

Integrating Digital Literacy

INTO ENGLISH LANGUAGE INSTRUCTION

Companion Learning Resource



Welcome to *Integrating Digital Literacy Into English Language Instruction: Companion Learning Resource (RESOURCE)*. In this RESOURCE, you will find examples of strategies, tools, and lesson ideas that support the development of digital literacy skills within the context of English language instruction. There are various links to websites, toolkits, videos, audio files, and lesson plans that serve to demonstrate how to integrate digital literacy into instruction and prepare learners for real-world applications.

Companion Learning Resource

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This RESOURCE addresses the following three guiding questions:

- How can instructors design student-centered language lessons that integrate digital literacy activities to (a) address the wide-ranging needs of a diverse student population and (b) prepare learners to meet the demands of a rapidly changing technological environment?
- Given that learners have varying degrees of digital literacy and access to technology, and given the ever-changing nature of technology, what can instructors do to differentiate instruction that incorporates technology into a student-centered classroom?
- How can instructors evaluate learning outcomes and processes within technology-enhanced lessons, units, and courses?

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ABOUT THIS RESOURCE

This RESOURCE is specially designed to provide practical ideas and suggestions for instructors who recognize the ever-increasing need of all adult learners to develop digital literacy skills. In this RESOURCE, developing digital literacy is always integrated into relevant, effective instruction as a tool to learning and functioning in real-life situations with which students will be confronted. In the explanations and examples provided, technology is introduced into instruction not merely because it may be new or different but in response to clearly defined course and lesson objectives. The intention is to offer numerous practical examples that can serve as a starting place for instructors who are looking to enhance English language acquisition (ELA) instruction while addressing an important need of their students. Throughout this RESOURCE, there are references to various types of lesson design. For additional information on the organization and rationale for different lesson designs shown in these pages, see “Planning for Teaching and Learning,” in *Teaching Adult ESL* (Parrish, 2004) and **ESL by Design: Lesson Flow** (Wrigley, n.d.).

This RESOURCE is part of the **LINCS ESL Pro** suite of resources on *Integrating Digital Literacy Into English Language Instruction*. The other two resources are described below:

- **Issue Brief.** An introduction to digital literacy that teachers and administrators can use as a springboard to additional in-depth resources on this topic
- **Professional Development Module.** An online, self-access module that includes four units on integrating digital literacy into adult English language instruction, providing in-depth information for teachers, as well as administrators



Instructors can explore the Companion Learning Resource as part of a professional learning community (PLC) activity.

All of the resources used in this RESOURCE are used with permission of the author or organization, as indicated in **Appendix: Permissions**.

Digital literacy is defined as the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information (**Museum and Library Services Act of 2010**, p. 3) and the ability to use those skills to solve problems in technology-rich environments (Leu, Kinzer, Coiro, Castek, & Henry, 2013).



Why Is Digital Literacy Important?

The definition of *literacy* is always changing, and now more than ever, the definition is shifting to include the ability to function in a world that requires the use of technology (Leu et al., 2013), which is extremely relevant in the lives of all adults, including English language learners (ELLs). Technology is increasingly prevalent in our daily lives, and digital tasks are often part of our daily routine. A list of survival skills would not be complete without including digital literacy activities. As stated in the [Issue Brief](#) on this topic, “English language skills and digital literacy are essential for obtaining and keeping a family-sustaining job, supporting children in school, participating in community life, obtaining community services, and accessing further education and training” (Harris, 2015). It is important to note that technology in the classroom can be used with great success to enhance instruction, but this alone doesn’t provide opportunities for students to develop digital literacy skills. Also, digital literacy consists of more than being able to acquire **basic computer skills**. It includes what people do with technology, how they solve problems, and how they communicate effectively. Students must experience, practice, and apply tasks within the classroom that will lead to their ability to function in a digital world.

It is now possible, and even necessary, to include digital literacy as an essential skill in the classroom. Read what the [U.S. Department of Education](#) (2015) has to say about the necessity of teaching digital literacy skills. Follow [this link](#) to

read 10 reasons to use technology in the classroom, some of which are directly related to this discussion about developing digital literacy skills.

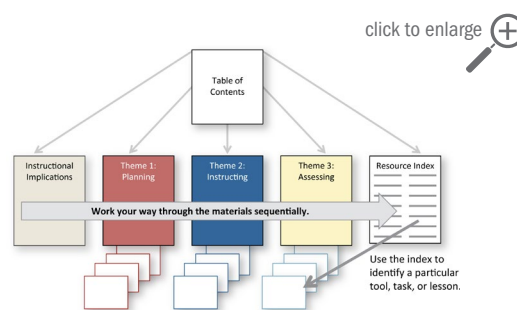
For an overview of the needs of adult ELLs and the relevance of digital literacy activities in instruction, see the [Issue Brief](#).

How to Navigate This RESOURCE

The diagram below illustrates different sections of this RESOURCE, which can be read independent of each other and in any order. To navigate this resource, you can:

- Page through sequentially.
- Search for a resource by type or proficiency level in *The Resource Index*.

Note: A quick way to locate items is to search on a word or phrase by clicking *Edit>Find* in the main menu and entering your search term.



VOICES FROM THE FIELD

Steve Quann, Director of the EdTech Center at World Education, Inc., describes the difference between just learning basic computer skills and developing digital literacy skills.



What Will You Find in This RESOURCE?

- **Concepts in Action:** key considerations when incorporating digital literacy activities
- **Vignettes** and **Lesson Plans:** crafted scenarios to demonstrate effective practices
- Planning tools, instructional templates, and **rubrics**
- **Voices From the Field:** audio of experts describing their effective strategies
- **Take a Tip** and **Teachers Ask:** practical answers to common instructor questions
- Links to videos, sample lesson plans, and websites to support further exploration
- Glossary of terms (Page 34)
- **Resource Index:** links to referenced resources organized by type of instructional material, learning environment, instructional level, and topic



INSTRUCTIONAL IMPLICATIONS



A student prepares to write about himself in a computer-enhanced classroom.

