Teaching to Their Thinking:
A Strategy to Meet the Critical-Thinking Needs of Gifted Students

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Critical thinking is important for lessons in classes for gifted and talented students. Since definitions of critical thinking are plentiful and varied, teachers must decide what behaviors are most productive in the classroom. One viable method to promote critical thinking through productive discussion is the Dixon-Hegelian method. This paper discusses the merits of this method and describes a classroom that used it. The teacher is introduced and her growth in allowing critical thinking to take place is described. This descriptive study was conducted in a combined 4th- and 5th-grade class of identified gifted students. The students were taught an integrated language arts and social studies unit using two major texts: The Witch of Blackbird Pond *(Speare, 1986) and* A Girl of the Limberlost *(Porter, 1986).*

Introduction

Critical thinking in America's schools must happen regularly for gifted children of all ages. To that end, Goals 2000 (in Biehler & Snowman, 1997) emphasized the need for regular implementation of critical-thinking activities for all classrooms in America's schools. If the goal is for critical thinking to happen for all students, how very essential it is that teachers of the gifted understand and implement such an ongoing program so that truly gifted students will not

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be left behind in reaching their academic potential. The purpose of this paper is to send a call to action for critical thinking and to offer a strategy to implement it regularly in the classroom.

A major problem with the area of critical thinking is for teachers to understand just what it is. Definitions of critical thinking are plentiful. While experts agree that critical-thinking behaviors involve an open-minded propensity to analyze, synthesize, and evaluate information in order to solve problems and make decisions (Halpern, 1997; Kurfiss, 1988; Watson & Glaser, 1994), an agreed-upon definition for critical thinking has not been established. Furthermore, conceptual definitions of critical thinking have been criticized for using ambiguous terminology, which magnifies measurement difficulties (Paul, 1996). Most definitions do share the idea that critical thinking is an active process in which the thinker considers alternatives, combines ideas, takes risks to find new connections, and evaluates steps to a conclusion (Ennis, 1989; Glaser, 1984; Paul). Because critical thinking can be improved, they also share the focus that it is an important construct to use in shaping curricula across disciplines. But what teachers can do to improve their integration of critical thinking into their curriculum is still left largely to the vast array of products on shelves that sell critical-thinking "stuff" to teachers, rather than train them in the understanding of how to implement critical thinking in all activities. For gifted students who think well anyway, the lack of activities that encourage them to use these skills is self-defeating.

Students must have the opportunity to consider alternatives regularly through active student discussion, deliberate emphasis on problem-solving activities, and verbalization of metacognitive strategies (McKeachie, Pintrich, Lin, & Smith, 1986). Teachers who offer opportunities for students to monitor their own learning activities and solve real-world problems are creating constructivist atmospheres in which students are not simply clones of the instructor, but are encouraged to voice their own ideas and formulate probable conclusions, possibly even solutions to challenging issues. As students are encouraged to take control of their thinking through critical examination of whatever is happening in the classroom, the school environment becomes a community of learners who help one another see patterns and connections between what is currently known and their own newly constructed knowledge. It then follows that motivating students to reach their own potential in their thinking while encouraging and challenging them in their academic pursuits is essentially empowering students to become more effective learners who value what they do. As a result, the teacher's job is to

coach thinking and encourage the development of independent voices in the classroom (Belenky, Clinchy, Goldberger & Tarule, 1986).

Sternberg (1995) argued that America's gifted students are not being given the chance to develop their talents to the degree that they are capable. Intellectually, they are listless and bored, and they manifest this boredom by not reaching their potential. The education of high-achieving, bright, or gifted students has typically included such tactics as assigning additional, equal-level homework (more of the same), accelerating the traditional curriculum (either introducing a faster pace for academically gifted students or grade-skipping them), or ignoring gifted children's needs by educating them in traditional ways alongside their average-ability peers (Sisk, 1988). Clearly, in any of these situations, curriculum intervention is needed. Students must maintain a cognitive match between their abilities and their curriculum, and teachers must help create that match by designing worthwhile instructional materials and implementing them with worthwhile instructional strategies in the classroom. Coleman and Cross (2001) cited the problem as a gifted education problem in general in that the field of gifted education needs more examples of differentiated curricula that are supported by research.

