

Excerpted from

Making Technology Standards Work for You, Second Edition

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Many administrators may not have technology backgrounds; however administrators need to have an understanding of effective technology integration in order to support and transform their schools and districts. *Making Technology Standards Work for You* assists educational leaders by guiding them through the National Educational Technology Standards for Administrations.

This second edition features updated references and resources for each standard and integrates activities from *Self-Assessment Activities for School Administrators*, which was previously sold separately. Each chapter focuses on one area of technology leadership and provides charts and tables with task assignments for specific administrator roles: campus-level, district-level, and superintendent- and cabinet-level. It is an invaluable reference tool for any educational leader.



Chapter 5

Standard V

Assessment and Evaluation

Educational leaders use technology to plan and implement comprehensive systems of effective assessment and evaluation.

Performance Indicators for Educational Leaders

- V.A.** Use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.
- V.B.** Use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.
- V.C.** Assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.
- V.D.** Use technology to assess, evaluate, and manage administrative and operational systems.

Chapter 5 Overview

In their haste to bring technology use into schools, educators often forget that simple access to hardware and software is not enough; as a result, they fail to plan for those elements of a technology-based program or reform that actually affect student learning. This situation is compounded by weak evaluation components in many technology-based program plans, with no mechanism in place that enables educators to review the program, identifying its strengths and weaknesses on an ongoing basis. According to SEIR-TEC's report, *Factors That Affect the Effective Use of Technology for Teaching and Learning* (2001), evaluation often is the weakest component in technology-based programs for several reasons:

- Educators report they lack the necessary expertise to develop a comprehensive evaluation design.
- Evaluation does have associated costs: 10% of the program budget is a typical figure, but no funds have been allocated for this purpose.
- Multiple measures are not identified, and evaluators then fall back on standardized test scores that may not accurately reflect technology's effects on student learning.
- Educators do not have access to readily available tools that can be used to gather and process data.

Although this performance indicator specifically targets evaluation of technology use in learning, communication, and productivity, it is important to remember that effective technology use must be evaluated within the context of overall educational programs or school reforms. This approach is supported in *The Learning Return on Our Educational Investment* report, published by WestEd (Ringstaff & Kelley, 2002), in which the authors state, "The overriding message that can be gleaned from most current research on the implementation of computer-based technology in K–12 education is that technology is a means, not an end; it is a tool for achieving instructional goals, not a goal in itself" (p. 1). Keeping this in mind, the following discussion applies to evaluation of educational programs and reforms in which technology is one of several important tools.

What Gets Measured Gets Done

Performance Indicator V.A.

Educational leaders use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.

Carefully designed, sustained evaluation is based upon defined outcomes and supported through data we collect, analyze, and report. It enables educators to determine whether educational programs or reforms are effective and why. The steps for designing an evaluation are described in the following steps.

1. Establish an evaluation committee involving a core group of members who will assist in each phase of the process, from design through dissemination.
2. Review the desired outcomes stated in the original program or reform plan. The outcomes provide the basis for evaluation questions. For example, if a desired outcome states that there will be an increase in the number of students completing advanced placement courses, the committee can ask questions about what might cause an increase or decrease in this figure and what role technology-based interventions have played. You will develop process questions (What did we do?), outcome questions (What were early effects?), and effect questions (What are the long-term effects?).
3. After questions are developed, the committee identifies the audience for each question by asking: Who needs to know the answer to this question and why? How should this information be reported to the targeted groups?
4. Use the questions to identify the kinds of data that must be collected and analyzed.
5. Review costs that will be incurred while collecting, analyzing, and organizing data into reportable formats to be certain they are reasonable and within budget.
6. Develop a timeline for the evaluation process and follow it.

Helpful Evaluation Tools

Tools are available on the Internet, designed by reliable evaluators and intended for use in formal evaluations. For example, Jim Cox offers a tool called the Analysis of Process (AOP), available in downloadable form in his article, *A Data-Driven Organization's Approach to Assessing the Quality of Program Delivery* and available on the TICAL Internet portal for school administrators at www.portical.org/cox3more.html. This tool identifies 15 elements found in any instructional program and serves as a starting point for program review. The two-page document can be used to facilitate discussions that result in identifying strengths and weaknesses of a program as identified by process and outcome information.

Two additional tools used to gain a broad picture of how technology use is integrated into a program or reform effort are the Technology Integration Progress Gauge, designed by SEIR-TEC (www.seirtec.org/eval.html), and sections of the 2002 Toolkit, from the State Educational Technology Directors Association (www.setda.org/web/guest/toolkits).

Well-designed evaluation will tell you the effects of technology use and other interventions in your programs and reforms and, most important, why. When you know why something is or is not working, you can do something about it. Because evaluation is time consuming and requires ongoing effort, you may want to consider contracting with an outside local evaluator who can work with you and your staff on design, implementation, and dissemination of the evaluation.