Instructional Benefits

Approaches to English language instruction have shifted from an emphasis on routine memorization and drills, which was very common between the 1950s and 1970s, to more communicative approaches, which became dominant in the late 1970s (Brown, 2001; Ellis, 2009; Kumaravadivelu, 2006; Lightbown & Spada, 2006) and to approaches that include contextualized instruction and increased rigor (Johnson & Parrish, 2010; McHugh, 2014; Wrigley, 2009). For additional information about contextualized instruction and more rigorous instruction, see the Issue Briefs and the Companion Learning Resources on *Meeting the Language Needs of Today's Adult English Language Learner* and *Preparing English Learners for Work and Career Pathways*. Relevant and meaningful context in the ESL classroom is important (Teachers of English to Speakers of Other Languages, 2009). In student-centered classrooms, learners are not only taught in context but learn to function in their new environments, whether they are making purchases, getting an identification card, looking for a new job, or making an appointment to see the doctor. Lesson objectives are about what students will ultimately be able to *do* instead of merely what they *know* (Savignon, 1983). Research on adult learning makes it clear that adults' motivations are relevant to their lives outside of the classroom (for a review of the research, see Tusting & Barton, 2003). Digital literacy activities in the student-centered classroom are ideal for bringing the real world into the classroom, making the learning experience more relevant and authentic. Many teachers and students alike are indicating that they believe technology in the classroom is helping. See the results of a survey at <http://www.teachthought.com/technology/the-current-state-of-technology-in-the-classroom-infographic/>. For more information on **student-centered instruction**, see Peyton et al. (2010).

Three Classroom Settings

The three classroom environments discussed in this RESOURCE are as follows:

- “Bring your own device” (**BYOD**) (i.e., no technology other than devices that students bring to class is available, except perhaps for one computer and an **interactive whiteboard**);
- Computer-enhanced classroom (i.e., classrooms with a row of computers in the back of the room or sets of laptops/tablets); and
- Computer lab (i.e., every student is equipped with a computer).

This RESOURCE cannot possibly address every environment or emerging technology. To learn about environments not discussed in this RESOURCE such as flipped classrooms, blended learning, and emerging technologies, go to the **NMC Horizon Report, 2014 Higher Education Edition**.



TAKE A TIP: FOCUS ON REAL WORLD

Referencing Mackey (1999), and Nakahama, Tyler, and Van Lier (2001), **Mathews-Aydinli (2007)** reports, “When there is a focus on real-world issues and problems, the interactions that take place have been found to be more meaningful and authentic than interactions produced during activities such as assigned role plays or repetition of dialogues, and the expectation is that such interactions promote second language acquisition” (p. 5).



What Does It Look Like?

The short sample vignette below is similar to the more complete stories you will read throughout this RESOURCE. This vignette is not intended to give the whole picture but serves only as an introduction. The vignettes that appear later in this RESOURCE are more complete, are followed by lesson plans, and contain links to examples of real classrooms with real issues.

Jean is an ESL instructor of 22 adult high-beginning students. She surveys her students and concludes that six have some experience using the Internet and technology, while the rest have little or no experience. She also discovers that four students have no interest at all in learning to use technology. Jean's classroom contains six computers with Internet capabilities.

Jean's Challenges

1. Jean cannot take time away from the assigned curriculum to teach computer skills; yet, she knows digital literacy is important.
2. Jean can use a computer for word processing and sending e-mail. Jean can access the Internet, but she has very minimal skills beyond that (i.e., she can perform only limited searches online).
3. Jean's school administration is encouraging the integration of digital literacy activities into instruction, but she is not sure how to get started.

Jean reasons that, if she could guide students to complete just one simple thing on the computers, it would be a great success on which she could build. Jean writes a lesson objective to align with the curriculum. Her objective reads, "By the end of class, students will be able to describe weather." In the process of the lesson, she also wants students to gain an appreciation of how they can access up-to-date information on the Internet.

The Lesson

Before class begins, Jean prepares all six computers in the classroom with an open selected web page that will allow students to search for the weather throughout the world during the application of the lesson. After doing a warm-up, she begins to discuss the weather the same way she has for several years in lessons with similar objectives. She directs her attention to the students

who are not interested in using the Internet and does her best to get them interested in the topic by asking them questions about their country of origin. She asks, "Does it rain a lot? Is it hot there?" With every puzzled look, Jean elicits support from other students who may be able to identify the unfamiliar words. As the new vocabulary is identified, she draws weather symbols like students would find on the Internet on the board, with the corresponding words underneath. She asks students to open their textbooks and then conducts the lesson as she ordinarily would.

After presenting new material and providing plenty of practice, Jean divides the students into six groups for the application, or independent practice, stage of the lesson, which will include the use of technology. She does not have an **interactive whiteboard**, so she distributes a handout that shows a **screenshot** of the web page. Jean asks students to circle the place on the web page where they would type in the city and country in which they were born. She then asks them to write the city and country on the handout.

Before class, Jean practiced the digital activity herself to make sure she understood what problems students might have, and identifies student leaders for the activity. As students get into groups, Jean teaches the leaders to lead their teams and not do the work for the group members. They practice the activity by taking turns; first, the leader finds and records the weather for his or her birthplace, and then each student takes a turn doing the same. During this small-group work activity, the leader may not touch the keyboard to help the other members of the team, but the leader may touch the mouse in case students have trouble maneuvering the mouse at first. Students are excited to find out about the current weather in their countries and report to the class what they found.

Please go to the following link to see Jean's lesson plan: <https://eslteacherdotnet.files.wordpress.com/2015/08/weather-lesson.pdf>



Challenges

In the vignette, Jean was faced with several challenges:

1. **Minimal digital literacy** of the instructor and some students. According to Prensky (2001), many students and instructors in adult education today could be considered **digital immigrants** and not digital natives. Prensky suggests that digital immigrants did not grow up with the same technology that is often required to function in society today; so many older students and teachers have a great learning curve and always maintain what Prensky calls an accent. Often, instructors are discouraged that their students know more than they do. Jean made sure she was prepared for the class and experimented before instruction. She could also have benefitted from assessing her own and her students' digital literacy skills through tools such as the **Technology Integration Self-Assessment** (TISA) or **Northstar**. These sites will help instructors and students identify skills and set goals. Northstar also has training modules to develop digital literacy skills. In this class, Jean surveyed her students to identify their needs before she planned her lesson. She also could have provided classroom activities in which students asked one another about their daily technology use and needs. In addition, Jean recognized that a few students knew as much as she did—or more—about technology and allowed them to lead. She taught them a few strategies for leading, so that they would not dominate the application activity. In cases like this, some students also may be given the opportunity to teach the teacher.
2. **Students' lack of interest in technology.** Some students in Jean's class did not immediately see the relevance of digital skills to their daily lives. Especially in open entry/open exit classes, it is not uncommon for students to leave when hands-on technology is introduced. Jean was sure to motivate students and completely prepare them for the technology before they sat down at a computer so that they would be properly motivated to solve a problem or answer questions. Digital literacy is more than just being able to use technology; it also includes the ability to find information that is not readily available in other ways. Jean's hope was that her students would find great satisfaction in discovering something about their country of origin.
3. **Limited resources.** Ideally, Jean would have had an interactive whiteboard, which would have allowed her to project the web page for the application and write directly on it in a classroom presentation. She still managed to prepare students for the task with a handout that included a screenshot of the page. There are many innovative ways to teach digital literacy when there is a lack of resources, including a lack of computers. Some of these ideas will be illustrated later in the RESOURCE. One approach would be to have students bring their own devices (BYOD). Often students do not have devices to bring, but they can be encouraged to share and work in teams or groups (see an **example of BYOD** later in this RESOURCE). The Internet provides a wide variety of articles, images, and activities that can be adapted for use in ELA instruction. Teachers who use the Internet but have no access to computers in class can encourage their students to use technology outside of class. Teachers and students can also access technology, such as computers and the Internet, through public libraries, computer labs, centers for immigration assistance, and adult learning centers. Finally, in this case, Jean could have brought in a laptop or tablet and a projector to use in class. If the school hadn't supplied **Wi-Fi**, instructors could have accessed a connection through a mobile **hotspot device** or their phones. Small projectors that can fit in small bags are also available. For an online discussion about limited resources, see the **blog post** by Artan (2015). Go to <http://everyoneon.org> for low-cost resources that help students, teachers, and programs get online. Also, visit <http://lincs.ed.gov/programs/digital-literacy> for additional resources supporting digital literacy.



