

Spring/Summer 2000  
SC ATE Teaching Team Training Course Evaluations

South Carolina ATE Center of Excellence

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South Carolina ATE Center of Excellence

## **An Evaluation Report**

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## **ABSTRACT**

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The Spring 2000 SC ATE Teaching Team Training Course survey and follow-up survey for Spring 1999 Teaching Team Training Course participants provide information regarding participants' perceptions of training quality and applicability. The surveys requested respondents to indicate their agreement with a series of statements about the training program. Additionally, respondents were asked to allocate the amount of time they suggest spending on each topic area and to respond to several open-ended questions. Demographic information was also collected.

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## INTRODUCTION

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The South Carolina Advanced Technological Education (SC ATE) Center of Excellence is a statewide systemic initiative designed to increase the quantity, quality and diversity of engineering technology graduates throughout the state's 16 technical colleges. An integrated, problem-based curriculum, collaborative teaching strategies and extensive active learning techniques, together with faculty and student teamwork, form the cornerstone of the SC ATE strategy to recruit, retain and graduate more students in engineering technology programs.

SC ATE has achieved critical milestones on the road to designing and implementing a model of faculty development, program improvement, and curriculum reform. The key to SC ATE success continues to be reform-ready faculty acting as change agents for development and delivery of innovative engineering technology curriculum and promoting program improvement. SC ATE's critical lesson learned is the *proven effectiveness of exemplary faculty leading grassroots reform*.

The Center has identified four critical success factors (essential accomplishments) that will guide its work over the next three years: continuing development of pre-engineering technology and first-year engineering technology curricula; faculty development that supports the most effective teaching methodologies and creating learning environments that model the workplace; recruitment and retention of students, particularly women and minorities; and development of a statewide model to create a seamless pipeline for educational opportunities for students to become well-qualified engineering technology technicians.

The early work of the Center included the SC ATE Exemplary Faculty Project, which was designed to prepare a cadre of ATE faculty at all 16 technical colleges who would then provide grassroots, "bottom-up" leadership of the Center. The project was successful in several ways:

- ✓ Provided 10 professional development events over a three-year period, averaging 90% attendance by ATE faculty;
- ✓ Provided continuing education for all ATE faculty in key concepts from contemporary learning theory (e.g., multiple intelligences), classroom assessment, curriculum and lesson plan development, team teaching, problem-based learning, and related pedagogical techniques including instructional technology;
- ✓ Facilitated more than 15 research projects in which interdisciplinary faculty teams designed courses or course components; sponsored more than 70 ATE presentations; and sent all project participants to conferences or related professional development activities;
- ✓ Sponsored workplace research in the summers of 1997 and 1998 for more than 40 faculty, enabling them to bring industry techniques, problem situations, and solutions into the classroom, thereby enriching instruction by making it reality-based;
- ✓ Created networks among faculty for collaboration across departments and technical college campuses and opportunities for state, regional, and national dissemination;
- ✓ Provided access to information technology, including multimedia and other instructional technology for use in ATE-based instructional formats.

Further, as a result of the implementation of the South Carolina Advanced Technological Education Center of Excellence in 1996, the center has integrated ATE Exemplary Faculty project activities into the overall Center operations. This integration has resulted in the achievement of the following objectives:

- ✓ Faculty adopted an outcomes-oriented pedagogy focused on student demonstration of key competencies in science, mathematics, engineering technology, and communications;
- ✓ Classroom pedagogy increasingly was based on well-established contemporary theories of learning and on sensitivity to variations in cultural and academic backgrounds and student learning styles;
- ✓ Student-centered learning environments, in which instruction was delivered through reality-based group projects and student collaboration rather than exclusive lecture formats, became the norm;
- ✓ Advanced assessment techniques and instructional technologies were used to implement the new pedagogy; and,
- ✓ Key concepts from business and industry were incorporated in instruction, thereby extending the range of workplace problems and learning situations to which students were exposed.

