

## **ADMINISTRATIVE AND INSTRUCTIONAL TECHNOLOGY**

### **Best Practices and Indicators**

#### **Technology Planning**

**1. The district has a comprehensive technology plan that provides direction for administrative and instructional technology decision making.**

- a. The district has a board-approved technology plan that addresses both administrative and instructional technology. *(Basic Indicator)*
- b. The district annually conducts an assessment to identify district and school-level technology needs.
- c. The district has solicited and used broad stakeholder input in developing the technology plan.
- d. At a minimum, the district technology plan addresses the subjects below.
  - Individual school technology needs
  - Equitable resource allocation, anticipating growth and technology advances <sup>1</sup>
  - Funding for technology
  - Cost-effective acquisition
  - Professional development for technology users
  - Technical support needs of users
  - Infrastructure and network communication, including community access issues <sup>2</sup>
  - Information management and delivery <sup>3</sup>
- e. The district technology plan is compatible with state reporting requirements and aligned with federal initiatives.
- f. The objectives in the technology plan are measurable and reflect the desired outcomes for educational and operational programs. <sup>4</sup>
- g. The district's annual budget provides funds for major technology initiatives as reflected in the plan.
- h. The district has taken advantage of opportunities to improve technology operations, increase efficiency and effectiveness, and reduce costs.
- i. The district has identified an individual(s) responsible for implementing and updating the technology plan.
- j. The district investigates grant opportunities for technology funding and stays current with state and federal funding initiatives. <sup>5</sup>
- k. Is there other information that demonstrates the district's use of this best practice that should be considered?

<sup>1</sup> Planning may include, for example, bandwidth needs and the rationale for these needs.

<sup>2</sup> Community access issues could include connectivity to community entities such as public libraries (connectivity can be through hardware, through the Internet, or both ), and after-hours access to media centers by the public.

<sup>3</sup> Data needs are well-defined and prioritized; delivery systems are designed to provide timely and accurate data.

<sup>4</sup> For example, when establishing objectives related to incorporating instructional technology into the curriculum, the district should include outcomes based on the effect this technology is expected to have on student performance.

<sup>5</sup> Federal funding includes programs such as E-rate, and the Technology Literacy Challenge Fund.

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#### **Cost-Effective Technology Acquisition**

##### **2. The district acquires technology in a cost-effective manner that will best meet its instructional and administrative needs.<sup>6</sup>**

- a. The district bases its technology acquisitions on identified needs and its technology plan.
- b. The district uses the results of research and evaluations of previous decisions to identify technology that will best meet instructional and administrative needs.
- c. The district has established standards for acquiring digital instructional materials, software, and hardware for administrative and instructional use.<sup>7</sup>
- d. The district provides opportunities for district and school personnel to preview, evaluate, and recommend acquisition of technology strategies, instructional materials, and software.
- e. The district coordinates with the schools and uses different purchasing strategies to lower costs of acquiring technology and instructional learning systems.<sup>8</sup>
- f. The district assists schools in negotiating purchase prices for technology acquisitions.
- g. The district considers future support, operating, maintenance, and disposal costs when it acquires technology.
- h. The district equitably distributes technology resources to schools within the district.
- i. Is there other information that demonstrates the district's use of this best practice that should be considered?

#### **Technology Professional Development**

##### **3. District and school-based staff receive professional development training for all technologies used in the district.**

- a. The district verifies the availability of appropriate training before acquiring new equipment or software.
- b. The district provides appropriate professional development that is based on feedback from central office and school-based staff and is aligned with the district's strategic plan, technology plan, and the School Improvement Plans (SIPs).
- c. The district funds technology training.
- d. The district provides a variety of opportunities in terms of time, location, and delivery mode for educators and other district staff to obtain technology training.<sup>9</sup>
- e. The district has established performance criteria that include technology skills for both administrators and teachers.
- f. The district provides professional development on integrating technology into the curriculum.  
(Basic Indicator)
- g. The district provides appropriate professional development to administrators and non-instructional staff.<sup>10</sup>  
(Basic Indicator)

<sup>6</sup> Instructional needs include incorporating technology into the curriculum and needs of students learning how to use technology.

<sup>7</sup> Standards for instructional materials should take into account the Sunshine State Standards, and any other state instructional materials adoption standards.

<sup>8</sup> Examples of such strategies are negotiating district-wide pricing on instructional learning systems as well as software, hardware, and coordinating orders to take advantage of bulk rate discounts.

<sup>9</sup> These opportunities may include traditional classroom and computer lab instruction, as well as web-based instruction, electronic bulletin boards, videotapes, and other self directed, technology-based methods.

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- h. The district provides specialized training for technology support personnel.
- i. District and school staff receives training to keep technology skills up-to-date.
- j. The district has a process to assess the effectiveness of professional development training provided to ensure competency in the skills targeted.<sup>11</sup>
- k. Is there other information that demonstrates the district's use of this best practice that should be considered?

