Arkansas is a rural state with diverse educational needs. To help meet these needs, the Arkansas Academy for Leadership Training and School-Based Management Technology Committee made a decision to survey all public school library media specialists (LMSs) in Arkansas about technology presently in use in Arkansas schools and to locate educators with special expertise in technology and define priorities for LMSs. Six months after the survey mailing, 845 (877.) of Arkansas LMSs had responded. Nearly two-thirds of schools did not have a district technology planning committee and 71% did not have a technology coordinator. Planning for technology was not being implemented in 69% of schools, and 68% of school library media centers were not automated. Of automated centers, 45% used Follett's automation system. While 54% of schools have satellite systems, only about a third are being used. In more than half of the schools, no more than 10% of classrooms are equipped with computers, and almost none are networked. Sixty-one percent of schools use educational television. The analysis of statewide data will be complemented by an analysis by geographic region to help Arkansas meet its needs for educational planning. (SLD)
Title:

Technology in Education:
Making a Change in Arkansas, "The Comeback State"

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Arkansas is a rural state with diverse educational needs. For many years Arkansas ranked 50th in the nation by most criteria used in measuring educational comparisons with other states. Governor Bill Clinton recognized that in order for Arkansas to improve economically it must invest in education and measures were implemented during his tenure to improve education. Additional monies were raised to increase teacher salaries, build facilities and expand curricula. Another major change in education was the establishment of standards (1983) for all schools in Arkansas. Course content guides were developed for every subject area and documentation was required for minimum performance in basic skills. Students were tested in the third, sixth and eighth grades. Although most of what happened was positive, there were some negatives. Instead of the curriculum driving the content and instruction, the test determined the curriculum. Teacher expertise and knowledge of student management, group dynamics and flexibility were lost. Teaching to the test occurred in many schools; when test results were published in local newspapers, this put even more emphasis on test results.

In 1991 Arkansas passed Act 236 which required public schools to restructure. Learner outcomes were developed which correlated with the six national education goals. Local schools are currently working to finalize frameworks which will be implemented over the next few years. One component of Act 236 was the establishment of the Arkansas Leadership Academy with four areas of concentration: (1) Leadership Development; (2) District Support; (3) Minority Recruitment; and, (4) Information, Research and Technology. The Arkansas Leadership Academy has many partners across the state: colleges and universities; K-12 schools; Arkansas Public School Computer Network (APSCN); Wal-Mart; Tyson; Arkansas Educational Television Network (AETN); Arkansas Library Association (ALA); Arkansas Department of Education (ADE); Arkansas Association of Instructional Media (AAIM); Instructional Microcomputer Project for Arkansas Classrooms (IMPAC); and private individuals. The Academy has within its structure the mechanism to involve all the players to truly change education in Arkansas.

The decisions concerning technology in Arkansas have been made by people working in isolation. Project IMPAC labs have served a useful purpose and are designed in such a way as to furnish training, technical support and maintenance. AETN provides videos to education cooperatives and schools. APSCN has the task of networking all 320 school districts across the state for administrative reporting and also for instructional uses. There are pilot schools that have built their local network and are exploring the opportunities of accessing information electronically for instructional use. All of these players are to be complimented on their efforts and support, but Arkansas schools must utilize this collaborative effort to make a lasting change in Arkansas schools. We are currently looking at restructuring not only what we teach, but how we teach it.

With these ends in mind, The Arkansas Academy for Leadership Training and School-Based Management Technology Management Technology Committee made the decision to survey all public school library media specialists (LMS) in Arkansas during the Spring of 1993. The committee felt that library media specialists are the primary information specialists in the schools with expertise in the area of technology.

The purpose of the survey was to determine what technology is presently being used in Arkansas schools, to develop a database of educators with expertise in specific areas of technology, and to compile a list of priorities library media specialists would like to have implemented in their library media centers/schools. Survey questions were developed with the assistance of the state library supervisor, library media specialists in Northwest.
Arkansas, the media specialist at the Northwest Arkansas Education Service Cooperative, and the Arkansas Academy for Leadership Training and School-Based Management Technology Committee. The University of Arkansas Sociology Department’s newly acquired Scantron survey equipment was used to compile data.