Other achievements spawned from the SC ATE Center of Excellence can be summarized as program improvement achievements, faculty development achievements, and curriculum development achievements. Examples of these achievements include:

- ✓ Innovative instructional teaming;
- ✓ Student-centered teaching, learning, and evaluation approaches (applied, contextual, collaborative, etc.);
- ✓ Workplace research for faculty to learn about job requirements and career opportunities in the field as well as employer expectations;
- ✓ Improved communication, morale, team- and trust-building, professionalism and leadership, and innovation among the system's technical college faculty;
- ✓ Learning environments that simulate those in globally competitive workplaces: real-world problems and issues, interdisciplinary teams, project-based learning;
- ✓ A training program designed to prepare faculty to teach the new SC ATE curriculum delivered via the distance-learning network, TechNet;
- ✓ Integrated, problem-based engineering technology courses developed by ATE faculty for under-prepared (Technology Gateway) and first-year students (ET Core);
- ✓ First-year block of courses (2 semesters, 20 credits) in mathematics, physics, communications, and engineering technology (ET Core curriculum) for use across the SC technical college system; and,
- ✓ Thirteen of the 16 SC technical colleges committed to teaching at least one component (Technology Gateway or ET Core) of the SC ATE curriculum over three years.

The staff development/training workshops sponsored by SC ATE this year included one two-day Instructional Leadership Institute (ILI) facilitated by SC ATE exemplary faculty who attended the Harris Institute for Problem-Based Learning and two teaching team training sessions for new ATE faculty. The SC ATE team members designed the ILI to share what they learned at the Problem-Based Learning institute and to help SC technical college faculty better understand how to coach and assess the SC ATE problem-based projects. Topics covered during the ILI included coaching, preparing students for PBL, generating “what we know/what we need to learn” ideas, developing problem statements, information gathering and sharing (i.e. designing active workshops that provide insight into the problem), generating solutions, performance assessment

and debriefing, etc. Additional training sessions for new faculty consisted of topics related to working effectively in teams and mastering the implementation processes of the problem-based ATE curriculum content. Observations of these training sessions revealed a comprehensive approach to system-wide staff development that has proven to be very effective in enhancing teaching quality in technology engineering classes at the technical college level in South Carolina.

The Materials Development, Training, and Support Services (MTS) Evaluation Intern's task for SC ATE was to evaluate their Teaching Team Training course. Specifically, the responsibility of the evaluation intern was to collect and compare data that answered the question: *Are ATE Teaching Team Members adequately prepared to deliver the SC ATE curriculum after participating in the Teaching Team Training course?* To do this, the intern disseminated surveys to the new faculty participating in the spring 2000 Teaching Team Training course and mailed follow-up surveys to faculty who participated in the spring 1999 Teaching Team Training course and have had a full year of implementing the ATE curriculum projects.

## **METHODOLOGY**

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The SC ATE Center of Excellence staff and the MTS evaluation intern collaboratively developed a 20-item survey for the spring 2000 Teaching Team Training course participants. This survey consisted of 14 Likert items, one time-allocation item and five open-ended items. A survey cover page collected information about the participants' involvement with teaching SC ATE Technology Gateway or ET Core curriculum, their involvement in the training course sessions, their college affiliation, and their primary teaching discipline. The MTS evaluation intern distributed a copy of the survey and cover page to the five participants attending the final training session on April 12, 2000, and gave a verbal explanation of the purpose of the survey. The resulting response rate was 100%.

The SC ATE Center of Excellence staff and the MTS evaluation intern also collaboratively developed a 16-item follow-up survey for the spring 1999 Teaching Team Training course. These surveys were mailed the 11 participants from 1999. A follow-up e-mail reminding those who had not returned the survey by the due date to please do so was also sent. Subsequently, non-participants were contacted by phone and encouraged to complete the survey. Of the 11 participants, seven responded and one indicated lack of participation in the training as his reason for not completing the survey. The resulting response rate was 63.6%.

## **FINDINGS**

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All (5 or 100%) of the spring 2000 Teaching Team Training Course respondents fully participated in or attended all training sessions. The average number of years teaching SC ATE curriculum was 0.60 (standard deviation 0.55). Respondents teaching disciplines varied among communications, engineering technology, and math; three or 60% of respondents served in permanent teaching positions and two or 40% served in adjunct teaching positions. None of the respondents had previously been involved with the ATE project. The mean number of training sessions attended was 3.00 (standard deviation .00), indicating that all respondents attended all

training sessions provided. The mean number of team members with which participants worked was 5.00 (standard deviation 0.00), indicating that each respondent reported the other participants as team members. All respondents indicated that the training sessions were appropriately paced (or just right).