Roles and Responsibilities

Performance Indicator V.A. Educational leaders use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.

This section describes the process administrators use to review current evaluation practices, define desirable evaluation practices, and identify necessary steps to move from what currently exists to desired levels for evaluation design. At the cabinet-leader level much of the responsibility for program evaluation will fall to the head of the instructional division.

What Is Already in Place?

Assess current program and reform evaluation practices.

All educational leaders need to:

- Review current evaluation requirements for existing programs, including timelines.
- Review current evaluation designs.
- Review current procedures for conducting program or school reform evaluation.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Review evaluation components of school site plans and programs. • Review previously completed program evaluations to determine the breadth and scope of the process. 	<ul style="list-style-type: none"> • Review evaluation components of district master and program plans. • Review previously completed district program evaluations to determine their breadth and scope. • Meet with campus leaders to discuss strengths and weaknesses of current evaluation procedures. 	<ul style="list-style-type: none"> • Review existing board policies or regulations that address program evaluation. • Obtain feedback from campus and district leaders regarding existing program evaluation issues and concerns. • Determine how each division currently provides support to schools and to individual district departments conducting program evaluations.

What Practices Demonstrate Successful Implementation of This Performance Indicator?

Ensure that evaluation is a well-designed component of every plan for instructional programs and school reforms and that the evaluation is implemented.

All educational leaders need to:

- Meet with standing committees at appropriate levels to design and implement ongoing evaluation models.
- Insist that technology evaluation be implemented within the context of instructional and reform programs.
- Review evaluation timelines regularly and coordinate as much as possible to avoid work overload or repetition.
- Make appropriate budget allocations to cover the cost of evaluation.
- Work with local outside evaluators when appropriate.
- Make evaluation results available to appropriate stakeholders.
- Use the results of evaluations to plan program improvements.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Provide support to site committee members through stipends, release time, staff development opportunities, and recognition. • Update school program plans to reflect a strong evaluation component based upon evaluation recommendations. • Conduct information dissemination meetings or make formal presentations about findings as necessary. 	<ul style="list-style-type: none"> • Provide support to district committee members through stipends, release time, staff development opportunities, and recognition. • Provide necessary support to sites to ensure thorough, ongoing evaluation takes place. • Offer campus leaders referrals to county and outside agencies that can assist in evaluation design and implementation. 	<ul style="list-style-type: none"> • Provide support to campus and district leaders through release time, staff development opportunities, and recognition. • Determine how each division will provide support to schools and to individual district departments conducting program evaluations. • Share evaluation policy recommendations with campus and district leaders prior to presenting them to the school board.

What Steps Lead to Successful Implementation of This Performance Indicator?

Identify steps that need to be taken to develop and implement evaluation components in program plans and school reforms.

All educational leaders need to:

- Establish standing committees at appropriate levels to design and implement ongoing evaluation models.
- Ensure that technology evaluation is incorporated within the programs that use it.
- Establish coordinated evaluation timelines to avoid work overload or repetition.
- Explore budgets to find places where allocations for evaluation costs need to be made.
- Decide which evaluations can be done in-house and which need assistance from a local outside evaluator.
- Explore successful methods for making evaluation results available to appropriate stakeholders.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Meet with appropriate site leadership groups to discuss ways to support site evaluation committee members. • Meet with the site evaluation committee to identify and discuss strengths and weaknesses of current evaluation designs. • Work with district leaders to bring necessary outside resources on campus to share expertise and provide assistance in evaluation design. 	<ul style="list-style-type: none"> • Meet with appropriate cabinet leaders to discuss ways to support district evaluation committee members. • Provide necessary support to sites as they design evaluation models. • Seek out and develop a database of consultants in the county and outside agencies that can assist in evaluation design and implementation. 	<ul style="list-style-type: none"> • Meet with campus and district leaders to discuss ways to support district and site evaluation committee members. • Explore ways each division could provide support to schools and to individual district departments conducting program evaluations. • Work with school board members to educate them on issues related to the evaluation process.

Activity

Performance Indicator V.A. Educational leaders use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.

■ Activity 1 • Evaluation Procedures

Evaluation tends to be one of the weakest components of school and district plans. Use Activity 1 to review your current evaluation practices. Indicate to what extent your plans fulfill the descriptions in items 1–9 for Use of Technology as a Learning Tool and items 1–9 for Use of Technology as a Communication and Productivity Tool.

Next Steps: Based on your responses to Activity 1, use the Action Plan at the end of this chapter to identify the steps that need to be taken next to strengthen your approach to evaluating the use of technology resources for learning, communication, and productivity.

Activity 1 • Evaluation Procedures

Directions: Respond to each statement below by marking the appropriate column. Those marked *Disagree* or *Strongly Disagree* indicate areas of the evaluation process that require your attention. Use the reflection questions that follow the statements to explore further the current state of evaluation in your school or district.

