

GULF  
COAST  
EDUCATION  
INITIATIVE  
CONSORTIUM:

TECHNOLOGY  
TRAINING FOR  
TODAY'S  
EDUCATORS



Prepared for the  
Gulf Coast Education Initiative

By the  
Social Science Research Center  
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# Gulf Coast Education Initiative Consortium: Technology Training for Today's Educators

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## **Introduction**

With new technologies and changing student populations, initial professional training received by our nation's teachers may not prepare them for the current expectations of the educational arena. Couple this with growing access to hardware and software, and the result is an increasing need for technology training of today's educators.<sup>1</sup>

That is why educational organizations such as the Gulf Coast Education Initiative Consortium [GCEIC] play such an important role in the training of today's educators. The GCEIC, which incorporates nineteen school districts in Mississippi and Louisiana, serves approximately 116,000 students and 6,000 teachers [*Note: one district in Louisiana has discontinued membership in the Consortium since the conclusion of this study*]. The overall goal of the Consortium is to prepare area citizens for gainful employment in America's future high-technology economy. A key path to the realization of such a goal is to provide a quality education system to area youth.

## **Overview**

One of the main focuses of the Gulf Coast Education Initiative Consortium is technology training for area educators. At the time of data collection, the GCEIC employed one full-time technology trainer to provide technology training tailored to meet the needs of individual schools in the member school districts. [*Note: The GCEIC has added one full-time and one part-time technology trainer in an effort to further meet the needs of area educators.*]

The following report is based on feedback from those area educators who have participated in at least one GCEI technology training workshop since 1998.

## **GCEIC's Technology Training**

The training provided by the GCEIC ranges from the basic knowledge of how to use computer equipment to the more complex aspects of helping teachers integrate technology into the classroom. Fourteen technology training courses have been offered during the past two years. These courses are listed below together with a brief description of each.

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<sup>1</sup>. "Home computers used primarily for learning, families say in survey." Andrew Trotter. *Education Week*. April 5, 2000. Volume XIX, Number 30. Page 6.

- *Introduction to the Computer and Windows 95/98*: participants gain basic computer knowledge as well as an introduction to the operating system, Windows 95.
- *Intermediate Windows 95*: participants learn to manage files and customize their computer.
- *Intro to Word*: word processing and document preparation are introduced.
- *Intro to PowerPoint*: participants learn to create a slide show with graphics, color, and special effects.
- *Intro to Excel*: participants use excel to develop a spreadsheet.
- *Intro to Office 97*: two-day training with an introduction to Microsoft Word, Excel, and PowerPoint.
- *Using the Internet*: participants are introduced to the Internet and how to use the toolbar, and how to surf the Web.
- *Internet Integration*: participants learn how to integrate the Internet into their curriculum.
- *Teaching in the One Computer Classroom*: participants learn how one computer can foster cooperative learning and critical thinking.
- *Hyperstudio*: participants learn to create multimedia projects utilizing graphics, movies, and animation.
- *Magnolia*: participants learn to access various databases such as Grolier Multimedia Encyclopedia and Wilson Biographies, and learn ways to integrate resources into their curriculum.

In the past much of the training for these courses has been done within the individual school districts. Recently, however, a centralized training facility has been opened in Harrison County School District's Central Office Building located in Gulfport, Mississippi. [Harrison County School District also wired the facility for the Internet. Other contributors include Howard Computers in Laurel, Mississippi, that donated 24 Pentium II workstations; Gulfport School District, that provided desks and cabinets for the workstations; and International Paper Company Foundation, that funded a \$2,500 grant for other needed equipment.<sup>2]</sup>

### **Purpose of Survey**

This survey was administered to educators who have attended technology training workshops offered through the GCEIC. The purpose of the Workshop Participant Survey was to gather information about professional development opportunities provided by the Gulf Coast Education Initiative Consortium to educators in Southern Mississippi and Southeastern Louisiana. Items on the questionnaire were designed to assess the staff development workshops attended by educators in

<sup>2</sup>. GCEIC 1998/1999 Annual Report.

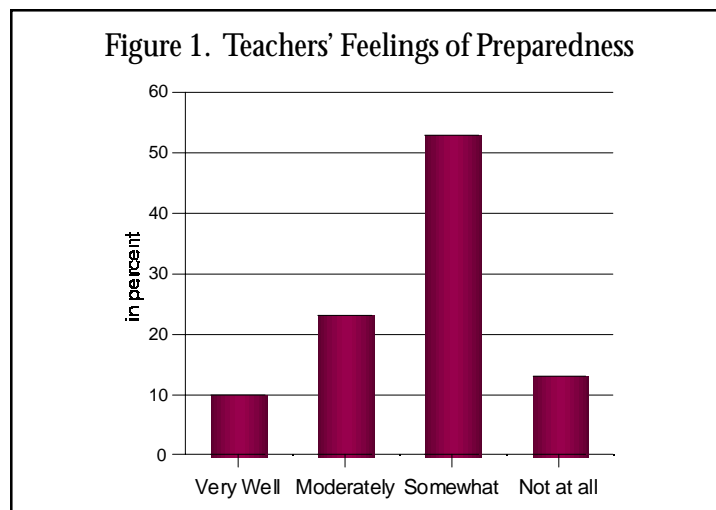
the GCEI area, resources available to educators in the target area, participants' opinions about the workshop processes, and the techniques and tools used in the workshops. Thus, the results will assist the GCEIC in its mission to promote and support area communities in developing a quality education system.

### ***Technology and Education in the Nation***

For the last five years the National Center for Education Statistics [NCES] has documented access and use of computers and the Internet in U.S. public elementary and secondary schools. Through a survey commissioned by NCES using the Fast Response Survey System, it was found that 99 percent of full-time regular public school teachers reported they had access to computers or the Internet in their schools.<sup>3</sup>

To assess the nature of use of computers and/or the Internet, the NCES survey asked teachers to indicate to what degree they use computers to accomplish various tasks related to their jobs. Creating instructional materials, administrative record keeping, and communicating with colleagues were the top three objectives of teachers surveyed (39 percent, 34 percent, and 23 percent, respectively).<sup>4</sup>

NCES was also interested in the level of preparedness felt by America's teachers in integrating technology and education. Teachers were asked to what degree they felt prepared to incorporate computers and the Internet into their classroom. It was found that only one in ten teachers felt *very well prepared* to integrate technology into their teaching methods [see Figure 1]. Just over half (53 percent) of those teachers surveyed felt only *somewhat prepared* to integrate computers and the Internet into their classrooms, and another 13 percent stated they were *not at all prepared*.<sup>5</sup> This study emphasizes the need for increased technology training for today's educators.



