Implementing Technology In Education: Evaluation

Presented by

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Abstract:

Evaluation is an important aspect in an educational process. It has been repeatedly that careful planning is a prerequisite for the effective implementation of Technology and telecommunications in education. Lessons about planning for Technology have made their way to national guidelines and programs. For example the national education reform agendas encourage states to have incentives and direction for developing technology. (1) Involve education stakeholders in their design. (2) Be guided by education and training needs of learners (3) specify clear objectives related to national and local education goals. (4) Incorporate technology applications and practices that have been tested for their educational benefits. Technology is rapidly emerging as an important component of teaching and learning. Objectives make it possible assess the level of implementation of the plan. After careful review of instructional needs that can be met by the addition of technology. Important considerations support and involvement is critical to the successful integration of technology.

The overall recommendations for the basic approach suggested for educational technology planners, developers and implementers.

Classroom Level Technology Planning

More recently, a major study on the teacher application of telecommunications and internet resources the showed that the systematic approach to implementation was the key to success of the project. Borrowing upon the findings of the Monetary and Cupertino Model Technology Projects, the Telemation Project took the approach that teachers would only find telecommunications relevant if they had an opportunity to conceptualize and implement a classroom level project or plan for telecommunications use. This approach provides each teacher with a framework that defined the instructional strategies, curriculum objectives, student needs, and assessment strategies, for which the telecommunications resources could support. The result was that each teacher devised a classroom Telecommunications Intervention Plan has been developed, implemented and is updated and shared with other teachers on line.

Systematic planning as an approach to technology implementation Provides:

- ✓ A rationale for the technology and related resources;
- ✓ The stakeholders get involves in the decision making process;
- ✓ Assurance that technology applications are aligned with the curriculum;
- ✓ Help in determining the specific training and assistance needs;
- ✓ That the teaching addresses the needs of all learners
- ✓ Guidelines and a context for the insertion of new technologies; Basics steps for applying the planned approach to technology implementation are:

Convene a Departmental Planning Committee

Identify the planning partners to include the teachers, a district office Representative, parents, the principal, possible business partners, and a Representative from the country office, regional agency, or department of education as appropriate. The decision to develop a school-wide versus a departmental plan is function of the size and organization of the particular school. Technology use planning should be part of existing local school planning procedures. This will help to ensure that technology will become integrated into the existing educational program.

Identify student and School Program Needs

Review local needs assessment information, resource inventories, school performance and school accreditation reports, and other relevant information to determine needs for restructuring or expansion with consideration of the application of technology. If time and resources permit, a needs survey should be conducted. The plan should identify the student and staffs needs to be addressed by the plan. Needs should be documented by the school staff and be focused on discrepancies between existing and desired conditions for teaching and learning.

Identify Available Technology based and Support Resources

Review the existing uses of technology and media resources at the school and their relationship to the goals and objectives of the existing or merging school site plan. Existing and planned school and district resources to support the technology plan should be considered and described in the plan. Often plans are developed without consideration for the technology that already exists in the school or district. Also, plans sometimes budget for staff services that could be provided by the existing regional agencies or even the school district office. In addition to local resources, become familiar with the existing state, regional, and national resources, such as those provided by regional support agencies and demonstration programs. It is critical that educators are aware of the resources and possible uses of technology before they engage in intensive planning.

Integrate the School-wide Technology Planning with the Curriculum

Technology should be viewed as a tool to expand opportunities for learning beyond what can already be provided. A recent study to determine effective technology applications concludes that "any technology integration requires that teachers engage in rethinking, resifting, and reshaping their Curriculum" (Means, 1993). The planning process should provide the opportunity for educators to become aware of and discuss the possibilities for current and emerging technologies to expand and enhance teaching it should allow teachers the opportunity to collaboratively construct new vision for teaching and learning.

Objectives and Activities

The objectives should be directly linked to the documented learner and teacher needs. Studies consistently show that pains which include clearly stated activities wee more often used by staff as a guide for implementing technology. Clearly stated objectives make it possible assess the level of implementation of the plan. After careful review of the instructional needs that can be met by the addition of technology, revise the objectives for the existing school plan, or add new objectives to incorporate the intended use of technology at the school site and in the targeted classroom. The objectives for technology applications should be aligned with the district priorities and the district should support the schools objectives.