Nickerson (1987) stated, "With or without special training, everyone thinks" (p. 28). However, Nickerson (1994) suggested that what people should learn is "how to think more effectively—more critically, more coherently, more creatively, more deeply—than we often, perhaps typically do" (p. 411). Perhaps it is the ability to think and connect ideas that is the mark of a gifted person. If this is the case, then critical-thinking activities for gifted students are not options, but, rather, essential elements of every lesson conducted every day. If gifted students think critically on a regular basis, activities that do not give them a chance to exercise this strength are simply a waste of time. Teachers who focus on higher level thinking concentrate on curricular differentiation and find that it works if done systematically and regularly (Dixon, 1996). But the key is that the teacher must understand why students need critical thinking, must believe it is essential on a regular basis, and must understand what critical thinking is all about. We believe that all these "musts" are possible for teachers of gifted students, and we suggest a strategy to implement them in the following pages.

Our strategy derives from the Hegelian Dialectic, a process that asks students to consider a point, its counterpoints, and a synthesis of the two. In considering both sides of an issue, students are

working with the analysis, synthesis, and evaluation processes. The modification of Hegel's method to its practical instructional derivative is referred to in this paper as the Dixon-Hegelian method. We are excited about the transformation of the classroom experience for gifted students when they are welcomed into a thinking community in which their curriculum centers on what they do best: think critically.

Theoretical Rationale

Hegel's philosophy (1807, as cited in Bronowski & Mazlish, 1962) began with the questions, "What is the accord between the mind and the world outside it? How is it that the one naturally understands the other?" Each entity is itself, and, at the same time, encompasses many other entities. Hegel felt that there must be a profound unity between the knower and what he or she knows and that knowledge would be impossible without such a unity. In other words, people must reconcile their own understanding with what confronts them every day in order to advance and understand their world. Further, Hegel thought of this as a unity of opposites, with the force of this method in its insistence that such opposites, or contradictions, must be united at each step in human progress. The dialectic begins with a thesis; to this thesis, nature presents an antithesis; and this opposition or tension is resolved only by a step of synthesis, which fuses the two. To Hegel, every process in life calls out its contradictory process, and life takes its important steps only when it synthesizes these two into a higher form. Life is not merely being, and death is not merely not being; the essential step of the process is the synthesis of the two: the becoming (Bronowski & Mazlish, 1962). To engage in this daily process requires critical thinking.

The Hegelian process is reminiscent of the three higher level thinking processes (analysis, synthesis, and evaluation) of Bloom's taxonomy (Bloom, Englehart, Furst, & Krathwohl, 1956). The revised taxonomy (Anderson & Krathwohl, 2001) suggests analyze, evaluate, and create as the top levels. In both cases, the student is active in thinking. When teachers use the dialectic as a heuristic to enhance thinking skills, students analyze literature (in any discipline) or current issues to identify a thesis; suggest its antithesis; and then form a synthesis that bridges the two opposing views. Sometimes this synthesis is what the author eventually develops as an answer to the problem at the core of the reading. Consider the following example from *Harry Potter and the Goblet of Fire*

(Rowling, 2000): Harry is sitting in his room during one of his vacations and his scar begins to hurt. He knows that whenever the scar hurts, something happens. He looks around the room and his eye finds the birthday cards sent from his two best friends, Hermione Granger and Ron Weasley. He thinks then of what they would advise him to do in relation to his scar. He muses that Hermione would say the following, "Your scar hurt? Harry, that's really serious . . . Write to Professor Dumbledore! And I'll go and check *Common Magical Ailments and Afflictions. . . .* Maybe there is something in there about curse scars" (p. 24).

On the other hand, Ron's advice would differ as follows: "Your scar hurt? But . . . You-Know-Who can't be near you now, can he? I mean . . . you'd know wouldn't you? He'd be trying to do you in again, wouldn't he? I dunno, Harry, maybe curse scars always twinge a bit . . . I'll ask Dad" (Rowling, 2000, p. 25).

Although both friends would suggest consulting a source, Hermione suggests books and scholars (Dumbledore is the top wizard, while *Common Magical Ailments and Afflictions* is a well-respected reference book). On the other hand, Ron suggests a familiar, but not expert source, his father. In this case, Harry is doing all the thinking and is thinking about what others would suggest. He continues to ponder the problem and decides that

> What he really wanted (and it almost felt shameful to admit it to himself) was someone like—someone like a parent: an adult wizard whose advice he could ask without feeling stupid, someone who cared about him, who had experience of Dark Magic. (Rowling, 2000, p. 5)

It is the thinking, the considering, and the arrival at a plausible solution after considering both suggestions that is so appropriate to the final solution. Rowling (2000) wrote, "And then the solution came to him. It was so simple, and so obvious, that he couldn't believe it had taken so long . . . *Serius*"(p. 25).