### ***Likert Item Results***

This section highlights survey findings that are exceptional; frequencies and percentages for every survey item are available as **Appendices A & B**. Percentages for spring 1999 Teaching Team Training course participants are reflective of the seven survey respondents only.

Four (80%) of the spring 2000 Teaching Team Training course participants indicated they would recommend this course to other faculty members who anticipate teaching ATE courses. Likewise, seven (100%) of the spring 1999 Teaching Team Training course respondents reported the same—that they would recommend the course to other faculty members. Moreover, all of the spring 2000 course participants reported that adequate resources were provided to support their learning needs and all strongly agreed that they liked having the training in a series of sessions rather than all at once. Furthermore, 100% of spring 2000 course participants and all seven of the spring 1999 course survey respondents reported that they better understood the components of the SC ATE curriculum as a result of the course. These findings suggest that many respondents were very satisfied with the training they received and on the whole, liked the format and pace of the training sessions. Respondents open-ended responses regarding the strengths and weaknesses of the training provided can be found in **Appendices C & D** and on the whole correlate with or serve to triangulate the findings from Likert scale items

Overall, the majority of respondents (80% of spring 2000 respondents and 85.7% of spring 1999 respondents) indicated that they felt less anxious about teaching the new curriculum and felt that the course provided enough knowledge about the ATE ET curriculum to begin implementation (60% of spring 2000 respondents and 71.5% of 1999 respondents). Likewise, 80% of the spring 2000 respondents and 100.0% of the spring 1999 respondents reported that as a result of the Teaching Team Training course, they were better prepared to use problem-based learning (PBL) as an instructional strategy as well as better prepared to assess student learning in a PBL environment (80% & 85.8% respectively).

Additionally, all respondents indicated that the Teaching Team Training course helped them to develop their teaming skills (100% of spring 2000 respondents) and/or build their confidence in their ability to work with their teaching team (85.7% of spring 1999 respondents). Similarly, 100% or all five of the spring 2000 participants reported that as a result of the training course, they felt better able to help their team create a learning environment that supports and addresses the diverse learning styles of technology students; while, 85.7% or six of the spring 1999 respondents indicated that their team created a learning environment that supported and addressed the diverse learning styles of technology students.

Moreover, four or 80% of the spring 2000 respondents indicated that as a result of the Teaching Team Training course, they were able to adapt the remainder of the curriculum materials for delivery at their school; 71.4% or five of the spring 1999 respondents indicated that their team was able to adapt the remainder of the curriculum materials for delivery at their school.

As far as recruiting and advising students is concerned, the spring 2000 respondents (80%) reported that as a result of the Teaching Team Training course, they felt capable of helping their team produce a realistic action plan to recruit and advise students for ATE courses; while, 100% of the spring 1999 respondents indicated that as a result of the Teaching Team Training course, their team produced a realistic action plan to recruit and advise students for ATE courses.

Since no area stands out as a problem area, it is interesting to note that five or 100% of the spring 2000 participants reported that this course provided them with new ideas of how to use technology in teaching the ATE curriculum and six or 85.7% of the spring 1999 respondents reported that their team’s ability to deliver curriculum effectively was enhanced by the Teaching Team Training course. Further, both groups agreed that their teams used communication skills and other strategies for working effectively in teams during the course and these strategies enhanced their ability to work together in teams.

***Percent Time Allotment Item Results***

Respondents were asked to recommend the amount of training time needed in the following areas: **a)** Assessment; **b)** Communication/Teaming Skills; **c)** Faculty Lessons Learned; **d)** SC ATE Curriculum; and **e)** Problem-Based Learning Theory.

Assessment, communication/teaming skills, and SC ATE curriculum held the highest average percent of time recommended by respondents with assessment allocated up to 25% of time by 60% of respondents; communication/teaming skills allocated up to 50% of time by 60% of respondents; and SC ATE curriculum allocated up to 75% of time by 60% of respondents. Faculty lessons learned and problem-based learning theory each receive recommended allocations of up to 15% of time by 60% of respondents.

Moreover, the amount of time recommended by respondents does not necessarily reflect the importance of or benefit associated with the topic. For example, even though faculty lessons learned and Problem-Based Learning theory were allotted the least amount of time overall (5% to 15%), these areas were mentioned as beneficial aspects that could be continued or added to or were listed as critical components of the training. Additionally, communication/teaming skills was also reported as a beneficial aspect of the training as well as the time spent on the SC ATE curriculum. Thus, it is possible that these areas may be elements where instructors feel a need for more instruction or assistance.