<sup>3</sup>. "Teacher's feelings of preparedness." *Indicator of the Month* by the National Center for Education Statistics. U.S. Department of Education, Office of Educational Research and Improvement. December 1999.

<sup>4</sup>. *ibid* 3.

<sup>5</sup>. *ibid* 3.

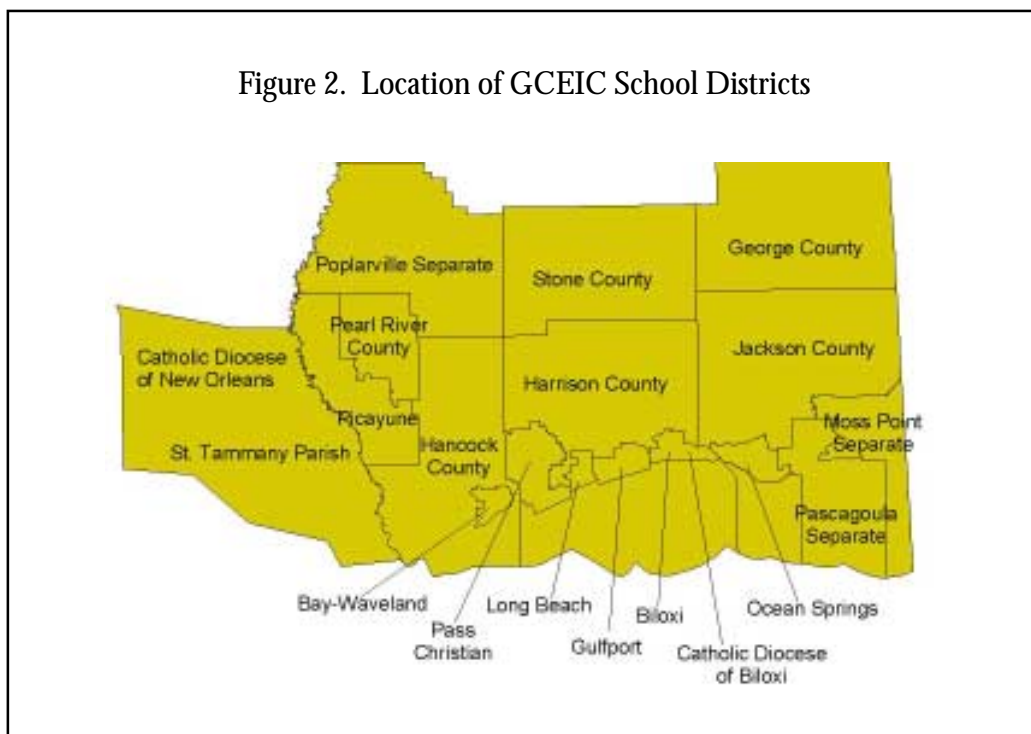
## Methodology

In April 2000, surveys were mailed to educators who had participated in the technology workshop training program since 1998 offered through the Gulf Coast Education Initiative Consortium. These participants consisted mostly of Kindergarten through 12<sup>th</sup> grade teachers, but also included administrators and support staff. A copy of the survey instrument is included in the Appendix.

The sample was generated by compiling a database of GCEIC workshop participants from sign-in sheets collected from each of the technology training workshops. These sheets were provided by the GCEIC office and included the names, school affiliations, and school addresses for each workshop participant. When the database was complete, a total of 943 names and addresses of teachers, administrators, and staff were available [originally the sample consisted of 1,243 names; however, 300 names from various sign-in sheets were illegible].

In order to increase the response rate, standard mailout follow-up procedures were followed [see Dillman's *Mail and Telephone Surveys: The Total Design Method*, 1978]. Approximately ten days after the initial mailing, a postcard reminder was sent for the benefit of non-respondents. Ten days after postcard reminders were mailed out, another full mailing was sent out. A total of thirty-two unopened packets were returned due to insufficient or incorrect addresses or names.

When data collection was completed, a total of 374 surveys were completed and returned, yielding a 41 percent response rate [*Note*: only 911 surveys were deliverable due to the 32 returned packets]. Figure 2 depicts the sample area of the study.



## Description of Survey Respondents

### Gender

A majority of those responding to the survey were female (94.7 percent). This proportion is not surprising given that 74 percent of U. S. teachers for grades K-12 are female.<sup>6</sup> Figure 3 compares the proportions of teachers by gender.

### Race

Figure 4 shows the racial makeup of the respondents in this study. Those classifying themselves as White/Caucasian account for 91.2 percent of the sample; Blacks/African Americans represent 8.3 percent of those responding; and Native Americans account for 0.6 percent of the sample.

Again, these percentages are reflective of the racial composition of U.S. teachers for grades K-12. National data show these percentages as 86.5 percent White/Caucasian; 7.4 percent Black/African American; 4.2 percent Hispanic; 1.1 percent Asian/Pacific Islander; and 0.8 percent Native American/Alaskan.<sup>7</sup>

Figure 3. Educators by Gender

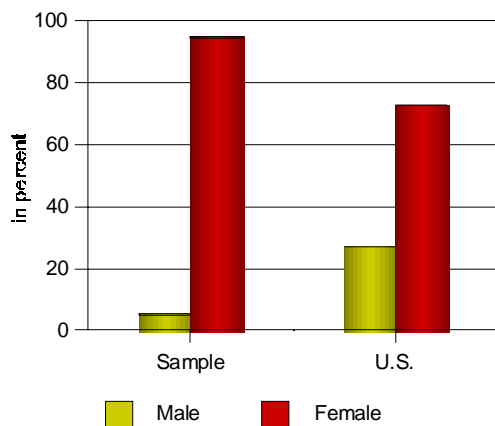
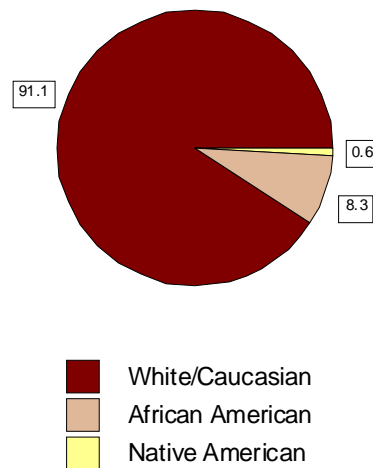