Use of Technology as a Learning Tool				
School or District Plans That Address Use of Technology as a Communication and Productivity Tool	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Clearly describe desired student outcomes.				
2. Clearly describe how these desired outcomes will be measured.				
3. Include short- and long-term evaluation activities.				
4. Provide well-defined timelines for evaluation activities.				
5. Identify those persons responsible for each evaluation activity.				
6. Allocate funds specifically to cover the costs associated with evaluation.				
7. Identify multiple measures for assessing technology's impact on student performance.				
8. Include technology-based assessment tools that can be used to gather and process data.				
9. Evaluate technology use within the context of overall educational programs or school reforms.				
Describe how your school's or district's current evaluation practices measure the impact of technology as a learning tool.				
Identify the strengths and weaknesses of these practices.				

Continued

Activity 1 • Evaluation Procedures

Continued

Use of Technology as a Communication and Productivity Tool				
School or District Plans That Address Use of Technology as a Communication and Productivity Tool	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Clearly describe desired communication and productivity outcomes.				
2. Clearly describe how these desired outcomes will be measured.				
3. Include short- and long-term evaluation activities.				
4. Provide well-defined timelines for evaluation activities.				
5. Identify those persons responsible for each evaluation activity.				
6. Allocate funds specifically to cover the costs associated with evaluation.				
7. Identify multiple measures for assessing the technology's impact on communication and productivity.				
8. Include technology-based assessment tools that can be used to gather and process data.				
9. Evaluate technology use within the context of overall organizational systems.				
Describe how your school's or district's current evaluation practices measure the impact of technology as a communication and productivity tool.				
Identify the strengths and weaknesses of these practices.				

Using Technology to Manage and Report Data

Performance Indicator V.B.

Educational leaders use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.

An administrator does not need to be an accomplished statistician or programmer to use technology for data collection and analysis. Several software publishing companies offer student record-keeping systems that can be tailored to meet the needs of individual schools and districts, for example, Schoolmaster Student Information Systems (www.schoolmaster.com) and PowerSchool (www.powerschool.com). The philosophy behind using this kind of software is discussed broadly in Chapter 3, Performance Indicator III.A. The process for selecting this type of software is discussed in Chapter 4, Performance Indicator IV.B.

Identifying and Collecting Data

Once the evaluation design is in place and the committee knows what data to collect, members need to decide how to go about gathering the data. Much of the student outcome information will be available through the student record-keeping system. When this system is automated, collection and analysis are likely to be very easy. You need to talk with the administrator of the student record-keeping system to determine whether existing software modules will permit gathering, analyzing, and generating reports using the existing data. If this capability does not currently exist, it is possible that the software publisher will already have or will be willing to create a module that can do the job for a fee. Also talk with the data processing office to determine the feasibility of moving data from one program to another, if necessary. In cases where student record-keeping is not automated, there are commercial programs that can be purchased for statistical analysis, such as the Statistical Package for the Social Sciences (SPSS) (www.spss.com) or Windows KWIKSTAT (WINKS) (www.texasoft.com). It is sometimes necessary to have the data entered by hand, but once the information is there, it can be manipulated for analysis that can be displayed in various report formats.

Process information and certain student outcomes may need to be gathered through surveys, interviews, observations, or other means and recorded, using both traditional and technology-based methods. You might consider using computer and digital technologies, such as online activities and recorded interviews and presentations, to assess student achievement through electronic portfolios designed to track the development of students' problem-solving skills. In addition, survey results can be scanned into a database if the response sheets have been designed for this purpose or downloaded as spreadsheet files when surveys are conducted online using tools such as SurveyMonkey (www.surveymonkey.com) or Zoomerang (www.zoomerang.com). Other sources of data can be presented in narrative form.

Analyzing Data

When the purpose of a program or reform evaluation is defined along with the type of data to collect, the committee will be in a position to determine how to analyze the data. As mentioned above, data made available through the student record-keeping system or in a format that can be entered into a database can be analyzed through the use of special program modules that work with the automated system or by using a statistics program. It is also possible to use a spreadsheet program such as Excel to create a workbook to manipulate data, but with other available products, it's probably not worth the time to set up your own files.

Selecting the kinds of tests or comparisons you want to make may require a quick brush-up in Statistics 101, but it is important to ensure that the data analysis and interpretation actually mean something. The district office may have someone in-house who can help or refer you to a resource person at a county office of education or local college or university.

Disseminating Information

An important aspect of evaluation design is determining who needs access to the results of the evaluation and how the results will be presented to various stakeholders. When preparing information for dissemination, think about each audience you need to address. Parents will not want or need the detail educators will expect. Most likely, community members will simply want highlights of the information, and board members will expect a full report. Technology makes it possible to share information using formats tailored for each group.

