citizenship on the decision of undergraduate students to enroll in a teacher-training program. Undergraduate students were able to take a year-long course on teaching to determine whether or not they wished to become teachers. The course included a teaching experience in an inner-city school. The intent of the course was to recruit capable undergraduate students to become teachers by giving them a direct teaching experience in an inner-city school. The impact of such courses on the decision to become a teacher is largely unexplored. Thus, the impact of the experience of teaching in an inner-city school on whether the undergraduate students applied for admission to the teacher-training program was investigated.

**Methods**

**Participants**

A representative random sample of 176 students was selected from a population of 1,368 K-12 students from a large inner-city school district (60 percent were Black Americans, 15 percent were Asian, 15 percent were Latino, and 10 percent were European-American; there were approximately an equal number of males and females in the study). Trained teachers taught 932 students using the controversy procedure and 436 using the in the control condition. Of the 176 participants, 117 were in the controversy condition and 59 were in the control condition. The sample was drawn from grades 3, 4, and 5 and grades 9 and 11.

Fifty seven college undergraduate students served as teachers in the controversy condition. The undergraduates were 92 percent European-American, 4 percent African-American, and 4 percent Asian-American. Sixty-three percent were female and 37 percent were male. They were all interested in becoming teachers but had not yet committed themselves to the teacher-training program at the university. This class was aimed at recruiting undergraduate students to be teachers by giving them a direct teaching experience in an actual public school. Since the schools were in the inner-city, students could receive credit for participating in a community service project by taking the class.

The 37 individualistic learning control classes were taught by their regular teachers. The teachers were 60 percent European-American, 20 percent African-American, 10 percent Asian-American, and 10 percent Latino-American. Ninety percent were female and 10 percent were male. The teachers were representative of all the teachers in the school district.

**Independent Variable**

The independent variable was the use of academic controversy versus the use of individualistic learning. *Academic controversy* was operationally defined as the implementation of the five-step controversy procedure (Johnson & Johnson, 1995). More specifically, students were randomly assigned to groups of four, which were then divided into two pairs. Each pair was randomly assigned either a pro or a con position on an issue being studied. For example, in one controversy, students were asked to determine which of two characters in a reading assignment was the better person to mediate a conflict. Although wholly different from one another, each character had strengths at conflict management. One pair was given the assignment for making the best case possible that Character A should be the mediator and the other pair was assigned Character B. The pairs (a) researched and prepared their position, (b) made a persuasive presentation to the opposing pair, (c) engaged in an open discussion in which they continued to advocate their position while attempting to refute the opposing position, (d) reversed perspectives by presenting the best case for the opposing position, and (e) jointly created a synthesis on which all four group members could agree and which represented the students' best reasoned judgment on the issue (Johnson and Johnson, 1995).

*Individualistic learning* was operationally defined as the use of the traditional lecture, whole class discussion, and individual worksheet format. Students worked alone and were assigned grades on a criteria-referenced basis.

**Dependent Measures**

The *Conflict Scenario Written Measure* was given to all participating students the day before the controversy program began and the day after the program ended. The measure consisted of a brief scenario that ended in an unresolved conflict and instructions for the student to write down what he or she would do if actually in the situation. Students' responses were scored on a five-point scale consisting of: (1) physical aggression or verbal threats, (2)
withdrawal, (3) attempting to force the other to give in by commanding him or her to do so or asking the teacher to force the other to concede, (4) compromising, or (5) creative problem-solving to reach an agreement that maximizes the benefits to both parties (Johnson and Johnson, 2000).

The Peer Facilitation of Learning Scale consisted of six Likert-type items, each of which was scored on a continuum from one to five (Johnson and Johnson, 1997). The items measured students' perceptions of their commitment to help classmates learn and seek out classmates' ideas and reasoning to enhance their own learning.

Commitment to teaching was measured by the number of students applying for admission to the teacher training program.