Figure 4. Respondents by Race (in %)



<sup>6</sup>. *Digest of Education Statistics, 1999*. Thomas D. Snyder and Charlene M. Hoffman. National Center for Education Statistics. U.S. Department of Education, Office of Educational Research and Improvement.

<sup>7</sup>. *ibid* 6.

### School District Representation

Respondents were asked to indicate the school district in which their school is located. Figure 5 illustrates the dispersion of respondents according to their respective school districts. Fifteen of the nineteen GCEIC school districts are represented in this study, ranging from a low of one respondent to a high of 98 respondents. Table 1 gives the frequency and percentage of respondents for each of the fifteen school districts represented. The four GCEIC school districts not represented in this study include Bay St. Louis/Waveland, Pass Christian, Stone County, and Poplarville. [Surveys sent to workshop participants from Bay St. Louis/Waveland, Pass Christian, and Poplarville School Districts were not returned. Stone County School District was not represented on the workshop sign-in sheets provided, therefore surveys were not sent to this district.]

### Teaching Level

Based on percentages derived during data analysis, all teaching levels (K-12 and Special Education) were well represented in the study. In addition participants who serve in administrative and support capacities for the school districts also responded. Figure 6 depicts the percentages for each of these categories.

Figure 5. Locations of Respondents

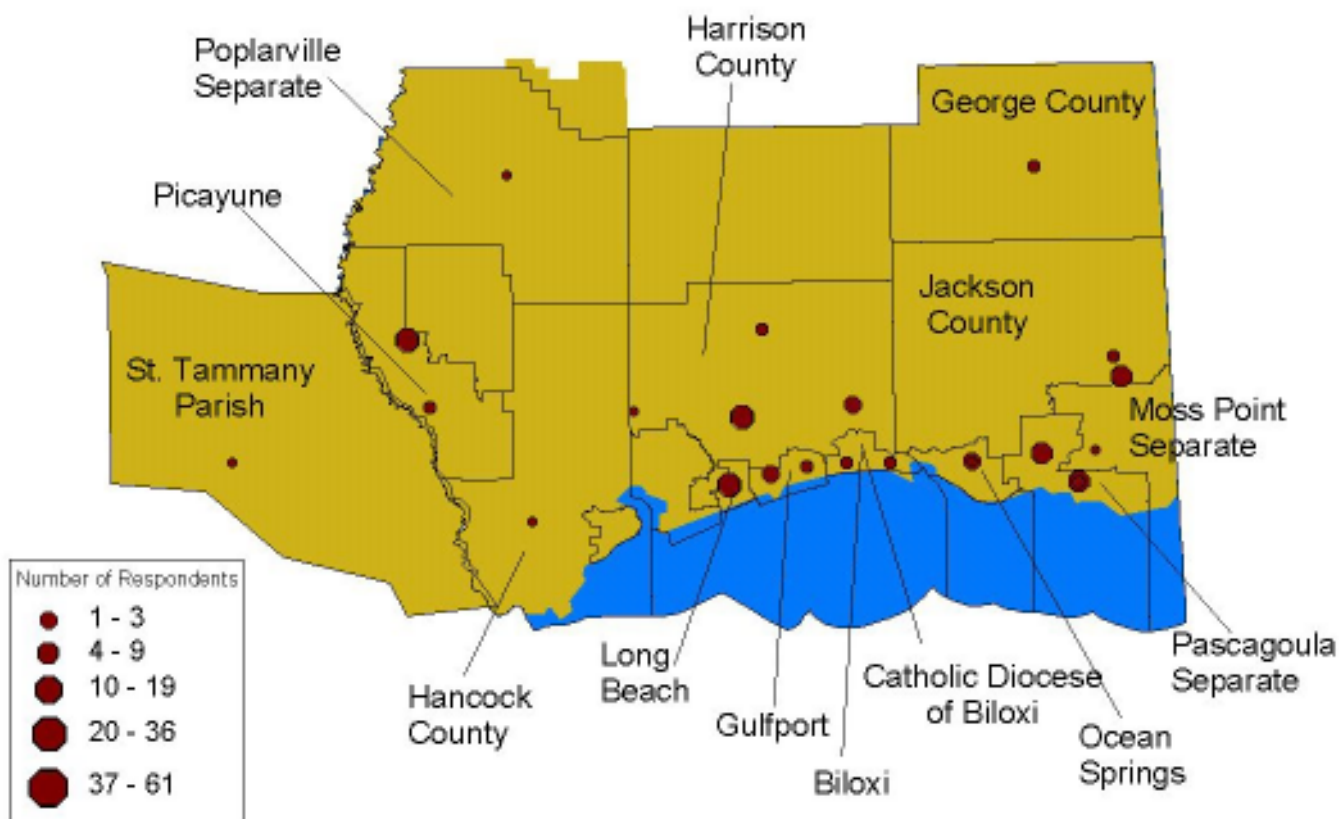
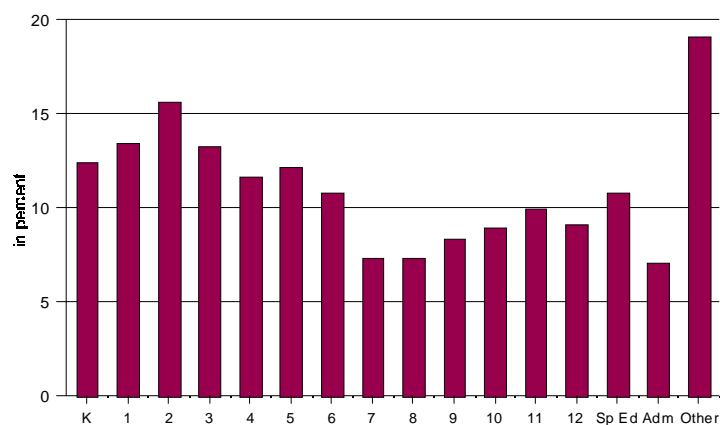


Table 1. School Districts Represented in Sample.