VOICES FROM THE FIELD

Janet Sparks, Lifelong Learning Facilitator at Hubbs Center of Saint Paul Public Schools, speaks about challenges using technology.



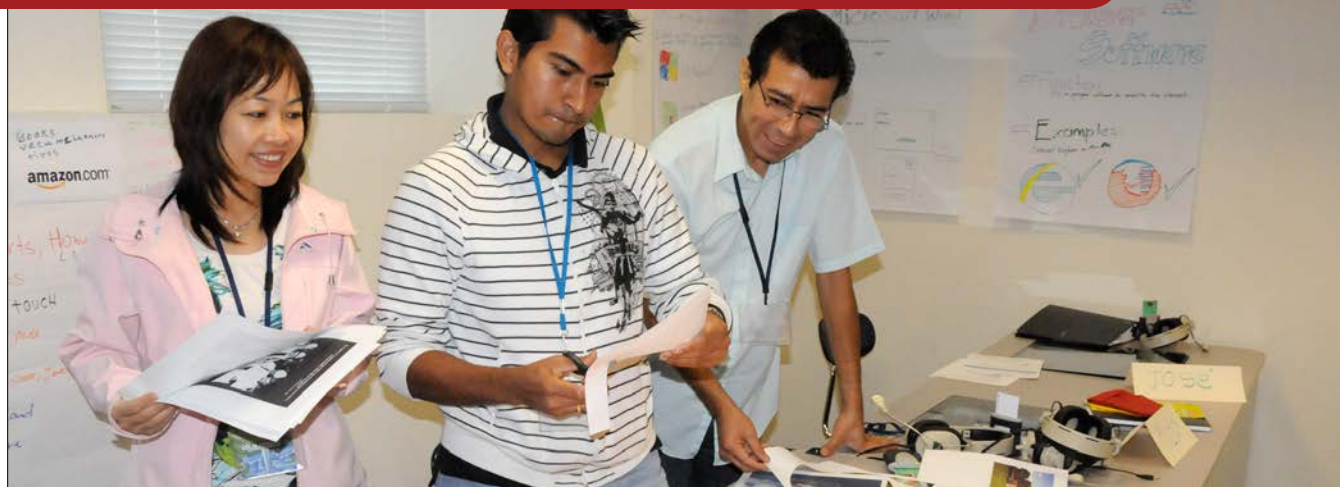
TEACHERS ASK: *How can I get started?*

Research conducted by the PEW Research Center tells us that **the most common reason that adults are not online** is that they don't see the relevance of the Internet to their lives. For teachers this means that it is as important to help ELLs understand the relevance of digital literacy skills to their lives as it is to help learners develop digital literacy skills. **Rob Jenkins**, ESL Coordinator at Santa Ana College, suggests that **The Outreach and Technical Assistance Network** (OTAN) does note that a large percentage of students have smartphones, and so this could be a good place to start. See the OTAN survey for more information: <https://adulted.otan.us/info.cfm?fuseaction=studentResultsByArea&Area=ESL>





CONCEPTS IN ACTION



Students of varying proficiency levels work together on a project involving photos they gathered from the Internet.

Concepts in Action is driven by a series of activities that address three key issues involving integrating digital literacy into English language instruction. The three themes that follow are based on the key questions posed at the beginning of this RESOURCE. The themes and questions are listed again here:

- **Theme 1: Integrating Digital Literacy Activities Into Instruction (Planning).** This theme addresses the question, *How can instructors design student-centered language lessons that integrate digital literacy activities to (a) address the wide-ranging needs of a diverse student population and (b) prepare them to meet the demands of a rapidly changing technological environment?*

This section covers planning effective lessons that develop digital literacy activities, including assessing student needs; refining objectives; and choosing appropriate technology, digital literacy tasks, and effective independent practice activities.

- **Theme 2: Multilevel and Differentiated Instruction (Instructing).** This theme addresses the question, *Given that students have varying degrees of digital literacy and access to technology, and given the ever-changing nature of technology, what can instructors do to differentiate instruction that incorporates technology into a student-centered classroom?*

This section covers student-centered instruction, cooperative learning, and grouping strategies that can

lead to effective use of technology and progress toward digital literacy while meeting the needs of a diverse student population. Since digital literacy can be advanced by project- and problem-based learning, we include examples.

- **Theme 3: Evaluating Learner Outcomes (Assessing).**

This theme addresses the question, *How can instructors evaluate learning outcomes and processes within technology-enhanced lessons, units, and courses?*

This section covers assessing learning, as well as assessing the effectiveness of digital literacy instruction and learning through rubrics and other tools.

The activities in each of these three sections are presented in this order:

- **Key Considerations:** You are asked to reflect on some specific questions. If you are using this RESOURCE with others or within a learning community, these questions could be discussed at length.
- **Discussion:** Some key concepts related to the theme and the questions are addressed.
- **What Does It Look Like?** A vignette provides a classroom illustration of some of the key concepts.
- **Lesson Plan:** An annotated lesson plan reflects the previous vignette.
- **Examples From the Field:** Authentic examples of digital literacy are discussed on pages 14–15, 22–23, and 29–30.

