Integrating Technology into the GED® Classroom

Integrating Technology – An Important First Step

We live in exciting times with access to powerful tools that can create opportunities for instruction that is more rigorous and motivating and that builds global connections. It seems as if there is a constant onslaught of new tools for the classroom that arrive via the internet on a daily basis. From wikis to blogs to podcasts to videos to social media to the vastness of information on the World Wide Web, the internet offers powerful and varied ways for students and teachers to interact and to learn. Then there are all of the various types of digital learning. No longer is communication tied to print media, land lines, and fax machines. Rather a multitude of different tools are available, such as mp3 players, iPods, E-book readers, tablets, computers, and even smart phones.

Introducing technology into the curriculum means more than just making it work. The principles of adult learning theory can be used in the design of technology-based instruction to make it more effective.

"To be an effective 21st-century teacher, a teacher must first possess the very same 21st-century skills that their students are expected to have. And, in addition to those skills, they must be able to help all of their students obtain and develop 21st-century skills."

Mamzelle Adolphine

Advantages for Students

Adults need to know why they should learn something or how it will benefit them. The design of technology-based lessons should meet the student's need.

The integration of technology also assists in moving students from current habits and into new patterns of learning where they become self-directed, taking responsibility for their own learning. Short, directed, concrete online tasks help the adult learner see the relevancy of technology and learning.

Integrating technology into the classroom also provides students with a wider variety of real-life examples and situations that they may encounter in their life or on the job. The multi-media and multi-sensory approach using technology also provides an intrinsic motivation to learn – an important part of the learning process.

Finally, today's learners expect technology to be an integral part of life. In a study from Conole in 2006, he stated: "They [learners] have an expectation of being able to access up-to-date and relevant information and resources and see this as vital. They don't see technology as anything special…just another tool to support their learning."[22]

Keys to Integrating Technology in the Classroom

When developing technology enhanced lessons, whether using cell phones or the World Wide Web or social media, it takes time. However, it is important to understand the difference between accessing technology and integrating technology into the classroom. A clear alignment of technology with curriculum is important as tools and resources are leveraged in a meaningful and productive way. The key to integrating technology is to ensure the following steps are taken:

- **Planning:** like any other new teaching tool, technology takes flexibility, creativity, and forethought in order to be successful. Ensure that there is a clear alignment between the standards being taught and the technology being used.
- **Engagement**: use the new tool as a means to engage students with the material and ideas, not as an end unto itself.
- **Responsibility**: make expectations about how students will use the technology – and how they *won't* use it – clear and consistent.
- **Innovation**: be open to finding other uses for the tools than the ones envisioned.
- **Teacher as learner**: admit what you don't know, let students teach you.
- **Reflective practice**: assess what you're doing, build on what works, and fix or discard what doesn't.

So, why integrate technology in the adult education classroom? Using different types of technology:

- Helps motivate students

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[22] LXP: Student Experiences of Technologies – Final report (Conole et al., 2006)

- Builds collaboration skills for students
- Requires higher-order thinking, problem-solving skills
- Provides for multiple intelligences, learning styles
- Enables teachers to move from a lecturer role to a creator of a student centered/directed classroom

Using Task Cards

One technique for initiating technology-enhanced lessons is to develop task cards for each activity. A task card is simply a developed activity for a specific website that is to be used with the class.

Task cards can be used:

- As a resource for teaching using technology
- For a classroom activity
- For individualized instruction
- For students who were absent for a lesson
- To differentiate instruction

Although there are many ways to integrate technology, developing task cards can get you started. The following is an example of a simple task card in the area of science.

Task Card – GED® Science: Physics

Topic: Recognize simple machines (i.e., inclined plane, lever, and pulley)

Website URL: http://www.edheads.org/activities/simple-machines/index.htm

Activity: You will need a pencil and paper for this activity. To begin, click on the button that looks like this picture: Move your mouse on the House. Select one of the places to visit. Click on the *Start* button to begin. Identify the Simple Machines by clicking on them. Answer the questions that go along with the items you clicked. Click on the *Continue* button at the bottom until all questions are answered. Now click on another item. Take notes of the different types of machines and objects that you identify.

Follow-Up Activity: Go back to your seat and draw three types of simple machines that you found in the lesson. Make a list of the six different simple machine types. Name three items in your own home that are simple machines. When you are done, place your work into the work basket.

Computer Skills for the 2014 GED® test

Although concerns were expressed about moving toward a computer-based test, it is important to note that approximately 96% of GED test candidates are either Millennials or GenXers. This means that they have grown up with some type of technology. More and more of our GED® students are computer savvy. Many have grown up with computers and feel comfortable with them. Many have never known a world without 24/7 technology. However, there is a need to teach the skills that students will need to be successful on not only the GED® test, but also in their daily lives and the workplace.

The 2014 GED® test uses a variety of item types to provide an improved assessment process. Students must understand how to complete technology-enhanced items, use basic keyboarding skills, and access tools.

Students do not need to have an extensive knowledge of word processing, but they do need to have basic keyboarding skills. In both extended response and short answer items, students will need to be able to keyboard their answers. The tools that test-takers have available include: cut, copy, paste, undo, and redo. The scroll bar allows the test-taker to easily move to different parts of his or her answer for review and editing.

Technology- enhanced items require that students be able to click on multiple-choice and hot spot items, drag-and-drop items, fill-in-the-blanks, and access drop-down items and menus. Students will also need to be able to use directional tools and mathematical tools such as the calculator.

To get started, begin teaching mouse and keyboarding skills in your adult education program. Integrate the use of technology as a "normal" part of the curriculum. Remember, technology is more than just the ability to use a computer. Many of your students already use today's technology, such as a smart phone.

There are numerous resources to assist you in the transition to computer-based testing, as well as integrating technology into the classroom.

Resources

For additional information on integrating technology in the classroom, as well as tutorials on basic software programs, access:

- actDEN (Digital Education Network)
  http://www.actden.com/

- GCFLearnFree.org®
  http://www.gcflearnfree.org/topics

- The Global Schoolhouse
  http://www.globalschoolnet.org/index.cfm

- Concept to Classroom
  http://www.thirteen.org/

- 4Teachers.org
  http://www.4teachers.org/

- Edudemic
  http://edudemic.com/

- T.H.E. Journal
  http://www.thejournal.com/

- Internet4Classrooms
  http://www.internet4classrooms.com/ct-it.htm

- TypingWeb
  http://www.typingweb.com

- Shambles.Net
  http://www.shambles.net/pages/staff/keybskills/

Florida's Instructor Handbook for GED® Preparation