**Table 1: Percent of Time Recommended for each Activity**

<b>Activity</b>	<b>Mean % of Time Recommended by All Respondents</b>	<b>Standard Deviation</b>
Assessment	16.00	8.21
Communication/Teaming Skills	22.00	16.80
Faculty Lessons Learned	13.00	6.70
SC ATE Course Curriculum	33.00	24.13
Problem-Based Learning Theory	16.00	4.18

### ***Open-ended Item Results***

Open-ended responses were organized by theme and the frequency of similar responses was calculated to indicate the pervasiveness of themes across respondents. A full list of responses is provided as **Appendices C & D**.

Several of the spring 2000 respondents indicated that the most beneficial aspect of the training course was the review of the SC ATE course curriculum projects. Similarly, several respondents indicated that all of the training sessions were beneficial and that they enjoyed the course, enjoyed working with the people involved in the course, and were looking forward to actually teaching the SC ATE curriculum.

Among the suggestions for improvement that were made, two spring 2000 Teaching Team Training course participants suggested visiting pilot projects at other campuses and more communication between participants between sessions as some things that could be added.

Spring 1999 respondents indicated that they either used or would have liked using computers, electronic markerboards, projectors, TI-83 calculators with screen display, personal laptops, Palmpals, videos, etc. when teaching the ATE course.

### ***Respondent Suggestions for Improvement***

Respondent suggestions for improvement are provided below and grouped by theme when possible. The number of respondents mentioning this or a similar idea is in parenthesis. The most frequently mentioned area for improvement related to providing more examples of assessment of student performance. Additionally, spring 1999 respondents indicated having more interaction between faculty who have taught the curriculum and those who have not as additional activities/topics that should be included in future ATE faculty training classes. All 1999 Teaching Team Training course respondents' comments regarding program improvement are listed below:

- More training on new technology and software (4)
- More training on assessment (5)
- More interaction between faculty who have taught the ATE curriculum and those who haven't (1)
- Sharing student recruitment/marketing techniques (1)
- More study of ATE projects (3)
- Continue to provide financial assistance (1)
- Activities related to how to get other faculty outside of the engineering technology field to try out the Problem-Based Learning method of teaching (1)
- More time to plan & teach ATE curriculum (2)

## **SUMMARY OF RECOMMENDATIONS**

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Program staff should consider the following recommendations for improving and/or providing follow-up activities for Teaching Team Training participants implementing SC ATE curriculum during the next academic year:

- Provide more examples/suggestions for assessing students individually and in teams.
- Provide more training on new technology and software.
- Provide a series of follow-up sessions during SC ATE curriculum implementation where current and past Teaching Team Training course participants can interact and share information.
- Continue providing workshops on problem-based learning theory.
- Devise a method whereby participants from each campus can share information on recruiting students and advertising to local industries.

## **CONCLUSION**

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Overall, respondents were satisfied with the course and would recommend the course to other faculty members. Using a team approach to solve problems related to implementing the ATE curriculum as well as to actually teach the ATE curriculum projects was particularly agreeable. Learning how to use problem-based learning to create a supportive learning environment for technology students with diverse learning styles was particularly agreeable as well.

Assessing student performance in teams and individually seems to remain an area of concern for faculty participants; hence, program staff may want to consider providing follow-up sessions that address examples of assessment.

Respondents seemed to genuinely enjoy the training course and seemed to be excited about teaching the ATE curriculum. To keep the enthusiasm alive, it may be beneficial to begin follow-up sessions with Teaching Team Training course participants immediately at the beginning of the next school year to begin discussions and provide feedback on issues participants may have regarding assessment, the ATE curriculum, and problem-based learning.

Furthermore, as a result of the ATE Teaching Team Training course, the majority of participants do not feel as anxious about teaching the new curriculum, do feel they have enough knowledge about the ATE ET curriculum to begin implementation, overall do feel capable of working with their teaching team and do feel capable of effectively using problem-based learning as an instructional strategy. In this regard, it should be surmised that after participating in the ATE Teaching Team Training course, ATE teaching team members are adequately prepared to deliver the SC ATE curriculum.