Theme 1: Integrating Digital Literacy Activities Into Instruction (Planning)



Key Considerations:

- **How is planning a lesson that integrates digital literacy activities different from planning a lesson without technology?**
- **Are there any ways to assess what students can do before you plan something that might be beyond their reach?**
- **How should instructors choose the technology to use in instruction?**

These are just some of the questions that you may be asking yourself as you begin to plan. Certainly, the principles of planning effective lessons apply when you incorporate digital literacy activities. POST, originally adopted from a business application, is one approach to developing an effective process of planning. POST stands for *People, Objectives, Strategy, and Technology*.

P for People—Consider what the students can do and what their needs are. Following the credo of student-centered instruction, with its focus on student interaction instead of instructor lecture, no one lesson plan can be considered adequate for all students or for all classes because adjustments should be made to meet the needs of the unique students in a particular class at a particular time. Knowing students' level of proficiency both in English and in technology is essential. In a classroom with no concern for technology, preassessments and inventories can supply this information. To identify student digital literacy, the instructor can develop simple surveys, like the ones suggested in David Rosen's [blog](#), or can use more formal online assessments (e.g., [TISA](#) or [Northstar](#)). Unit 1 of the [Professional Development Module](#) illustrates a [can-do](#) activity that can help identify where students are along the digital literacy continuum. After students' abilities are identified, instructors should create a long-term plan that shows a flexible schedule for addressing student needs for the duration of the course.

O for Objective—Identify what digital literacy skills students will develop in the lesson. Perhaps the single most important element to quality planning is the concept of backward design. Objectives are based on what the instructor believes students will be able to do by the end of class. The application activities at the end of a lesson should reflect the objective so that an appropriate assessment of student progress can be made. A standard objective reflects what students will be able to do, not just know. To create meaningful objectives, the instructor often weighs the tools that students will need in order to accomplish these objectives; these tools include grammar, vocabulary, and pronunciation, as well as the skills the student will use (e.g., listening, speaking, reading, and/or

writing). When digital literacy is added to the mix, these skills also must be considered. For students, the lesson objective might be, *By the end of class, you will be able to give and follow directions*. For the teacher, it might be more specific: *By the end of class, students will be able to give and follow directions, using the imperative in speech or written form, while using a smartphone for texting or while speaking*.



TAKE A TIP: OBJECTIVES

Good objectives are the foundation of good lessons. Objectives can be designed to identify the critical thinking skills that students will use following Bloom's Taxonomy. For one approach to crafting objectives, see the [Iowa State University Model of Learning Objectives](#).

S for Strategies—Identify the activities that will lead to students' reaching the lesson objective. Activities or strategies are carefully scaffolded to build toward students' accomplishing the expected task at the end of the lesson or the application activity that reflects the lesson objective. It is important to recognize that, in the course of learning, clear demonstrations of the use of technology are essential, although some discovery also can be encouraged as learners become more adept at learning how to learn and learning how *they themselves* learn. It is often effective to have learners teach one another and for instructors to become facilitators. To better understand [scaffolding](#), go to <http://www.teachthought.com/learning/learning-theories-jerome-bruner-scaffolding-learning/>.

T for Technology—Consider the technology that students will use in the real world. Ask yourself the question, *What tasks are typically accomplished with technology in the real world?* For example, finding out the daily weather and checking medical test results are usually handled online; making charts or graphs to present information typically uses a spreadsheet program; and checking a bus schedule or sending an e-mail to a child's teacher is often done with an app on a smartphone. It is also helpful to identify the [digital literacy aspects](#) discussed at length in the [Module](#) and [Issue Brief](#). Often, the best way to proceed is to have a list of possible activities and possible technologies nearby while planning. The Digital Literacy Skills Inventory chart that follows shows a partial



Digital Literacy Skills Inventory (Partial List)

BASIC COMPUTER LITERACY

Turn devices on and off.

Use a mouse or touch pad, keyboard, and touchscreen.

Find, open, close, save, print, and create files.

Locate, open, and close programs and applications.

Recognize e-mail and web addresses.

Create and send e-mails; add and read attachments.

Locate and open a browser, use search box, and open and close tabs.

Enter information into online forms; use the tab key to navigate.

Troubleshoot basic technology issues (e.g., Ctrl/Alt/Delete)

INFORMATION AND COMMUNICATION

Communicate on social media.

Communicate with e-mail.

Combine text and images in letters or reports.

Follow and/or comment on blogs; create a blog.

Create slideshow presentation with PowerPoint or Prezi presentations.

Listen to **podcasts** for learning; perform tasks during and after listening to a podcast.

Watch a video for learning; perform tasks during and after watching a video.

DIGITAL INFORMATION LITERACY

Responsibly search online; refine searches; use search strategies.

Seek answers to questions about services.

Evaluate reviews of products and services.

Learn about a topic through video.

Communicate using text messages.

Keep a personal web page.

INTERNET LITERACY SKILLS

Select appropriate links.

Avoid irrelevant parts of websites.

Move ahead and back.

Open new windows.

Solve problems/create a project

Use a combination of technologies to research, communicate, and perform tasks.

list. For a more complete list with handout and worksheets, visit the **Saint Paul Community Literacy Consortium**.

SAMR is another approach. SAMR stands for *Substitution, Augmentation, Modification, and Redefinition*, and provides steps to integrating technology into the classroom. **Edutopia** provides another discussion on integrating technology. This website defines *technology integration* and explains several different types of integration, including online and blended learning, and game-based learning and assessment. The site provides several links that give examples of different types of learning, mostly for K–12, not necessarily for ELLs. Some of these ideas can be adapted for integrating digital literacy skills into adult ESL instruction.



TAKE A TIP: COURSE ON TECHNOLOGY

A complete course entitled *Integrating Technology Into the Adult Education Classroom* can be found at <http://lincs.ed.gov> and includes a lesson on the POST approach. Other lesson plan approaches, like **SAMR (Substitution, Augmentation, Modification and Redefinition)** and the **TPACK (Technological, Pedagogical, Content, Knowledge)** models, are also briefly discussed. To access the course, you must first register. Registration is free.



TEACHERS ASK: What is your focus when writing a lesson plan?

Branka Marceta of Outreach and Technical Assistance Network (OTAN) responds: “The teacher plans for the most effective use of online and physical technology resources in order to create the learning opportunities that are similar to the everyday real-life situations such as using technology to do research, to learn, to apply for a job, to do banking, to connect with others through social and other media. The learning outcomes will drive the activities and the types of technology used as listed in the TPACK Learning Activity Types site at <http://activitytypes.wm.edu>

List of digital skills compiled from **Professional Development Module**, Units 1–4



What Does It Look Like?

The following vignette is intended to illustrate a process for developing a lesson plan that integrates digital literacy activities. Depending on your experience with digital literacy and that of your students, you might consider taking one or just a few of the ideas and trying them out for yourself. The vignette will be followed by a short discussion and two lesson plans that allow you to compare a plan without technology with a plan that integrates digital literacy activities.