School District	Number of Respondents	Percent of Respondents
Bay Waveland	---	---
Biloxi	7	1.9
George County	7	1.9
Gulfport	6	1.6
Hancock County	1	0.3
Harrison County	95	25.7
Pass Christian	---	---
Jackson County	18	4.9
Long Beach	59	16.0
Moss Point	2	0.5
Ocean Springs	12	3.3
Pascagoula	98	26.6
Stone County	---	---
Poplarville	---	---
St. Tammany Parish	2	0.5
Pearl River	6	1.6
Picayune	45	12.2
Catholic Diocese of Biloxi	7	1.9
Catholic Diocese of New Orleans	4	1.1

Figure 6. Teaching Level of Respondents



## Areas of Instruction

When asked to provide their area of instruction, approximately one-third (33.4 percent) of the sample indicated that they taught all subjects. Table 2 shows the areas of instruction as reported by respondents. Respondents in a capacity other than teacher account for one-fifth (20.3 percent) of the sample. Teachers whose area of instruction is in the hard sciences represent 13.7 percent of the sample. Those instructing in Special Education account for 11.3 percent. Other areas with a high level of representation include Math teachers (9.7 percent) and Language teachers (9.4 percent).

Table 2. Areas of Instruction Reported by Respondents\*

Area	Percent of Respondents
<i>All subjects</i>	33.4
<i>Biology</i>	2.4
<i>Business</i>	0.8
<i>Chemistry</i>	0.8
<i>Computer Sciences</i>	1.1
<i>Earth Sciences</i>	2.4
<i>Environmental Sciences</i>	1.9
<i>General Science</i>	4.6
<i>Languages</i>	9.4
<i>Library</i>	5.9
<i>Mathematics</i>	9.7
<i>Media</i>	2.2
<i>Physical Sciences</i>	1.1
<i>Physics</i>	0.5
<i>Social Studies</i>	6.5
<i>Special Education</i>	11.3
<i>Technology Education</i>	1.4
<i>Technical</i>	0.3
<i>Vocational</i>	1.1
<i>Other</i>	20.3

\* Number of respondents = 371.

## Educational Attainment

### Highest Degree Attained

Just over half (55 percent) of the respondents indicated that their highest degree attained is a Master's or Master's Equivalent. This is higher than the national percentage (42 percent) as well as percentages in both the states of Mississippi (37.5 percent) and Louisiana (31.2 percent). In addition 38.5 percent reported having a Baccalaureate degree. Less than one percent (0.6 percent) of the respondents have earned their Doctoral degrees [see Figure 7].<sup>8</sup>

### Current Academic Programs

Respondents also reported information regarding any degrees or academic programs on which they were/are currently working. Of those responding approximately 82 percent are not currently working on degrees or academic programs. However, about 11 percent of the survey participants reported that they were currently working on their Master's or Master's Equivalency; 2 percent were working toward their Baccalaureate; and one percent were working toward their Doctorate [see Figure 8].

### Area of Concentration

Over 60 percent (61.5 percent) of respondents reported Education as their area of concentration. Other areas of concentration include Social Sciences (4.6 percent), Mathematics (2.7 percent), Technology (1.9 percent), Humanities (1.9 percent), and Engineering (1.1 percent).

Figure 7. Highest Degree Attained

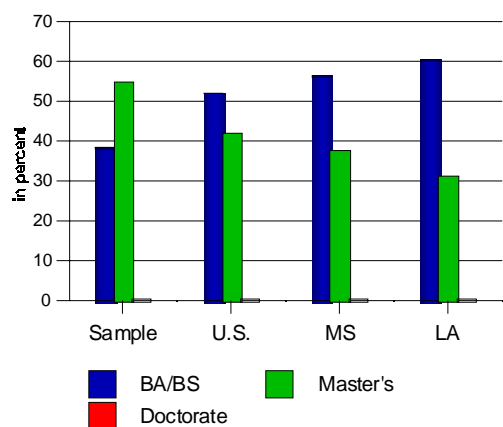
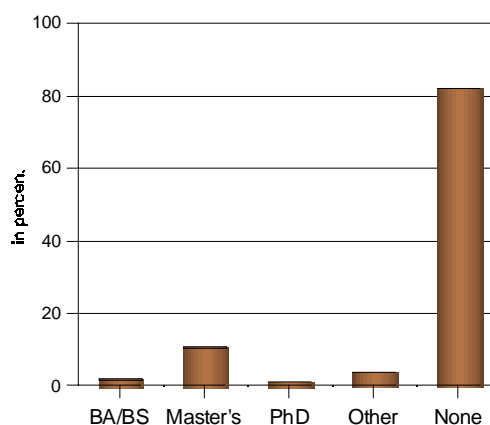


Figure 8. Program/Degree Currently Working On



<sup>8</sup>. *ibid* 6.

## ***Staff Development Activities***

Survey respondents were asked to indicate which GCEIC staff development workshops they have attended. "Introduction to Computer and Windows 95" and "Introduction to the Internet" were the most attended workshops, with 41.7 percent and 41.5 percent, respectively, of respondents reporting attendance [see Table 3]. Just over one-fourth (26.3 percent) of the respondents attended "Introduction to PowerPoint," and one-fifth (20.2 percent) reported attending "Introduction to Word."

Other GCEIC workshops were also attended by those responding and include those relating to National Board Certification, home page development, database management, language arts, and technology for administration.

When asked about access to staff development opportunities not offered by the GCEIC, 81.9 percent of the respondents reported they did have access to such. A majority of these respondents (78.3 percent) have participated in workshops not offered by the GCEIC. Types of workshops attended include those pertaining to classroom management, computer training, grant writing, crisis intervention, educational software training, time management, reading styles, and web page design.

