

# learning tools for **INNOVATION**

The right technology tools can build capacity in students and teachers while promoting innovative thinking and problem solving.

“Go slow to go fast” has become the mantra for educational change. The problem is that the world simply doesn’t operate from this foundation – either you change or you will be obsolete. Either you produce or you will go under. Either you define the moment or the moment will define you. Enter technology and a flattened world, and you have an educational system on the brink of self-sabotage.

Why has the technology that we have become accustomed to in our personal lives remained far removed from the classroom? Why is it that with all of the research we have available to us regarding the characteristics of learners, we continue to deliver a status quo model of education that leaves many students behind?

Many in education see change as a threat. Though productive changes have occurred in education over the past two decades, the necessary changes – whether structural, procedural or organizational – have not. In fact, they have been resisted for fear of losing teacher autonomy and creativity (through professional learning communities), reducing PLCs to nothing more than data-gathering communities.

In an era characterized by aligning curriculum, instruction and assessment

through professional development to increase student achievement, we have continued to see the achievement gap proliferate. We have robbed teachers of the opportunity to teach as they race to keep up with pacing guides that are incongruent with the curriculum they teach and the tests they give. Districts are reduced to playing the “data game” and tracking everything from mobility rate to parent educational level to boost API and AYP.

Sadly, in all of the professional development I have been a part of and the myriad books written on specific Response to Intervention strategies for students who are not meeting proficiency, all of the interventions have been aimed at what teachers can do (behaviorally) to affect student results. This approach is short-sighted and in my view, misses the entire underlying issue negatively affecting students today.

This current generation of learners craves dignity and meaning in their learning. They want to think, process, discover and apply what they learn to real-life issues they face in a forum that allows them to connect with their peers.

Wagner (2008) examined learner traits with skill-sets and competencies needed to compete in the 21<sup>st</sup> century. He determined that there were seven competencies:

1. Critical thinking and problem-solving

2. Collaboration across networks and leading by influence
3. Agility and adaptability
4. Initiative and entrepreneurialism
5. Effective oral and written communication
6. Accessing and analyzing information
7. Curiosity and imagination

With the move toward the common core and nationalized standards, how we educate and what we give students access to in the technological realm is vital. No longer will it be acceptable to just post a standard, employ “death by PowerPoint,” list an objective and a learning log and move on. The challenge now will demand creativity and innovation – from teachers and students.

Imagine delivery of the core taught through the competencies identified by Wagner (2008). What if mathematics, social science, science and English were all taught under a course titled “Collaboration across Networks and Leading by Influence?”

Herein lies the dramatic and disruptive shift in education that must be embraced: empowering students to derive the need to know. Giving students ownership over their learning and getting them comfortable with the process of learning, not simply the pre-

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*By Michael John Roe*

scriptive outcome they have become accustomed to when they quantify their answers on multiple choice exams.

As we move closer to 2014, the opportunity to bring teachers back to the table and begin to create an entirely different construct for learning and delivery of instruction is upon us. Only this time, we cannot afford to “go slow to go fast” – either we do it, or we will be obsolete. As a student of mine once asserted, if a teacher can be replaced by technology, he or she should be.

In the remainder of this article I will share some technologies that we have been employing at Tahquitz High School and in some of my university courses. All of these technologies do not cost districts or students anything.

### **Weebly.com**

The Tahquitz High School website was created using Weebly.com, which offers a host of different options in building and sustaining a school/class website. You can create your own domain name as well as an unlimited number of pages. Weebly allows you to upload pictures, video, slideshows, audio, YouTube and Google Maps.

This user-friendly tool also allows for the creation of blogs as well as the ability to monitor the amount of hits the website receives. It also has a contact page that can be routed directly to your e-mail. This allows a principal/teacher to have additional communications with stakeholders.

Our Weebly at Tahquitz High School averages around 2,500 hits a day. At the beginning of the year we felt it was important to give students more ownership over the website and the content. This led to an online newspaper as well as direct links to our WikiSpaces and social media. On our site you will find everything from our departmental SMART goals to student profile pages where students outline their goals and colleges they would like to attend.

A unique feature of Weebly is that you are able to create your own logo and background. Most other online website services charge you for this. We were able to create a photo montage of students on all of our pages, giving it a real student-centric appeal. Students who write editorials for our website

and assist in updating the site receive journalism credit.

We created a “Breakfast Club” blog (for students) as well as a “Principal Vernon’s” blog (for teachers). As a result, our website is constantly updated by students for students and helps us promote Web 2.0 technologies. You can visit our website hosted by Weebly at <http://tahquitztitans.weebly.com>.

### **WikiSpaces**

Our use of the wiki technology has been extensive. Having the wiki allows us to document, connect and collaborate on important issues as a staff. All of our PLC goals as well as strategic goals for the year are kept on the wiki. This ensures that the entire process is visible for all to see. Another key benefit is all of the collaboration that occurs on the wiki is not limited by logistics. The wiki can be updated at anytime and from any place. Stakeholders can upload pertinent files, update drafts, pose provocative questions for inquiry and communicate with each other.

