Beyond Cooperative Learning, John F. Parker, Emeritus, Langara College

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Abstract. Active learning, in which students participate in sharing their knowledge with each other in ways that enhance their higher-level thinking skills, has proved to be the most effective process by which students acquire and retain information. This article describes how a teaching method evolved from lecturing through cooperative learning and finally to active learning. The paper also details the content and focus of a selection of active-learning workshops.

This article contains four sections, describing my journey from being a teacher who believed completely in the lecture method to one who experimented with cooperative learning and subsequently embraced active learning. Determined to give up lecturing, I introduced cooperative learning strategies by assigning the same topics to groups of students to complete. My students and I soon became dissatisfied with this form of cooperative learning; the classroom was still not student centered. We wanted more. I then assigned "different" topics to small groups of students. After they had mastered the material, they had to teach other small groups by actively involving them so they too would learn the material. The success of active learning soon became apparent: Students wrote, read, spoke, and thought with confidence; interrelated with every class member; became independent of me; and graduated with their heads held high.

Evolution of an Active Learner
During my high-school and university days in the 1940s and 1950s, every teacher I encountered used the same teaching method: they lectured and gave assignments. I felt like George in Lorraine Hansberry's (1959) A Raisin in the Sun: "It's simple. You read books--to learn facts--to get grades--to pass the course--to get a degree. That's all--it has nothing to do with thoughts" (p. 67). 1 determined that "the way to pass exams was to reproduce the lecture" (James, 1980, p. 127). My education appeared to have had nothing to do with retaining what I had learned; I joined the ranks of students who, according to Curle (1973), forget 90% of what they learned in school (p. 38).

After being trained to teach (that is, to lecture), I spent the next 22 years perfecting my lecture technique, which I occasionally interrupted with class discussions (usually only a handful of students participated; I had no idea what the others were thinking). The English composition assignment load tied me to my job 80 to 100 hours a week; every weekend became a lost weekend of solitary essay-marking. By 1977, 1 was nearly burned out. To preserve my sanity and fulfill a lifelong dream, I decided to leave the security of teaching and go to London to enter the insecure

life of the theater. I spent three years as an actor working on stage and in films and TV (and, ironically, substitute teaching on the side to make ends meet). By the time I returned to fulltime teaching, I had resolved to revolutionize my teaching methods. I wanted to recreate in the classroom the cooperative spirit I had experienced in the theater. Instead of lecturing, I wanted to work with my students to yield an effective educational product, in the same way as actors, directors, and technicians bring their talents together to produce an effective and successful play or film. These talented people not only retained the words they spoke for the length of the run or shoot, but years later could share their experiences vividly, having retained the feelings evoked by the work, as well as many of their lines.

In 1980 1 began to develop my "survival" teaching techniques and enthusiastically embraced cooperative learning. After five years, however, I realized that, even though cooperative learning is a vast improvement on traditional teaching techniques, my students still were too dependent on me. So I made a conscious effort to push beyond cooperative learning. With the help of my students, I developed a series of active-learning workshops. As a result, I slowly moved from the forefront of the class into the background, converting all my students from dependence to independence. Now that I have completed my journey from lecturing to cooperative learning and beyond, I have become an advocate of student-centered learning.

Lecturing

Admittedly, all of us can remember being held spellbound during our school days by a fascinating lecturer. One of my fondest memories as a student at the University of British Columbia is the time I spent listening to Dr. Roy Daniels lecturing on Milton. He motivated me so much that I memorized the entire text of "Comus." Fortuitously the final exam contained an essay question on "Comus" worth 50%. 1 aced the course. Unfortunately, today's TV-saturated students lack this kind of strong motivation; their attention span is governed by the fact that "the average length of a shot on network television is only 3.5 seconds" (Postman, 1985, p. 86).

In examining current literature on teaching techniques, moreover, I am dismayed to discover to what degree the educational system is still "hooked" on lecturing. But I shouldn't be too surprised; it took me 22 years to abandon lecturing and begin my 15-year journey to active learning. Many principals still think that little learning occurs in a student-centered classroom, and, when they find a teacher with a class in the midst of an active-learning workshop, will say, "I'll (P. come back when you are teaching." The majority of classrooms, especially for academic subjects, have the teacher's desk and chalkboards at the front of the room with students' desks facing the teacher. Parents and students also believe that good teaching means good lecturing; a television feature about Sacramento teacher Bev Bos on the ABC program 20/20 (1991) shows the teacher-as-lecturer attitude being fostered even in pre-schools. Educational authorities often present teacher-of-the-year awards to lecturers who give spectacular presentations. Are teachers subconsciously preparing students for learning in a college or university lecture hall, based on their own most recent educational experiences?

