

True Life Technology Adventures!

Scenarios for Educational Technology Problem Solvers

Introduction – Moving to a Problem Solving Mode

One of the benefits of traveling as much as we do (besides our nifty collection of airline swizzle sticks) is that we constantly are confronted with a myriad of problems faced by school and district staff as they work to make educational technology an integral part of teaching and learning. Sure, it would be easy to become more than a little depressed over the repetition of problems from one district to the next; but instead, we have focused on the fact that despite the uniformity of problems, each district tends to solve these problems in a unique way. When we hear these stories, and collect the “solutions”, we end up having a rather fascinating collection of standard problems with amazing solutions.

It is often very difficult for school and district staff to move from a *problem identification* mode into a **problem solving** mode. Nevertheless, this shift becomes critical in escaping the status quo...in particular if you are not exactly benefiting from the status quo. When we work with educators to discuss and identify “barriers” or “challenges” to their work, the discussion all too often ends up focusing entirely on the barriers and never moves fully into an exploration of solutions or ways to overcome the barriers. The activity we have designed around the following *True Life Technology Adventures!* is designed to move you fully into your best problem solving mode.

How it Works

1. The scenarios in the following pages are all based in actual events experienced by your peers across the country. There's a good chance that you yourself have experienced something very much like what is described in many of these scenarios (coincidence, or what!).
2. Each scenario is designed to be used as an ice-breaker or discussion starter for a school or district technology meeting. By casting common technology-related barriers into problems that need to be solved, it becomes easier to get a technology team to brainstorm solutions to their own district's problems.
3. The meeting facilitator should read through the following problem scenarios and pick one or more which are relevant to situations encountered in his/her own district. It is usually a good idea to choose several scenarios and to divide the meeting participants into teams -- one scenario to each team. The facilitator should assign the scenarios to the teams rather than allowing the teams to choose their own scenarios. In the case of a cross-district, mixed, meeting it certainly doesn't matter if teams are composed of individuals from different districts, and actually the experience will be better with more varied points of view. Print out a sufficient number of copies of each scenario so that each team can have a copy.
4. After reading their scenario and the statement of the problem (a.k.a., Your Challenge), each team should formulate and discuss a plan of action for resolving the challenge(s). Each scenario comes with a set of things to Think About which might be used to spur discussion. Naturally, there are lots of things to think about in each scenario, so we've just highlighted a few specifics in case the team is really stumped. Teams should be allowed about 30 minutes to resolve their challenge...so they will need to think and work fast. The idea is to sketch out some key points, not to create a 5 year strategic plan. That can be done at home.
5. Each team will need to report to the whole about its scenario and the resolution they developed. This is just a short report-out and discussion, nothing fancy. If they used the specific Think About things to frame their resolution, then that might be how they organize their report. If not, then they should just tell the full group what they came up with in whatever way they want.

6. Assuming the existence of about 3 teams, this activity should take about an hour from setup to report out from the last team. It might be possible to do it in a bit less time, but we find it takes about an hour to do well. The temptation will be to spend lots more time in discussion...but the facilitator should work to channel this energy into a discussion relevant to solving actual district problems.

Here We Go Again...

The Mysterious Case of the Same Old, Same Old

Who Are You?

District Professional Development Coordinator

The Scenario:

As the professional development coordinator in your district you've been offering "technology staff development" for past three years. Every teacher (except possibly some new hires) has had the chance to take "Introduction to Windows", "Using Netscape", "Clarisworks Basics", and similar workshops. Further, you've offered some "technology integration" workshops for teachers at every grade level. But after three years, there are still too many teachers who can't seem to do the simplest tasks (e.g., creating a gradebook spreadsheet)...not to mention more "advanced" things such as designing a curriculum unit that integrates a variety of WWW-based resources. You generally get blank stares when you talk about "collaborative on-line activities."

Your Challenges:

What gives? As you plan your staff development offerings for next year, what are you going to try to reverse -- or at least moderate -- this situation?