The process that Harry uses to consider sides to the issue of why his scar hurts (i.e., contradictions to the cause of his concern) breaks down the idea into thesis (Hermione's idea); antithesis (Ron's idea about the same issue of the hurting scar); and, then, finally the blend of the two, the synthesis (Harry's decision that Serius was the appropriate combination of adult expert combined with caring-parent figure). As Harry thinks through the situation, he, in effect, clearly demonstrates what teachers want their students to do, that is, analyze an issue by breaking it down into thesis and antithesis. In doing so, students do not merely accept an idea from a peer or the teacher

without supporting evidence. They also see alternative ideas or, often, contradictions that must be resolved. However, it is in the thinking through to a synthesis that allows ascending thought to happen. Hegel saw this as advancement in thought, which was essentially a move upward for humanity.

An initial step in understanding what the Dixon-Hegelian process can do for students is to see the process as a heuristic, or informal, intuitive guide to help solve a problem (Sternberg & Williams, 2002). In the case just described, Harry solved his own problem through careful examination of issues, considering what his peers would say. He considered alternatives and solutions while sitting alone in his room. The same considerations could occur in a classroom where the teacher would construct an environment to allow this process to occur. In the classroom situation, different students posit a thesis and antithesis, and these different ideas are discussed until the groups are able to conclude with a plausible synthesis. They discuss the issues openly, either in small groups or in a large-group setting. The entire process can occur in the small-group setting in which the same group of students carries out the process of thesis, antithesis, and synthesis. Or thesis and antithesis can occur in assigned groups (i.e., one group could consider the scar problem from Hermione's perspective and one from Ron's perspective), and the entire class could conclude with a synthesis. Additionally, the process can serve as a heuristic to guide reading; often the synthesis becomes the next thesis (idea or problem) to be examined. Following the original thesis to what it ultimately becomes in the process of synthesizing information is, indeed, critically examining information. Each new situation demands transformation of the experience considered into the consolidated or synthesized understanding of the idea. It follows that each new situation remains contradictory as each thought remains tied to its dialectic basis (Riegel, 1973). In other words, just as Harry examined his hurting scar from the perspective of analyzing each peer's suggestion, so, too, he would examine his own synthesis of the contradictory reasons surrounding the selection of Serius as the best person to consult.

As in this example, sometimes one student considers all aspects presented and arrives at her or his own synthesis. But, in doing so, the students consider contradictions to her or his original thesis and reconcile them. Contradictions in Hegel's dialectic theory are not conditions of error and insufficiencies, but are, rather, the most basic property of nature and mind (Riegel, 1973). Contradiction is a necessary condition of all thought. Thinking, in the dialectic sense, is the process of transforming contradictory experience into

momentary considerations that continue to invite change. In the example from *Harry Potter and the Goblet of Fire*, each step of the process invited both consideration through analysis and change in thought as conclusions were reached.

The objective of dialectical thinking is to find the position with the greatest rational evidence to support it, whether this is the initial thesis, the antithesis, or some synthesis of the two (Manzo, 1992). The use of the Hegelian process addresses the goals of critical thinking, including considering alternatives, combining ideas, taking risks to form new connections, judging assumptions, and evaluating steps along the way to new conclusions. These processes are lacking in most classrooms today, maybe because teachers do not understand how to foster this type of thinking or possibly because implementing the tasks just takes too much time. After all, discussion and groups do take time, and student-centered activities are time consuming, as well.

We developed the Dixon-Hegelian method as a philosophical approach for embedding critical thinking into classroom activities. If the goal in a classroom is to get students to think about whatever they are learning, that is, to examine carefully ideas and understand their dimensions, and if the teacher whole-heartedly believes in discussion among students as crucial to the classroom process, then implementing a strategy that operationalizes these beliefs is paramount.