The evaluation committee may decide to use a newsletter format for parents, a brochure for community members, and a full report for the school site, district, and board. Once the formats are agreed upon, work with clerical staff to translate the ideas into finished products. The evaluation committee also needs to decide when and where the information will be shared. This may happen in person (during staff meetings, at parent meetings, or through a formal presentation to the school board), online via a website, or through the mail. Again, consider the audience and the best delivery method for ensuring they will read and understand the provided information.

Some schools or districts may benefit from using the free online Data-Driven Decision Making Self Assessment tool to gauge their readiness to manage and report data. Launched by CoSN in 2003, the tool is available at www.3d2know.org/assessment/survey.cfm.

Roles and Responsibilities

Performance Indicator V.B. Educational leaders use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.

This section explains the steps school administrators need to take as they determine current capabilities for managing and reporting data, identify the capabilities they want to have, and then plan strategies for reaching their goals.

What Is Already in Place?

Assess current site and district capabilities for managing and reporting data.

All educational leaders need to:

- Review evaluation design recommendations made while working to meet Performance Indicator V.B. to ensure they meet federal and state reporting requirements.
- Research the existing student record-keeping system to identify current capabilities.
- Identify practices in place for disseminating evaluation results.
- Identify staff members who have the background and training to assist with data manipulation.
- Identify staff members who have the background and training to assist with dissemination of evaluation results.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Check the site software inventory for programs on campus that could be used for data collection or statistical analysis. 	<ul style="list-style-type: none"> • Check the district software inventory for programs currently in the district office that could be used for data collection or statistical analysis. 	<ul style="list-style-type: none"> • Review existing board policies or regulations that address evaluation design and information reporting.

What Practices Demonstrate Successful Implementation of This Performance Indicator?

Provide the necessary tools and training for managing and reporting data to enable staff to conduct thorough evaluations and disseminate findings.

All educational leaders need to:

- Review recommendations from the district planning committee regarding the tools, training, and timeline.
- Reach an agreement about the recommendations made.
- Support an implementation timeline and use improved data collection and reporting systems.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Ensure that data collection, manipulation, and dissemination are performed based upon sound evaluation design. • Make certain that identified site staff members are available to attend training for the student record-keeping system. • Make certain that identified site staff members are available to attend training for a statistics program. • Make appropriate budget allocations based upon district committee recommendations. • Follow through on dissemination plans through meetings, print material, or other agreed-upon actions. 	<ul style="list-style-type: none"> • Ensure that sites and district offices have access to the necessary tools to conduct data collection, analysis, and dissemination based on the agreed-upon evaluation design. • Ensure that staff development is available to identified site and district staff. Coordinate with campus and cabinet leaders to implement a workable schedule. • Make appropriate budget allocations based upon district committee recommendations. • Assist campus leaders in their follow-through on dissemination of evaluation results through planning meetings, designing reports, and distributing print materials. • Participate in site and district dissemination meetings. 	<ul style="list-style-type: none"> • Schedule time for campus and district leaders to discuss ongoing concerns about tools provided for data collection, analysis, and dissemination, and participate in these meetings. • Make certain that identified cabinet support staff members are available to attend training for the student record-keeping system. • Make certain that identified cabinet support staff members are available to attend training for a statistics program. • Make a formal presentation to the school board regarding a district evaluation design that is supported through technology use.

What Steps Lead to Successful Implementation of This Performance Indicator?

Determine steps that need to be taken to reach goals for managing and reporting data as a basis for thorough evaluation and appropriate information dissemination.

All educational leaders need to:

- Establish a representative group that will work with leaders at all levels to develop recommendations for software selection or expansion, training plans, and cost distribution to create a system that will allow for necessary data collection and manipulation. This group also makes recommendations for information dissemination methods.
- Develop a timeline for implementation of recommendations.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Develop a list of the kinds of data you need to collect for site-level use. • Identify which site staff members would need training to use an expanded student record-keeping system. • Identify which site staff members would need training to use a statistics program. • Participate on the district planning committee. 	<ul style="list-style-type: none"> • Research the capabilities of the current student record-keeping system as well as the potential for expansion through modules or specially written programs. • Identify which district staff would need training to use an expanded system and the scope of the training. • Determine the costs of upgrading or expanding the current student record-keeping system and make recommendations about how these costs would be distributed. • Research the capabilities of available statistics software. • Identify which staff would need training to use a statistics program and the scope of the training. • Determine the costs of purchasing statistics software and make recommendations about how these costs would be distributed. • Determine the capability of current district software to generate reports for dissemination in various formats. • Make recommendations to the district committee regarding findings. 	<ul style="list-style-type: none"> • Select a cabinet representative for the district planning committee. • Ensure that there is open, frequent communication between campus and district leaders. • Identify which cabinet support staff members would need training to use an expanded student record-keeping system. • Identify which cabinet support staff members would need training to use a statistics program. • Explore ways to provide financial support to sites and district offices for software upgrades or purchases and staff development through reallocation of district funds or grants. • Educate school board members about the importance of well-designed evaluation and the need for technology support for this endeavor.

