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Designing and Implementing Successful Staff Development

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Designing and Implementing Successful Staff Development

Abstract

What staff development factors are vital to ensure successful staff training for the integration of technology into the curriculum? What variability factors must be taken into account when planning and implementing staff development?

In theory, staff development should not take very long, and educators should be able to ascertain the meaning and directions that are given related to technology quite easily. However, the staff development that is thought out and executed well is the staff development opportunity that is effective. Effective staff development requires five factors: time, access, collaboration, training and implementation. Without these factors being considered, success will be unobtainable.

DESIGNING AND IMPLEMENTING SUCCESSFUL STAFF DEVELOPMENT

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CHAPTER ONE

Introduction

Throughout history, the educational environment of the classroom has been asked to change with each new technology that is developed. Teachers are given technology and expected to use it proficiently within the classroom. Each promoter of said technology believes that this body of knowledge will revolutionize the classroom and the way students are taught. Unfortunately, the developers have forgotten the most important factor in this technology, that is, giving instruction to the teachers in how to use it skillfully and effectively within the classroom setting. Technology in the classroom is a key phrase that has been used for a number of years. The importance of integrating technology into each class seems to have fallen by the wayside. Too many administrators and staff members do not pursue the integration of technology, but look at this process as something that will naturally occur on its own. Unfortunately this rarely happens.

Teachers are too unfamiliar with technology to be confident with immersing technology into their daily lessons. Districts and staff alike are spending far too little on staff development to improve and increase staff confidence levels in the technology field. Teachers and administrators are just beginning to recognize the importance of staff development. Unfortunately, this change in priority is slow in coming and not always well received. Communities, teachers, and administrators all need to change the perception of what technology

is, how technology can be used in the classroom, and how to train teachers to feel comfortable and confident in the use of technology.

Technology has changed rapidly in the last years. Advances continue to be made but teachers, because of lack of funding or motivation, are some of the last to be updated on these changes. Teachers today must become technologically literate. For many, this is a natural and easy transition, but for others this change comes only with reluctance to move from traditional teaching methods to methods that incorporate technology into the design.

Variability factors become an important issue in planning and implementing staff development into the schools. Teachers have a vast diversity of experience levels when considering technology. In today's educational society, the difference in experience levels that school districts have is immense. There are teachers who are ready to retire, unwilling to learn anything new so late in a career. Other educators are new to the profession, some directly out of college where a minimum technology proficiency requirement has begun to take precedence before graduation in the education field. Then there are the educators who have been teaching for several years and are somewhat willing to learn new information and attempt to implement new technology if the proper training is available. While others have completely immersed themselves and the classroom into technology.

When planning staff development, the variability factors can be a detriment as well as a benefit. Not only does experience play a vital role in planning staff development, but also accessibility to software that is being introduced to educators. If some who attend the staff development program are familiar with the product or process that is being presented, the training, oftentimes, becomes unnecessary or redundant. Educators with experience then become wary of other staff development opportunities.

There are other factors to be considered in staff development and training regarding technology. Time becomes an issue. This factor is at the heart of most teachers' fears. Teachers do not have time to design and implement additional curricular lessons on technology. Teachers never seem to have enough time to complete what is intended within the classroom. With the many curricular changes that are made and the new programs that schools are encouraged to use and to try time becomes a precious commodity. Some districts have instituted time studies and in many cases the one thing that is found again and again is the lack of planning time. It also takes a vast amount of work to redesign lessons to integrate technology into the classroom.

Yet another factor would be the issue of administrative and or district support. Without an administrator that is on the positive side of technological inclusion, teachers will not be motivated to do so themselves. The administrator

must be the flint that sparks the teachers to take risks and take chances that they may not have otherwise.

In many schools, technology has previously been considered a luxury rather than a necessity. A vast number of educators use computer time as a reward and do not educate students on usage as much as entertainment. This perception needs to change. As technology continues to progress, so must the way in which educators instruct, and how instructors are educated. With the focus for the nation on computers, and the President promising that all students will have access to computers, teachers must become technologically literate. For many this comes only with reluctance to move from traditional teaching methods.

