How teachers learn technology best

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How teachers learn technology best
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http://fno.org

Summary

This work is a compilation of previously written articles on strategies and suggestions suitable for those teachers and school administrators who want to understand why technologies may not be used equally by all teachers and also for those who want to enhance the integration of the new technologies into successful teaching and learning environments. The author draws upon his many years of teaching and school administration (see the author’s resume at http://fno.org/JM/resume.html) to offer insights into and examples of the use of information technologies by teachers. The style is informal with pithy titles followed by short bursts of information and comment served up with cliche and mixed metaphor. On the one hand, if read too quickly, it is a just-too-fast conveyor belt of cute sayings. On the other hand, if read at a more leisurely pace, it leaves many detailed process questions unanswered.

Content

The author divides his material into two sections, i.e., Why Network and Designing Adult Learning.

The first section of five chapters deals with the potential benefits that might accrue from the adoption of technologies once the hurdles are recognized and corrective strategies put in place. The emphasis throughout is on two criteria mentioned in the Introduction. These two are the development of a clear focus on program goals and the provision of extensive professional development opportunities for teachers. Much of what is outlined is valuable for teaching and learning, in general, and not just teaching and learning which incorporates new technologies.

Chapter 1, Lifting the Siege, reiterates the two main criteria and adds brief statements on the need to provide sufficient and continuous funding, to match program assessment with student outcomes, and to combine all these elements in order to become successful.

Chapter 2, Learning Digitally, looks at how learning might change with the proper use of networks and electronic information. Independence and community would be extended. The growth in the first would come as a result of range (the increased connection to global neighbors), of depth (the increased access to data archives), of complexity (the increased breadth of perspectives), and of originality (the increased access to novel points of view). The second would expand and change in nature as a result of these activities. However, attaining all this would depend on the teachers to support the development of self directed students, to structure the acquisition of information literacy skills, to be become ‘guides on the side’ so students might wrestle with questions themselves or collaboratively, and to encourage students who might be confronting hurdles.

Chapter 3, Strategic Teaching, continues the outlining of the skills that make for good teaching. Intervention at the right time can be helpful. Such action can add techniques to the students approach, untangle wrong thinking, empower independent problem-solving, and/or encourage the invention of new tools and skills. To create such skillful teachers, school administrators might apply one or all of several techniques. These might
include the following: reviewing teaching techniques to develop comfort and skill levels; critiquing videos of
classroom sessions; practice teaching with small groups; providing feedback to those able to take it; and
developing a friendly teaching support network. Such techniques can be part of a successful staff development
program whether or not one incorporates technology into the teaching.

Chapter 4, Grazing the Net, describes the ways to raise ‘free range students’ who are able to navigate through a
complex and often disorganized information landscape all the while making up their minds about important
issues. In effect, the students become ‘infotectives’ once they become engaged learners with their mastery of
critical questioning and of the assessment of information reliability and adequacy.

Chapter 5, The Information Literate School Community, briefly defines what such as community is and how one
might recognize it. To be a literate school community the students must be able to prospect for information, to
interpret and to draw understanding from the information, and to develop new insights into the information. The
signs of success that the author suggest are much the same as noted previous chapters. Good ideas need
repeating! Such signs are invention (the building of meaning and new ideas), fluency (both teachers and
students move back and forth among an array of instructional roles and strategies), and commitment (clear
statements of information literacy expectations for each grade).

The second part of the book, Designing Adult Learning, consists of thirteen chapters ranging widely from
Secrets to Success, The Software Trap, and Gauging Return to Reaching the Reluctants and Picking Up the Tab.
Once again the material is arranged under numerous titles and points with brief comments on each. For
example, in Secrets to Success, Chapter 6, there are ten lessons which reiterate Part One issues, such as, clarify
goals, focus on adult learning, support with dollars and release time, and be persistent. Repetition is a sound
strategy in fostering learning but is this repetition or the beginning of another article? Assembling a variety of
articles is done frequently by columnists but considerable editing is necessary to produce a flow without
duplications or changes of style.

However, there are brief examples and the mention of a few web sites to visit. For instance, Lesson Seven
deals with the use of surveys and assessments to guide planning. The 21 lines of this section note how
important this activity is and suggest several web sites. One of the web sites is fio.org which is the author’s
web site, which provides many links to sites useful for school teachers, and which give a good overview of the
topics he is interested in. The site is also a good analogy of the set up and contents of the book in this review.
Before purchasing this book, it is valuable to go to this site and verify if the writing style and presentation style
might be suitable.