Procedure

Fifty-seven undergraduate college students were trained by a university professor to teach a curriculum unit using the instructional procedure of academic controversy. Regular classroom teachers were instructed to teach the same curriculum using individualistic learning. The college students attended an instructional methods course developed to recruit undergraduate students into teacher education by providing them with an actual classroom teaching experience in a public school. The undergraduate students were taught how to structure and conduct controversies, monitor the students as the students engaged in the controversy procedure, intervene when necessary to improve individual and team work, and evaluate the resulting academic achievement. The class lasted for three quarters (one academic year). Each quarter lasted for 10 weeks during which the class met twice a week for a total of 30 hours. The first quarter focused on the nature of the Citizenship Development Curriculum (aimed at teaching students general leadership and citizenship skills) and the nature of the academic controversy procedure. The second quarter consisted of the actual teaching experience—one class session was held at the university and one class session (for eight weeks) consisted of the undergraduates teaching the Citizenship Development Curriculum (utilizing the academic controversy procedure) to students in inner-city schools. The third quarter focused on analyzing the undergraduates' teaching experiences and discussing the nature of a career in teaching.

The eight lessons taught during the second quarter of the course consisted of the following activities. Two university undergraduates were assigned to each inner-city class. The eight class sessions consisted of four controversies (e.g., choosing the best mediator to resolve a conflict and choosing between a friend or a stranger to hire for a job based on their different qualifications), each lasting for two class sessions. Each class session lasted for fifty minutes. On the first class session the citizenship development issue was presented, sides were assigned, students prepared the best case possible for their position, and presented it to the opposing pair. The second class session consisted of students engaging in an open discussion of the issue in which they critically analyzed and refuted the opposing position, reversed perspectives and presented the best case for the opposing position, came to agreement as to their best reasoned judgment about the issue, and listened to the undergraduate teachers summarize and bring closure to the issue. The lessons were taught from kindergarten through the twelfth grades. Two forms of the unit were taught—one for kindergarten through second grades and one for third through twelfth grades.

The academic controversy procedure complemented the Citizenship Development Curriculum. Thomas Jefferson, James Madison, and other founders of the American Republic believed that political decisions should result from a free and open discussion characterized by conflict among ideas and opinions. They expected that the clash of opposing positions within political discourse would increase citizens' understanding of the issue and the quality of their collective decision making. Jefferson noted, "Differences of opinion lead to inquiry, and inquiry to truth." Within political discourse, each alternative course of action was expected to (a) be strongly advocated, (b) receive a complete and fair hearing, and (c) be critically analyzed to reveal its strengths and weaknesses. By integrating the academic controversy procedure into a unit on citizenship development, citizenship skills were taught both by the content and by the instructional procedures.

Analyses

A pre-post, control group design was employed in the study. A two-way, repeated measures ANOVA was used to determine results for the dependent measures of conflict resolution and peer facilitation of learning.

Results

From Table 1 it may be seen that compared with the untrained students, the trained students in Grades 3, 4, and 5 used more constructive procedures to resolve a conflict (such as compromising and creative problem-solving), \( F(3,210) = 246.06, p < .0001 \), as did the trained students in Grades 9 and 11, \( F(3,134) = 147.97, p < .0001 \).

In Grades 3, 4, and 5, the trained students (compared to untrained students) perceived more commitment to help classmates learn and greater motivation to seek out classmates' ideas and reasoning to enhance their own learning, \( F(3,210) = 198.29, p < .0001 \). The findings for Grades 9 and 11 were similar, \( F(3,134) = 107.64, p < .0001 \).

In September, at the beginning of the course, 40 of the 57 students indicated a desire eventually to enter the Teacher Education program. Of those 40 students, five decided that teaching would not be their chosen profession upon completion of the program in June. These students all expressed positive remarks about how glad they were to have had the opportunity to investigate the teaching profession before they would be required to invest the time.
Table 1

Mean Responses To Conflict Scenario

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<td>73</td>
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<tr>
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<td>1.64</td>
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<td>25</td>
<td>1.24</td>
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Note. Grades 3, 4, 5: F(3,210) = 246.06, p < .0001; Grades 9, 11: F(3,134) = 147.97, p < .0001

Table 2

Mean Responses To Peer Facilitation of Learning Scale

<table>
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<td>Conflict Trained</td>
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<td>1.36</td>
<td>0.81</td>
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Note. Grades 3, 4, 5: F(3,210) = 198.29, p < .0001; Grades 9, 11: F(3,134) = 107.64, p < .0001

Table 3

Undergraduates Entering Teacher Education Program

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<tr>
<td>Planning To Be Teachers</td>
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and financial resources required by a full degree track. Likewise, the 35 remaining participants who were pre-disposed to the teaching profession have all expressed praise for this program as they enter their teacher education tracks. Of the 17 students who were primarily interested in the community service piece of the project, six left the program in January, one left in April, and ten decided to pursue teaching as a career. The six who left in January cited personal reasons for leaving the program, while the student who left in April cited geographic relocation as the reason. The ten students who decided to enter the teaching profession have all expressed positive statements about having had the experience.