### **Technical Support**

#### **4. The district provides timely and cost-effective technical support that enables educators and district staff to successfully implement technology in the workplace.**

- a. The district conducts a comprehensive assessment of the technical support needs of the schools and district offices.
- b. The district budgets for all costs associated with the installation and support of its technology.
- c. The district provides comprehensive technical support to the schools and district offices.<sup>12</sup> (*Basic Indicator*)
- d. Technical support responsibilities are appropriately assigned to specific personnel at both the district and the school level.
- e. The district has procedures for a regular, systematic, and equitable prioritization of technical support services.
- f. The district effectively coordinates the delivery of support services, analyzing the technical support provided, and shares the resolution of support issues among technical support staff.
- g. The district provides timely technical support in accordance with its service priorities.
- h. The district evaluates the quality and timeliness of the technical support provided.
- i. The district has an equipment replacement policy that specifies a time frame for technologies to be recycled or replaced to minimize the cost of supporting out-of-warranty computers.
- j. Is there other information that demonstrates the district's use of this best practice that should be considered?

### **Infrastructure and Network Communication**

#### **5. The district maintains a dependable, standards-based infrastructure employing strategies that cost-effectively maximize network and Internet access and performance.**

- a. The district employs practices that provide a consistently available and fully operational network.
- b. The district has developed written speed and access standards for district network resources.
- c. The district has virus protection software and procedures in place.
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

<sup>10</sup> The type of professional development provided to this staff depends on their job duties and responsibilities. For example, data entry clerks at schools should be provided training on maintaining data integrity.

<sup>11</sup> Districts should strive to go beyond issues such as whether participants liked the professional development opportunity and focus on intended outcomes and skills to be mastered. Performance evaluations may be good indicators of improved skills as a result of professional development if there is something in the evaluation that addresses the issue.

<sup>12</sup> Providing technical support is accomplished in a variety of ways. For instance, it may include one or more of the following: providing a trained non-instructional technology support person or providing a technology facilitator in each school; training an individual with teaching duties as an application expert to assist their peers; managing a central help desk at the district; implementing a work-order tracking system; or contracting for regional or vendor support services. Areas of technical support may include email support, intranet/internet access, software application support, web development, or computer hardware installation and maintenance.

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#### **6. The district uses technology to improve communication.**

- a. The district uses web technologies, such as the Internet and intranet sites, and email to improve and enhance communication between groups such as schools, districts, the state, parents, and the community.
- b. The district administration uses email to supplement communications of policies and information to schools.
- c. The district uses email to circumvent costly meetings whenever feasible and to increase the frequency and speed of communications to parents and teachers.
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

#### **7. The district has written policies that apply safe, ethical, and appropriate use practices that comply with legal and professional standards.**

- a. Staff, teachers, students, and parents are provided written and verbal guidelines describing the appropriate and inappropriate uses of technology, such as school computers, the Internet, copiers, facsimile machines, and TV/VCRs.
- b. The district has implemented policies and procedures to prevent access to inappropriate Internet sites.
- c. The district provides staff, teachers, students, and parents with written and verbal guidelines describing legal uses of digital materials, both instructional and non-instructional.<sup>13</sup>
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

### **Information Management and Delivery**

#### **8. The district has established general controls in the areas of access, systems development and maintenance, documentation, operations, and physical security to promote the proper functioning of the information systems department.**

- a. The district has written procedures and a standards manual.<sup>14</sup>
- b. The district has had an EDP audit within the last three years with no outstanding findings of material weaknesses.
- c. Appropriate segregation of duties based on district size exists within the data processing function.<sup>15</sup>
- d. The district protects systems from unauthorized users by using room locks, passwords, firewalls, and other needed means as conditions warrant.
- e. Controls exist to limit access to and prevent release of confidential and sensitive data.
- f. The district ensures that independent databases are effectively managed to provide reliable and accurate data and ensure efficient operations.<sup>16</sup>
- g. If a school district engages a service organization to process transactions on its behalf, the district has executed appropriate agreements with the providers and appropriate control procedures have been established.<sup>17</sup>

<sup>13</sup> Guidelines may address copyright issues and legal responsibilities.

<sup>14</sup> This manual should include procedures as they relate to systems operations, systems development and maintenance standards, documentation standards, operations policies, and access security policies.

<sup>15</sup> In smaller districts and minicomputer installations with limited opportunities for segregation of duties, compensating controls exist such as managerial or user review of work performed.

<sup>16</sup> Independent databases refer to systems that are not directly managed by the district. For example, districts may have contracts with vendors providing food service or transportation management that includes the operation of independent databases.

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h. Is there other information that demonstrates the district's use of this best practice that should be considered?

**9. The information needs of administrative and instructional personnel are met by applying appropriate project management techniques to define, schedule, track and evaluate purchasing, developing, and the timing of delivering IT products and services requested.**

a. The district analyzes alternatives to identify the most cost-effective method of delivering IT products and services.<sup>18</sup>

b. The district can demonstrate that its information systems deliver IT products and services in a timely manner.

c. The district has a way to gauge user satisfaction with the delivery of IT products and services.

d. Users are satisfied with the information they receive from the IT department.

e. Is there other information that demonstrates the district's use of this best practice that should be considered?

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<sup>17</sup> A school district that engages a service organization to process transactions on its behalf should assure itself that proper controls are followed. There are many ways school districts can do this. One tool available is to require the service organization to provide a report on its internal controls pursuant to *Statements on Auditing Standards* Number 70. Such a report should address whether the service organization has suitable controls to achieve the desired objectives and whether they were in operation as of a specific date.

<sup>18</sup> Information products and services may include modifying existing programs, adding data elements to centralized computer systems, developing applications, writing interfaces, installing, configuring, and testing new technology, etc.