Coleman (1992) stated that, despite the significance of the discussion method for teachers of the gifted, one is hard pressed to find information on how teachers carry out discussions. If discussion emerges from the students as they grapple with ideas from their class assignments along with their life experiences, then the teacher simply cannot micromanage whatever is said. The usual scenario in a class discussion consists of a pattern of serial questioning in which the teacher poses a question, waits for students to respond, and then moves on to the next carefully devised question. This serial questioning technique relies on the teacher's ability to devise questions and, in reality, is a controlled method of conducting class, one that is heavily focused on the teacher. Coleman and Cross (2001) referred to this method as a recitation method, stating that, in some cases, the teacher dominates the communication and little interaction occurs among the students. However, while it is easy to criticize ineffective methods, it is more difficult to suggest meaningful strategies to evoke the changes we are convinced must occur.

Far different from the recitation method, the Dixon-Hegelian method does not allow the teacher to dominate discussions. The

teacher lays the groundwork and teaches the process for productive discussion—and then trusts it. The Dixon-Hegelian method is especially interesting and intriguing in encouraging small- and large-group discussions of ideas. As students engage in thinking about the central problems in their reading by focusing on the thesis and its antithesis, they can better understand the social and historical dilemmas that inform various issues. Hence, they learn to think across the curriculum, interrogating and transforming issues of class, race, and gender (Hammer & McLaren, 1991) as integral to the synthesis of the contradictions they are examining. If teachers want their students to explicate, understand, and critique their own biases, prejudices, and misconceptions, then employing critical-thinking strategies that allow them to listen to multiple perspectives is essential (Paul, 1996). The pressure is off the teacher when the students are engaged in thinking about the issue. In fact, the teacher is free to enter into the conversation as an active thinking participant, as well. The Dixon-Hegelian method encourages students to pursue issues in a more generative, rather than a totally responsive, way as they dig into important meanings.

While it makes sense to explain the process of the Dixon-Hegelian method in its theoretical form, it makes more sense to examine examples of how this method actually works. The next part of this paper is a description of the teacher, setting, and process that occurred each day in a classroom as the teacher used the Dixon-Hegelian method. The collaboration between a university research team and classroom teacher was a wonderful exercise in problem solving on a regular basis. The process turned out to be one of critical thinking for the team, the teacher, and the students.

The Teacher and the Setting of the Study

The Teacher

The teacher, hereafter referred to as Carrie, has been teaching for 23 years in both high school and elementary school settings. At the time of this study, Carrie had been teaching 4th- and 5th-grade gifted students in a self-contained, multigrade, gifted classroom for 3 years. Carrie has an undergraduate degree in intermediate elementary education and language arts, a K–12 gifted and talented license, and a master's degree in elementary education. She has taught literature at a Governor's school for gifted and talented high school students for several summers and has planned and implemented a creative writing class for gifted writers. In addition, Carrie received

the "Teacher of the Year" award 2 years ago at the state gifted conference.

Carrie is sensitive, witty, and creative in her style of teaching. She has a Southern accent and loves to drawl out words and stories for her students. She never talks down to her elementary students, and they both respect her and enjoy her in class. Similarly, it is evident that she loves her job. She respects her students, and they appreciate her scholarship and her sarcasm. It is obvious in Carrie's classroom that she values learning experiences as she designs challenging activities that encourage productive work. For example, her students always participate in Young Authors competitions and place very well in these competitions. Her walls are covered with witty sayings and encouraging quotations. The organization of the room indicates an invitation to try many new things, with a variety of centers scattered around. Perhaps the most obvious example of the mutual respect shared between students and teacher in this environment occurs each time students write in their journals. Carrie also writes in her journal, and she shares what she has written with her students. Hence, she both models the process and the freedom to share with them. In like manner, when they write, Carrie asks her students to share their thoughts with others. As our team observed each day, we were delighted with the overall atmosphere that was evident, but we realized that the focus was on Carrie.

The Setting

The study took place in a classroom in a midsize city in the Midwest. The students (research participants) were in a 4th- and 5th-grade combined class in the spring semester of the 1998–99 school year. All students were identified as academically gifted and talented according to the district's identification plan. The plan for the school corporation's services for elementary students included recommendations of students to the gifted and talented office by teachers, parents, and other school personnel from which a talent pool was formed. Test scores, two levels of screening, and a portfolio containing pertinent examples of student writing and other artifacts were instrumental in the identification process. When the students were selected for the program, they were placed in a "school within a school" in which those identified as gifted and talented were placed in a 1st-2nd combined class, a 3rd-grade single class, or a 4th-5th grade combined class. All classes were self-contained gifted classes. In addition, most of the teachers of the gifted were endorsed in gifted and talented education.