## **REFERENCES**

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- (1999). South Carolina Advanced Technological Education Center of Excellence: Proposal for Continued Funding submitted to the National Science Foundation's Advanced Technological Education Program.
- (2000). South Carolina Advanced Technological Education Center of Excellence Instructional Leadership Institute 2000 manual.

## **APPENDICES**

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**Appendix A:**  
*Spring 2000 SC ATE Teaching Team Training Course*  
*Survey Questions, Frequencies & Percentages*

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. Adequate resources were provided to support my learning needs.	4 (80.0%)	1 (20.0%)	0	0	0
2. I like having the training in a series of sessions rather than all at once.	5 (100.0%)	0	0	0	0
3. I understand the components of the SC ATE curriculum better as a result of this course.	3 (60.0%)	2 (40.0%)	0	0	0
4. As a result of the SC ATE Teaching Team Training Course, I am less anxious about teaching the new curriculum.	1 (20.0%)	3 (60.0%)	0	0	1 (20.0%)
5. I know enough about the new ATE ET curriculum to begin implementation.	1 (20.0%)	2 (40.0%)	2 (40.0%)	0	0
6. As a result of the SC ATE Teaching Team Training Course, I am better prepared to use problem-based Learning (PBL) as an instructional strategy.	1 (20.0%)	3 (60.0%)	1 (20.0%)	0	0
7. As a result of this course, I am better prepared to assess student learning in a PBL environment.	1 (20.0%)	3 (60.0%)	1 (20.0%)	0	0
8. This course helped me develop my teaming skills.	2 (40.0%)	3 (60.0%)	0	0	0
9. As a result of this course, I am now better able to help my team create a learning environment that supports and addresses the diverse learning styles of technology students.	2 (40.0%)	3 (60.0%)	0	0	0
10. As a result of this course, I will be able to adapt the remainder of the curriculum materials for delivery at my school.	1 (20.0%)	3 (60.0%)	1 (20.0%)	0	0
11. As a result of this course, I can now help my team produce a realistic action plan to recruit and advise students for ATE courses.	1 (20.0%)	3 (60.0%)	1 (20.0%)	0	0
12. The course provided me with new ideas of how to use technology in teaching the curriculum.	4 (80.0%)	1 (20.0%)	0	0	0
13. Team communication skills and other strategies for working effectively in teams were utilized during the course.	4 (80.0%)	1 (20.0%)	0	0	0
14. I would recommend this course to other faculty members who anticipate teaching ATE courses.	4 (80.0%)	0	0	1 (20.0%)	0

**Appendix B:**  
*2000 SC ATE Teaching Team Training Course  
 Follow-up Survey Questions, Frequencies & Percentages  
 for Spring 1999 Participants*

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. I understood the components of the SC ATE curriculum better as a result of this course.	3 (42.9%)	4 (57.1%)	0	0	0
2. As a result of the course, I was less anxious about teaching the new curriculum.	2 (28.6%)	4 (57.1%)	0	1 (14.3%)	0
3. This course provided me enough knowledge about the ATE ET curriculum to begin implementation.	3 (42.9%)	2 (28.6%)	2 (28.6%)	0	0
4. As a result of the course I was better prepared to use problem-based learning (PBL) as an instructional strategy.	3 (42.9%)	4 (57.1%)	0	0	0
5. By participating in the course, I was better prepared to assess student learning in a PBL environment.	3 (42.9%)	3 (42.9%)	1 (14.3%)	0	0
6. As a result of the course, I felt capable of working with my teaching team.	2 (28.6%)	4 (57.1%)	1 (14.3%)	0	0
7. As a result of the course, my team created a learning environment that supported and addressed the diverse learning styles of technology students.	2 (28.6%)	4 (57.1%)	1 (14.3%)	0	0
8. As a result of the course, my team was able to adapt the remainder of the curriculum materials for delivery at my school.	1 (14.3%)	4 (57.1%)	1 (14.3%)	1 (14.3%)	0
9. The training course helped my team produce a realistic action plan to recruit and advise students for ATE courses.	1 (14.3%)	6 (85.7%)	0	0	0
10. My team's ability to deliver curriculum effectively was enhanced by teamwork during training.	1 (14.3%)	5 (71.4%)	1 (14.3%)	0	0
11. My team utilized communication skills and other strategies for working effectively in teams during the course.	3 (42.9%)	3 (42.9%)	0	1 (14.3%)	0
12. I would recommend this course to other faculty members.	3 (42.9%)	4 (57.1%)	0	0	0

