

# Technology Integration

## 1. Unit Goals

This unit will supplement the new national program of installing technology (computers, laptops for teachers, and projectors) in all the local public schools.

<b>National Program goals for Technology Coordinators in Elementary Level Schools</b>	
1.	Understanding of the overall program, as well as review of the specific technology plan of the school
2.	Development of knowledge and competency of administration, pedagogy, and organization of technology in the classroom
3.	Acquisition of skills to create a change in the culture of ICT in the school
4.	Development of ability to initiate communication and procedures with relevant partners
5.	Guiding teachers in selection and integration of technology in the learning environment

## 2. Relation of goals to curriculum

This unit will deal with the 5<sup>th</sup> goal within the national program goals for technology coordinators. The unit will focus on various web 2.0 tools that teachers can use in the classroom with students.

## 3. Characteristics of the students for whom this unit is intended

The students in this unit of instruction will be teachers and school technology coordinators. All students have completed some form of higher education, either an academic degree or certification through a teacher's college. There is a wide variety in technical ability among the teachers; the technology coordinators are very comfortable with new technologies and processes even if they are not already familiar with them. Many teachers do not even use email regularly and will need support in the affective domain regarding use of technology. Most will be cognitively capable of learning the content but may need help brainstorming ways to apply what they've learned to their own class due to the lack of familiarity with technology.

#### 4. **Student's Present Level of Performance and Knowledge**

There are no specific skills necessary for taking the course, other than experience with classroom teaching, which all students will already have. Students should be comfortable using basic technologies such as email and web browsing in order to fully benefit from the course; it will have to be determined whether it is worth doing one session before the course for those teachers who need more experience with these basic activities.

#### 5. **Classroom Layout and grouping of students**

The course will be given in the school computer room. The room has 14 computers along the walls around the room, a teacher's desk with another computer opposite the student computers, and open space in the middle. The room has a "comfortable" feel and should make everyone feel relaxed about learning. There will be a 1-to-1 ratio of students to computers. If there are more than 14 students, then multiple sections of the course will be run in order to maintain the 1-to-1 ratio.

#### 6. **Introductory procedures**

The unit will begin by talking about using technology as a tool for teaching and not for the sake of technology, or novelty. Students will be shown samples of digital storytelling and video projects done by middle schoolers in summer camp as examples of things they can do with their own students in their own content area.

#### 7. **Materials and media**

<b>Resource</b>	<b>Availability</b>	<b>Rationale</b>
Computers connected to the Internet	14 computers are available in the school	Teachers will need hands on practice using the websites and software they will be using in class with students
Website with supporting materials	<a href="http://www.lifelong-learner.com/ClassroomTech/">http://www.lifelong-learner.com/ClassroomTech/</a>	Teachers will need a central location online they can go to after sessions for review of information
Handouts	<a href="http://www.lifelong-learner.com/ClassroomTech/BloomsRevisedTaxonomy.php">http://www.lifelong-learner.com/ClassroomTech/BloomsRevisedTaxonomy.php</a>  <a href="http://www.lifelong-learner.com/Classroom">http://www.lifelong-learner.com/Classroom</a>	Many teachers still write things down (!) with pencil and paper, this will help them organize the information for future use and feel more comfortable about it

	<a href="#">Tech/LessonPlanChecklist.php</a>	
Various web 2.0 tools will be introduced	Free sites will be used so it is available to all	Free, hosted tools (known as web 2.0 tools) will be used so teachers and students can have access at home as well
Email group list	I will create this based on the participants in the course	There needs to be an ongoing discussion about what is being learned and implemented, questions will come up and students can support each other

## 8. Visuals

Visual	Purpose	Design
Bloom's revised taxonomy - technology examples for each category	Show teachers how they can apply Bloom's taxonomy to technology in the classroom	Pyramid divided into sections. Each section will be labeled with that level of taxonomy, and have images of various web 2.0 technologies relevant for each level
What is a website?	Explain the basics of where website files are stored, and how we view them on our own computers. Important so students will understand why web 2.0 tools are powerful, and why we use them for learning	Image of user sitting in front of computer, web browser, web server, and arrows showing direction of file download
Benefits of Digital Storytelling	Show teachers different ways digital storytelling can encourage deeper learning	Colorful, overlapping circles - Digital Storytelling in the middle with Student Engagement, Reflection for Deep Learning, Technology Integration, and Project

		Based Learning around it
Collaboration	Explain components of collaborative learning with technology	Images illustrating team creation, student interdependence, individual accountability, social skills, and post-activity reflection
Project Based Learning	Show how technology makes project based learning easier in the classroom	Collage of technologies used for project based learning, such as: animation tools, online comics, blogging tools, etc.
How video enhances learning	Describe different ways video can be an educational tool	Chart with minimal text bullet points, each punctuated by images illustrating their point
Lesson Preparation Checklist	Provides guiding questions that students can use to prepare their own lesson plans incorporating technology tools	Puzzle pieces that fit together, showing how each question fits into the overall goal for the lesson plan

### 9. **Assessment and evaluation of learner understanding**

Students will fill out a pre-course questionnaire to assess current technology use, both in and out of the classroom. The questionnaire gauges comfort level as well, by using teacher self-reporting methods. By knowing specific technology use level and comfort level for a class instruction can be targeted to the right level. The questionnaire will be similar to the one created for a similar workshop about a year ago, it may require some additional questions but the basic form will remain the same.

Post-instruction assessment will consist of students completing a technology project utilizing web 2.0 tools and writing a lesson plan incorporating the specific technology to show they've mastered the unit content. Each lesson will have an assessment associated with it, based on the lesson goals and specific content.

### 10. **Relate assessment instruments to the outcomes stated in the goals.**

Students will be assessed in two ways. First, they will have to show that they can meet the program goals. They will each create a lesson plan, or series of lesson plans, to show they understand appropriate use of technology and can apply it to their content areas. Second, they will produce digital projects for each tool we learn, to show they have mastered the software enough to do relevant projects with students, according to their lesson plans.