Background

Oscar is an experienced teacher who has a large collection of lessons that he has created and he uses as a basis for planning activities for his low-intermediate ESL class. His 28 students have various levels of digital literacy, but they all have some experience using a mouse and keyboard. They also have learned in past lessons in his class how to search the Internet. After doing an inventory to identify his students’ abilities with technology, Oscar has systematically introduced several digital literacy activities into his class. Oscar is slowly converting his standard lessons into digitally enriched ones, following his goal of integrating digital literacy activities into instruction. Oscar teaches in an enhanced classroom, equipped with 10 computers.

Lesson Objectives

Oscar’s first step is to identify and refine his English language objectives. His class is in the Community Unit of the school curriculum and identifies *giving and following directions* as the prime objectives. Oscar considers which digital literacy skills can be reinforced and which new skills might be introduced in a lesson that will lead to the objectives. He also takes into account his students’ level of literacy, their learning goals, and the overall goals for the course.

To help himself get started, Oscar thinks about what he does to find unfamiliar locations, especially when

click to enlarge

Digital Literacy Brainstorm

ACTIVITY	DIGITAL LITERACY SKILLS	DIGITAL LITERACY ASPECTS	APPLICATION	TECHNOLOGY
Search for locations given the address, get directions, follow directions.	Use a mouse, open a web page, input addresses, refine searches.	- Basic Literacy Skills - Creating & Communicating - Finding and Evaluating - Solving Problems	Online map application (e.g., Mapquest.com, Google Maps)	Computer/smart device
Find direction information on homepages of places in the community.	Maximize use of a search engine (e.g., Google, Yahoo, Bing), open a web page, interpret a web page, input data, follow links.	- Basic Literacy Skills - Creating & Communicating - Finding and Evaluating - Solving Problems	Websites of places in the community	Computer/smart device
Give directions from a cell phone or using e-mail.	Use cell phone, texting, social media.	- Basic Literacy Skills - Creating & Communicating - Finding and Evaluating - Solving Problems	Text messaging, e-mail	Smart device
Make an invitation and give directions to a place in the community using social media and/or attach a map link.	Use cell phone, texting, social media.	- Basic Literacy Skills - Creating & Communicating - Finding and Evaluating - Solving Problems	Text messaging, e-mail	Smart device
Create an advertisement giving directions.	Use video device, edit clip, save to various formats.	- Basic Literacy Skills - Creating & Communicating - Finding and Evaluating - Solving Problems	Audio editing (e.g., Audacity) Video editing (e.g., Movie Maker II)	Video camera, smart device

Extended Project: Search for a restaurant online for lunch with a few classmates. Evaluate reviews. Evaluate menus. Make reservations online. Send invitations via social media and e-mail, including links to the restaurant website and directions. Follow directions. Have lunch. Write an e-mail thanking all who attended. Write a review for the restaurant.

Note: Checkmarks (✓) in the Digital Literacy Aspects column indicate the skills to be used.

he is in a place he has never visited. He generates a list of activities as he brainstorms technology and the overall objectives.

In this case, Oscar sees that his students need to reinforce their skills reading websites. He also decides to introduce them to refining online searches. He files away the project for perhaps the end of the unit and begins to plan his lesson. His objective is this: *By the end of class, students will be able to give and follow directions to a local restaurant that they locate online.* Oscar can now plan the specific activities he will provide for his students so that they can reach this goal.



Looking Back

Oscar's brainstorm helped him see a few crucial things that he had not considered originally. One thing he realized was that getting directions when you are looking for somewhere to go takes more advanced digital literacy skills than getting directions when you already know the address or location. After he completed the brainstorm, he was able to see more clearly what skills were needed. The brainstorm also prompted him to think of a short project that might be extended over several class meetings. In the third column, Oscar identifies the types of digital literacy skills that will be required. Oscar has a goal of taking his students beyond basic digital literacy. He recognizes that, at this level, students have the vocabulary and the English skills to do more than they could have done at the lower levels.

Oscar's brainstorm is an essential part of planning. To successfully integrate digital literacy activities into instruction, consider first how you use these skills in your daily routines. As was mentioned earlier, this focus will help make the lessons relevant and useful to students.

As you review Lesson Plan B on the next page and review the previous **brainstorm chart**, you may notice that technology is not the point of the lesson. Life-skill, language, and digital literacy objectives drive lessons, and the choice of technology is based on the digital literacy skills targeted—not the other way around. Many parts of the lesson are very much like a traditional classroom, where, for example, Oscar checks for understanding of basic vocabulary and students practice constructing sentences. This instruction often happens before digital literacy activities are introduced. Oscar could



Oscar checks his low-intermediate student's recognition and understanding of vocabulary.

enhance his lesson even more with additional technology. For example, he could have chosen, and may still choose, to have students watch a video or listen to a podcast that they find on giving directions. Follow this link for an example:

https://www.youtube.com/watch?v=6tRvWNld_t4

A video might enhance his lesson but might not promote the development of the digital literacy skills he is targeting. However, he could add *creating and communicating information* to his lesson plan by having students create a video or podcast. Students could, for example, go out onto the street, ask a friend for directions, and record real-life responses. When learners are using technology individually, independently, and with hands-on experience, they are practicing, reinforcing, or developing digital literacy skills.



TEACHERS ASK: What does it mean to find and evaluate?

Kathy Harris, Assistant Professor of Applied Linguistics at Portland State University, responds. "Because ELLs are still mastering English language skills, the ability to find and evaluate information online can be difficult. It requires scanning to pick out what is important, as well as a close reading of some elements while disregarding others. The typical busy web page is difficult for ELLs to read and interpret" (Harris, 2015). Go to <http://digitallearn.org/learn/basic-search> for basic lessons on searching the Internet.



Lesson Plans A and B

Lesson Plan A, below, provides a well-constructed lesson plan that you might see in a typical ELA classroom without technology. As indicated in the vignette, Oscar is converting his lessons to ones that introduce and develop digital literacy skills. Lesson B represents what he hopes to do with all his lessons.

Lesson Plan A

Level: ESL low-intermediate

Unit focus: Community and Community Resources

Class length: 2 hours

Language-learning objective: Give and follow directions to locations in the community, using the imperative and prepositions.

WARM-UP

Ask students to make a list of locations in the community that are important to them, including places for entertainment, shopping, eating, and services. Ask them to categorize the list and then have a discussion with partners and compare their lists. Ask them to include *why* they made the choices they made.