Many books offer help to teachers to improve their lecturing techniques. Graham Gibbs (1988) lists

these criteria for successful lecturing:
1. The responsibility for the success of the lecture is entirely the teacher's, who will do all the to preparation, all the real work during the lecture, and make all the decisions during the lecture about its content and process....
2. No work, other than listening and taking notes, is required of the student.
3. Attending lectures is a solitary, unco-operative, even competitive, activity: students work for themselves (P. 12).

As the first of seven suggestions about lecturing, W. G. Leader (1990) offers: "Sell yourslf as a professional. If students believe that you are expert in your subject as well as proficient in your lecturing, they are more likely to feel that what you are saying has value and that they too will wish to become as professional as you" (p. 15). In summation, Leader states: It could be assumed... that lecturing is the best method of imparting knowledge and stimulating students to think .... The widespread use of lectures reflects the desire to keep teaching costs down and impart knowledge to large numbers of people in as quick and convenient a way as possible (p. 55).

Many critics, on the other hand, have pointed out the ineffectiveness of lectures: "The students and the content of the lectures remain strangers to each other" (Fromm, 1976, p. 29). "The teacher becomes the expert who possesses a body of knowledge, part of which must be acquired by the student who need only act as a passive recipient, an empty vessel. It is the task of the teacher to fill this vessel to the best of his ability" (Powell, 1986, p. 14). "The more completely he t I fills the receptacles, the better a teacher he is. The more meekly the receptacles permit themselves on to be filled, the better students they are" (Freire, 1970, p. 58). "At regular intervals (known as is examination time), the receptacle is then emptied, the object of the exercise is to empty oneself as completely as possible, and certainly better than the next student receptacle. The emphasis, then, is on conformity and competition rather than cooperation and creativity " (Powell, 1986, p. 14). To prove Powell's theory, I gave students in one of my first-year literature classes the same examtwo weeks running. They had prepared for the first exam; the next week's exam came as a surprise. Fifty percent of the students who had passed the first exam failed the same exam the nextweek. Apparently they had emptied their vessels during the expected exam, and had nothing left to give for the unexpected one.

Unfortunately, the results of lecturing still manifest themselves in too many classrooms today: teachers control thinking, good students become automatons, poor students become discipline problems, in too many schools students have become depersonalized and de-powered. One student describes how the lecture experience overwhelmed him: "Whenever he talked... I felt as if I were drowning. His words poured out in torrents, hitting me like sweeping waves determined to pull me under. I would struggle onward, and with my head bobbing to and fro try to concentrate on his speech... I'd helplessly go under" (Parker, 1990c, p. 328). 1 still remember how one of my undergraduate professors defined a lecture: Information that passes from the notes of the professor to the notes of the students without passing through the minds of either. Ironically, I can remember this quotation, but I can't remember what he taught. Mythologist and educator Joseph Campbell decries the results of lecture-oriented teaching: "What we're learning in our schools is not the

wisdom of life. We're learning technologies, we're getting information. There's a curious reluctance on the part of faculties to indicate the life values of their subjects" (Campbell, 1988, p. 9).

Cooperative Learning

When I returned to the classroom in 1980, 1 began my "survival" teaching program by announcing to my English classes, "I don't want to take home marking any more. Have you.any suggestions?" Their initial suggestions about writing short assignments in class and editing each other's work led to my first experiments in cooperative learning. By the end of the first year, my students had written more papers than students in any of my previous classes, the level of their writing had increased dramatically, they had engaged in many productive peer-editing activities, and I had been able to read and grade major essays during one-to-one sessions with a peer editor watching, learning, improving. In other words, I had inadvertently set up a successful cooperative-learning environment, with a difference. I had inadvertently introduced active learn- ing into my classes where students took on greater responsibilities than in a pure cooperative-learning setting.

No longer burdened with hundreds of papers to mark at home, I had time to read scholarly journals and attend conferences. I realized that others had developed techniques in cooperative learning, and I started to experiment with and adapt these cooperative-learning strategies. I discovered that "All cooperative learning methods share the idea that students work together to learn and are responsible for one another's learning as well as their own .... The students' tasks are not to do something as a team but to learn something as a team" (Slavin, 1991, p. 73). 1 had also heard of another method of teaching: collaborative learning, but soon discovered that both collaborative and cooperative are interchangeable terms. According to Harvey S. Weiner (1994), "students perform some common task small study and discussion groups." I soon realized through working cooperatively with my classes that young people "value their friends more than anything else that happens in... school" (Atkin, Kennedy, & Patrick, 1989, p. 92) and "peer group relationships can be a powerful force for good if harnessed towards educational and social goals" (Mongon, Hart, Ace, & Rawlings, 1990, p. 125).