Activity

Performance Indicator V.B. Educational leaders use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.

■ Activity 2 • Tools for Accessing, Analyzing, and Reporting Data

The series of questions in Activity 2 is designed to assist you in identifying the kinds of data available to you, how you access or collect that data, and how you analyze and report your findings.

Next Steps: After identifying the kinds of data available, how you access or collect that data, and how you analyze and report your findings, use the Action Plan at the end of this chapter to identify the steps that need to be taken next to use technology more effectively to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.

Activity 2 • Tools for Accessing, Analyzing, and Reporting Data

Directions: Answer the following questions to identify the kinds of data available to you, how you access or collect that data, and how you analyze and report your findings.

Automated Student Record-Keeping Systems	Circle One	
1. Does your school or district have an automated student record-keeping system?	Yes	No
If your answer to question 1 is <i>Yes</i> , answer the following questions. You may need to check with the system administrator to answer them. If your answer is <i>No</i> , skip to question 8.		
2. List the types of student data (e.g., attendance, discipline, test scores) you can access using the automated student record-keeping system.		
3. List the types of student data analysis that can be completed using the automated student record-keeping system.		
4. List the types of reports that can be generated using the automated student record-keeping system.		
5. Does the system administrator have the capability to write new queries for data analysis? Explain.		
6. Does the system administrator have the capability to write new formats for reports? Explain.		
7. How do you currently use this system for data collection, analysis, and reporting? Explain.		
8. If you don't have an automated student record-keeping system, what strategies do you use to collect, analyze, and report student data?		

Continued

Activity 2 • Tools for Accessing, Analyzing, and Reporting Data

Continued

Automated Student Record-Keeping Systems		Circle One
<p>9. Which of the following data collection tools do you use? Circle all that apply and write a sentence explaining when you use each type of tool circled:</p> <p>Surveys:</p> <p>Interviews:</p> <p>Observations:</p> <p>Student portfolios:</p> <p>Other (please identify):</p>		
<p>10. Have you used electronic versions of the data collection tools circled above?</p>	<p>Yes</p>	<p>No</p>
<p>Explain.</p>		
<p>11. How do you analyze the data collected using the tools circled above? Explain.</p>		
<p>12. Once you've collected and analyzed data, how do you disseminate the information? Explain.</p>		
<p>13. What are the current strengths and weaknesses in your ability to access, analyze, and report data?</p>		

Technology Use and Evaluation of Personnel

Performance Indicator V.C.

Educational leaders assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.

An important part of an educational leader's job is to observe and evaluate the performance of certified and classified personnel. Performance Indicator V.C. addresses performance evaluation and professional development as it relates to implementation of technology use. Just as with other forms of evaluation discussed in this chapter, employee performance in technology integration must be viewed within the context of the school plan and outcomes for instructional programs. Although proficiency levels are important, how employees choose to apply these skills is equally noteworthy.

Evaluating Technology Use in the Classroom or Office

The discussions of the change process and stages of technology use in Chapter 2 remind us that accurate evaluation of knowledge, skills, and use is multidimensional. Employees will be at a variety of levels in terms of their concern about technology use and their ability to make technology work effectively for them. Because this is the case, you can make a strong argument for working with individual employees, both classified and certified, to develop individual professional growth plans and objectives that include technology integration skills as applicable.

A variety of tools can be used with employees to help them identify their present level of use with technology integration and what their next steps might be. In addition to CBAM and the stages of technology integration identified in ACOT research (see Chapter 2), you may want to review SETDA's 2002 Toolkit (www.setda.org/web/guest/toolkits) and SEIR-TEC's Technology Integration Progress Gauge (www.serve.org/seir-tec/publications/ProgressGauge2000.pdf). Both of these instruments ask users to look beyond basic computer proficiency when gauging their technological skills in an educational environment. The Learning with Technology Profile Tool, designed by North Central Regional Technology in Education Consortium (www.ncrtec.org/capacity/profile/profwww.htm), is also a good resource. In addition, some states now have online self-assessments district staff complete annually.

Having identified an employee's current level of expertise and use, you can work with each person to devise a personal plan focused on growth and increased appropriate use, recognizing this will be different for each individual. Growth goals need to be based upon desired outcomes for the instructional program as well as patterns for integration identified by CBAM and/or ACOT. Teachers may also want to refer to the National Education Technology Standards (NETS) for Teachers (www.iste.org). The standards can serve as a model for practicing teachers wanting to increase effective technology use in their classrooms.

Once an employee's plan and goals are in place, they can be used for ongoing discussion about how technology use fits into his or her workday, specific steps taken by the individual to increase skills and knowledge, and the person's expected level of proficiency as agreed upon in the plan.