Research Question

What staff development factors are vital to ensure successful staff training for the integration of technology into the curriculum? What variability factors must be taken into account when planning and implementing staff development?

Terms

For the purpose of this paper the following definitions are used:

Effective: Having a desired impression upon staff members.

Inservice: A time where staff meets, discusses, and learns new aspects of curriculum or district policy.

Integration: Using technology to assist in teaching in all subject areas.

Proficiently: Performing in a given skill of learning with expert correctness and facility. One is very adept at using technology.

Staff Development: Instructing of teachers and personnel in knowledge of a specific area.

Technology: This is any form of electronic media including, but not limited to, computers, scanners, copiers, fax, digital cameras, multi-media software, overheads, projectors, and instructional software.

CHAPTER TWO

Literature Review

For many years, various technologies have been introduced into schools. Many of these technologies were introduced with the enthusiasm that this would be the way to transform education. Some of these technologies would be motion pictures, radio, and television. Unfortunately these technologies had fallen short in the expected outcome and instead became used far less than thought. In 1993, Stanford University historian Larry Cuban suggested that computers would also fall and become less than expected in the classroom (Conte, 1998). Cuban believed that the traditional structure of schools would stay the same.

Access to computers and the use of multimedia in educational settings is on the rise. However, the capacity of educators to use this technology has not. A 1994 survey by the U.S. Department of Education shows that only 15 percent of the nation's teachers have had at least nine hours of training in educational technology (Harrington-Leuker, 1996). The 1995 report from Congress's now disbanded Office of Technological Assessment (OTA) revealed that United States schools spend an average of 55 percent of their technology budgets on hardware and 30 percent on software, compared with 15 percent on staff development and training - half of what technology experts recommend they spend. OTA suggests that "helping teachers use technology effectively may be the most important step to assuring that current and future investments in technology are realized." (Dept.

of Education, 1998, p.2) The President's Committee of Advisors on Science and Technology has stressed that the great investment in hardware, software and wiring will be of no use if K-12 educators are not given the support that is needed to efficiently blend information technology into their teaching. According to the National Center for Education Statistics, only 15-20 percent of teachers are using advanced telecommunications for curriculum development, professional development, and teaching on a routine basis (Dept. of Education, 1998). Within the walls of many schools computers sit idly by while other instruction is going on. If and when computers are used, the computer becomes a rote drill and practice machine that provides feedback to both the teacher and student.

Many who believed in the evolution of education by using computers are beginning to see the faults and the reality of the situation. "In most places, technical problems, inadequate training, and insufficient time for teachers to figure out ways to integrate technology with the curriculum have combined to thwart the dreams of reformers" (Conte, 1998, p.30). Businesses expect much from schools, but rarely do businesses see the larger picture of what is needed to make a technology program successful. Without taking into account the day to day processes that occur in today's schools, businesses do not realize how often that computers are the last thing on the agenda.

Teaching has definitely changed from the past; it is therefore understandable why many teachers are dragging their feet when it comes to

technology. With the overload that teachers are experiencing from too much curriculum, and perhaps not enough time or support to teach, introducing one more thing into the classroom for teachers to instruct about can seem overwhelming. Feelings of inadequacy and isolation often plague teachers as they look at today's society and know what is expected of the students that are being taught.

No computer advocates that I have read or heard, for example, have suggested that schools should hire more teachers and adults to reduce the teaching load. No computer advocate urges increasing school district budgets by half to modify the existing school and classroom arrangements concerning class size, governance, training, and teacher collaboration. Their sole recommendation is to put money into classroom computers. (Cuban, 1986, p. 62).

Teaching expectations have changed, teachers are no longer able to simply teach from a book, instead, educators are counted upon to be the originators of units, to meet the needs of all students through adhoc grouping, and to employ many new resources that are available to the classroom (Hickox, 1997). Teachers have been given the enormous job of preparing students for the "real world" without the training necessary to teach. "One of the mistakes that we made in implementing educational technology was focusing first on students rather than teachers. When

the computers on students' desks are mysterious devices to teachers, it's unreasonable to expect effective integration into the curriculum" (O'Neil, 1995, p. 8). When the commitment of time, equipment, funding or expertise is not available, it becomes difficult to attain the ongoing technology staff development program reformers are calling for (Harington-Lueker, 1996).