Especially within the PLC wiki, the power to communicate across departments is important. This creates conversations and relationships in natural ways.

### **How students use wiki**

Many of our freshmen at Tahquitz are creating student portfolios online. Moreover, many teachers are using the wiki with students to pose discussion questions online after a lesson. This has played an important part in furthering our AVID Socratic Seminar beyond the classroom walls.

In addition to participating in the classroom, students are challenged to go home, log in and take a position on the issue at hand (thus promoting expository writing). Lastly, the wiki can be utilized by students to create much more effective cooperative learning projects.

From a teacher’s standpoint, the wiki technology is an effective way to share documents as well as interactive widgets with their students. Many on staff have also shared that they like the way wiki allows them to post what has been occurring in class, promoting two-way communication between students and teachers and providing evidence of student learning and engagement.

The most popular use of the wiki is to demonstrate student work, and to post questions so students are directed to navigate two sides of an argument, citing a variety of online sources. The belief is that students, once they are given ownership of the process, will work best through their primary mode of learning by having to take a position, thus engaging in affective-level thinking and metacognitive skills (Gardner, 2006).

Visit our three wikis at the following:

- WASC Focus on Learning wiki: <http://thsfocusonlearning2010-2011.wikispaces.com>
- THS Home wiki: <http://thshomewiki.wikispaces.com>
- THS Professional Learning Community wiki: <http://tahquitzplc.wikispaces.com>

### **Facebook and Twitter**

Upon taking the principalship in July, it became apparent to me that our constituencies wanted to be involved in decision-making. Facebook offers our school an opportunity to solicit input from former graduates, current students, parents, teachers and community members. The PTSA Facebook page gives us access to hundreds of volunteers who help us in athletic, academic and extra-curricular activities.

Also on Facebook, the Tahquitz High School Principal’s Forum lets us inform the community of events and issues that we face on a daily basis. It also allows me an opportunity to scan the community for feedback as to what they wanted to preserve, maintain and change. Our Associated Student Body also created a Facebook account that gives daily updates of upcoming activities, testing dates and major events. ASB also posts daily updates on Twitter (<https://twitter.com/TahquitzHS>).

Most of our clubs and athletic teams also have active Facebook accounts driven by students to promote their accomplishments and participation in school.

In all, access to Facebook and Twitter are two ways we have promoted school culture, giving direction to the message reaching the community and empowering students to use technology they are familiar with to draw them into the education setting.

We are looking at working collectively

## Bracketology: Selecting the winner!

Results are in and the final four books in our most influential leadership book bracket have been determined. We will be sharing voters' thoughtful comments when we announce the most influential book in the May/June issue of *Leadership*.

The Final Four are:

- *School Leadership that Works*, Robert Marzano, *et al.*
- *Transforming School Culture*, Anthony Muhammad
- *Results/Results Now*, Mike Schmoker
- *Whatever it Takes*, Rebecca Dufour, *et al.*

In a departure from our previous Bracketology practice, we will not be pairing these books, but asking you to rank them 1 through 4. Please help us select the most influential book by casting your vote at [www.acsa.org/bookbracket](http://www.acsa.org/bookbracket). The polls will close on March 31.

with our district to allow Twitter at the site so teachers can post warm-ups and guided conversations on Twitter throughout the class. This would give students the opportunity to use their cell phones in class and equip teachers with an outcome-based “check for understanding” in the open-ended form that Twitter can provide.

### Cell phones in the classroom?

Polleveryone.com has given us the opportunity to engage students in ways we never have before. In line with Direct Interactive Instruction (an HUSD Instructional Focus), this free technology allows students to “think-pair-share” with one another in productive and relevant ways.

Secondary teachers, especially at the high school level, have to work hard to check for understanding to see if students are really learning. Shifting the focus from “what was taught” to “what was actually learned” has made teaching a challenging endeavor. With this technology, math teachers are able to work through the problem with students interactively.

An example of this would be working through a multi-step process with students. Teachers can ask students to predict what the next step will be by polling them. In real time, the student's answers – both individually and collectively – are shown on the LCD screen within seconds. This gives teachers an instant check for understanding with students and allows students to share what they have learned in direct relationship to what

was taught (in real time). This empowers teachers to differentiate their instruction at the moment a student doesn't understand.

Any teacher can get up in front of students and present information. What a teacher does at that moment a student doesn't “get it” constitutes teaching. The use of cell phones in the classroom is a cost-effective way of promoting student engagement.

Polleveryone.com allows for real-time feedback, open-ended responses as well as delayed responses. Similar classroom systems that offer the same services sell for up to \$2,500. We have also seen this used for students to collect data through qualitative interviews. You can access this technology at <http://polleveryone.com>.

### Involving stakeholders in a PLC

One of the first tasks that demands immediate attention as a transitioning principal is getting an accurate sense of the reality of the organization. SurveyMonkey.com provides a free service to survey stakeholders at your site as well as the community.

In my new position, I immediately surveyed staff, parents and students. All surveys were posted on Facebook as well as our website. Staff surveys for both certificated and classified were sent as a direct link through e-mail.

