Chapter 8
Assessment, Evaluation, and Revision of a Technology Plan

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ABSTRACT

To assess, evaluate, and revise a technology plan, the first task is to collect data that is an integral component of a technology plan. How the data is collected, the types of data needed, and who should be consulted during the data collection process are all very important questions that must be addressed when creating a technology plan. The interpretation of valid and reliable data is the basis for the successful integration of technology into the educational institution. This chapter provides information concerning methodologies to be used during the data collection process for technology planning. Additionally, the chapter addresses both formative and summative assessments, as well as the kinds of evaluations associated with technology plans. The chapter includes tables and exemplars of technology milestones and survey tools, which are important factors in the development of a technology plan.

INTRODUCTION

“Too often we forget that genius, too, depends upon the data within its reach, that even Archimedes could not have devised Edison’s inventions.” --- Ernest Dimnet (n.d., para. 20).

In a world of emerging technologies and revolutionary change, injustice and inequality are often indicators of a society who may have lost its way. Only those who are prepared to adapt and change as circumstances dictate will lead the world into the future. Technology can be the door and education is the key. A society that does not know what the door is or how to use the key will not move forward. Both the key and the door must be understood, as must the society that will use them. Various methods of understanding have been used throughout time and often involve the gathering and interpretation of data.

This chapter conveys the importance of gathering good data to assess, evaluate, and revise a technology plan, in regard to validity and reli-
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ability, and how to use the data for improving the implementation of a technology plan at a school or within a district. Methodologies of data collection will be discussed, as the tools used in the implementation of a technology plan in education, with reasoning behind each method explained. Appendices are included to help clarify understanding of the various tools used in the implementation process, and although comprehensive should not be considered final. The appendices are meant only to be a tool; beginning the process of thought in respect to the creation of other tools for specific applications.

ASSESSMENT AND EVALUATION

Perhaps two of the most important parts of a successful technology plan are the assessment and evaluation of the plan’s implementation. This is a process that continues throughout a plan’s entire implementation process and culminates in an overall assessment of the successes and failures of the implemented plan. Once the technology plan has been assessed and evaluated, the plan should then be subsequently revised and re-implemented as circumstances dictate, thus restarting the process once again.

An assessment of a technology plan can, and often does, take on several faces depending upon circumstance and budgetary concerns; however, both analysis and evaluation should be data driven enterprises, involving quantitative and qualitative forms of data collection. The implementation of a data instrument requires time, patience, and various methodologies for gathering, and then evaluating the collected data. The end result should be a reflection of the marriage that exists between the technology and the curriculum. The creation of an instrument, or instruments, therefore is an extremely important venture and should not be taken lightly. The plan’s success and/or failure may well be determined by the data collected. The data should not only be valid and reliable, but it should also provide a thorough understanding of the plan’s implementation, including all successes and failures. This will make the revision of the plan easier, yet sometimes a somewhat distasteful task.

IMPORTANCE OF DATA

Today’s world is more than a school, or schools, resolved to promote education through the teaching of the three R’s. The schools of today are driven by data that changes the way curriculum is understood, modifies the strategies of teaching, and helps develop new methodologies for the delivery of instruction, much of which now involves technology. Data includes, but is not limited to, information from standardized exams, state issued tests, assessments by educators, and other means. In a sense, data can be said to be more than just the driving force behind a curriculum and instructional change, and can be considered to be part of the very essence of education itself.

The collection, assimilation, and subsequent dissemination of data may seem to be simple concepts. Yet, these concepts have been misused and misinterpreted by many throughout the ages, usually in defense of some arbitrary event, or motivated by aspects even more cynical such as power, control of public opinion and support, and the flow of money and resources. Data, itself, is not the problem. The instrument(s) and the reasons behind their creation may be.

The point being, that when one searches for data and develops a collection instrument, the reason for building the collection instrument should be clearly defined and understood by all, or the data may be considered invalid and unreliable. In the case of education, this means all stakeholders, subsequent committee members, participants in surveys, interviewers, and anyone else who is involved in the collection, evaluation, and dissemination of the data must be included. In the area of education, an invalid or unreliable instrument may cause any number of problems including