Carrie taught in a classroom consisting of a blackboard, a whiteboard, and movable desks. A loud fan interfered with discussion, particularly for quieter speakers. At the beginning of the study, desks were arranged in two rectangles, one for the 4th-grade and one for the 5th-grade students. The students had assigned seats, while Carrie moved her chair back and forth depending on the grade level with which she was working that day. For the duration of the study, Carrie generally conducted reading class for 75 minutes each day, alternating between each grade level. There were 10 students in the 4th grade and 12 in the 5th grade ($N = 22$).

The Dixon-Hegelian Method

The Dixon-Hegelian method was introduced to the students as a strategy to use in discussing and writing about topics from the two books studied in Language Arts, *The Witch of Blackbird Pond* (5th grade) and *A Girl of the Limberlost* (4th grade). These are wonderful books for intermediate readers as they are interdisciplinary in theme (history and science, respectively) and contain many issues appropriate to these gifted students. Carrie had been trained in the use of the Dixon-Hegelian method and was given lesson plans for each day she taught each novel. These lesson plans were designed to focus on critical thinking in using the Dixon-Hegelian method. In this process, critical thinking is encouraged as students work in groups to isolate a thesis, counter with an antithesis, and then see if they can find a synthesis from the two. The students, in a group, must agree on a thesis or statement of the most critical issue (in their estimation) in the reading for the day (i.e., the chapter or assignment). After they agree on a thesis (which may take much discussion among the small group), the next step was to identify the counterposition or force that provides conflict for the thesis. This antithesis could be found in a force of nature, a psychological issue, or another character in the piece. Just as Hermione and Ron suggested thesis and antithesis in the *Harry Potter and the Goblet of Fire* example offered earlier, so, too, did students suggest antitheses after examining the text. Finding the thesis and antithesis are essential to the Dixon-Hegelian method. The eventual goal is to resolve opposing forces with a synthesis. However, often synthesis is not suggested in each separate reading. If one is available or if students predict one, then they are able to test their ideas against the author's (and mirror the Dixon-Hegelian method as they do so). However, the idea that Carrie had to remember was that the synthesis could not
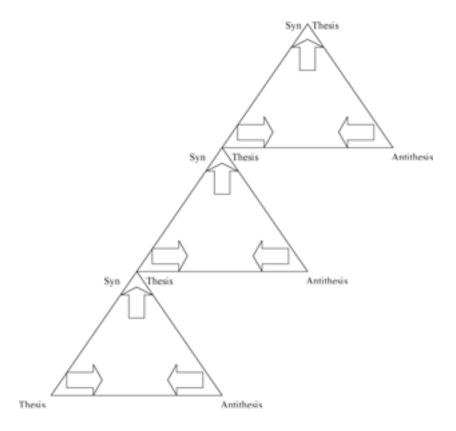
Figure 1. Process of the Hegelian dialectic.

be forced. If one is not available, then patience is important until a satisfactory resolution is found. Figure 1 depicts the process of the Dixon-Hegelian method.

Carrie was given daily lesson plans, which were carefully designed. Her role was to initiate the activity and then to supervise by moving around the class to see that students were engaged in the conversation. Carrie was a guide in the process. She had suggested the two books that were scripted for the process. Both are wonderful pieces of literature, worthy of students' time and consideration (e.g., *The Witch of Blackbird Pond* [Speare, 1986]) is a Caldecott Award winner). The examples for this paper focus on the lesson plans developed for the 5th grade and are taken from *The Witch of Blackbird Pond.*

A brief synopsis of *The Witch of Blackboard Pond* may help readers understand the lesson plan that follows. The story focuses

on a young girl, Kit, who moves from Barbados to the New England town of Weathersfield to live with her uncle, aunt, and their two daughters. En route, Kit encounters many opportunities to show that she is a free-spirited girl who is used to expressing herself openly. She befriends Nat, the son of the captain of the boat that takes her to New England. Her new family is Puritan, and Kit's former habits are not appreciated in the culture. Her colorful clothes are not appropriate to this culture, and her previous life of leisure is not valued, as well. She learns to work hard in her uncle's house. The conflicting ideas surrounding a woman called the Witch of Blackbird Pond further deepen the conflict in the story and provide a setting for Kit to grow up. The tensions provided in this book are wonderful opportunities for students to think critically about human actions. The following lesson plan for the first day of the novel serves as a model for the scripts Carrie received each day.