Working with individuals at this intense level of planning individual goals and professional development strategies enables you to make educated personnel decisions. Your expectations are clearly defined and realistic, based upon mutual input and agreement, tied to expected outcomes for programs, and designed to allow for gradual, measurable growth.

Roles and Responsibilities

Performance Indicator V.C. Educational leaders assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.

This section is designed to identify the responsibilities of educational leaders at all levels as they review current procedures for evaluation of employees' integration of technology into the workday and plan for future practice. At the cabinet level, most of the responsibility for this standard will fall to the head of the personnel or human resources division. Refer to the roles and responsibilities section for Performance Indicator II.E. in Chapter 2 for specific recommendations regarding the development of or redefinition of professional growth plans.

What Is Already in Place?

Assess existing methods for evaluation of employee technology use and development of professional goals.

All educational leaders need to:

- Review current employee evaluation procedures.
- Review current procedures for identifying professional goals.
- Identify areas of contractually-defined employee evaluation and goal development.

What Practices Demonstrate Successful Implementation of This Performance Indicator?

Utilize procedures that enable employees to structure goals and be evaluated based upon individual needs and experience with technology integration.

All educational leaders need to:

- Use knowledge of the change process and stages of technology integration to assist employees in developing reasonable goals.
- Provide to employees appropriate technology integration self-assessment tools that can be used in developing appropriate goals.
- Provide professional development support to help employees meet their goals.
- Review budgets to identify funds that can be used to assist employees in meeting their goals.
- Meet regularly with employees to discuss professional goal implementation.
- Regularly observe employees using technology.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Meet with employees before and after formal observations to discuss how what you see during your visit relates to professional goals. • Make frequent informal classroom and office visits. • Review lesson plans for increased sophistication in technology integration. 	<ul style="list-style-type: none"> • Assist campus leaders in employee development of professional goals. • Follow through on evaluation of district employees as they integrate technology use into the workday. 	<ul style="list-style-type: none"> • Work with employee associations to reach agreements concerning an evaluation design that allows for gradual growth in expertise levels. • Obtain necessary board approval for updates in policies and procedures related to goal development and evaluation. • Meet regularly with campus and district leaders to monitor implementation of evaluation procedures.

What Steps Lead to Successful Implementation of This Performance Indicator?

Create procedures that enable employees to structure goals and be evaluated based upon individual needs and experience with technology integration.

All educational leaders need to:

- Use knowledge of the change process and stages of technology integration to create revised goal-setting and evaluation procedures.
- Adopt or develop appropriate technology integration self-assessment tools that employees can use in developing professional goals.
- Allocate funds that can be used to assist employees in meeting their goals.

Campus Leaders’ Additional Responsibilities:	District Leaders’ Additional Responsibilities:	Superintendents’ and Cabinet Leaders’ Additional Responsibilities:
<ul style="list-style-type: none"> • Meet with staff to discuss issues pertaining to writing professional goals and evaluation of technology use. • Communicate staff input with appropriate district and cabinet leaders. 	<ul style="list-style-type: none"> • Seek out and share employee evaluation models for technology integration. • Meet with staff to discuss issues pertaining to writing professional goals and evaluation of technology use. • Communicate staff input with appropriate campus and cabinet leaders. 	<ul style="list-style-type: none"> • Meet with employee association representatives to explore revisions in professional goal-setting and evaluation procedures. • Develop a proposal for revised policies and procedures related to professional goal-setting and evaluation. • Educate school board members on issues related to employee evaluation and technology integration.

Activity

Performance Indicator V.C. Educational leaders assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.

■ Activity 3 • Measuring the Impact of Professional Development Programs

Use the questions in Activity 3 to consider both the quality of the overall professional development program available to you and your employees and the way you currently measure its impact.

Next Steps: Use the Action Plan at the end of this chapter to identify the steps that need to be taken next to ensure that you and your staff have opportunities to take part in high-quality professional development that will have a positive impact on student learning and employee performance.

Activity 3 • Measuring the Impact of Professional Development Programs

Directions: Use the questions below to consider both the quality of the overall professional development program available to you and your employees and the way you currently measure its impact.

1. What kinds of professional development opportunities are offered to you and your staff?

2. How are these opportunities selected?

3. Are professional development opportunities based on clear goals and stated outcomes related to school or district plans? Explain.

4. Which staff members take advantage of professional development opportunities, and how is this tracked?

5. What kinds of incentives are offered to staff members who pursue professional development?

6. Who provides professional development programs for your school or district, and how are they selected?

Continued

Activity 3 • Measuring the Impact of Professional Development Programs

Continued

7. Are the implementation strategies suggested by professional development providers research based and linked to academic standards whenever appropriate?