Chapter 7, The Software Trap, describes ten myths underlying this trap and with each myth there is a description
of the reality according to the author. The key issue here is that it is futile trying to integrate technology by
focusing on learning technology. The focus must be on the context, teacher and learner, and on how the
technology fits the teaching and learning process. The myths tend to focus on the extreme so that reality might
seem commonsense. For example, one myth is, ‘Knowledge of software translates into the delivery of
software rich lessons.’ (p. 76) The reality suggested is that software may change lessons ‘if teachers identify
“entry points” that will improve student performance.’ Active integration by the teacher at appropriate times in
the lesson is necessary. The tenth myth is, ‘There are no other options.’ (p. 81) This myth suggests that
software is key to teaching. The author notes that his book clearly states that curriculum and strategic teaching
should take precedence. In effect, there is no single option and teachers must consider all the techniques that are
appropriate in providing a successful learning environment. In these myth-reality examples, straw men set up
for knocking down, the comments are applicable to the integration of software or the introduction of any other
activity or method into the learning process.

The following chapters continue in this vein but expand on the chapter about learning cultures. This chapter,
Chapter 9, Creating Learning Cultures, is another of the author’s columns from eSchool News. Here the author
outlines 12 strategies for creating such a culture. These range from Outlining the Journey (learning contract), to
setting up Study Groups, Technology Coaches, and Technology mentors, to making Workplace Visits, to
providing intensive Tutorials, to hiring Student Aides, to establishing Help Lines, to providing opportunities to
put theory into practice or Invention Sessions, and to other activities such as access from home called At-Home
Alone initiatives, to buying books for Summer/Weekend Reading, and to assisting teachers taking Distance
Education. The author in these six pages reiterates his push away from professional development towards
developing learning cultures.
The remaining chapters expand on elements introduced earlier and bring together the author’s columns from eSchool News. Chapter 11, Online Learning, is only one example but provides the flavour of the content and style. The chapter hints at driving forces towards online learning, notes some characteristics of online learning, and points at eight advantages. These advantages focus on the shift from teaching to learning, independence from time and place constraints, its self-paced nature, its customized feature, its competency-based focus, its possible uniform quality control, and its cost effectiveness. The last advantage, titled No Heroes, asserts that, ‘Online learning can produce great results without heroic staff developers, charismatic presenters or especially talented trainers. Properly designed, these experiences allow for a high degree of independence. While learning is often well served by dialogue, no teacher or leader need be present. Quality results are achieved without the tremendous expense associated with “train the trainer” models.’ (p. 109) Once again, there are more questions than answers and more bold statement than substantive insight.

Comment

As you might expect, I found this book difficult to review. I found myself wondering what was the real purpose. On page 65 the author did note, “This book outlines the most effective technology learning practices we have invented during this decade and suggests strategies to blend them throughout the life of your schools.” The book is certainly jam-packed with one-liners, and lists of do’s and don’ts or of myths and realities. Reading this book however is, I imagine, somewhat like standing in front of an open fire hydrant; there is just so much coming at you that it is difficult to get anything worthwhile. Perhaps I’m a lazy reader that requires fewer lists and more explanation and depth of discussion. The style and content, at times, also reminds me of a sales pitch or consultant’s overview; lots of hot-buttons to tweak your interest but with little depth.

The book illustrates what happens when a set of articles masquerade as a book. The articles, written over several years, are brought together with what seems like little editing. There is considerable overlap with the journalistic approach, choppy style, and catchy titles leading to superficiality. Switching back and forth in perspective tends to obscure the purpose; is this for the student, the teacher, the administrator, or all three? An editor might have also caught the typographic errors, the use of undefined terms, the curious or uninformative metaphors, or may even questioned the overly cute use of terms like ‘entertainerizes’ and ‘infantilizes’ when referring to the impact on information by the McDisneySofts of the world!

The chapters seem very much like the arrangement of a web site. The URLs are interspersed throughout the pages as if we could click on them and go off to a site for further information. Having these at the end of chapters or at the end of the book with an abstract would have been more useful. I assume that this dispersed style illustrates the impact of writing for a hypertext or presentation environment but publishing in book format. It is similar to transferring slides from presentation software into a web site and calling it a course; material is there but the connecting dialogue is missing!

There are, however, many learning styles and so there may be something for those readers who like a quick read with lists of ideas that you can delve into later. This book does outline a range of issues that could be taken into consideration when thinking about teachers and how they might be brought on to use technology. For those readers wanting more depth in particular aspects, the web sites noted in the book are helpful. Those sites linked to by fino.org, noted above, or from those at another site, nces.ed.gov/practitioners, provide routes to many more insights on which to reflect about learning and using technology in class.