Day I

Text covered: Chapter 1 of *The Witch of Blackbird Pond*

Focus of the class: Today you will be working on the idea of thesis and inferences. You will establish the process that will occur each day. Follow the following steps:

   1. Explain to the students that they will focus on the first chapter of the text today. They will work on issues or problems that the characters face in their worlds. They will examine these issues in groups.
   2. Divide students into groups of four.
   3. Present the following quotation to the students (give each student a handout):

   There was something strange about this country of America, something they all seemed to share and understand and she [Kit] did not. (p. 14)

Discuss this quotation that shows what Kit thinks at the end of the first chapter. List some of the reasons presented in Chapter 1 that led her to this conclusion.
   4. Teacher Note: Give groups about 10 minutes to discuss some of the reasons. Just see what they can do with this quotation and see if they analyze the chapter for some important points. At the end of 10 minutes, ask the groups to share their points in a whole-class format (keep students in groups, but focused to the whole class).

5. Introduce the idea of thesis, a statement that implies a two-sided argument that focuses on the major issue to be examined. Have students return to their small groups and develop a thesis from Kit's point of view concerning the ideas presented in the first chapter. Each group should write their thesis in sentence form to present to the class. If you have time, give them transparencies and then share each thesis written by each group.

6. After they have presented their theses, find the one that best typifies everyone's ideas or write a collaborative one on a transparency.

7. If you have time, try to look at the other side of the picture. In other words, take the same quotation and apply it to the way the Puritans might look at Kit. Teacher Note: Do not define what Puritans are or give any type of historical information. They can discover these types of information as they read; rather, just have students examine how the Puritan characters might think Kit is strange from the things she does in Chapter 1. List those items. Write a thesis that would indicate what the Puritans shared and understood that Kit did not.

8. Frame today's lesson as two theses from two different points of view on the same issue. Discuss contradictions or ways people see the same issue in opposite ways. Different people see things differently. Neither side may be right or both sides may be right, but they are both different. Again, define the thesis as the main idea that reflects an issue that can be supported with evidence from the story.

9. Students may want to keep a character list as characters are introduced into the story and how each is described. This could be an individual task or perhaps a journal assignment. The assignment for the next day is Chapter 2. In addition, the following list of vocabulary words from Chapter 1 may be helpful in focusing on important issues and new ideas:

1. hawser (p. 5)
2. embarrassment (p. 6)
3. dour-looking (p. 7)
4. impulsively (p. 8)
5. aloof (p. 13)
6. humiliation (p. 13)
7. solemn (p. 13)
8. grave (p. 13)

As one examines this lesson plan, the student centeredness of the strategy should be evident. The teacher's primary role is to activate the students by providing essential questions that initiate the critical-thinking process. Through meaningful discussions of

important ideas, students will uncover or develop new insights to the problem or issue at the center of the lesson. The fact that the strategy enables students to think by focusing on critical issues is central to the philosophy behind the strategy. The need to resolve conflicts or contradictions that exist requires critically examining these conflicts as they are presented. As mentioned in the lesson plan above, the historical relevance of the Puritans is something that students can discover for themselves and should not be explained by the teacher. The interdisciplinary focus of history informing literature provides fruit for deeper, more meaningful discussions and is definitely worth the time necessary for students to forge the connections.

A second function of the teacher in this process is to monitor the thinking process as she walks around the room. In fact, listening to the thinking is key to encouraging these skills. Affirming what gifted students do well is important to their self-efficacy and their academic growth. As the teacher actively listens, she is not micromanaging the process; rather, she is encouraging students' skills. The process of encouraging and not managing is not easy for many teachers of the gifted. It was not easy for Carrie. She liked to talk and add her own ideas to discussions, frequently sharing her witty asides to illustrate points that emerged from class discussion. In this strategy, the students need to establish both their ideas and the witty asides.

As is evident from the initial lesson plan, the group work was essential to the classroom process. Groups worked to write a thesis, which they shared with other groups in a larger forum. Individual groups listened to each other present a thesis on the same passage. Later in the process, groups would often ask for evidence if they did not see the point of a different group's thesis. The following scenario in response to the prompt, "Discuss the thesis that you wrote concerning the atmosphere of the story introduced in Chapter 2" indicates the process just described:

Group 1: The atmosphere of the story is scary.
Group 2: What do you mean by *scary*? What words in the text led you to that description?
Group 1: Words like *bewitch* and *dead* all the time.
Group 3: We stated the atmosphere was dark.
Group 1: I think dark is right because the phrase "dark brown" is used on page 17.
Group 2: But dark is scary.
Group 3: So maybe we are all saying that the Puritan lifestyle was dark and scary for Kit.

