

Learning organizations find ways to insure training and staff development efforts to satisfy both individual needs and organizational goals. This article shows that schools seeking to integrate technology into the mainstream program can develop methods to accomplish just-in-time technology learning.

# Just in Time Learning in a Learning Organization

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It was 3:30 p.m. on a Wednesday afternoon. He entered the second grade classroom and asked the teacher, "Have you been surfing the 'net'?" She replied that she wasn't sure how to do it. "If you have a few minutes I can show you," he continued.

He asked her to take control of the mouse. "Double click on your hard drive", he told her. She did. "Look for a folder called 'Internet Programs' and double click on it", he added. She found the folder and double clicked on it. "Now double click on Netscape", he offered. "Find net search and single click on it. Find Webcrawler and single click on it. Click on the dialogue box and type in 'Edlinks'." The Edlinks homepage arrived on her computer screen. "Now scroll through and notice all the interesting links that are available." "When you get to 'Askeric', single click and then single click on lesson plans." "What subject areas and grade levels would you like to find for your immediate use?" "Let's look at a few." "Let's make a bookmark so that we can return here easily next time," he offered. "Just click on the Bookmark pull-down menu and drag to make a bookmark and we can skip many of these steps and go right to it next time."

The teacher quickly reviewed several useful lesson plans. "Wow, I've got to show this to the teacher across the hall. When are we going to receive inservice on this?", she asked. He replied, "You just did." Now that you know how to do it, you can teach your colleague across the hall," he continued.

This entire exchange lasted a total of ten minutes. He, it turns out, is the superintendent of schools. Staff development is for everyone in a learning organization. This "each one teach one" strategy may seem labor-intensive on the surface, but by the end of the week, all of the teachers in the building had been through a one-on-one lesson and were actively surfing the Net.

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## A Learning Organization

In 1990, Peter Senge wrote *The Fifth Discipline: The Art and Practice of the Learning Organization* and introduced the world to the concept of the learning organization. Senge wrote of learning organizations, ". . . (They) are the organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together."

In a learning organization such as this, the usual staff development techniques are not very helpful. Requiring twenty teachers to meet with the technology facilitator in the computer lab hasn't been very successful. Adult learning theory tells us that adults learn best when they perceive they have a need to learn. Twenty teachers required to attend an inservice in which the most knowledgeable third of the teachers will be bored, the least knowledgeable third of the teachers will be confused, and the middle third of the teachers might find the information helpful but not timely has been efficient, but not very effective.

In 1993, Dennis Sparks offered his analysis of powerful staff development. In his view, in order to be most powerful, staff development should be results-driven, systemic and constructivist. It should be results-driven in that the learner will know . . . after the staff development process is completed. It should be systemic in relation to the teacher's function within the learning organization. It should be constructivist in that the learner is able to take previous experience, coupled with new information and create meaningful changes in behavior, thought or perception.

A learning organization will need to look at staff development in these new and different ways. Each-one, teach-one is one highly effective staff development strategy that can help the most reluctant learner grasp the importance of additional learning. The effectiveness of this technique is due largely to its highly personal nature. When teaching and learning can occur "eye ball to eye ball" and "knee to knee", the teacher and learner can customize lessons. Other techniques which have proven to be very powerful involve teachers with expertise in technology providing mini-lessons for interested teachers, dream school visioning, and building custodians who have been trained to serve as technology trouble shooters.

In *The Adult Learner: A Neglected Species* (1990), Malcolm Knowles stated five issues must be considered when working with learners of any age. These issues are: "(1) letting learners know why something is important to learn, (2) showing learners how to direct themselves through information, and (3) relating the topic to the learners' experiences. In addition (4) "people will not learn until ready and motivated to learn. Often this (5) requires helping them overcome inhibitions, behaviors, and beliefs about learning."

## An Encyclopedia of Experts

A learning organization assumes that everyone is interested in learning. Teaching and learning occur constantly and hierarchical levels are blurred as everyone learns together. The development of an encyclopedia of experts is one way for teachers and other members of the learning organization to locate sources for specific learning. Members who feel that they are proficient in a particular software program or application contact the technology facilitator who compiles a catalogue of personnel with indicated areas of expertise. This encyclopedia of experts is distributed to all members of the learning organization. When someone needs to learn a particular software application, they consult the catalogue and contact the expert. They arrange to meet and the staff development is conducted just in time with just the right software and a very personal approach.

### Dream School Visioning

Dream school visioning is a technique learning organizations can use to move the existing organization to explore new patterns and operations. Stakeholders (teachers, administrators, board members, parents, patrons, and students) examine the culture of the school as they know it and determine what is working and what might be changed. Typical areas which receive consideration are curriculum, instruction and structure.

Reading required best-practices literature prior to this experience is essential to the improvement process. If the stakeholders enter into this exercise without the literature search intervention, the dream school will likely look much like the existing schools. For example, Ted Sizer's *Horace's School* provides readers with a story about high school teachers wrestling with changing school as they know it. Their examination of best practices in the areas of curriculum, instruction and school structure offered stakeholders insight into the different methods of operation as well as an understanding of the change process within schools. The expression, "If you always do what you've always done, you'll always get what you always got," fits nicely here. The best-practices literature intervention primes the dream school visioning pump.

As dreams emerge from the stakeholders they can usually be grouped into one of three categories: curriculum, instruction, and structure. The stakeholders serve as a committee of the whole to consider how the three categories interrelate. Next the stakeholders are asked to self select one of three areas (curriculum, instruction, and structure) to serve on a team for one area. The members of each team develop action plans of how to move the organization from the culture of the school as it exists to the culture of the school as it is envisioned. The plans take into account obstacles and include plans to overcome the obstacles. Periodically the three teams meet to consider how the action plans impact the system as a whole. Action plans are initiated with a prearranged system of review for assessment and/or correction.

Dream school visioning offers staff development that is constructivist as the stakeholders consider how to take previous knowledge and new knowledge and fashion a future school that did not exist. It is systemic too in its consideration of the interrelationships among curriculum, instruction and structure. Finally, it is results driven. The entire process is designed to develop an action plan which can be implemented.

### Custodian as Technology System Operator

One rarely considered school technology resource is the building level custodian. Many schools have invested huge sums of money for computer key operators and trouble shooters under the assumption that the only personnel with the expertise to trouble shoot computers and networks is a highly compensated administrator. Some schools have trained teachers for these functions only to discover that most of the time the teacher is committed to classroom teaching. Teacher schedules rarely allow the kind of flexibility necessary to handle untimely network malfunctions.

Conversely, most building level custodians possess mechanical aptitude, have a flexible schedule, and respond well to the additional challenge of learning how to trouble shoot computers and networks. Some have been given the most powerful computers in the district, equipped with CD ROM and Internet access, coupled with Apple Maintenance Software for situations which require research. In a learning organization everyone learns all of the time.

Staff development in a learning organization considers the learning of all stakeholders. It uses what is known about powerful learning theory and the best practices of being results-driven, systemic, and constructivist. It is geared to the individual and is timed so as to be coupled with a motivation to learn. Everyone is considered and continuous improvement is expected. Each one teach one, an encyclopedia of experts, dream school visioning, and custodians as technology system operators are just a few of the staff development functions available in a learning organization.

### References

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