

**MPEA – Standard III PBL
Superintendent**

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Standard III PBL-Superintendent

A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

Key knowledge and performance concepts in Standard III:

- *Theories and models of organizations and the principles of organizational development*
- *Operational procedures at the school and district level*
- *Principles and issues relating to school safety and security*
- *Human resources management and development*
- *Principles and issues relating to fiscal operations of school management*
- *Principles and issues relating to school facilities and use of space*
- *Legal issues impacting school operations*
- *Current technologies that support management functions*
- *Knowledge of learning, teaching, and student development is used to inform management decisions*
- *Operational procedures are designed and managed to maximize opportunities for successful learning.*
- *Emerging trends are recognized, studied, and applied as appropriate*
- *Operational plans and procedures to achieve the vision and goals of the school are in place*

- *Collective bargaining and other contractual agreements related to the school are effectively managed*
- *The school plant, equipment, and support systems operate safely, efficiently, and effectively*
- *Time is managed to maximize attainment of organizational goals*
- *Potential problems and opportunities are identified*
- *Problems are confronted and resolved in a timely manner*
- *Financial, human, and material resources are aligned to the goals of schools*
- *The school acts entrepreneurally to support continuous improvement*
- *Organizational systems are regularly monitored and modified as needed*
- *Stakeholders are involved in decisions affecting schools*
- *Responsibility is shared to maximize ownership and accountability*
- *Effective problem-framing and problem-solving skills are used*
- *Effective conflict resolution skills are used*
- *Effective group-process and consensus-building skills are used*
- *A safe, clean, and aesthetically pleasing school environment is created maintained*
- *Human resource functions support the attainment of school goals*
- *Confidentiality and privacy of school records are maintained*

Problem III

“Catching Lightning in a Bottle”

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Scenario:

While your district has recognized the importance of the role technology plays in educating today’s youth, the approach to the use of technology has been pretty much unmonitored. The purchase of technology has constituted an enormous amount of expenditures in the past several years but if asked what you have, why you have it and what good has it done, your really couldn’t give a very good response. The board has asked that you “get a handle” on the situation but you think it’s “catching lightning in a bottle”.

The board has specifically requested that it not only know where its money has gone the past couple of years but whether the money has been well spent. They want to know if the technology hardware, software and usage in the district meet standards. And they want a process in place that will tell them where the district is, technologically, on a yearly basis. In other words, they want a technology audit.

The district does not have the resources to hire a technology coordinator so the task has fallen on you and your assistant superintendent for facilities. The two of you have a daunting task; 1) get technology under control and 2) report the findings in a “state of the district technology” type address.

The one thing that you and you assistant have agreed upon is that producing the technology standards should come first. After that a process of establishing the current state of technology, followed by an analysis to find out how the district compares with the established standards is next. A phone call to a neighboring district has given you some idea about what general areas to assess and you have decided to pursue standards development and data collection in the areas of Hardware, Software, Student Access and Security, Teacher Practices, and Student Skills.

The board has approved the above areas and would like you to generate the standards, assessment tools, and management processes to carry out the technology audit. The board has asked that you select one school to field test the audit and then fashion a report for a future board meeting. It is their feeling that a building by building report would be best and the field test would give some indication of the amount of work necessary to carry out the audit on a yearly basis.

At the last meeting between the two and your assistant, it was decided that the following products would be produced:

Product Specifications:

- 1 A district document that:
 - a. defines technology and gives a rationale for its use in the district.
 - b. describes each of the following areas to be assessed:
 - Hardware
 - Software
 - Student
 - Access and Security

- Teacher Practices
 - Student Skills
- c. establishes standards, citing the source of authority, for each of the six technology area
 - d. outlines the assessment instrumentation to be used in gathering data.
2. Assessment instruments for each of the six areas to be assessed.
 3. A report to the board containing the results of a field test including:
 - a. Data collected
 - b. Data Analysis
 - c. Recommendations based upon Data Analysis

Guiding Questions (for use in guiding your thinking):

- A. How does one go about establishing standards?
- B. What is the best source for standards?
- C. Are state sources more important than national sources? Why?
- D. What is the best way to collect information about the various types of technology questions?
- E. What is the best way to communicate this type of data to the board of education? How technical can you be?
- F. How does fiscal responsibility fit into the audit process?