INTRODUCTION

Ask students questions about their favorite places in the community and ask about locations. Ask for cross streets and why students like the locations. Then ask specifically about restaurants in the community. State the objective and explain that students will create formal invitations that include directions to a restaurant.

PRESENTATION

(1) Draw a map on the board or give students a handout of a map with restaurants listed on it. Show students the starting point and give directions (without disclosing the end location). Ask students to identify the location. Give directions to real locations in the same way and ask students to identify the locations. (2) Use examples from the textbook, as well, to reinforce new vocabulary and colloquial expressions. (3) Show students models of invitations. Explain the parts of the invitation, including a small map, simple directions, and the important information (day, time, place, RSVP, etc.).

PRACTICE

(1) In groups, ask students to think of a few special places in the community and write directions from the school without disclosing the locations. Share the directions with another group of students and allow them to guess what and where the location is. (2) Students from different groups partner and role-play giving directions to the chosen locations. (3) Students complete a worksheet that includes an invitation template with a place to write simple directions and draw a simple map.

EVALUATION

Observe student participation in the practice(s) and give mini-lessons if necessary.

APPLICATION

In groups, ask students to plan lunch at a restaurant with friends. Ask them to write invitations to friends that include directions and a map. They choose a restaurant in the community or use one from the map on the board from the introduction. Then have them personally deliver the invitations to another group and talk about the restaurant and the invitation, clarifying the directions.

The objective of the previous lesson was *Describe places in the community*.

Often, there are several presentation/practice sequences in a lesson. Here, activities are combined for brevity.

In this stage, make activities simulate real life to the greatest extent possible, as a bridge to activities out of the classroom.

The instructor uses real-world examples.

Evaluations can be as simple as observations or can be additional activities.





Lesson Plan B

Level: ESL low-intermediate

Unit focus: Community and Community Resources

Class length: 2 hours

Language-learning objective: Give and follow directions to locations in the community, using the imperative and prepositions.

Digital literacy objective: Use Internet search engines; interpret websites.

WARM-UP

Ask students to make a list of locations in the community that are important to them, including places for entertainment, shopping, eating, and services. Ask them to categorize the list and then have a discussion with partners and compare their lists. Ask students to include *why* they made the choices they made.

INTRODUCTION

Ask students questions about their favorite places in the community and ask about locations. Ask for cross streets and why students like the locations. Then ask specifically about restaurants in the community. State the objectives and explain that students will create invitations that include directions to a restaurant.

PRESENTATION

(1) Display a map of the community using an online program like [google.com/maps](https://www.google.com/maps). Pinpoint the school and several locations on the map and elicit help from students for directions to different locations from the school. Have students write directions on the board and then demonstrate how to put the directions into the program. Compare the directions from the application with the class directions. Use a student as a secretary and ask him/her to write the steps to the process on the board, starting with opening the program. (2) Review searching on the Internet and show students how to enter the name of a restaurant and the city to locate a restaurant web page online. Show them how to find "locations" and "directions" on one website. (3) Show students models of invitations. Explain the parts of the invitation, including a small map, simple directions, and the important information (day, time, place, RSVP, etc.).

PRACTICE

(1) Give students several addresses of places in the community to practice looking up online. Have students, in pairs or in threes, look up and record directions on a handout. (2) Students are given three restaurants to search for online and write directions to get there, completing a handout. (3) Students complete a worksheet that includes an invitation template with a place to write simple directions and draw a simple map.

EVALUATION

Review worksheets and give mini-lessons if necessary.

APPLICATION

In groups, ask students to plan lunch at a restaurant with friends. Ask them to choose a restaurant in the community that was not used in the practice part of the lesson and to search for the website. Ask them to find the directions on the website. Have them compare the directions to those on a direction application online. Ask them to write invitations to friends that include directions and a map. Then have them personally deliver the invitations to another group and talk about the restaurant and the invitation, clarifying the directions.

As an option, students could do this with tables in a word processor if this was identified as a needed digital literacy skill for the class.

The instructor has a projector hooked to a laptop.

There are 10 computers. Students in groups take turns.

As an option, students could create a social media invitation if the instructor wants to include additional digital literacy aspects.

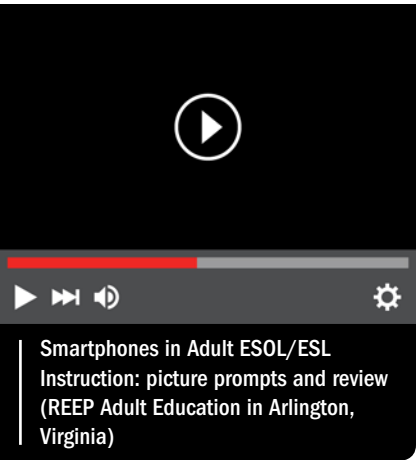
Students have searched for websites before.

In practice, tasks are specific and controlled.

Examples From the Field

This section will illustrate how some instructors and programs have integrated technology into instruction while promoting digital literacy. The examples are not meant to demonstrate complete lessons. Rather, they are offered to show you how digital literacy activities can and do look in the classroom.

Example 1



Our first example comes from the Arlington Education and Employment Program (REEP), in Arlington, Virginia. To learn more about the program, visit REEP’s [website](#). When smartphones were first introduced, many teachers saw them as distractions. It is not unusual still today to see “no smartphones” signs posted above the whiteboard. However, as smartphones became more popular, a shift in their use became evident. Many smartphones today have a camera. Why not bring the world into the classroom in a relevant way? In the above video clip, watch Tess Maza as her students interact, using their cell phones.

In this video, every student appears engaged. This engagement creates opportunities for *real* communication and not merely repetition of dialogs or planned role-playing. Students are concentrating on using English in a real and practical way. They are asked to

take pictures at work and bring those pictures back to the class to share. It isn’t necessary for every student to take pictures, but all students benefit from those who do. Students have been given opportunities to use their phones to build digital literacy skills and to share those skills with others in the class. You might also notice that students have textbooks open; this activity is tied to planned lessons and not undertaken in isolation.

The video above is one [Open Educational Resource \(OER\)](#) reviewed through a LINCS project. For all 60 reviews, please go to <https://lincs.ed.gov/programs/eslpro>.

For 44 ways to use smartphones in the classroom follow the link: <http://gettingsmart.com/2013/01/part-1-44-smart-ways-to-use-smartphones-in-class/>. ESL instructor Susan Gaer developed a [resource](#) regarding the use of smartphones. The REEP website provides many [lesson plans](#) that integrate technology. The site also has several [resources](#) to help introduce digital literacy to students.