## **Appendix C:**

### *Spring 2000 Teaching Team Training Survey Open-Ended Responses*

***Responses to the question ‘What aspect of the training course was the most beneficial to you and why?’***

- Team skills—important because ATE teachers must work as team.
- Course curriculum on April 12, 2000 by Helen Edens.
- SC ATE course curriculum because of the need to know and communication/teaming skills.
- Going through the projects because I began to visualize how I could present my material and best help my team to promote an innovative classroom environment.

***Responses to the question ‘What aspect of the training course was the least beneficial to you and why?’***

- All were beneficial. I needed to know all the information.
- Not Applicable.
- It would be nice if the sessions were held closer to Pendleton, SC. But, I understand the rationale for holding them in Columbia.

***Responses to the question ‘What ongoing activities would help you develop the skills needed to be a better instructor of the SC ATE curriculum?’***

- More project study and implementation skills. Assessment suggestions.
- Use of a computer at home to practice skills needed for class.
- Continued workshops on problem-based learning theory.
- Once I start teaching, periodic meetings with other new teachers and other experienced teachers to discuss our observations and problems.

***Responses to the question ‘What suggestions for course improvement would you propose?’***

- None. It is perfect as it is.
- Visiting pilot projects at other campuses.
- More communication between participants in between sessions (email address list so we can talk to each other).

***Responses to the question ‘Other comments:’***

- Enjoyed course. Good people—enjoyed their responses and reaction/perspectives.
- Continue the good work. That is providing faculty the opportunity to develop new and innovative teaching and learning strategies.
- Well done. I’m excited about the program’s potential and can’t wait to start!

**Appendix D:**  
*Follow-up Survey Open-Ended Responses  
for Spring 1999 Participants*

***Responses to the question ‘What types of technology did you use when teaching the ATE course? What additional technology training would help?’***

- Computers; Projector system; Visualizer; Electronic markerboard; Logger pro. It would be helpful to have personal laptops and/or Palmpals.
- Powerpoint was utilized by instructors and student teams for presenting projects and project solutions. Instructors used TI-83 calculators with screen display through overhead projectors.
- Ibid board, computer, videos.
- Desktop PC for wordprocessing; PowerPoint presentations; Research using the internet.
- Computers/Internet.
- The IBID board that is connected to a computer and a projector. As an instructor writes on this board the display on a large screen comes up. Copies of the work can be made on the spot and given to the students.
- Graphic calculator, PCL and computers. None at this time.

***Responses to the question ‘What additional activities/topics should be included in the ATE faculty training classes to help faculty prepare to teach the ATE curriculum?’***

- More interaction between faculty who have taught the curriculum and those who have not.
- Individual assessment remains on top of the list. The focus can be the projects. Elect one project say from Gateway course, and show us how individuals would be assessed for the solution to that project.
- Assessment of students’ performance both individually and as a team.
- More subject activities/projects.
- The hardest part I find in this method is individual assessment. Techniques for individual assessment need to be developed and taught during training sessions.
- Covered pretty much all aspects.

***Responses to the question ‘What other improvements in the training course, including follow-up activities, would you suggest now that you have experienced teaching the ATE curriculum?’***

- More training on new technology and more interaction between faculty who have taught the curriculum and those who have not.
- Share student recruitment techniques. Share advertisement techniques for local industries to attract their employees to attend the course. How to get other faculty maybe outside of engineering field to try out this method of teaching.
- None. It is thorough and quite comprehensive.
- Customize the “Projects” to fit the programs at each school and local industry demands.
- More time.
- Since application software programs are being developed for science and math continuously, teachers need training on these programs. It would be very beneficial to us if some of these application programs are taught during annual or other training sessions.
- None.

***Responses to the question ‘Other comments:’***

- Provide or keep providing financial assistance to the teaching teams to upgrade the computer systems for themselves and the students. Have more workshops on CBLs.
- Some training sessions such as assessment (teams and individual) should be offered on a recurring basis and at different times in the year.
- College should provide enough time and adequate teaching load for ATE team to teach ATE courses.