There are definite factors that contribute to staff development and instruction. These factors are the starting place for most schools in order to make the most of their allotted time and money in training staff. One of the foremost factors of technology is to ensure that we give thought and discernment into the use of technology and how technology is used. As schools and businesses continue to attempt to work together the bottom line becomes what is best for the students; will this technology help to serve the students in a better way. That is what educators need to consider as they prepare to bring technology into the classroom. When educators become convinced that technology is an important component of the classroom then, and only then, will teachers become interested in it. (Burgos, 1998).

Professional development is key to effective technology integration and to increased student learning. Teachers need access to technology and ongoing support while they learn. They need adequate time to acquire new skills to integrate activities. And teachers learn best with, and from, their colleagues. If there is a single overarching lesson that can be culled from

research about teacher's professional development and technology, it is that it takes more time and effort than many anticipate. For example, the Office of Technology Assessment estimate that it can take up to five years too effectively infuse technology into schools. All teachers need to be trained and supported over that period. (Department of Education, 1998, p. 2).

For teachers to change the way that is being utilized to teach, changes in thinking and how to adapt technology into the curriculum will need to be looked at thoroughly. Also, teachers will need to see the progress that has already been made in each classroom. The integration of technological tools, besides the computer, will need to be encouraged and built upon. "Adult learners differ from children in one profound way: They bring a much more highly developed set of beliefs about what is, and what is not appropriate in a given situation" (Tally, 1995, p.14).

Five factors that continually come up when looking at models of staff development are: Access, Training, Collaboration, Implementation, and Time. Within each of these five factors are factors of variability that need to be considered when planning staff development. These variability factors can become either a benefit or hindrance to staff development opportunities. These factors alone can only assist change, but not bring about change. To explore each

of these steps will be to examine the staff development model in which teachers integrate technology into their classrooms.

Access to computer technology is essential for teachers to become proficient users. When teachers are given information or training on software without having the technology available within each building, it is impossible to become familiar enough with this technology to use it in a classroom setting. Continual access to technology is a prerequisite to effective technology integration (Siegel, 1995).

Today's schools are at a variety of stages in the acquisition of hardware and software. Many states have received grants that enable them to wire the school to a Local Area Network, LAN, but allow no additional funds for software or training. Teachers today are more than willing to find out more information about technology and integrating it into the classroom. Unfortunately, educators often times are trained on top of the line computers or multimedia software that is not available at school. Thus the training is not effective because of the lack of access. Access then becomes a variability factor in which teachers have no control. This variability can be completely different from district to district, classroom to classroom and even teacher to teacher. If teachers are to grow in the area of technology, administrators must become the vehicles in which additional supplies are made available to staff members. One of the top complaints of educators across the country is that ready access to new resources and those

already in the school are not available. Meltzer and Sherman (1997) suggest that insufficient access is a primary reason why technology fails. "Three access issues appear essential: amount and placement of technology, capacity, and maintenance" (p. 30). If a computer is not used at all it has no value to anyone especially the student. If computers are not used according to their availability, then the practicality of having them is sorely abused. Computers must also be well maintained. A district that has too many computers experiencing problems and no one to help correct these problems, needs to rethink the priorities it has. Teachers will become frustrated at trying to use equipment that is continually breaking down, after much planning and work, while trying to keep students interested and engaged in learning.

Another concept in providing teacher's access to computers is allowing teachers to have computers on their desks. These computers should be loaded with things that the teacher would need in preparing for class. Still another option would be to have computers given as incentives. Perhaps a laptop computer that teachers could earn or a set of laptops that could be checked out by teachers to take home to preview or experiment with what has been learned in training.

Access is important, for without it, teachers will no longer be interested in what is to be taught, but will instead find ways to use the computer as a privilege or reward for students. Therefore the true benefits of computers will not be seen or felt by any of the staff or students at the school.