Table 3. Workshop Attended by Respondents\*

<b>Workshop Title</b>	<b>Percent of Respondents</b>
<i>Introduction to Computer and Windows 95</i>	41.7
<i>Windows 95 Intermediate</i>	17.3
<i>Introduction to Word</i>	20.2
<i>Introduction to PowerPoint</i>	26.3
<i>Introduction to Excel and Electronic Gradebook</i>	13.2
<i>Introduction to Office 97</i>	3.2
<i>Teaching in the One Computer Classroom</i>	5.1
<i>Hyperstudio</i>	2.7
<i>Introduction to the Internet</i>	41.5
<i>Magnolia</i>	10.8
<i>Capturing the Internet</i>	3.0
<i>Other</i>	9.9

\* Number of respondents = 372.

## Available Resources

There is no shortage of technological resources for today's educators. Given the proper paths and equipment, there are virtually thousands of CD-ROMs and Web sites available that have been created specifically for primary and secondary educators.

As depicted in Figure 9 almost all (99.2 percent) respondents have access to a computer. Locations where computer access is available include work (95.4 percent), home (79.3 percent), college or university (10.6 percent), and locations other than those listed (12.8 percent).

Also, a majority of respondents have access to at least one of the following: e-mail, available to 91 percent of those responding; Internet, available to 94.6 percent; and CD-ROM drives, available to 90.7 percent of respondents [see Figure 10].

Figure 9. Location of Computer Access

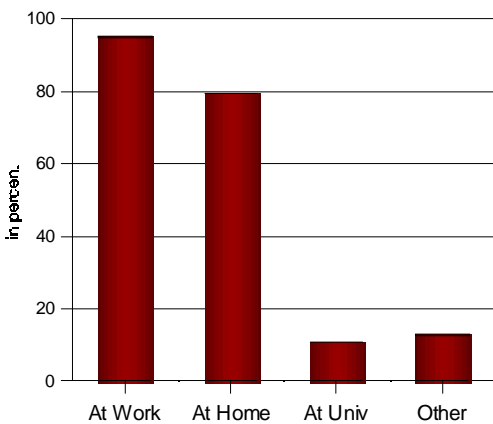
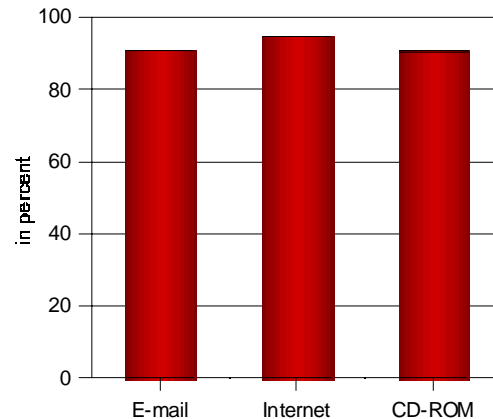


Figure 10. Access to Computer Tools



## Respondents' Perceptions of GCEIC

When asked to list what they thought were the most valuable aspects of the Gulf Coast Education Initiative Consortium, the following were some of the statements made by those responding:

- A great mix of staff development, technology, and institution.
- Access to a variety of computer courses.
- Adjusting to changing technology.
- Availability of computer labs.
- Availability of grants, workshops, and support.
- Close to home training.

- Collaborative planning and training.
- Combining money for several school districts.
- Don't know anything about it.
- Great training opportunities.
- Keeping teachers updated with technology.
- Strong link between school and Consortium.
- Teacher training.
- Valuable teacher resource.
- Very little exposure to the Consortium.

Respondents were also given the opportunity to provide comments about aspects related to the GCEIC they would change. Very few respondents provided comments, but some of these include:

- Don't know enough to offer suggestions for change.
- More training.
- More workshops geared to lower elementary...K-3.
- Need more info about what is offered to schools.
- Would like to be able to request workshops.

### **GCEIC Workshop Techniques/Tools**

Technology workshops incorporate various techniques and tools to assist in training. Some of the tools and techniques commonly used are listed in Table 4. Respondents were asked first to indicate which of the listed techniques and tools were used in GCEIC workshops they attended. Then they were asked to rate each of the techniques and tools listed as to their helpfulness/effectiveness.

As shown in Table 4 computer training, demonstrations, and hands-on activities were the three techniques/tools reportedly used in most of the workshops attended. Other techniques/tools used by at least one-third of the sample include group discussions, lectures, and multimedia use.

Table 4. Rating for Techniques and Tools Used During Workshops [in percentages]\*

Techniques/ Tools Used	Excellent	Good	Average	Poor	Very Poor	Not Used	Not Ranked
<i>Computer Training</i>	55.5	23.2	7.3	2.4	0.8	9.4	1.3
<i>Collaborative Learning</i>	19.7	10.2	5.1	1.6	2.7	59.8	0.5
<i>Demonstrations</i>	38.5	19.9	3.5	1.9	1.6	33.7	0.8
<i>Group Discussions</i>	23.2	14.6	4.6	2.7	2.7	52.3	0.0
<i>Hands-on Activities</i>	46.4	15.9	4.3	2.2	1.1	29.1	1.1
<i>Field Trips</i>	2.2	3.8	0.8	1.1	4.3	87.6	0.3
<i>Interdisciplinary Activities</i>	5.1	4.9	3.2	0.8	3.8	82.2	0.0
<i>Lectures</i>	15.4	10.3	6.2	1.3	1.1	65.0	0.8
<i>Multimedia Use</i>	22.1	5.9	3.2	1.3	3.0	64.2	0.3
<i>Problem-solving Activities</i>	11.6	7.0	3.2	0.8	4.0	72.8	0.3
<i>Tours</i>	3.0	1.3	1.1	0.8	4.3	89.5	0.0
<i>Use of NASA Curriculum Materials</i>	5.1	3.8	1.3	0.8	4.0	84.9	0.0
<i>Video Tele-conferences</i>	2.2	1.3	1.9	1.1	4.3	89.2	0.0
<i>Other</i>	0.5	0.0	0.3	0.3	0.8	98.1	0.0

\* Number of respondents = 371.