Think About:

1. How do you know what you know?
2. Who's involved in your planning process?
3. What should your planning process look like?
4. Various models for professional development.

Either Way You Lose

The Case of the Incredible Vanishing Software

Who Are You?

Middle School Curriculum Coordinator

The Scenario:

Teachers in your middle school are constantly coming up to you asking for money to "buy software." They tell you that they can't be expected to actually use these classroom computers if someone (i.e., you) doesn't buy them software. Further, more teachers each year (at your suggestion!) go to your state technology conference and come back with all sorts of requests to buy the various cool software packages, manipulatives, etc. that they see at the conference. BUT, you know that middle school teachers have at least 5 or 6 different subject-specific applications that have been purchased over the past several years. And to the best of your knowledge, virtually no one is using this software. This being the case, you have a hard time rationalizing the expenditure of even more funds to buy more software...which probably won't be used any more so than that which they already have.

Your Challenges:

What are you going to do? If you simply say "no" then you are perceived of as being non-cooperative and "bureaucratic" But if you just say "yes" then you feel irresponsible with regard to your budget. How can you address this teacher request and break out of the "buy it and put it on the shelf" cycle?

Think About:

1. How do you know what you know?
2. What is software?
3. Professional development strategies

Computers, Computers, Everywhere. But...

The Case of the Curiously Non-Productive Computer Laboratory

Who Are You?

Curriculum Coordinator for Elementary Education

The Scenario:

One of your elementary schools has an Accelerated Reader lab that is also used to run a Jostens Integrated Learning System. This lab has a full-time aide who tends to oversee the students who are sent to the lab (usually as an entire class). Still, the classroom teachers come to the lab with their classes...although it's unclear just what the teacher does. Further, it seems that the use of this lab is just about the ONLY exposure the children in that school get to technology. Classroom computers (each classroom has one networked machine) are really only used for teacher productivity and not much else.

Your Challenges:

What changes can you suggest, and then make (i.e., how will you make them?) that will alter the way that students in that school use technology? Simply eliminating the lab is out of the question unless you want to inspire immediate full-scale revolt from that school's teachers (and parents)..but how will you get those teachers to use the classroom computers WITHIN their existing instructional practice?

Think About:

1. How does technology fit within the curriculum?
2. Changing teacher perceptions of what it means to “integrate” technology
3. Personnel/staff roles and responsibilities
4. Who is involved in the technology use, policy, and decision-making processes in this school?

An Offer You Can't Refuse

The Case of the Incredible Shifting Universe

Who Are You?

District Technology Coordinator

The Scenario:

Your Superintendent has gone to a state meeting where she saw a presentation by the XYZ Software Company . XYZ has promised your Superintendent that if your district buys XYZ's integrated learning system software and has every student using it for a minimum of 40 minutes a day then aggregate reading scores will rise by 2 grade levels for every student within one year. If this isn't so, then XYZ will refund the purchase price of the software. Low reading scores have historically been a problem in your district, and so if it works, XYZ would be an amazing thing. The problem is, the software will cost your district about \$100,000 (which is about 90% of your entire technology budget) and in order to get every student using XYZ for 40 minutes a day, you will need to "repurpose" almost every computer in the district for XYZ use. Further, the entire focus of technology staff development will shift to teaching teachers how to manage XYZ...and your staff will have to devote themselves to learning and managing this new system. XYZ has paid the way for the Superintendent and a "team" of district people (you, a few teachers, a principal, etc.) to visit a model district using XYZ. This thing is moving fast and you are seeing your job (and those of your staffs') change before your eyes.

Your Challenges:

What are you going to do? Will you go with the change...and if so, how will you manage it? Can you stop or slow down this "process"? How can you; and is it appropriate for you to try?

Think About:

1. Technology and the curriculum
2. What is the value placed on technology within your district
3. Professional development (technology-related and other)
4. Your technology plan and the value of that plan

If At First You Don't Succeed...