8. How is professional development funded?

9. How do you measure professional development's impact on students?

10. Which of the following evaluation activities are used? Circle each used, and write a brief explanation, including how often it's used.

Training evaluations:

Records of participants:

Formal observations of employee application of new learning:

Informal observations of employee application of new learning:

Staff meeting minutes:

Personal professional-development journals:

Written action plans:

Interviews with students and parents:

Monitoring the Use of Administrative and Operations Software

Performance Indicator V.D.

Educational leaders use technology to assess, evaluate, and manage administrative and operational systems.

No doubt you have read or heard horror stories about school districts that have adopted technology-based administrative or operations systems only to discover months or even years into implementation that the system has produced faulty data, causing serious problems for students, or has cost the district millions of dollars in lost revenue because funds have been misspent or misplaced. How can you avoid this kind of situation?

Whenever a district opts to purchase and implement technology-based administrative or operations systems, it is imperative that a comprehensive monitoring and evaluation mechanism be in place. As mentioned in Chapter 4, Performance Indicator IV.B., many districts initially run parallel accounting systems as a precaution, but more needs to be done. Form an evaluation committee that will design and implement a plan for monitoring the effectiveness of the system and ensure that if the projected savings in cost or time are not produced, that the problem can be identified and remedied quickly.

When implementing a new or enhanced student record-keeping system, maintenance of data quality is an important issue. Every adult who accesses student records must take responsibility for the accuracy of those records; this means that users must understand why the information is being collected and why accurate information is important. Schedules for regular data entry must be established and adhered to, and those people responsible for data entry must have ongoing, effective professional development training.

Reporting procedures must also be monitored. While it is prudent to use predesigned reports to make good use of employee time, these formats must be reviewed and updated regularly to ensure the proper information is being reported to each agency. You also must determine when it is appropriate to use dynamic (changing) or static databases as your data source. Inaccurate data reporting can result in the loss of large sums of federal and state monies, a consequence most districts can ill afford.

School districts may save significant amounts of money by automating administrative and operations functions such as purchasing, transportation scheduling, and work orders. However, just as with student record-keeping systems, procedures for monitoring and evaluating this automation must be in place to ensure that savings are realized. Regular audits must be conducted to identify strengths and weaknesses of the automated system so necessary corrections can be made. Staff members at sites and within the district office need to be trained in using the system, and then they must track transactions, checking for accuracy and timely implementation. It is also helpful to communicate with other nearby school districts going through this process to share information and solutions to problems encountered along the way.

Roles and Responsibilities

Performance Indicator V.D. Educational leaders use technology to assess, evaluate, and manage administrative and operational systems.

This section explains the responsibilities of educational leaders at various levels as they monitor and evaluate technology-based managerial and operational systems.

What Is Already in Place?

Assess current site and district levels for automation of administrative and operations tasks.

All educational leaders need to:

- Review existing automated administrative and operations tasks to identify current capabilities.
- Review effectiveness of current automation capabilities.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • At this stage, additional responsibilities fall to district and cabinet leaders. 	<ul style="list-style-type: none"> • Check district automation software agreements for information about expansion and compatibility issues. • Gather data from sites regarding strengths and weaknesses of current systems. 	<ul style="list-style-type: none"> • Review existing board policies or regulations that address reporting format requirements.

What Practices Demonstrate Successful Implementation of This Performance Indicator?

Implement an ongoing procedure for monitoring and evaluating automated administrative and operations systems.

All educational leaders need to:

- Review recommendations from the district monitoring and evaluation committee regarding automated administrative and operations systems.
- Reach an agreement about the recommendations made.
- Support an implementation timeline and follow through on identified tasks.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Ensure that automation modules are appropriate for site use, accessible, and used properly by targeted staff members. • Make certain that identified site staff members are available to attend training for automated systems. • Make appropriate budget allocations based upon district committee recommendations. 	<ul style="list-style-type: none"> • Ensure that sites and district offices have access to the necessary tools for automation and that these tools are being used properly based on the agreed-upon design. • Ensure that staff development is available to identified site and district staff. Coordinate with campus and cabinet leaders to implement a workable schedule. • Make appropriate budget allocations based upon district committee recommendations. 	<ul style="list-style-type: none"> • Schedule time for campus and district leaders to discuss ongoing concerns about tools provided for automation and participate in these meetings. • Make certain that identified cabinet support staff members are available to attend training for automated systems. • Make a formal presentation to the school board regarding the monitoring and evaluation of district automation systems. • Obtain necessary board approval for updates in policies and procedures related to reporting formats that may be affected by automation.

What Steps Lead to Successful Implementation of This Performance Indicator?

Determine steps that need to be taken to monitor and evaluate implementation of automation of administrative and operations systems.

All educational leaders need to:

- Establish a representative group that will work with leaders at all levels to develop recommendations for monitoring and evaluating automation, training plans, and cost distribution to create a system that will allow for streamlined managerial and operations systems. This group also makes recommendations for methods to use for information dissemination.
- Develop a timeline for implementation of recommendations.