### ***GCEIC Workshops***

#### Workshop Processes

Overall, respondents were very pleased with the workshops they attended. Questionnaire items used to evaluate the workshop participants' opinions about the GCEIC workshop processes can be found in Table 5.

Table 5. GCEIC Workshop Processes Rating [in percentages]

	<i>Number of Respondents</i>	Excellent	Good	Average	Poor	Very Poor
<i>The methods used to announce the workshops.</i>	<i>n=351</i>	23.4	47.6	22.2	5.4	1.4
<i>The procedures used for you to register for the workshops.</i>	<i>n=350</i>	28.6	48.9	18.9	3.4	0.3
<i>The organization of the daily activities during the workshops.</i>	<i>n=352</i>	50.6	38.6	6.8	2.3	1.7
<i>The opportunities to provide feedback upon completion of the workshops.</i>	<i>n=349</i>	40.7	37.5	14.3	3.7	3.7
<i>The opportunities for you to request customized or specialized workshops to meet your needs.</i>	<i>n=328</i>	23.2	34.5	25.9	11.3	5.2

A majority of those responding rated the methods used to announce workshops from *good* to *excellent*. Procedures used for registration also seemed satisfactory to the sample, with 77.5 percent rating the procedures either *good* or *excellent*. The organization of daily activities was rated *excellent* by half of the respondents, and an additional 38.6 percent rated these activities as *good*.

Opportunities to provide feedback upon completion of each workshop also seemed satisfactory to respondents, with 40.7 percent rating this item *excellent* and 37.5 percent rating it as *good*. While just over half of the sample indicated their opportunities to request customized or specialized workshops to meet their needs were *excellent* (23.2 percent) or *good* (34.5 percent), 16.5 percent found these opportunities *poor* or *very poor* [see Table 5].

### Overall Quality of Workshops

Overall quality of the workshops and of the staff presenting the workshops were also rated by respondents. Just over half (56.4 percent) of those responding rated the overall quality of the workshops they attended as *excellent*. An additional 33.6 percent rated the workshops they attended as *good*. Only 4.3 percent of the sample who had attended a GCEIC workshop rate the workshop as *poor* or *very poor*. When rating the overall quality of the staff presenting the workshops, 91.8 percent of the respondents rated the presenter as either *good* (26.8 percent) or *excellent* (65.0 percent).

Respondents were also provided with a series of statements pertaining to the most recent Gulf Coast Education Initiative Consortium workshop they have attended. They were asked to indicate their level of agreement with each statement using a scale of *Strongly Agree* to *Strongly Disagree* [see Table 6].

As shown in Table 6 just over 90 percent (90.4 percent) of those responding agree that the workshop was a valuable experience for them.

As with any workshop it is important that the content of the workshop as well as the curriculum support material match the educational objectives of the participants. In both instances over 80

Table 6. Ratings for Most Recent GCEIC Workshop Attended [in percentages]

	<i>Number of Respondents</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
<i>This workshop was a valuable experience.</i>	<i>n=346</i>	51.7	38.7	3.8	2.3	3.5
<i>The content of the workshop matched my educational objectives.</i>	<i>n=344</i>	42.4	42.4	8.7	1.7	4.7
<i>The content of curriculum support materials matched my educational objectives.</i>	<i>n=340</i>	40.9	41.2	11.8	2.4	3.8
<i>This experience increased my confidence in this subject area.</i>	<i>n=346</i>	40.8	42.8	9.8	3.5	3.2
<i>I have applied what I learned in this workshop.</i>	<i>n=346</i>	38.7	41.9	11.3	4.9	3.2
<i>I would like to learn even more about what I learned in this workshop.</i>	<i>n=344</i>	41.6	42.2	10.5	2.9	2.9

percent of respondents agree their educational objectives were met [see Table 6].

Also, respondents indicated that their workshop experience increased their confidence in the subject area (40.8 percent *strongly agree* and 42.8 percent *agree*). Research conducted by NCES revealed that training makes a positive difference in the confidence level of teachers who strive to infuse technology into their classrooms. Results indicated that those educators who received 11 or more hours of training were five times more likely to say they were better prepared to integrate technology into their classroom activities/subject area.<sup>9</sup>

Those reporting they actually apply what they learned in workshops include: 38.7 percent reporting *strongly agree* and 41.9 percent reporting *agree*. Finally, 83.8 percent of the sample who responded indicated they would like training beyond what the workshops offered [see Table 6].

### Workshop Presenters

Table 7 depicts the assessment by respondents regarding whether the workshop presenter was well organized, maintained good rapport, and stayed on task. A majority of respondents in each case either *agree* or *strongly agree* with the statements. Clearly, a majority of responding participants were satisfied with the overall quality of the presentations.

Table 7. Ratings of Workshop Presenter for GCEIC Workshop Most Recently Attended [in percentages]

	<i>Number of Respondents</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
<i>The presenter was well organized.</i>	<i>n=350</i>	64.3	28.9	2.3	2.0	2.6
<i>The presenter maintained good rapport.</i>	<i>n=350</i>	66.6	27.1	1.7	1.4	3.1
<i>The presenter stayed on task.</i>	<i>n=349</i>	65.3	27.5	2.0	1.1	4.0
<i>I was satisfied with the overall quality of the presentations.</i>	<i>n=349</i>	65.3	26.9	2.0	2.3	3.4

### Workshop Benefits

When inquiring about other benefits gained as a result of participating in GCEIC workshops, 38.4 percent indicated they received course credits, or CEU's, for their participation. Credit hours received ranged from 0.5 hours to more than 6 hours.

As for recommending GCEIC workshops to others, 57.8 percent indicated they would make an *excellent* recommendation to someone who asked about attending a GCEIC workshop; and 32.9 percent reported they would make a *good* report. Just over three percent indicated they would make a *very poor* recommendation to someone who was interested in participating in a GCEIC workshop.

<sup>9</sup>. "Building the digital curriculum." Erik Fatemi. *Education Week*. September 23, 1999.