The Case of the Mysterious Hidden Impact

Who Are You?

District Technology Committee (includes teachers, school and district technology coordinators, parents, a principal, a school board member, and community representatives)

The Scenario:

It's budget time in your district and as is the practice in your district, the District Technology Committee prepares and submits a technology budget which calls for expenditures related to new equipment, maintenance, network expansion, technology staff, and professional development. The week of your school committee's annual budget meeting, the Superintendent comes up to the committee chairperson and says that he has been talking to school committee members and the feeling is that the district has "spent enough" on technology without seeing any specific benefit related to student achievement. There is apparently (he says) a sense amongst the school committee that unless it can be shown that improvements in student standardized test scores can be related to technology investments, that the money being spent on technology should be instead spent on something "proven"...such as more teacher aids and perhaps a new position (e.g., a reading teacher for the middle school). Naturally, this means that your technology budget will be decreased next year and for the foreseeable future.

Your Challenges:

What are you going to do? How will you answer the "impact" question...and in particular, what will you do to try to save your budget this week?

Think About:

1. Your technology plan – what does it say?
2. Stakeholders and leveraging support
3. Evaluation strategies
4. The value placed upon technology within your district
5. How do you know what you know?

Spread A Bit Thin

The Case of the Impossible Integration

Who Are You?

Elementary Classroom Teacher

The Scenario:

Your school district is a demographically middle-of-the road district. You do not qualify for much Title I money, but at the same time, your community is not so affluent (or generous) that they have authorized considerable funding for technology. Therefore, you have just enough technology money to have placed one computer in each classroom...and a few machines in the Library/Media Center. These are new machines and capable of running pretty much any educational or productivity software you have seen, and there is a small budget for buying software to augment the basic productivity tools (e.g., Microsoft Office) already installed on each classroom computer. The problem is, you have one computer and 30 students. It just does not seem possible to “integrate technology” when there are so few resources to be used by so many students.

Your Challenges:

What strategies will you develop and employ to make the most of your “one computer” situation? How can you have an entire class of students “using technology” when it would seem that they need to share just this one computer?

Think About:

1. Changes in classroom structure.
2. What sorts of curriculum strategies would work best with this technology arrangement?
3. Equity.
4. Changes in how you work with your colleagues (fellow teachers).
5. Issues related to physical infrastructure (hardware) and its setup and placement.

I've Got the Power! Well, Maybe...

The Case of a Job Well Done

Who Are You?

Middle School Classroom Teacher

The Scenario:

You believe that your district is “pretty average” in terms of the amount of technology available to teachers and students. You have at least one computer in each classroom and a small computer lab where an entire class can work on projects or on the integrated learning system (ILS) designed to improve reading skills. You and several other teachers in the school have taken an interest in using and integrating technology and to this end have done things such as subscribed to educational technology journals for ideas, gone to out-of-district technology conferences and workshops, and (most importantly) applied some of your ideas and learnings in your own classroom. You'd like to work with teachers in your team and in the school to get them to try some of the practices which you've found successful in your class, but your Principal and most of the school department heads show absolutely no interest in supporting further classroom integration of technology. They don't authorize more staff development, aren't eager to release teachers for workshops, and basically do nothing to show that technology integration is a priority. When you press them on this issue, the Principal tells you that he thinks that student use of the ILS is sufficient and that the school really cannot afford the time and money he feels that it will take to do more with technology. There are “other pressing issues” (which are never quite articulated...). He praises you for the job you are doing, but that's about it.

Your Challenge:

What can you do to generate more support for your ideas from your school's leadership? On the way to this solution, you'd be happy to generate more “grass roots” support amongst teachers. How can you accomplish these personal and professional goals? (Transferring to another school is out of the question)

Think About:

1. Strategies for building grassroots support for your ideas.
2. Winning allies who can leverage support and influence.
3. Professional development strategies.