The process seemed to self-perpetuate as students listened and questioned each other either in small groups or among the small groups in a whole-class format.

Carrie initially had a difficult time adjusting to the role of coach or guide who listened to the students and helped them focus ideas to formulate a thesis. She loved to control discussion, filtering ideas through her. She openly stated that she had trouble "letting go of control" in order to let the students freely discuss without her input. The students expected Carrie, as the authority figure, to pose points to be learned. And, at the beginning of the process, they responded the way they thought she wanted them to respond. For example, as we walked around listening to groups one afternoon, students were discussing the character of John Holbrook, a pastor in the novel. One student stated, "I think Mrs. [Carrie] would want us to talk about how kind he is. Let's just say he was kind." The rest of the group countered that idea with a different perspective, focusing on Holbrook's concern for how mean some of the Puritans were concerning their treatment of Kit as a foreigner to the Puritan culture. But the fact that the students considered what they thought the teacher expected them to say showed us that they did consider teacher reaction as they determined their own responses. In essence, what was happening at the beginning of Carrie's use of the strategy was counterproductive to the Dixon-Hegelian method. In perhaps a cyclical process, Carrie, sensing her students' uncertainty, responded to their expectations by lowering the thought level of her questioning to questions that required simple, unambiguous responses. For example, prior to the example of the groups' discussing the atmosphere of the story, she stated, "You talked about the Puritans in the story. Do you think the Puritans made a difference in this chapter?" The students chorused, "Yes." Later, Carrie initiated her own analysis that she was trying to avoid directing their thinking and knew her question was very weak. She acknowledged that she had always controlled the action before and this change of role was difficult for her. It was much more difficult to let them discover the novel's worth by careful consideration.

Another issue that Carrie had to work through was not compromising the discussion by lecturing first. She had taught these novels before and loved certain aspects of them. She loved to talk about human nature and how wonderful and colorful Barbados was in comparison to the dreary and gray Puritan town. She loved to talk about her Southern experiences and draw examples comparing the reading to her own experiences. Now she felt she had to abandon that line of thought. The lesson plans gave questions for her to pose

to the students that invited them to draw connections, to clarify issues, and to evaluate situations. We assured her that she could share her ideas in the whole-group sessions on occasions, but that the students' ideas needed to take center stage on a daily basis.

Encouraging students to think spontaneously and independently of adult authority (i.e., the teacher) is central to the development of critical thinking (Riesney, Mitchell, & Hudgins, 1991). As Carrie became more comfortable allowing the students to discuss, she noticed that the students readily engaged in free discussion, were not critical of one another's viewpoints, and took their thinking further than they would have without the open-discussion format. In addition, the format eventually inspired the nontalkers in her class to share their thoughts and ideas. Carrie attributed this change to the nonthreatening atmosphere created as students shared their ideas. The following discussion that occurred after students had completed individual character webs and were compiling one group web to refine the thesis "Kit of Old" and its antithesis "Kit the New" indicates the nature of what was happening in the classroom after discussion became more comfortable for Carrie. Note Carrie's comments:

Student A: "Kit of Old" didn't have much experience, and she used to be more arrogant.
Student B: She was not used to customs and religion.
Student C: She didn't work hard enough.
Student D: She disliked Matthew.
Student E: She was impatient.
Student F: She used to read and be leisurely.
Carrie: What do you call it when you act without thinking?
Student F: (formerly quiet student) Impulsive.
Carrie: That's another thing.
Student A: But she still acts impulsively later on.
Carrie: So we can put it in the middle bubble.
Student D: Careless and vain and upset with her situation.
Carrie: What are some traits of the new Kit, "Kit the Helper"?
Student G: She is more understanding and patient.
Student F: She has more friends. Judith used to be her enemy, and she didn't know Mercy, and now she is friends with Prudence.
Student H: She's more attached to the family.
Student G: She takes orders better.
Student A: She is caring and more used to work.