## Obstacles of Workshop Attendance

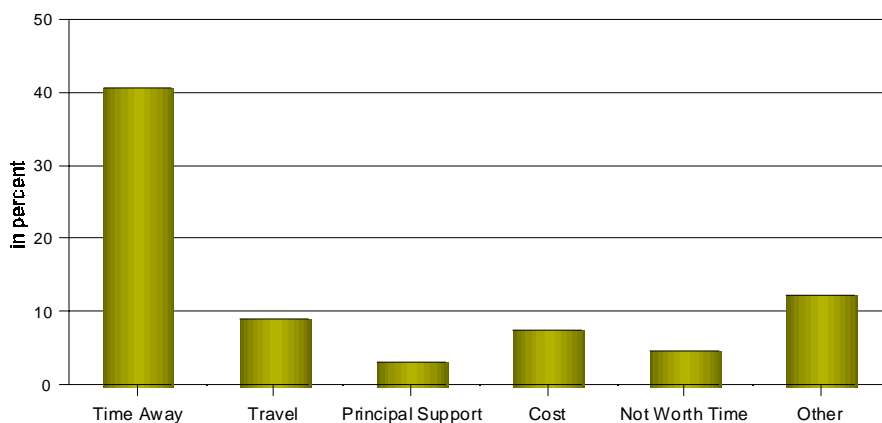
Training for educators in the use and application of technology in the classroom is of great importance in today's high-tech world. Therefore, it is helpful to know what obstacles exist that keep many workshop participants from attending the workshops of interest to them.

As depicted in Figure 11, the most common obstacle is *not wanting to spend time away from the classroom and students* (40.7 percent). This was also the most common obstacle reported by participants of staff development workshops offered by the Tri-State Consortium.<sup>10</sup> In this study 40 percent of the respondents cited *not wanting to spend time away from the classroom and students* as an obstacle.

*Travel distance* was a concern for 9 percent of the respondents in the present study. Also, *cost of attending the workshop* was a concern for 7.4 percent; 4.7 reported that the workshops were *not worth the time*, and 3 percent indicated that *lack of support from principal* was an obstacle [see Figure 11]. Compared to the Tri-State Education Initiative [TSEI] study, the findings are again similar. In the TSEI study *travel distance* was a problem for 14 percent of those responding; *lack of principal support* was an obstacle for 9 percent; workshops being *not worth the time* was an impediment for 8 percent of the respondents; and *cost* was a problem for 7 percent of those responding.

Other obstacles listed for the GCEI study included: *difficulty in getting a substitute teacher*, *unavailability of workshop schedules*, *no credit received for attending workshops*, and *limited professional days available*.

Figure 11. Obstacles to Participation



<sup>10</sup>. *Evaluation Report: NASA Tri-State Education Initiative*. December 1997. Ritchie, Liesel Ashley, Stephen A. Barlow, Deborah Richey Wittig, Terri L. Earnest, and Elizabeth D. Morris. Social Science Research Center, Mississippi State University.

### Additional Comments

Respondents were provided the opportunity to list any aspects of the workshops they would change or eliminate. Some of their suggestions include:

- Make them two days instead of one day.
- Add more depth to the agenda.
- Allow more times for subjects.
- Follow up classes are needed.
- Everything was perfect.
- Have follow up workshops.
- Have a higher level of instruction for those who are computer literate.
- Increase the amount of time for class.
- Larger groups need to be divided up.
- Have more hands-on time.
- Offer more workshops past intermediate.
- There should be separate workshops for secretaries.
- The ones I've attended have been great.
- Would like synopsis of workshop content.

Respondents were then asked to list the one specific incident or event during their workshop participation that they remember the most. Some of those listed were:

- Actually 'logging on' to the Internet to see museums over the screen.
- Being able to apply skills myself.
- Building confidence with computer skills.
- Carrie Wade's patience with the new user.
- Carrie was very patient with us, and took time to help us.
- Clear instructions that were interesting and beneficial.
- Completion of personal web page.

- Creating a newsletter.
- Creating a PowerPoint presentation.
- Every workshop I've attended has been beneficial to me.
- Finding classroom activities on the Internet.
- Good leadership and hands-on experience.
- Good presenter and materials packet to take home.
- The instructor was clear and easy to follow.
- Knowing I finally felt comfortable with the computer after 27 years.
- Losing the file I had just made!
- Making the personal gradebook.
- The instructor was well prepared.
- The tour of NASA.

Respondents were given an opportunity to provide any additional comments they may have about GCEIC workshops they have attended. Some of these comments are listed below.

- Bring more to the school on Saturdays.
- CEU's should be given.
- Follow up meetings are needed.
- I like to have workshops more than once or twice per year.
- More publicity is needed for the workshops.
- Pleased with info I got in short amount of time.

A final interest in the assessment of GCEIC workshops was the use of NASA-related materials and/or publications. Almost one-fourth (24.4 percent) of respondents reported that NASA materials and publications were used during the workshops they attended. Of these, 37.7 percent *strongly agree* the materials used were easily included in their curriculums; 48.1 percent *agree*; 6.5 percent *disagree* the materials were easily integrated into their curriculums; and 11.7 percent *strongly disagree*. The remaining 26.0 percent were neutral. Of those who report receiving NASA materials to take with them (27.5 percent), 95 percent indicated that they used the materials in their classrooms.

## NASA Resources

### NASA's Educator Resource Centers

There are several NASA Educator Resource Centers (ERC) across the country. These Centers contain collections of materials for educators such as: videotapes, slides, printed materials, lesson plans, and computer software. These materials are geared to all grade levels.

Respondents were asked to indicate whether or not they had ever been to one of the NASA ERC's. Just under half (46.2 percent) of those responding reported they had not visited any of the ERC's. Of those who had been to one of the ERC's, 9.2 percent have visited the Marshall Space Flight Center in Alabama; 99.4 percent have been to Stennis Space Center in Mississippi; and 2.5 percent have visited the Mississippi Band of Choctaw Indians' ERC in Philadelphia, Mississippi.