Training is vital to the adoption of computer technology in a teacher's classroom. Training must move past introducing hardware and software and begin fitting the hardware and software into the curriculum. Teachers have been taught that the needs of the individual learner must be met; so too must training meet the needs of the individual teacher and be designed to make adjustments as necessary. In any given staff development inservice the amount of technology experience and exposure can vary greatly. However, if a facilitator understands the audience and can adjust the training to meet those needs the inservice or training will be successful. The variability factor shows that the amount of training that is given in any one-subject area changes from site to site. The interest level is also an important variable when considering training. Without interest in a particular subject the amount of people who are reached will be far less, than in a subject that all believe to be important. Hope (1996) states that without adequate learning, teachers are less likely to gain skills to use computer technology as a tool to become more productive or to blend technology into teaching methods. At the present time staff development is a pullout approach.

Teachers are being sent to seminars and workshops to become enthused about teaching, using technology to stimulate the learner. Unfortunately, despite the bells and whistles of many presenters, teachers still oftentimes do not see the relevance of the instruction to the classroom. If teachers see the relevance of training to the classroom, the training received is more likely to be implemented

with students. Although 94 percent of all elementary school teachers believe PCs are wonderful tools for classroom learning, only 55 percent of the 1,000 kindergarten through sixth grade teachers surveyed said they had received enough training to feel comfortable with the technology (Furger, 1996).

Allowing the staff from a school to make decisions on what needs to be done in the training module allows educators to feel ownership about development. Training should be enjoyable by all that attend.

Collaboration is yet another key factor of professional development. Collaboration is possibly the most overlooked avenue and yet is also the most successful of all staff development models. In many cities peer or mentor training has enriched and enhanced the use of technology in classrooms. "Teachers must be encouraged to think of and try new ways to use technology, personally and in the classroom, and they must have opportunities to talk with each other about the results" (Bradshaw, 1997, p.86).

Collaborative work between teachers is a non-threatening way to create a learning environment. When teachers share their excitement and expertise with other peers, it carries over and learning becomes evident. In the past, staff development has been formatted to simply create inspiration and enthusiasm with a demonstration of hardware or software. This simply no longer works. Small groups with hands-on training, is the best way to encourage teachers to work and learn in a collaborative atmosphere. "The purpose is to

develop an interdisciplinary unit and teaming. Technology is a tool, not the focus" (Siegel, 1995, p.45).

"Teachers must have ongoing support to implement the concepts and skills presented in the initial workshop" (Bradshaw, 1997, p.89). Perhaps, as in some states, a technology trainer would be available to sit one-on-one with a teacher and help to implement and integrate this plan.

From learning independently to learning together, practicing teachers become responsible for the learning that occurs within the classroom, as well as, the wisdom and experience that serves as a resource for professionals. Smylie and Conyers (1991) note that this conception has important implications as to how schools operate. This allows teachers to feel less isolated and alone in the classroom, a common feeling of isolation that many teachers face every day.

"From centralization to decentralization, in which the role of a school system's central administration shifts from identifying and organizing staff development activities to supporting and facilitating those that school-based staff have determined are important and necessary" (Dilworth and Imig, 1995, p.2). Professional development does not need to be off-site training. Allowing teachers to collaborate and mentor other teachers, while permitting educators to see new and innovative ideas encourages each to grow and mature as teachers. Districts across the country need to seek innovative ways to approach staff development. Ann Lieberman (cited in Harrington-Lueker, 1996) feels that there

are two main points to have good staff development. Those two points are to "make sure that the staff development is rooted in a teacher's everyday practice and that the staff development puts teachers in contact with other professionals" (p. 35). Successful implementation of technology is not about the equipment that is used, but the empowerment of people.

Collaboration must also take into account some variability factors such as having enough experienced people on a staff. If a staff has only one or two enthusiastic technological users, the mentoring idea would not be beneficial. Then one must also consider who mentors the mentors. There needs to be someone more knowledgeable than the mentor to assist in staff development within a building.

The ease of implementation must be evident to teachers who are going to use any type of computer technology. When teachers understand clearly what they are to accomplish with the technology, they will embrace it (Hope, 1996). Teachers need to be able to move past the "how does this work", stage of technology quickly, in order to remain interested and involved.

