Professional Development


It was not too many years ago that most teachers earned lifetime teaching certificates through completion of their teacher training coursework and a few years of teaching experience.

As it became apparent that such an approach did not adequately support the increasing demands of the teaching profession, continuing education requirements were developed. In the past two decades, a great deal of research has been conducted concerning adult education and professional development for teachers. A summary and analysis of professional development research and effective-practices literature is given in NFIE (1996). Hall (1974) developed a Stages of Concern model for staff development. This article builds on Hall’s work.

Information technology (IT) is a rapidly changing field. Moreover, it affects curriculum, instruction, and assessment in every discipline. Thus, every teacher faces a continual challenge of becoming and remaining adequately prepared in IT.

Many IT professional development programs fail to adequately address the varying levels of teacher background and interest. This article summarizes eight levels—stages of concern and levels of knowledge—that an effective program for professional development needs to address.

**Stages of Concern and Levels of Knowledge**

An educator who knows very little about IT has different concerns and professional development needs than an educator who has been making personal use of computers and other IT tools for several years.

Professional development is more effective if it specifically addresses the concerns of the educator and builds on his or her current level of knowledge and use. This is one of the reasons for emphasizing one-on-one inservice and teachers learning alongside their students. In both of these professional development approaches, the learning opportunity can be carefully tuned to the stage of concern and level of knowledge of the learner.

The various Stages of Concerns and Levels of Knowledge (SC&LK) that teachers have about IT are not easily grouped into simple categories. However, the following list is indicative of the range of possible situations. This list is a Stages of Concern model that has been adapted specifically for microcomputers and other IT tools such as CD-ROMs, networking, digital cameras, and scanners.

1. **Awareness.** I have an awareness of microcomputers and other IT tools, but I do not make personal or professional instructional use of them. I do not engage my class in discussions about IT even when I realize that this would be relevant to the topic at hand. I do not make use of IT when developing lesson plans or other instructional materials. I am somewhat techno-phobic.

2. **Informational.** I have a novice level of microcomputer knowledge and other IT knowledge and skills. Although I sometimes make use of these facilities,
my level of knowledge is not adequate for professional use. I lack the knowledge and skills needed to make use of IT both in developing lesson plans and instructional materials and in integrating use of IT into my classroom. I am concerned about gaining more general information about their potential uses in my professional work.

3. Personal. I am beginning to make use of microcomputers and other IT tools in my professional work. I am concerned about how using IT will affect me personally in my professional career as an educator.

4. Time. I am concerned about the time needed to learn about and to keep up with the rapid changes in education applications of IT. As I continue to learn, I sometimes feel overwhelmed by how much there is to learn and how much time it takes to keep up.

5. Consequences. I make quite a bit of use IT in my professional work. I am concerned about the effects my use of microcomputers, networking, and other IT tools is having and should be having on my students’ and my professional work.

6. Collaboration. I occasionally help a colleague handle an IT hardware or software problem in an informal one-on-one setting. I am concerned about doing more extensive work with my peers so that we both learn more about IT in education.

7. Refocusing. I am comfortable making routine professional use of IT and helping my colleagues learn about IT. I am concerned about learning new ways to use what I already know and about expanding my horizons.

8. Leadership. I am a technology leader and high-level facilitator. I am concerned about continuing to maintain and improve my leadership and professional development skills, in my school, school district, and beyond.

**Final Remarks**

This SC&LK scale can be used to do a needs assessment in a school or school district. Although a written questionnaire may suffice, one-on-one interviews will likely prove more effective in helping teachers place themselves on the scale. The needs assessment facilitates the design of professional development opportunities that are appropriate to the needs of the teachers.

A school’s goal might be to help every teacher reach Level 5 or higher, and to have a cadre of teachers who are at Level 6 or higher.

**References**


Retrospective Comments 12/19/04

I have used the 8-stages model in a lot of my teaching. Over the years, I gradually expanded it to a 10-stage model. The 10-stage model is available at (Accessed 12/19/04):

However, for the convenience of readers, it is also given below.

1. Complete Novice: I have never used a microcomputer. I don't know how to turn one on and make it go. When the opportunity to gain such knowledge has been made available to me, I have not taken advantage of it. It may be that I have a negative attitude toward this technology.

2. Awareness: I have an awareness of microcomputers and other IT but I do not make personal or professional use of them. I do not engage my class or staff in discussions about IT even when I realize that this would be relevant to the topic at hand. I do not make use of IT in developing instructional materials or administrative materials. I am somewhat techno-phobic.

3. Informational: I have a novice level of microcomputer and other IT knowledge and skill. Although I sometimes make use of these facilities, my level of knowledge is not adequate for professional use. I lack the knowledge and skills needed to make use of IT in developing instructional or administrative materials, and in integrating use of IT into my professional work. I am concerned about gaining more general information about their potential uses in my professional work.

4. Personal: I am beginning to make use of microcomputers and other IT in my professional work. I am concerned about how using this technology will affect me personally in my professional career as an educator.

5. Time: I am concerned about the time needed to learn about and to keep up with the rapid changes in IT in education. As I continue to learn, I sometimes feel overwhelmed by how much there is to learn and how much time it takes to keep up.

6. Practitioner: I make quite a bit of use IT in my professional work. I routinely integrate IT into the teaching and/or administrative work that I do. I am concerned about the effects my use of microcomputers, networking, and other IT is having and should be having on students and staff, and on my professional work.

7. Collaboration: I occasionally help a colleague to handle an IT hardware or software problem in an informal, one-on-one setting. I share what I am learning about use of IT in teaching and in administration and I encourage my colleagues to make such uses of IT. I am concerned about doing more extensive work with my peers so that we both learn more about IT in education.

8. Refocusing: I am comfortable in making routine professional use of IT and in helping my colleagues to learn IT. I am concerned about learning new ways
to use what I already know and about expanding my horizons. I want to help facilitate substantial changes in my department and my school.

9. IT Leader: I am a technology leader and high-level facilitator. I routinely present talks and workshops at conferences. I am concerned about continuing to maintain and improve my leadership and professional development skills, in my school, school district, and beyond.

10. Educational Leader: I am an educational leader, with broad interests in how to improve our overall educational system. Although IT remains one of my primary interests in education, I am concerned about appropriate and cost-effective ways to better meet the educational needs of all students and all other stakeholders in our educational system. I have an interest in national and global educational systems. I am concerned about the complexity of educational systems and how to improve these systems.

**Retrospective Comment 9/1/08**

When I expanded the original 8-point scale into a 10-point scale, I was beginning to learn to think at a higher and broader level in education. Sure, computers in education is an interesting and important topic. However, IT is but one part of the overall goal of improving education for people of all ages throughout the world.