Summer 2000 SC ATE Teaching Team Training Course

South Carolina ATE Center of Excellence

**Prepared August 2000**

## Addendum A:

### *Summer 2000 SC ATE Teaching Team Training Course July 20-21 Survey Questions, Frequencies & Percentages*

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Not Applicable</b>
1. Adequate resources were provided to support my learning needs.	<b>8</b> (61.5%)	5 (38.5%)	0	0	0	0
2. I understand the components of the SC ATE curriculum better as a result of this course.	4 (28.6%)	<b>9</b> (64.3%)	1 (7.1%)	0	0	0
3. As a result of the SC ATE Teaching Team Training Course, I am less anxious about teaching the new curriculum.	1 (7.1%)	<b>6</b> (42.9%)	3 (21.4%)	0	1 (7.1%)	3 (21.4%)
4. I know enough about the new ATE curriculum to begin implementation.	2 (14.3%)	<b>4</b> (28.6%)	<b>4</b> (28.6%)	2 (14.3%)	1 (7.1%)	1 (7.1%)
5. As a result of the SC ATE Teaching Team Training, I am better prepared to use problem-based Learning (PBL) as an instructional strategy.	1 (7.1%)	<b>10</b> (71.4%)	2 (14.3%)	0	0	1 (7.1%)
6. As a result of this training, I am better prepared to assess student learning in a PBL environment.	1 (7.1%)	<b>8</b> (57.1%)	3 (21.4%)	2 (14.3%)	0	0
7. This training helped me develop my teaming skills.	2 (14.3%)	<b>11</b> (78.6%)	0	1 (7.1%)	0	0
8. As a result of this training, I am now better able to help my team create a learning environment that supports and addresses the diverse learning styles of technology students.	3 (21.4%)	<b>10</b> (71.4%)	0	1 (7.1%)	0	0
9. As a result of this training, I will be able to adapt the remainder of the curriculum materials for delivery at my school.	2 (14.3%)	<b>6</b> (42.6%)	2 (14.3%)	0	1 (7.1%)	3 (21.4%)
10. As a result of this training, I can now help my team produce a realistic action plan to recruit and advise students for ATE courses.	1 (7.1%)	<b>7</b> (50.0%)	3 (21.4%)	0	1 (7.1%)	2 (14.3%)
11. The training provided me with new ideas of how to use technology in teaching the curriculum.	2 (14.3%)	<b>8</b> (57.1%)	0	3 (21.4%)	0	1 (7.1%)
12. Team communication skills and other strategies for working effectively in teams were utilized during the course.	9 (64.3%)	5 (35.7%)	0	0	0	0
13. I would recommend this course to other faculty members who anticipate teaching ATE courses.	7 (50.0%)	<b>7</b> (50.0%)	0	0	0	0

## **Addendum B:**

*Summer 2000 Teaching Team Training Survey Open-Ended Responses  
July 20-21*

***Responses to the question 'What aspect of the training course was the most beneficial to you and why?'***

- Teaming and communication skills. (4)
- Information on Technology Gateway/Core curriculum. (4)
- Learning styles/multiple intelligence/measurement tools. (3)
- Problem Based Learning theory. (1)
- Ideas from others that are doing this already. (1)
- Learning about ATE. (1)

***Responses to the question 'What aspect of the training course was the least beneficial to you and why?'***

- None (4)
- Teaming-already had training in teaming. (2)
- Learning styles-already had training in learning styles. (2)
- Assessment. (2)
- Curriculum information. (1)
- Multiple Intelligence. (1)
- Second day. (1)
- Games. (1)

***Responses to the question 'What ongoing activities would help you develop the skills needed to be a better instructor of the SC ATE curriculum?'***

- Content/team training. (5)
- Working with other instructors. (2)
- Working with personnel already involved in the program. (1)
- More information on Gateway in real applications. (1)
- More information on Core being developed. (1)
- Assessment workshops. (1)
- PBL simulations. (1)
- Keeping abreast of learning techniques. (1)
- Practice. (1)

***Responses to the question 'What suggestions for course improvement would you propose?'***

- None. (2)
- Work with people from industry. (1)
- Let instructors demonstrate a mini classroom activity. (1)
- Working with others already involved. (1)
- More on assessment and case studies. (1)
- More time to go through simulations. (1)
- Data regarding Gateway numbers. (1)
- Clarification of effects on instructors. (1)
- Things moved fast and kept one from getting bored. (1)
- More hands on activities. (1)
- More video. (1)
- Should not conflict with exam week. (1)
- Too much hand out material. (1)