Once the surveys were received and quantified by SurveyMonkey, four themes emerged as areas of focus: decision making, structures and roles, communication and systems. With these themes driving the con-

text, we engaged all stakeholders in a Delphi process (Environmental Scan) to clearly understand the underlying needs and concerns of the community. What emerged were specific areas that we could control and thus provided for some strategic “small wins” for the leadership team and site.

Another powerful tool that this technology provides centers on the classroom walk-through. We were able to create a Direct Interactive Instruction (DII) survey template that we could access on our smart phones. As a result, we have the capacity to observe a teacher, provide immediate feedback to the teacher, and e-mail the teacher the formative feedback prior to leaving the classroom.

Moreover, this gives us the ability to quantify results by individual teacher, department and school. This tool can also be used by teachers to survey students as well as parents. ASB also uses SurveyMonkey.com for elections and student climate surveys.

### Additional tools

Here are some additional technology tools of interest to educators:

#### 1. Websites:

- [www.labnol.org/internet/101-useful-websites/18078/](http://www.labnol.org/internet/101-useful-websites/18078/)

#### 2. Cell phones in the classroom and/or school:

- <http://psdtechpd.wikispaces.com/Cell+Phones>
- <http://theinnovativeeducator.blogspot.com/2010/11/discover-5-steps-for-harnessing-power.html>

#### 3. Social media:

- [www.twiducate.com/](http://www.twiducate.com/)

#### 4. Blogging:

- [www.edublog.com](http://www.edublog.com)

#### 5. Web 2.0:

- <http://edudemic.com/2010/07/the-35-best-web-2-0-classroom-tools-chosen-by-you/>

### Having a seat at the global table

Our world is rapidly changing. In a split second (it seems), we are now preparing students for jobs that do not exist with skill-sets that have yet to be determined. This “global knowledge economy” has already passed us up as we look to the educational systems and

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# New savings

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district's budget woes. "After we had gone through some severe budget reductions, a community member who is on the Morgan Hill city council encouraged us to look into this opportunity to save money." The district was also interested in demonstrating environmental stewardship through the program.

## Learning from peers and evaluating options

When she started looking into sustainable energy for Morgan Hill USD, Tognazzini took the time to thoroughly research both the technologies and the financial vehicles available. "Initially, we looked into solar energy programs because we had heard that other districts in our county were far ahead of us in this area. And we certainly didn't want to be the trial district, but we knew that other districts were implementing green energy and using various financing vehicles," she explained.

"We researched San Jose USD and Milpitas USD to find out how their new solar energy programs were doing, and we decided to

move forward." The green energy program at Morgan Hill USD will serve as a strong foundation as the district continues to improve efficiency and make these measures meaningful in the classroom.

Thanks to thorough research and a careful program development process for their sustainable energy program, Morgan Hill USD will benefit from long-term savings to their general fund. Tognazzini advises taking the time to learn from what other districts have done. "I would encourage district leaders to go out and talk to other districts that have done this work and really come to understand the benefits and roadblocks other districts have seen when they went about implementing similar programs," she said.

## Smart sustainability strategies

These three case studies represent just a few of the innovative sustainability strategies available to superintendents today. Through bold leadership, savvy administrators are implementing programs that contribute to fiscal solvency, improve the learning environment and win broad community support.

Jerry Kurr's experience with sustainability at East Side UHSD shows the importance of clear communication in rallying diverse

stakeholders around a new program. Jon Archibald's work at Huntington Beach CSD demonstrates how well designed green initiatives have a positive impact on staff and students. And finally, Bonnie Tognazzini shared the value of talking to peers and learning from their experiences in order to build a strong foundation for Morgan Hill USD's sustainable energy initiative.

## Making the move

Whether working to overcome negative or qualified certification or simply looking to create much-needed savings, superintendents across California can benefit from an in-depth look at district non-educational costs. Students, teachers and the community will appreciate their district leaders making the smart move to go green. ■

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# Learning tools

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pedagogy in other countries to be competitive.

Complicating this scenario is the fact that today's youth are being called upon to use the vast amounts of information that floods the Internet to problem-solve, team-build and collaborate across networks.

If we are going to have a seat at this global table, we must begin to think differently. We must educate differently. Teach differently. Learn differently. How? If the future depends on our ability to innovate and create, we have a unique opportunity in front of us that poses questions that demand our attention.

1. How can we create an educational

delivery model that promotes innovative thinking and problem-solving?

2. How can we use technology as a vehicle to differentiate learning experiences and outcomes that are tied to how individual and collective students learn best?

3. What should education really look like?

4. Can our current system of teacher preparation programs and tenure support the changes we need?

Public education has the existing infrastructure to support the changes that we need. Sadly, both public education and post-secondary education are the two most resistant organizations to change. How do we navigate the necessary changes systemically when many of those who steer the ship are invested in the status quo of "go slow to go fast?" Either we move toward Web 3.0 with

students carrying the flag, or we will see our own demise in this Web 2.0 epoch. Technology can provide the entry point. ■

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