The development of the survey began in February, 1993. Team players helped develop a 50-question survey instrument covering three major areas: district concerns, school concerns, and LMS concerns. The survey was mailed to 967 public school LMS on three separate occasions over a four month period. In addition, LMS attending their summer conference and the Arkansas Library Association’s Annual Conference were encouraged to take surveys back to colleagues who had not responded. Mr. Frank Holman wrote letters to superintendents in districts which had not responded well to the mailings. Six months after the initial mailing, a total of 845, or 87% of the Arkansas public school library media specialists had returned a completed survey. Of the 75 counties in Arkansas, the response rate was:

- 100%: 21 counties
- 90-99%: 10 counties
- 80-89%: 19 counties
- 70-79%: 15 counties
- 60-69%: 7 counties
- 50-59%: 2 counties
- 40-49%: 1 county

A breakdown of numbers of counties reaching 100% response by geographic region:

- Ouachita Region: 1% (1 out of 10 counties)
- Delta Region: 19% (4 out of 21 counties)
- Southwest Region: 30% (6 out of 20 counties)
- Ozarks Region: 46% (11 out of 24 counties)

**District Data Statewide**

District survey results showed nearly two-thirds of schools did not have a district technology planning committee and 71% did not have a technology coordinator. Planning ahead was not being done in 69% of schools because there weren’t any electrical specifications for computer networks for new buildings. Financial support was a problem as well. Ninety-two percent of schools have not passed millage to support technology, and 87% have not made plans for future needs in technology.

**School Data Statewide**

Data collected revealed that 68% of the state’s school library media centers are not automated. Of the centers which are automated, 45% use Follett’s automation system. Fifty-four percent of the schools have satellite systems but only about a third of those systems are being used. Ninety percent of the schools are not involved in distance education. Types of computers being used in the schools are: Apple IIe - 39%; Macintosh - 10%; IBM/compatible - 42%; other - 9%. [This reveals a problem in that Apple IIe’s are not compatible with the state-wide computer network system.] IMPAC has installed labs in 52% of Arkansas schools during the past ten years. Only about one in five schools is using networks and most of those use the Novell system. Library media specialists reported that in 53% of the schools, no more than 10% of the classrooms are equipped with computers and almost none are networked. When asked if teachers had access to specific technology the following responses were tabulated:
<table>
<thead>
<tr>
<th>Access Type</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modem access</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>FAX machine access</td>
<td>23%</td>
<td>77%</td>
</tr>
<tr>
<td>ARK FAX Network</td>
<td>3%</td>
<td>97%</td>
</tr>
<tr>
<td>ARKnet/INTER/net</td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
<td>Email/FredMail</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>Channel 1/Whittle</td>
<td>28%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Arkansas public schools are using cable television (61%), multimedia (74%), CD-Roms (39%), and laser video technology (19%). Computer use in schools is primarily for special programs such as Chapter 1, special education, and gifted and talented, but not in the regular classroom.

**Library Media Specialists Data Statewide**

Sixty-one percent of LMS have earned a masters degree. Nearly one-third reported receiving their library media education at the University of Central Arkansas, Conway, Arkansas, while 17% received their training at the University of Arkansas, Fayetteville. When queried as to whether they would like to have an American Library Association accreditation program in Arkansas, 96% said “Yes.” Almost one-half of the LMS indicated they worked under a nine-month contract, the same as classroom teachers. A larger percentage (63%) reported not having clerical assistance in the library media center. Sixty percent of Arkansas school districts have evaluation forms designed for LMS. Eighty percent of the LMS said they would like to have a specific amount of their budget allocated for technology. A full 61% did not support the concept of year 'round school. There was an almost even split regarding flexible scheduling.

When LMS were asked to indicate areas in which they felt they had expertise, 47% indicated computer technology and 30% mentioned multimedia presentations. When asked if they were willing to share this expertise with others, 66% said “No.” The researchers are currently processing this information in order to find those willing to share their areas of technical expertise. This will aid in the creation of workshops to be offered throughout the state.

LMS were also asked to list at least five areas they would like to have implemented. The survey placed responses in groups of five due to the constraints of the survey answer form, making it difficult to determine if responses were by groups or with the entire 25 being considered. This information is currently being analyzed. By percentage responding, the top five areas were: budget concerns; flexible scheduling; technology seminars for LMS; networking with LMS; and clerical assistance for LMS. The areas least marked were: library media certification; censorship; teleconferences; satellite systems; and Channel 1/Whittle.

**Summary**

Arkansas is indeed “The Comeback State.” Watch as the Arkansas Leadership Academy and its many partners utilize technology in the classroom. Team members working together will provide the best possible educational opportunities for all students, and technology will play a vital role at all levels of the instructional process. This survey will assist in showing Arkansas public schools the direction they need to go to reach their goal.

This completes Phase 1 of the survey — analyzing the data statewide. Phase 2 will compare data by the geographic regions of Ouachita, Delta, Southwest, and Ozarks.