Businesses believe that on average there should be one computer technician for every 60-computer users. Within a school setting this would be one for every two classrooms. Unfortunately this is not a realistic view. Therefore, teachers need to be able to assess the technology and have the

knowledge that is required to be able to effectively integrate this technology into the curriculum.

Collaboration is a key in the implementation process of staff development. Once the training has occurred, implementation of the new knowledge is essential. This can be done with peer mentors, small groups, or in special cases on an individual basis. The implementation factor of this model could be expressed as follow up. Each inservice should be followed with individual tutoring and follow up. Teachers that participate in a dialog about issues in technology are much more likely to continue to use that technology in the classroom. Follow up will also allow the teachers to become better problem solvers and to build self-confidence in the field of technology.

Change is often difficult in any area that experiences it. Once an initial awareness has manifested and teachers have a general working knowledge of computers the level of concern begins to decrease. The Concerns-Based Adoption Model targets seven areas or anxiety that educators may encounter as change begins in the classroom. The first five stages are: "informational, personal, management, consequence, and collaboration." (Hord, Ruthorford, Huling-Austin and Hall, 1987, p.47) The focal point of the educator's fear slowly shifts from oneself to the logistics of beginning to use technology and ultimately to the impact technology has within the classroom setting as well as the expansive instructional environment. The final stage is acquired when teachers

begin to use new technology comfortably within the classroom adapting what is available to meet the needs of individuals within the classroom and beyond (Hord et. al,1987).

When educators begin to focus on what students should accomplish and assist the students in attaining that goal, the motivation level increases significantly as results are seen. The implementation factor must also use technology as an asset or resource to make the teaching job easier instead of feeling that technology is a large burden to be carried and shared with everyone. The relationship between knowledge of how the system works and being able to implement it with students becomes two vast and different aspects of teaching with technology or in spite of it.

Time is the component that is in highest demand for educators. Teachers are constantly bombarded with requests for their time with meetings, planning, and staff development. Teachers are basically too busy to learn about technology during normal school hours (VanHorn, 1995). However, if teachers are not given the time to explore and discover the intricacies and possibilities of computer technology, then it will be of no use to them and teachers will have computers in their room simply collecting dust (Hope, 1996). Staff development needs to be tailored to the needs of the teacher. In today's society, teachers are expected to be proficient in every area including social work, health needs, community relations, and teaching. Staff development needs to be a time where teachers can

move away from the pressure of teaching. This offsite training should also take into account that teachers have an enormous amount of planning to do in preparation for a substitute to come in and take over for a day or two days. No other professional must prepare as much as teachers for someone unknown to come into the office and do a proficient job with the clients and material that is provided. "Only in education are professionals expected to attend to their development on their own time, without remuneration" (Lovely, 1996, p.56).

Ideally, teachers should have mentors that come in and provide staff development within the teacher's classroom. This staff development may take the time of one preparatory period a week, but the benefits would be enormous. Imagine being able to have a concept, and to have someone more knowledgeable help to implement this idea into the curriculum, even help to teach this concept to the classroom. Teachers would be much more willing to allow time for staff development if the ideas presented were workable and useable within the classroom. The Department of Education (1998) states that the one lesson that can be learned about staff development is that it requires "more time and effort than many anticipate" (p.2).

Time is one of the biggest variables in staff development. Each school and individual teacher approaches time in a significantly different way. Some have paid time to learn, while others must do the learning on a voluntary basis. Still,

for others technological staff development is pushed to the back burner in the school, and no staff development occurs.

Some of the suggestions for managing time or making time within the school are off-the-clock time. This is where teachers give their time willingly when each is not required to be in the classroom. Before this method is used one must consider the excitement of staff and compensation that is provided.

Yet another method is release time. This method provides time for the educator to step away from the classroom and take time during the school day to learn more about technology. The difficulty with this idea is cost. Providing substitutes for a classroom teacher can become expensive. Some administrators have taken the teacher's classroom for an hour or two in order to free the teacher from classroom duties once a month.