Campus Leaders' Additional Responsibilities:	District Leaders' Additional Responsibilities:	Superintendents' and Cabinet Leaders' Additional Responsibilities:
<ul style="list-style-type: none"> • Develop a list of the automated managerial and operations systems that are implemented at the school site. • Identify which site staff members have been trained to use the expanded automation system and the type of training they have received. • Participate on the district planning committee. 	<ul style="list-style-type: none"> • Identify the capabilities of the current automation systems as well as the potential for expansion through modules or specially written programs. • Identify which district staff have been trained to use the expanded automation system and the scope of the training. • Determine the ongoing cost of upgrading or expanding the current automation system and make recommendations about how these costs would be distributed. • Make recommendations to the district committee regarding your findings. 	<ul style="list-style-type: none"> • Select a cabinet representative for the district planning committee. • Ensure open, frequent communication between campus and district leaders. • Identify which cabinet support staff members have received training to use an expanded automation system and the type of training provided. • Explore ways to provide financial support to sites and district offices for ongoing software upgrades or purchases and staff development through reallocation of district funds or grants. • Educate school board members about the importance of automated managerial and operational systems and how technology will support this endeavor.

Activity

Performance Indicator V.D. Educational leaders use technology to assess, evaluate, and manage administrative and operational systems.

■ Activity 4 • Evaluating Administrative and Operations Systems

Use the questions in Activity 4 to identify how you currently monitor and evaluate administrative and operational systems.

Next Steps: Now that you have explored current practice for monitoring and evaluating administrative and operations systems, use the Action Plan at the end of this chapter to identify the steps that need to be taken next to improve these procedures.

Activity 4 • Evaluating Administrative and Operations Systems

Directions: Use the questions below to identify how you currently monitor and evaluate administrative and operational systems.

<p>1. List the various technology-based administrative or operations systems available at your school or within your district (e.g., automated student record-keeping, transportation, purchasing).</p>
<p>Note: It may be helpful to answer the following questions individually for each existing administrative and operations system.</p>
<p>2. Who's responsible for data entry?</p>
<p>3. How is the accuracy of the data ensured?</p>
<p>4. Who receives training on the system and how often?</p>
<p>5. Who checks reports for accuracy prior to their release?</p>
<p>6. What procedures are in place to monitor how well the system is operating?</p>
<p>7. Who is responsible for regular monitoring of the system?</p>
<p>8. How often is the system evaluated to determine whether its performance meets expectations?</p>
<p>9. Who is responsible for regular evaluation of the system?</p>
<p>10. How effective is this system in automating daily tasks?</p>

Action Plan

Standard V Educational leaders use technology to plan and implement comprehensive systems of effective assessment and evaluation.

Directions: Use the Action Plan to identify the actions that need to be taken to implement Standard V in the school or district.

Performance Indicator(s)	Next Steps	Person(s) Responsible	I Will Know This Step Has Been Achieved When ...	Timeline
V.A. Educational leaders use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.				
V.B. Educational leaders use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.				
V.C. Educational leaders assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.				
V.D. Educational leaders use technology to assess, evaluate, and manage administrative and operational systems.				

Conclusion

Evaluation enables educators to determine the effectiveness of program or reform innovations. If you can identify success, you can reward it; if you can identify failure, you can correct it. However, without going through the process of gathering and analyzing data, we simply make a “best guess” about the quality of programs or reform innovations. Evaluation of technology integration within instructional programs helps us learn how to do a better job with students. Using technology to facilitate the evaluation process makes it more likely we will maintain a high standard in our evaluation design.

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Assessment Tools

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Consortium for School Networking (CoSN). (2003). *Data-Driven Decision Making Self Assessment* [Online tool]. Available: www.3d2know.org/assessment/survey.cfm

North Central Regional Technology in Education Consortium [Online tool]. (1997). Available www.ncrtec.org/capacity/profile/profww.htm

SouthEast Initiatives Regional Technology in Education Consortium (SEIR-TEC). (2000). *Technology integration progress gauge* [Downloadable site profile instrument]. Available: www.serve.org/seir-tec/publications/ProgressGauge2000.pdf

State Educational Technology Directors Association (SETDA). (2002). *2002 Toolkit* [Online tool]. Available: www.setda.org/web/guest/toolkits

Online Survey Tools

SurveyMonkey. Available: www.surveymonkey.com

Zoomerang. Available: www.zoomerang.com

Information Management Software

PowerSchool (SASI). Pearson. Available: www.powerschool.com

Schoolmaster Student Information Systems. Olympia Computing Company, Inc. Available: www.schoolmaster.com

Statistical Package for the Social Sciences (SPSS). SPSS, Inc. Available: www.spss.com

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Guidebooks

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