Finally, of the original 57 teachers in the experimental condition, 42 stated that they learned a great deal about conflict resolution as a result of using the controversy procedure to teach public school students.

Discussion

While there are powerful instructional effects of using intellectual conflict in instructional situations, many teachers are reluctant to do so, perhaps because of a fear of conflict, a lack of knowledge of the procedures, or norms discouraging the use of conflict. To many teachers the controversy procedure may seem too risky or complex to utilize. The results of this study indicate that the controversy procedure is simple and safe enough that, with a minimum of training, inexperienced undergraduates can use it successfully. The results are all the stronger as experienced teachers taught the individualistic condition and undergraduate students with no previous teaching experience taught the controversy condition.

There is considerable previous evidence that the use of academic controversy will enhance learning and higher-level reasoning (Johnson & Johnson, 1979, 1989, 1995, 2000). There are, however, significant gaps in the research that need to be explored. The purpose of this article was to explore three such gaps.

First, when teachers use academic controversy to teach academic content they do so with the hope that students will learn how to manage subsequent conflicts more constructively as well as learn in the current situation. Yet the impact of participating in academic controversies on subsequent behavior in conflict situations has never been investigated. The results of this study indicated that when given a description of a conflict and asked to describe what they would do to manage it, students who participated in academic controversies described a more effective strategy for managing the conflict (such as compromising and creative problem-solving) than did the students in the individualistic condition. This is an important added benefit to engaging students in academic controversies.

There is some evidence that friends rely more on negotiation and less on coercion than do acquaintances (Lauren, Hartup, & Koplas, 1996). Yet a common perception of conflict is that it is a divisive influence creating distrust, avoidance, and an unwillingness to work with the opponent in the future (Collins, 1970). Many teachers try to suppress conflict as they fear it will result in students trying to obstruct each other's learning. The results of this study indicate that engaging in academic controversies actually resulted in students having stronger commitment to helping classmates learn as well as greater motivation to seek out classmates' ideas and reasoning to enhance their own learning. This finding extends the known outcomes of academic controversy and strongly supports the position that conflict has positive outcomes when it is managed constructively.

The previous research involved a limited number of teachers or experimenters, primarily involved suburban students from a European-American background, and involved only one or two controversies. This study involved a large number of teachers in inner-city schools with mostly minority students and involved four different controversies. The results, therefore, are important as they increase the generalizability of the research on academic controversy.

Finally, a recent innovation in many colleges of education is to recruit into teaching undergraduate students who have not made a career choice via a class in which they have actual teaching experiences. There is, however, little evidence that such classes do result in more students enrolling in teacher education programs. The results of this study provide some evidence that the class studied was effective in influencing undergraduate students to choose a career in teaching.

When academic controversy is used, it is done so in the expectation that not only will there be immediate benefits for students such as greater learning but also that there will be long-term improvements in the ways in which students manage conflicts. The results of this study provide the first evidence that such expectation is realistic and justified. In addition, while considerable time is spent in schools discussing and trying to repair relationships damaged by destructively managed conflicts, there is almost no evidence as to the importance of constructively managed conflicts in improving relationships and increasing students' ability to work together. The results of this study provide such evidence. The generalizability of the results of the research on academic controversy was limited by the small number and ethnicity of participants and the setting of the studies. The results of this study extend the generalizability of the knowledge about controversy. Finally, the study provides evidence that courses aimed at recruiting students to enter the teaching profession by giving them teaching experience are successful. Practitioners interested in effective teaching are, therefore, well advised to use academic controversies. The results are limited by the fact that novice teachers taught the experimental classes and experienced teachers taught the control classes, the inherent variability involved in a large number of teachers implementing the experimental conditions, and the paper and pencil nature of the dependent variables. Further research is needed to further extend the generalizability of the research on controversy, corroborate
the results of this study, and continue to extend the nature of the dependent variables studied.

References


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