

The Role of the Instructional Technologist

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As an instructional technologist, teacher, coach and counselor, my work has given me an appreciation of how resources and different perspectives can be combined to make for powerful teaching and learning. My efforts focus on working collectively with colleagues to meet the needs of the learner. This team approach to develop student-centered learning opportunities empowers students to have more control over their learning and to give them more avenues to follow in their studies. My experience and multiple roles in schools guides me in my role of instructional technologist as I collaborate with teachers in designing instruction while integrating the use of technology to support information & communication literacy into their lesson plans.

Technology offers exciting potential to individually meet student learning and teacher instructional needs. As an instructional technologist and classroom teacher, I work with teachers to design instruction and assessments using our collective knowledge of individual learning styles, theories of learning, authentic assessment strategies and multiple intelligences. The process begins with the teacher's personal teaching toolbox as we brainstorm potential ways that technology and/or using various types of literacy (e.g., resource, visual, tool, etc.) could enhance student understanding. I use my communication ability, leadership skills and experience as a counselor to guide this process. My experience working with elementary teachers, middle school teaching teams and high school departmental representatives to assist students (including those with learning disabilities and/or gifted special needs) guides my efforts to determine when technology and information literacy has a place and when it doesn't in facilitating student learning.

I see the use of technology as one more step to help teachers develop as architects of learning as opposed to disseminators of information. Integrating technology involves the "learning equation" of hardware + software + content + skills + concepts + teacher facilitators + students = **understanding**. Research shows two main obstacles preventing this equation from working effectively. First, almost all of the funding spent on technology in the past decade was spent on hardware and software, leaving little for teacher training to use the technology. Secondly, teachers - especially those not growing up in the "digital age" - can be uncomfortable in using technology.

The primary process of educating teachers in the use of technology and information literacy skills must be addressed with our best energies, strategies and commitment of resources—including the application of a "human relations" approach to technology infusion. As comfort levels increase, teachers are more open to training for technology integration in their curricula. To do this, the coaching should focus on teacher needs and individual comfort levels.

Teachers, like anyone else, can be reluctant to leave their safety zones of doing what they normally do. We sometimes choose not to engage in new educational programs noting that they come in and out of fashion. A new software tool to be applied to only a lesson or two often is not practical and can be daunting to learn. Teachers are also very busy. Thus, it is important to schedule professional development that works to fit teacher schedules. The scheduling should include creating learning environments that increase comfort levels (as opposed to increasing

teacher stress). By this, I mean that when teaching a group of teachers (as opposed to times when individual consultation occurs) the teachers should be of the same skill and confidence level in using technology. This helps teachers see that they are not alone in their understanding and it can build a support network where teachers feel comfortable in asking for assistance from each other. It also makes sense from an instructional point of view to develop training modules for different levels of understanding.

The instructional technologist consults on designing lessons incorporating the use of technology and information literacy while also integrating the use of technology skills for student use. The instructional technologist must determine how to best offer ideas and strategies that fit and communicate effectively to the teacher's personal lesson designing style. Furthermore, the scheduling of training or individual consultation should not be an added responsibility for our teachers. It should be built into teacher schedules with class coverage thus increasing teacher buy-in to the professional development process. The content of the training modules should also come from assessment of teacher instructional and student learning needs. It must not be driven by what software and hardware a school owns with the expectation that teachers should master what so much money has been spent on.

Whether working as a coach teaching a group of teachers to integrate new teaching tools into curriculum or when working one-on-one as a partner assisting a teacher in designing a lesson, the instructional technologist clearly stands out as a teacher and not as a technician. Schools that are serious about seeing technology taught and used effectively see this distinction.

This is where the "human relations" part of the technology integration is so important. Nothing can turn off teachers quicker than consultants using vocabulary heavy in technology terms that have little application to actual classroom instruction. Technology coaching and consultation really does involve hand holding as well as the use of attentive listening skills on the part of the technology teacher. Just as in any classroom, a sense of security and trust must be developed between the teacher and the students before the learning can begin. It is also important to note that teachers should be central to technology planning and development for our schools. We must realize that teachers are the key factor as to whether the technology will be used and if used, how effectively it will be made a part of student learning.

While using technology as well as information & communication literacy skills can enrich learning in many instances, it is obviously not central to student learning. Yet, our students are entering a work force that demands these skills. Occupations such as doctors, lawyers and mechanics are all becoming technologists and information consumers/producers in their own right. In the end, we have no choice in our movement towards technologically integrated schools. If a great part of the learning in our schools is due to modeling, our students should get their first dose of technology from their teachers working as technologists in their teaching. Computers, projectors, handheld devices, e-mail, the Internet for resources, word processing software and learning collaboration conduits provided by Web 2.0 tools will either sit being minimally used in the classroom or used to just a fraction of their potential unless the teacher is supported. The key to this support is the instructional technologist who acts as the bridge between the technology and the teacher. My academic, research and practical experience provides the foundation from which I am able to exercise this essential role in the school technology infusion process.