Some of the other innovations that schools have used to give teachers more time and training are on-the-job training, found time, stealth time, and private practice. On-the-job training is simply providing a mentor or a guide that is available within the school. Found time is lengthening the school day by 15 minutes each day for four days during each week and taking an hour on the fifth day for staff development. Stealth time is when staff development for other areas incorporates technology into the staff development inservice time. Another idea would be to put a computer with software into the lounge or break area so that

teachers can "play" during their off time. Private practice is simply providing computers for teachers to use at home at a convenient time (Lovely, 1996).

Being creative in promoting staff development is the key. By making staff development interesting and fun the inservice will be beneficial to everyone, especially the students.

CHAPTER THREE

Summary

Are there ways to improve staff development? Staff development is a process. After years of hype and concern there is evidence that things are changing. As of December 1996, approximately 15 states have embraced a computer technology initiative which has some form of professional or staff development (Hickox, 1997). The interest from teachers is there; districts simply need to find a way to implement this development to meet the needs of teachers.

Indications of professional growth are also evident from the way teachers use technology. In 1990, the Department of Education stated that there was only a small number of teaching related listservs on the Internet. Now there are literally hundreds (Hickox, 1997).

The five components: implementation, access, collaboration, training, and time of effective staff development must be considered and planned for within districts. Districts must ensure that educators are given ample opportunity to seek staff development in the technological field. Without allowing teachers to benefit from the experience of peers and become motivated to use technology in the classroom, it will fall along the wayside of education.

Teachers must be given assistance to implement the information that has been taught. This assistance must be from a source outside of the school without

any other responsibilities. By providing this type of assistance, the educator is free to experiment and implement software more freely within the classroom.

Teachers must have access to software and hardware at an inexpensive price in order for staff development to be a success. The software and hardware that is inserviced must also be provided to the educators for use in the classroom. Attending staff development where the necessary materials are unavailable to educators does not allow the educator to implement anything that is learned. Access is essential to the effective promotion of quality staff development.

Teachers must be given opportunities to work with other educators in planning and implementing technology into the classroom. The advantages of teachers working together far surpass the cost to schools. Further, the ability to work with other teachers builds self-confidence and provides support to educators who have too long been isolated in their profession.

Training must be provided to teachers in a way in which benefits are likely to be seen. Without meeting the needs of the individual educator, the likelihood of the teacher coming for additional training is minimal. The final factor of course is time. Time must be provided to educators to plan, prepare, train and collaborate technological plans for each classroom. Time is the factor that is not negotiable in this five-step process to successful staff development. Without the time to prepare and plan teachers will not utilize what has been learned in staff development. Without time to collaborate, technology drops in the order of priorities to be

taught. Without time to attend training educators will fall farther and farther behind the professional world of business and in so doing be less able to equip students for the future. "Until we provide temporal and financial resources for educators to become lifelong learners themselves, we will be stuck in the world of quill pens and slate blackboards (Mageau, 1993, p.17).

Many objectives must be reached when considering staff development. First and foremost staff development must improve student learning. Staff development must meet the needs of all students within their learning styles that may differ greatly. Staff development must also take into account the diverse background of students. Ample time must be given for questioning, reflecting, and mentoring every day for educators. Staff development must be focused on the intellectual development of teachers and the leadership each teacher can become part of when training is done satisfactorily. Staff development needs to be designed and directed by teachers, and involve shared decision-making. Staff development must also balance individual priorities with school and district needs while making the best use of new technologies (Renyi, 1998, p.72).

If districts are to make staff development successful, the focus needs to move from the requisition of hardware and software to the learner and the learner's needs. If and when staff development becomes meaningful to the educator, this is when true learning takes place. Teachers like students must be met at the appropriate level and taught in the appropriate learning style that is

appropriate for each. In theory, staff development should not take very long, and educators should be able to ascertain the meaning and directions that are given related to technology quite easily. However, the staff development that is thought out and executed well is the staff development opportunity that is effective.

Effective staff development does not come easily and does require the five factors, time, access, collaboration, training and implementation, without these factors being considered, success will be unobtainable.

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