***Responses to the question 'Other comments:'***

- I enjoyed the workshop.(5)
- Good student centered instruction by the trainers. (1)
- Advanced information on content of courses. (1)
- The room should be team teaching arranged for easier and comfortable learning environment. (1)

## Addendum C:

### *Summer 2000 SC ATE Teaching Team Training Course July 31-August 1 Survey Questions, Frequencies & Percentages*

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Not Applicable
1. Adequate resources were provided to support my learning needs. (9.1%)	4 (23.4%)	<b>7</b> <b>(36.4%)</b>	0	0	0	1
2. I understand the components of the SC ATE curriculum better as a result of this course.	5 (45.5%)	<b>6</b> <b>(54.5%)</b>	0	1 (9.1%)	0	0
3. As a result of the SC ATE Teaching Team Training Course, I am less anxious about teaching the new curriculum.	3 (27.3%)	<b>5</b> <b>(45.5%)</b>	4 (23.4%)	0	0	0
4. I know enough about the new ATE curriculum to begin implementation.	1 (9.1%)	<b>5</b> <b>(45.5%)</b>	4 (23.4%)	2 (18.2%)	0	0
5. As a result of the SC ATE Teaching Team Training, I am better prepared to use problem-based Learning (PBL) as an instructional strategy.	2 (18.2%)	<b>9</b> <b>(81.8%)</b>	0	1 (9.1%)	0	0
6. As a result of this training, I am better prepared to assess student learning in a PBL environment.	1 (9.1%)	<b>7</b> <b>(36.4%)</b>	2 (18.2%)	2 (18.2%)	0	0
7. This training helped me develop my teaming skills.	1 (9.1%)	<b>10</b> <b>(90.9%)</b>	0	1 (9.1%)	0	0
8. As a result of this training, I am now better able to help my team create a learning environment that supports and addresses the diverse learning styles of technology students.	1 (18.2%)	<b>6</b> <b>(54.5%)</b>	2 (18.2%)	2 (18.2%)	0	0
9. As a result of this training, I will be able to adapt the remainder of the curriculum materials for delivery at my school.	0	5 (45.5%)	<b>6</b> <b>(54.4%)</b>	1 (9.1%)	0	0
10. As a result of this training, I can now help my team produce a realistic action plan to recruit and advise students for ATE courses.	1 (9.1%)	4 (23.4%)	<b>6</b> <b>(54.4%)</b>	1 (9.1%)	0	0
11. The training provided me with new ideas of how to use technology in teaching the curriculum.	4 (23.4%)	<b>5</b> <b>(45.5%)</b>	2 (18.2%)	1 (9.1%)	0	0
12. Team communication skills and other strategies for working effectively in teams were utilized during the course.	2 (18.2%)	<b>10</b> <b>(90.9%)</b>	0	0	0	0
13. I would recommend this course to other faculty members who anticipate teaching ATE courses.	3 (27.3%)	<b>8</b> <b>(72.8%)</b>	1 (9.1%)	0	0	0

## **Addendum D:**

*Summer 2000 Teaching Team Training Survey Open-Ended Responses  
July 31-August 1*

***Responses to the question 'What aspect of the training course was the most beneficial to you and why?'***

- Team activities/methodology. (9)
- Learning styles/multiple intelligence. (2)
- Activities useful in classroom. (1)
- Explanation of curriculum. (1)

***Responses to the question 'What aspect of the training course was the least beneficial to you and why?'***

- None (4)
- Curriculum overview. (3)
- Too much team building. (2)
- Project description without physical model/example. (1)
- Sitting too long. (1)

***Responses to the question 'What ongoing activities would help you develop the skills needed to be a better instructor of the SC ATE curriculum?'***

- Curriculum training. (2).
- Continued communication on ideas/methodologies that are successful. (1)
- More activities. (1)
- Introduction to projects that are developed in the future. (1)
- Practice projects very close to the time they are taught. (1)
- Team problem solving activities. (1)
- Going through at least one project as a student in a workshop. (1)
- Learning/student team learning. (1)
- Assessment/feedback. (1)