Though I had begun to use cooperative learning to deal with overwork and burnout, I discovered that cooperative learning has been suggested as the solution for an astonishing array of educational problems: it is often cited as a means of emphasizing thinking skills and increasing higher-order learning; as an alternative to ability grouping, remediation, or special education; as a means of improving race relations and acceptance of mainstreamed students; and as a way to prepare students for an increasingly collaborative work force (Slavin, 1991, p. 71).

Slavin (1991) sums up cooperative-learning procedures succinctly: The teacher presents a lesson, and then students work within their teams to make sure that all team members have mastered the lesson. Finally, all students take individual quizzes on the material, at which time they may not help one another (p. 73). So the goal of cooperative learning is still to succeed on the almighty final exam, for which students still must regurgitate their lessons.

In my classes I blended and adapted all of these ideas into my own survival program, but by 1985 1 became convinced that cooperative learning was not working well enough for me or my students. My students were not learning to be independent of me. In group projects the weaker students did not always pull their weight; the better students resented having to drag a weak student along. Anarchy was common. Because I did not have a solution to their problems, I merely quoted what I had read or heard to them: "So and so says it works for her students." "Many colleges in the States swear by cooperative learning." "Give it another try!" I discovered, however, during my participation in various conferences and workshops throughout North America, that many other concerned teachers were dissatisfied with cooperative learning: "Cooperative learning requires too much preparation." "I do most of the work." "Students are still too dependent on me." Thus, I began to see that I needed to find new and more effective methods to make my students controllers of their own destinies. I had to go beyond cooperative learning.

Active Learning

In 1985 1 set a goal for myself: to put students at center stage, no longer recipients of only my thoughts, but active participants in their own learning process. I began by duplicating my old lecture notes and giving them to students the day before class. In this way, we all started at about the same place. Then, I began to develop over 200 active-learning workshops, which ultimately became my handbook for teachers, Workshops for Active Learning (Parker, 1990a).

I converted each classroom into a learning community so that students gave up their dependence on me and learned independence. Through engagement in a large number of active-learning workshops, largely of my and their own devising, my students quickly moved from passivity to activity. Unwittingly, we were proving Postman's (1985) thesis: "we learn from doing" (p. 146).

The active-learning process, according to Baldwin and Williams (1988), assumes that every- one in the learning group has a positive contribution to make, based on their experience, knowledge, and talents; assumes that the trainer has as much to learn from the learners as they have from the trainer and from each other;... perceives self- evaluation as a primary learning tool, and recognizes that the most useful assessment for a learner is self-assessment; perceives any necessary external assessment as the product of negotiation between the trainer and the learner .... In active-learning, the learner moves to center stage, no longer as a recipient of, but a participant in, the learning process (pp. 4- 5).

The basic difference between cooperative learning and active learning is that in cooperative learning projects usually end when the group completes its study of a particular unit: students hand their work in and receive a joint grade. Since they usually all work on identical or similar projects, students have little interest in seeing the results of other groups' work. All they really want to find out is "Did we do better than the other groups?" Active learning, however, requires that students, after learning cooperatively a specific (but different) portion of a particular unit of course content, teach it to their classmates within original active-learning workshops. Students not only demonstrate their knowledge and comprehension of the course content but learn to ana lyze, apply,

evaluate, and eventually synthesize it by creating an original product. Students in an active-learning classroom approach the course content from where they are,
not where the teacher thinks they are or should be. Beginning each new body of material with a series of "Open-ended Statements and Questions" (Parker,1990a), so that small groups can determine what they already know about the topic before the "lesson" begins, allows the teacher to know where to start. In a follow-up session, the teacher becomes a facilitator for an inter-group discussion and asks a group to answer oneof the questions and explain the answer to another group that doesn't know it. The former group teaches the latter group. When the members of the latter group are satisfied with the response, the class goes on to the next part of the material.

During this kind of active-learning workshop, the students are unaware that they are teaching each other, learning from each other. Normally, the teacher slips into the background as an encourager, though ready to overrule misinformation by asking another group for comments, or, when no one can supply an idea or comment, to give a mini-lecture on the topic. The motivated students actively listen to this lecture, feeling free to interrupt and ask questions. "Desktop Teaching" (Parker, 1990a, p. 68) sets up an ideal team-teaching environment in which each student teacher is responsible for presenting a concept, term, or other small body of course content through active-learning activities. In a class of 30, the teacher can have as many as 30 different active-learning lessons, or as few as ten concepts "taught" individually by three different students. Before the workshop, students take time to determine which material they don't
know. During the workshop, they visit only those "teachers" they need to visit to know, undestand, and apply the concept. After the workshop, they list the names of "teachers" of items about which they are still unsure so that they can consult them (instead of their classroom teacher) at a later date. Instructions to the "teachers" require that they engage the students actively in their learning, allowing them time not only to know and understand the material but time to apply it. Instructions to the student learners allow them to ask as many questions as they choose and not leave the "teacher" until they have mastered the material.
"Group Teaching" (Parker, 1990a, p. 67) helps students teach with greater confidence. In small groups, students teach larger concepts of course content units. Using many cooperative learning strategies, they pool their collective knowledge and comprehension of the topic and then devise an active-leaming workshop in which they engage the rest of the class to make sure that they apply and even synthesize the learned material.