The web the groups constructed is presented in Figure 2. Although this discussion consisted of short phrases as students decided what to put in their webs, each idea was supported in the text; and students were focused on a thinking task as they shared ideas. The artifact the students produced, that is, the concept map or web, proved helpful in promoting critical thinking for individual students, as well as serving as a springboard for discussion. The concept web was used as an instructional tool to assist students in assessing their background knowledge and to increase meaning by drawing connections and associations between ideas. Throughout the study of these novels, various concept maps were employed to lay the groundwork for subsequent discussions. Furthermore, as students completed the maps, they actually committed to a thesis, and they found supporting evidence, clarifying their conclusions and moving beyond opinion. In the above example in which the students were constructing a web together, the previous work on such concept webs helped the quiet student to discuss, knowing that they had examined the issue before.

After students considered the thesis and antithesis of the character of Kit as a growth feature in this novel, they considered the synthesis of the two. The consideration is recorded as follows:

Student D: Kit goes to visit Hannah, regardless of what others think.
Student F: She still loves Barbados, regardless of what others say, so she is developing her ideas just the way she believes.
Student I: But she really still respects Mercy.
Student J: And she still has feelings for little kids.
Student A: She has never liked the Puritan lifestyle, and she still doesn't.
Student G: No, she is not completely comfortable with life in Weathersfield.
Student D: She still dislikes hard work, but is now at least willing to do it.
Carrie: So ultimately, what are the results of the change in Kit? (She is asking for collective synthesis).
Student D: Kit was accepted by the Puritans, finally.
Student A: We can't forget Matthew. She was more accepted by Matthew as a result.

As can be seen in this discussion, Carrie did not control the thinking. Rather, she listened and encouraged students to discuss the issues. She became part of the discussion, and the students could
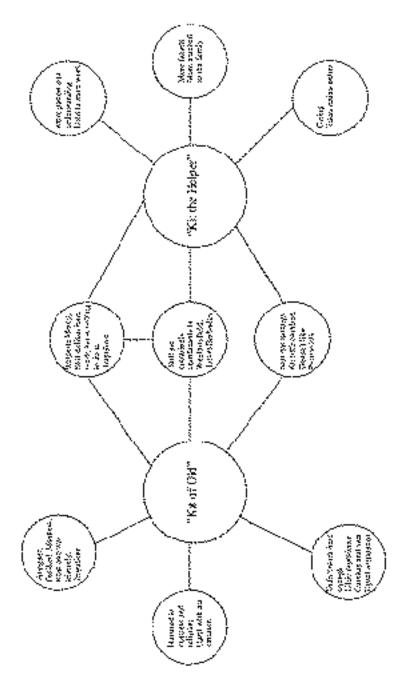
Figure 3. Double-bubble map for comparing and contrasting.

function without her managing the conversation. Carrie noticeably changed in how she fit into the discussion. At the beginning of our project, she would jump in and answer her own questions. After a while, she described her interaction with the students in discussion as "giving them a little leeway." Later, she said she thought she would "just step back and see where it would take them." Carrie's growth was a process in itself. It took time. We worked on this novel for about 5 weeks, and she progressed slowly but steadily throughout the time period. As she used the Dixon-Hegelian method regularly in class, she became more secure in letting the students do the thinking and arrive at their own conclusions, even arriving at their own synthesis. The day that she stepped back after the students had developed a thesis and antithesis and said, "Okay, so what do we make of these opposing ideas?" was the day that she initially viewed her class differently. They could construct a synthesis if she let them.

In making this change in the classroom, Carrie was truly teaching to the students' thinking. Gifted students have the ability to forge connections and operate at higher thinking levels in all activities. Carrie needed to find the way to allow them to do what they innately do well. The Dixon-Hegelian method provided the way for critical thinking to happen in the classroom by providing a framework to structure class activities that focus on critical thinking.

Conclusion

When working with a group of gifted and talented students, the assumption that they can think at higher levels is paramount to productive classes. Sternberg (1997) suggested that thinking in order to learn promotes better thinking. It is the responsibility of the teacher of the gifted to create opportunities for students to think all the time. After the creation of such opportunities, the teacher must be the midwife or coach that helps, but does not "do it all" for the students. As Carrie became more adept at listening and guiding, the students became better able to share their thoughts. In learning that sometimes less is more, Carrie fostered self-efficacy in her students. The result was a learning community of very fine thinkers. The notion that teachers of the gifted do not need to teach these students to think, but, rather, must teach to the students' thinking must not be taken lightly. The Dixon-Hegelian method allows the community of thinkers to be established in the classroom by creating an appropriate framework to let it happen.

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