### NASA Spacelink

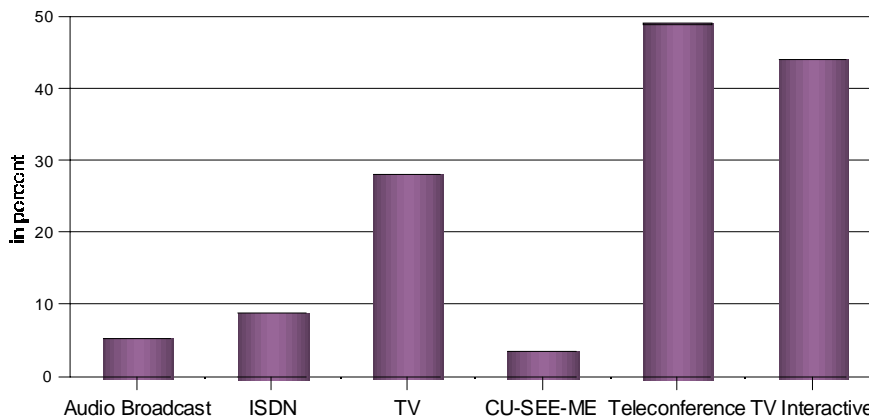
NASA Spacelink is a free NASA-wide electronic resource for teachers and students that provides current NASA news and information, educational services, and classroom materials. When asked if they had ever accessed NASA Spacelink, 14.6 percent of the respondents indicated they had; 80.1 percent had not; and the remaining 5.4 percent did not know if they had accessed Spacelink.

### Distance Learning Workshops

Only 16.5 percent of respondents indicated they had participated in some form of Distance Learning. Figure 12 depicts what types of Distance Learning media these respondents have used/participated in. Tele-conferences, TV interactive broadcasts, and TV broadcasts are the top medias used (49.1 percent, 43.9 percent, and 28.1 percent, respectively).

When asked to rate the effectiveness of the media as a way of learning, 42.5 percent found it at least somewhat effective; 29.8 percent remained neutral; and 27.7 percent rated the medium as *not very effective* or *not at all effective*. Just over 40 percent of those responding indicated that the Distance Learning event they participated in provided them with a way of obtaining information and/or participating in an event that they would not have been able to obtain/participate in otherwise.

Figure 12. Distance Learning Medium Used



## *Conclusion*

President Clinton made educational technology a high priority issue in 1996 with his directive that all classrooms in America be connected to the information superhighway. This called for all classrooms to have computers, good software, and well-trained teachers. To ensure these goals are met and teachers receive the training they need to meet the new expectations of the educational arena, the federal government must be involved at a high level and have the support of state and local government. The importance of professional development must be emphasized, and existing information about what works in teacher training must be distributed.<sup>11</sup> With this in mind organizations such as the Gulf Coast Education Initiative Consortium have the potential to play a strong role in meeting the needs of today's educators.

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<sup>11</sup>. "Getting America's students ready for the 21<sup>st</sup> Century." Richard W. Riley, Madeleine M. Kunin, Marshall S. Smith, and Linda G. Roberts. U.S. Department of Education. Washington, D.C. 1996.

# *Appendix*

## *Survey Instrument*

# Contents

<i>Introduction</i> .....	1
<i>Overview</i> .....	1
<i>GCEIC's Technology Training</i> .....	1
<i>Purpose of Survey</i> .....	2
<i>Technology and Education in the Nation</i> .....	3
<i>Methodology</i> .....	3
<i>Description of Survey Respondents</i> .....	4
<i>Gender</i> .....	4
<i>Race</i> .....	5
<i>School District Representation</i> .....	5
<i>Teaching Level</i> .....	6
<i>Areas of Instruction</i> .....	6
<i>Educational Attainment</i> .....	8
<i>Highest Degree Attained</i> .....	8
<i>Current Academic Programs</i> .....	9
<i>Area of Concentration</i> .....	9
<i>Staff Development Activities</i> .....	9
<i>Available Resources</i> .....	10
<i>Respondents' Perceptions of GCEIC</i> .....	11
<i>GCEIC Workshop Techniques/Tools</i> .....	12
<i>GCEIC Workshops</i> .....	12
<i>Workshop Processes</i> .....	12

<i>Overall Quality of Workshops</i> .....	14
<i>Workshop Presenters</i> .....	15
<i>Workshop Benefits</i> .....	15
<i>Obstacles of Workshop Attendance</i> .....	15
<i>Additional Comments</i> .....	16
 <i>NASA Resources</i> .....	 18
<i>NASA's Educator Resource Centers</i> .....	18
<i>NASA Spacelink</i> .....	19
<i>Distance Learning Workshops</i> .....	19
 <i>Conclusion</i> .....	 19

# Figures

<i>Figure 1. Teachers' feelings of preparedness .....</i>	<i>3</i>
<i>Figure 2. Location of GCEIC school districts.....</i>	<i>4</i>
<i>Figure 3. Educators by Gender .....</i>	<i>5</i>
<i>Figure 4. Respondents by Race (in %).....</i>	<i>5</i>
<i>Figure 5. Locations of Respondents .....</i>	<i>6</i>
<i>Figure 6. Teaching Level of Respondents .....</i>	<i>7</i>
<i>Figure 7. Highest Degree Attained .....</i>	<i>9</i>
<i>Figure 8. Program/Degree Currently Working on .....</i>	<i>9</i>
<i>Figure 9. Location of Computer Access .....</i>	<i>11</i>
<i>Figure 10. Access to Computer Tools.....</i>	<i>11</i>
<i>Figure 11. Obstacles to Participation .....</i>	<i>16</i>
<i>Figure 12. Distance Learning Medium Used .....</i>	<i>19</i>

# Tables

<i>Table 1. School Districts Represented in Sample .....</i>	<i>7</i>
<i>Table 2. Areas of instruction reported by respondents .....</i>	<i>8</i>
<i>Table 3. Workshop attended by respondents .....</i>	<i>10</i>
<i>Table 4. Rating for techniques and tools used during workshops [in percentages] .....</i>	<i>13</i>
<i>Table 5. GCEIC workshop processes rating [in percentages] .....</i>	<i>13</i>
<i>Table 6. Ratings for most recent GCEIC workshop attended [in percentages] .....</i>	<i>14</i>
<i>Table 7. Ratings of workshop presenter for GCEIC workshop most recently attended [in percentages] .....</i>	<i>15</i>

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