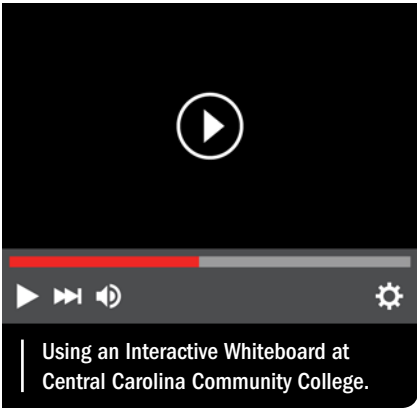
TAKE A TIP: USE TECHNOLOGY WITH A PURPOSE

Steve Quann says, “Technology should always be used with a clear purpose in mind, even if a game is played just to break up a long lesson or bring attention to a new topic. Remember technology is one tool in your toolkit and sometimes pen and paper might be best!”

Example 2

The following video from Central Carolina Community College shows a strategy to get learners involved in participating in the classroom website or blog. Watch this video to observe some basic features of an interactive whiteboard and consider what you might be able to do with your technology resources.

The instructor, Julia Herbon, does a lot of modeling before she asks students to interact with technology. You will also see that students are learning how to use the website within a context: in this case, health. To warm up the class, she establishes a context by asking students to answer some questions from a blog she is introducing. Students answer questions about three health myths that will be discussed later in a video. This serves as a prediction activity. Students then watch the video to confirm their answers to the three questions. The questions could





be posed without introducing the blog, but the activity prepares students for what they will do later with technology on the website. The questions lead to an “authentic” video—that is, one that is not created specifically for English language learning.

Students become familiar with the website while learning English. They are introduced to some basic computer skills (and relevant vocabulary), like scrolling; keyboarding, including using the shift key; and clicking on links. Once introduced and exposed to sufficient modeling, students go to the computer themselves and perform the task on the website. Once students learn how to access the website, they can watch the video and perform the activities outside of class. They may be asked to evaluate the video or

communicate via social media, further strengthening their digital literacy skills.

For more information about using interactive whiteboards in instruction, go to <http://www.neamb.com/professional-resources/benefits-of-interactive-whiteboards.htm>. If you are new to interactive whiteboards, you might benefit from watching a [video](#) comparing a normal whiteboard with an interactive whiteboard.



TAKE A TIP: INTEGRATING TECHNOLOGY

For suggestions on how to integrate digital literacy into life-skill topics, go to [Integrating Technology Internet Guide](#) and sample lessons in [Integrating Digital Literacy and Problem Solving into Instruction](#).

Choosing Technology

Deciding what technology to use and what programs may be available for particular tasks is difficult if instructors don't become familiar with the available resources themselves. There are several places to go for help in this regard; however, there is not one location that has everything. In this RESOURCE, use the [Resource Index](#).

In addition to the POST approach, a tool that can help you evaluate your use of technology is called the SAMR approach, developed by Puentedura (2014). Here the instructor decides what technology to use, according to which rung on the SAMR ladder students are on: *Substitution*, *Augmentation*, *Modification*, or *Redefinition*. In the *Substitution* stage, the task that might be done with pen and paper is now done with technology. For example, students might be asked to develop basic word-processing skills by writing a paragraph or to search the Internet rather than look a word up in a

dictionary. In the *Augmentation* stage, students can use new technology tools, such as spell-checkers. These first two stages enhance learning. The next two *transform* it and integrate critical thinking skills into the process. At the *Modification* stage, students might use other technology, like social media, [Google Drive](#), special apps, and video, to modify their product. In *Redefinition*, they would transform their task into something completely different with the aid of technology (e.g., take a student story and from it develop a video). To see a full explanation of the SAMR process, watch the video at <https://www.commonsemmedia.org/videos/introduction-to-the-samr-model>.



VOICES FROM THE FIELD

Barry Bakin, ESL Instructor of Los Angeles Unified School District, suggests five questions to ask for choosing technology.



Theme 2: Multilevel and Differentiated Instruction (Instructing)



Key Considerations:

- **How do you deal with the inherently complex and challenging nature of the multilevel classroom without introducing digital literacy activities, which make it even more difficult**
- **What are some instructional strategies that allow for more literate learners to stay engaged and learn while less literate students are given additional attention?**

Planning activities for any ESL classroom can be challenging because students have a wide range of abilities and experience. Some students may be very strong readers but have minimal speaking skills. Others might be actively using technology on a daily basis, while still others do not know how to turn on a computer. Teachers may try to overcome this problem by teaching to the middle, but by doing so, they do not serve either the lower or the higher level students. The most effective way to resolve the issue is to provide student-centered instruction that relates to every student, in which students perform tasks at their own levels. This can, however, lead to what many have called controlled chaos and depends on the instructor's tolerance for many activities occurring simultaneously. To control the chaos, grouping strategies will help. Successfully grouping students and teaching some individuals to lead their groups while the instructor facilitates another group provides an opportunity for everyone to learn. There are many approaches to facilitating a multilevel lesson with various grouping strategies, ranging from whole-class activities, **like-ability activities**, and **cross-ability activities**. Discussing these grouping types in detail is beyond the scope of this RESOURCE; for more information, see **Promoting Success of Multilevel ESL Classes: What Teachers and Administrators Can Do** (Mathews-Aydinli & Van Horne, 2006).

Certain elements of effective teaching also address these factors. Cooperative learning techniques, as well as problem-based and project-based learning, can naturally provide support for all students, no matter their level (Moss & Van Duzer, 1998). Cooperative learning, for example, goes further than staging an activity in which students work in groups and exchange information among the members. Rather, cooperative learning is group work in which there is positive interdependence and personal accountability (Johnson, Johnson, & Holubec, 2008). In other words, the activity cannot be completed without each member of the group's taking individual responsibility for actively contributing. Demanding cooperative learning tasks, as well as less rigorous ones, can be distributed among members of a group ideally comprising three to four students. Often, cooperative groups work on tasks that involve developing

a project or resolving a problem. For more information on problem-based instruction, refer to the resource **Problem-Based Learning and Adult English Language Learners** (Mathews-Aydinli, 2007). Other approaches that support cooperative learning and integrating digital literacy include **contextualized instruction**, topic- or theme-based learning, and **Learners' Lives as Curriculum**® (Weinstein, 1999).