Resources:

Texts:

1. Educational Leadership and Planning for Technology – Anthony G. Picciano. Prentice Hall Publishing, Upper Saddle River, New Jersey. 1998/ ISBN 0-13-262122-3
2. Leadership in Instructional Technology – Matthew M. Maurer and George Steven Davidson. Prentice Hall Publishing, Upper Saddle River, New Jersey. 1998. ISBN 0-13-239849-4

Internet Resources:

1. The George Lucas Foundation – Changing information but a source of numerous articles on technology usage and expectations. <http://www.glef.org/>
2. Missouri DESE – This site contains the materials used for a program review made during the MSIP visit. It contains numerous expectations including technology. <http://www.dese.state.mo.us/divimprove/sia/msip/3rd%20cycle%20resources.htm> Other state departments may be accessed through <http://www.ccsso.org/seamenu.html>
3. Successlink – Includes a “best practices” section which addresses technology in the classroom and as well as leadership in technology. <http://www.successlink.org/>
4. International Society for Technology in Education (ISTE) National standards for students and teachers. <http://www.iste.org/>

5. **The Rural School and Community Trust –**
A non-profit that offers articles and suggestions on numerous topics including technology.
<http://www.ruraledu.org/>
6. **Pathways to School Improvement –**
Sponsored by NCREL, Pathways offers articles on critical issues concerning school improvement. Technology is a featured topic with hints on everything from lesson plans to technology plans.
<http://www.ncrel.org/sdrs/>
7. **The National Clearinghouse for Comprehensive School Reform (NCCSR) -**
NCCSR is the central gateway to good information on comprehensive school reform. NCCSR collects and disseminates information that builds the capacity of schools to raise the academic achievement of all students. <http://www.goodschools.gwu.edu>

Key Terms:

- Tutorial application
- User-friendly software
- Technology terminology (including)
 - ROM
 - RAM
 - CD-ROM
 - DVD
 - Hard drive
 - Software
 - Hardware
 - Peripheral
 - Monitor
 - Byte, Kilo..., Mega..., Giga... etc.
- Technocentric education
- Multimedia
- Knowledge Management
- Technology Integration
- Technology Literacy
- Data Communication
- Internet - WWW
- Technology Security
- Software Evaluation
- Database
- Spreadsheet
- Word Processing
- Presentation Software
- Administrative Application

- Instructional Applications

Other specific terminology as instructor desires.

Support Materials:

- None required for this exercise. Students will select a district building to conduct their audit, that building's parameters will apply to the problem.

Notes to Instructor:

- 1 The following ISLLC criteria are supported by this problem. You can enhance the students experience by assuring that either appropriate instruction in these areas has been given, or additional resource made available to support student decision-making.
 - a. *Operational procedures at the school and district level*
 - b. *Principles and issues relating to school safety and security*
 - c. *Principles and issues relating to fiscal operations of school management*
 - d. *Principles and issues relating to school facilities and use of space*
 - e. *Current technologies that support management functions*
 - f. *Knowledge of learning, teaching, and student development is used to inform management decisions*
 - g. *Operational procedures are designed and managed to maximize opportunities for successful learning.*
 - h. *Operational plans and procedures to achieve the vision and goals of the school are in place*
 - i. *Financial, human, and material resources are aligned to the goals of schools*
 - j. *Organizational systems are regularly monitored and modified as needed*
 - k. *Stakeholders are involved in decisions affecting schools*
- 2 Your best option in using this case is to assign it to a group of two persons though a larger group is possible and individual solution is not out of the question. Group size may be dictated by the number of school buildings that are available for audits. You could have students conduct an entire school district technology audit but this would add a substantial amount of time to the exercise. Lastly, you may modify the project to give more or less direction or requirements.
- 3 The students will have to decide up front which school they wish to “field test” the instruments in. It should not be an issue with most school districts to have a project like this conducted in one of their schools, but permission is advisable.
- 4 As written, the project should take 6-9 hours of classroom time over a three-week period.

Other:

You can have students present their findings to the class as they might at a board meeting. A separate list of criteria for the presentation could be used to assess the students’ communication strategies, tact, presentation skills etc. The “board members” (class mates) could give feedback to the presenters on the appropriateness of the presentation.

You could require all products to be done electronically to emphasize the technological nature of the assignment. A spreadsheet may be used for the technology inventory, for instance, or a technology questionnaire posted on a website to gather data are some further examples. The presentation to the board could be required on presentation software such as PowerPoint is another example.