For more advanced active-learning methodology, I have developed a modification of the Jigsaw (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978). During "Group-Teach Jigsaw" (Parker, 1990a, p. 101), students devise highly original presentations: role-playing and full- class debates, board games, media presentations, highlight sessions, problem-solving, film synthesis, and many other full-participation learning activities. The Jigsaw presentations conclude with student teachers assigning essays or tests and subsequently marking and grading them. As a follow-up, students engage in both self- and peer-evaluations, during which they can offer high-quality comments. To ensure they are on the right track, peer editors attend a writing conference between the classroom teacher and the student writer: "One-to-One Plus One" (Parker, 1990a, p. 54). In this way, peer editors improve their editing techniques (Parker, 1990b).

In "The Anatomy of an Exam Question" (Parker, 1990a, p. 59), students have the opportunity to ask three-part analysis questions that contain key words, objects, and limiting factors. After attending several of my active-learning workshops, Lory Gilbert, a respected Nevada high-school science teacher and devotee of active learning, told me how she took this idea to its logical conclusion by having students compose examination questions. On the day of the exam, students drop three knowledge questions into a "knowledge" bowl, three in a "comprehension" bowl, two in an "analysis" bowl, and so on. Then, Gilbert draws one set of questions from each bowl for the students to answer. Empowering students to ask worthwhile questions can also help them to deal with exams in other, non-active-learning, classes. This kind of empowerment can help them avoid the fate of "up to 60 percent of [students who] drop, out of school as a direct result of stress caused by exams" (Schratz, 1991, p. 23),

Rogers and Freiberg (1983) state, To involve the whole person in learning means to set the right brain free, to use it as well [as the left].... [The right brain] is intuitive. It grasps the essence before it understands the details.... It is aesthetic rather than logical. It makes creative leaps .... It is associated with the feeling qualities of life .... Significant learning combines the logical and the intuitive, the intellect and the feelings, the concept and the experience, the idea and the meaning. When we learn in that way, we are whole, utilizing all our masculine and feminine capacities" p. 37).

Teachers can easily increase the meaning and value of learning by encouraging students to use both halves of their brains. Schools I've visited have demonstrated marvelous holistic learning experiences for their students. Some classes, for example, annually put someone (Macbeth, Saddam Hussein) on tial in the local courthouse with the help of law court officials, and with members of the community present; some present a Gilbert and Sullivan musical; and some hold an original Epic Day when they present their original Homeric epics (Parker, 1990a, p. 117). Many teachers in England have embraced active learning (or, as the British call it, Aflexible learning"). Current British research confirms that active learning is on the right track. Mongon and Hart (1990) write of young children; their ideas apply as well to college students:

If, instead of treating teaching and learning as essentially an individual matter between teacher and child, the children could be encouraged to learn with and from each other, then the range of differences within a mixed-ability class could be transformed from an intractable problem into a positive asset. If the knowledge, experience and skills which the children bring with them to the lesson were valued and used as a resource for themselves and others, then the teacher would no longer be under pressure to be the fount of all wisdom, to try to teach 30 different individuals simultaneously or to provide teaching 30 times over.... [Education] would reflect a view of teaching and learning which places the learner, not the teacher, at the center and places maximum priority upon providing opportunities for all learners to make sense of the work on their own terms (pp. 103-104).

Contrary to what many educational authorities believe, active learning has proven to be a cost-effective teaching method. Instead of students relying on the thoughts of one teacher and a single

textbook, active learning encourages ideal team teaching with a classroom of "teachers." Not only does active learning eliminate the need for costly and outdated textbooks, it also broadens the scope of students' teaching and learning resources to include everything and everyone around them. "It is becoming increasingly important for students to work as members of a group to... communicate easily and effectively with others; education which fails to equip students to deal with the realities of the world is seen as deficient" (Van Mento, 1990, p. 12).

The methods I have developed and adapted from others have proven immensely successful to both students and teachers. I received what I considered the highest praise from one of my students at the end of a recent term. "I just wanted to tell you," she said, "that I learned more in your class than I have ever learned before." Then, after a pause, ABut you didn=t teach very much, did you?@ I took that as a compliment. In 1990 I decided to take early retirement. Having ventured beyond cooperative learning, I am happy to see more and more educational authorities advocating active learning: "Learning requires the active participation of the learner .... Learning is both an individual and a social process" (Province of British Columbia, Ministry of Education, 1989, P. 1).

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