Classroom Level Technology Intervention

In addition to school or departmental objectives and activities, the STP should describe activities planned for each classroom. Research and experience shows that planning is most effective when it is extended to the classroom and describes what teachers do to implement their part of the plan. Linking planning to the classroom level ensures that teachers will have a clear vision of what they will do to implement their part.

The Classroom Planning Steps Address

✓ Student needs and related instructional priorities and needs;
✓ Technology-based applications to support the instructional activities;
✓ Individualized staff development for the teacher;
✓ Classroom-specific performance based assessment methods.

Evaluations Consistently Found that the Classroom Planning Process

✓ Increased teacher commitment;
✓ Focused resources on the educational needs of students;

✓ Helped teachers determine what technology to implement;
✓ Provided a way for teachers to communicate about the project to other educators and to parents.

Staff Development

The STP should describe the staff development and follow-up assistance necessary for successful implementation of planned activities. The STP staff development activities should largely be based on the CIP-determined staff development activities. As teachers develop their classroom level plans the school level staff development program can be designed. It must directly support the activities indicated in the classroom plans. Available staff development day made possible by school improvement programs funded by the state or federal programs and school development plans should be allocated to support the implementation of the STP. Research continues to show that staff development matched to the needs of the teacher is a critical factor for the success of any project.

Prepare and Evaluation Plan

It should provide a general description of the process for evaluating the Project. The process should include procedures for monitoring, implementing, collecting information of student outcomes, and assessing the effects on teaching and instructional practices. Make every effort to incorporate evaluation methods that are consistent with the assessment program already utilized in the school, department and district should be incorporated.

Important Considerations to Take When Implementing Technology

Teachers must have a reason to use the technology: It is important to promote teacher development of projects or plans were teachers can apply technology to meet particular instructional and student needs in identified within such projects or plans.

Don't accept materials or hardware that does not fit with the curriculum and technology plans: Haphazard acquisitions or computers here and there will not bring the school up to date technologically. Technology involves interfacing with other classrooms, libraries and networks.

Training teachers is critical and ongoing: Set aside time and money for formal training classes as well as opportunities for teachers to discuss discoveries or problems with their colleagues. Training should account for at least one third of the budget allocated for the educational technology program or initiative.

Technology planning is never-ending: A technology plan cannot be developed and the technology committee then disbanded. As the project is implemented, as technology changes, as the school grows, the plan must change.

Administrative support and involvement is critical to the successful integration of technology: Studies constantly show that the commitment and interest of the principal is the most critical factor for successful implementation of any school innovation especially technology.

Summary and Recommendations

The recommended implementation approach for integrating or inserting technology must focus on comprehensive planning that involves all of the stakeholders. Critical factors include establishing a vision of the plan, utilizing existing and emerging resources, basing technology decisions on curriculum and instructional needs, focusing on student needs, and providing for local stag development and follow up assistance. The approach for implementing technology emphasizes a series of operational steps for integrating technology in the existing instructional program which include: (1) establishing a stakeholder planning committed, (2) coordinating with existing plans, (3) Identification of student and program needs, (4) identification of available resources to support the plan, (5) curriculum integration, (6) establishing goals and objectives, (7) developing related classroom based plans, (8) staff development, (9) evaluation, (10) budge and finding strategies, and (11) Implementation strategies.

The overall recommendations for the basic approach suggested for educational technology planners, developers, and implementers are.

✓ Involve educators in the development of individualized instructional applications of technology as part of the overall school level planning process.
✓ Ensure that local insertion of technology is driven by the curricular and Instructional needs of the school site.

- ✓ Coordinate all technology insertion with the existing national, state, School district and school level educational reform priorities.
- ✓ Ensure that evaluations of the approaches used in technology Implementation are evaluated and that evaluation be used to inform Improvement in the program.

Reference

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