Critical Needs Areas Addressed:

- #3 Ensuring all students, especially at-risk, children with special needs and gifted students are successful in school.
- #5 Providing information, which will assist public school administrators and teachers in understanding the process of [site-based] decision making.

Performance Criteria	1	2	3
Operational procedures at the school and district level	There is no overriding plan/procedure established for future audits	Future audits are addressed in general terms.	A definite process for gathering, analyzing and reporting is outlined.
Principles and issues relating to school safety and security	Internet security and child safety is not addressed.	Internet security and child safety procedures are reported but comprehensive plans are absent.	Internet security and child safety procedures are reported and comprehensive plans is recognized or recommended.
Principles and issues relating to fiscal operations of school management	No consideration to fiscal aspects of technology management is present	Fiscal aspects of technology management are reported without recommendations	Fiscal aspects of technology management with specific recommendations for supporting technology.
Principles and issues relating to school facilities and use of space	Technology is viewed only as a hardware/software issue without addressing appropriate space utilization	Facilities are considered an important part of technology and instruction.	Specific references are made in documentation concerning facilities and technology. Facilities are part of the assessment, field test and report.
Current technologies that support management functions	The students use no administrative technologies in the audit process.	Students use basic administrative tools including spreadsheets, word processing and data bases.	Students creatively use administrative tools beyond the basic spreadsheets, word processing and data bases to assess, communicate and archive data.

Knowledge of learning, teaching, and student development is used to inform management decisions	Audit is seen primarily as an administrative task unrelated to teaching and learning.	Supporting teaching and learning is mentioned but is not the centerpiece of the project.	Supporting teaching and learning is the centerpiece of the project. Nearly all aspects of the project are referenced to teaching and learning.
Operational plans and procedures to achieve the vision and goals of the school are in place	There are is no overriding plan/procedure tied to district goals/vision/mission established for future audits	Future audits are addressed in general terms but are only loosely tied to the district goals/mission/vision.	A definite process for gathering, analyzing and reporting, directly referenced to the district goals/mission/vision, is outlined.
Financial, human, and material resources are aligned to the goals of schools	There are is no tie to district goals/vision/mission in documents generated	There is a tie to district goals/mission/vision but are tie is loose or only intimated.	A definite tie to the district goals/mission/vision is established and is directly referenced in project documents.
Organizational systems are regularly monitored and modified as needed	Audit does not provide adequate information to make recommendations and there are no plans established for future audits or any mechanism to modify deficiencies found.	Audit provides adequate information for decision-making and there is some indication that there is an expectation for implementation of recommendations.	Audit provides adequate information for decision-making and a definite process for implementation of recommendations is outlined.
Stakeholders are involved in decisions affecting schools	Audit does not include all stakeholders in data collection or future decision-making.	Audit includes all stakeholders in data collection and future decision-making	A definite plan is communicated detailing who the stakeholders are and how they will be used in decision making both during the audit and in the implementation of recommendations.

Pilot Test Information

"Catching Lightning in a Bottle" Class				
Question	Very Helpful	Helpful	Somewhat helpful	Not Helpful
1	4	6	1	0
2	4	7	0	0
3	4	6	0	0
	Highly effective	Effective	Somewhat effective	Not effective
4	4	7	0	0
5	Comments: <ul style="list-style-type: none"> • I like PBLs, they really help me make a connection to the real world. • Great tool. Reinforced standards in a real way. • Forces student to consider all issues. • Criteria were well defined. • Placed standards in a framework I could understand 			
6	Comments: <ul style="list-style-type: none"> • Took a real effort to tie things together. • None • It seems very good. 			

"Catching Lightning in a Bottle" Instructor				
Question	Very Helpful	Helpful	Somewhat helpful	Not Helpful
1	1			
2	1			
3	1			

	Highly effective	Effective	Somewhat effective	Not effective
4	1			
5	Comments: <ul style="list-style-type: none"> The students really enjoyed the exercise. The standards were clearly stated and a connection was established with real practice. 			
6	Comments: <ul style="list-style-type: none"> I would like more time to have students work on this problem. It ties in nicely with several projects that are in the class and has students use multiple skills. This PBL will definitely be used in the program next year. 			

Author Notes:

Not a lot of suggestions for change in this one. I really didn't expect any as this PBL is grounded in a problem that is easily identified by most students as a central level job.