These instructional strategies work whether or not the focus includes digital literacy activities. However, there are some specific techniques that should be considered regarding digital literacy. For example, when helping students learn technology, teachers tend to step in and do activities for the students because there is usually a time delay. This phenomenon is akin to instructors' answering their own questions before giving students time to think about them (Schiever, 1991). For students to develop digital literacy skills, they must be given the opportunity to experience the technology for themselves, and instructors should plan for the time it takes to do this. Units 1 and 2 of the **Professional Development Module** identify six strategies teachers should consider while planning activities: (a) have students sit with more digitally capable peers; (b) assign a tech-savvy student to the role of a roaming technology helper; (c) model for the class and then have students do it themselves—consider using **I do, we do, you do**; (d) have small groups work together and call on the teacher or the more digitally capable peer when they cannot figure it out themselves; (e) make mistakes yourself and encourage students to make mistakes; and (f) help students understand that there will always be problems to figure out when using technology and to expect such issues. Another strategy might be to include additional resources, like handouts with screen captures or instructional videos on how to use the technology.

Instructors also should sequence activities carefully. In so doing, the students remain on task and are more receptive to learning. Scaffolding is important in any ESL classroom, especially one that incorporates digital literacy skills. The instructor should be mindful of vocabulary used in the lesson and should decide whether the vocabulary will be pretaught in





a presentation or discovered by the students. In addition, the instructor should model all activities enough times so that all students understand what they are to do. Digital literacy activities can be applied to any portion of a lesson plan. To see this in context, review the callouts for the sample **lesson plan** after the vignette and study the following template.

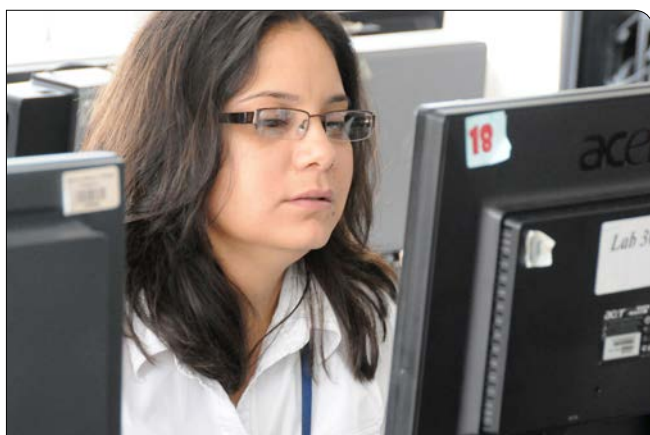
A lesson plan approach that has gained popularity in the last decade is the WIPPEA lesson plan, first proposed by Hunter (1984). The stages include Warm-up, Introduction, Presentation, Practice, Evaluation, and Application. The following chart shows a modified WIPPEA plan (on the left) with digital literacy and cooperative learning taken into consideration (on the right).

Another well-developed and useful approach has been created on the **Team Comp Lit website**. This website has many additional resources, including one example of a **lesson plan template**, lesson plans, and explanations. There is also a blog to discuss digital issues. In this template the stages are (1) Objectives, (2) Activate Background and Vocabulary, (3) Guided Exploration, (4) Authentic Tasks, (5) Repeat and Remember, and (6) Follow-up Exercises.

click to enlarge 

STEPS TO LESSON PLANNING	DIGITAL LITERACY CONSIDERATIONS
1. WARM-UP AND/OR REVIEW - Uses previously learned content to begin a lesson. - Materials are familiar to students from previous lessons.	1. This task is often pair or group work to accommodate students who may not have had the earlier instruction.* 2. Require the same digital literacy skills that students used in previous lessons. Do not introduce any new technology at this stage. 3. Make sure students mentor each other. Especially make sure students who did not attend on the previous day are teamed up with ones who are experienced with the digital literacy task.*
2. INTRODUCTION - Focuses student attention on the lesson (asking questions, using visuals...). - Objective stated. - Objective is related to previous lesson.	1. Identify the language learning objective first. <i>By the end of class, students will be able to ...</i> 2. Identify what digital literacy (DL) skills can be used to improve student learning and that mirror authentic use whenever possible. 3. Determine whether you want to introduce a DL skill, give practice on a DL skill students have already learned, or give them opportunities to expand their skills. 4. Identify DL objective(s). 5. Plan the application of the lesson before the presentation.
3. PRESENTATION - Introduce new information (through visuals, realia, description, explanation, or written text). - Check on student comprehension. - Prepare students for practice.	1. Use technology whenever it reflects what students have to do on a regular basis in the real world. Be sure to use the technology students will have to use in the practice. 2. Demonstrate technology to use in short steps. If this is one of the first times using this technology, ask a student to act as a scribe and write steps on the board. Do not introduce too much unfamiliar technology at a time. 3. Spend a significant amount of time preparing students for practice, having them demonstrate for others, and making sure students can do the activity. If it appears to be too much for them, have them practice in stages. Also identify those who already have the necessary digital skills as leaders.*
4. PRACTICE - Students practice new knowledge through different activities. - Practice is guided through materials. - May be whole group, small group, pairs, or individuals. - Instructor models each activity, monitors progress, provides feedback.	1. Consider making these pair or group activities if technology is included, especially if the digital literacy skills are being introduced for the first time.* 2. Make sure students share in responsibilities, but group students so that at least one person in each group has sufficient experience with technology.* 3. Teach experienced users how to be leaders and to not do the work of the group on their own.*
5. EVALUATION - Instructor evaluates students on attainment of objective. - Can be oral, written, or by demonstrated performance.	1. Be sure to assess student efforts regarding the language-learning objective to confirm that they are ready for the application. If they are not, provide additional activities that will prepare them. 2. Assess the digital literacy abilities. Make sure all students had an opportunity to experience the technology.*
6. APPLICATION Students apply new knowledge to own lives or new situations.	1. Make sure the activity reflects both the language-learning and the digital literacy objective(s) of the lesson. 2. Team projects are often most effective in the application stage.*

Note: An asterisk (*) highlights the student interaction addressing this theme.
Lesson plan format developed by the California Department of Education, Staff Development Institute. Adapted from Hunter (1984).



Tech-savvy student works independently in computer lab in preparation for teaming up with an assigned partner who is still developing those digital capabilities.



TAKE A TIP: HOW TO USE DIGITAL LITERACY SKILLS IN INSTRUCTION

When deciding how to approach digital literacy, one concept to remember is to keep the language objective in the forefront, regardless of what lesson plan template you use. For adult ELLs, effective activities are ones that teach basic computer skills alongside language instruction and integrate basic digital skills into the overall topic or theme of an adult ELL course.



What Does It Look Like?

The following vignette is intended to show how you might consider grouping students. Grouping students is a skill, just as is learning English or digital literacy. It takes practice to effectively group students and work with them but not influence them too greatly. Teachers who do not have as much experience incorporating cooperative learning into instruction should consider asking groups to complete simple tasks for short periods of time before undertaking more elaborate projects.

Angela's Advanced ESL Class

Angela is an instructor of 24 advanced ESL students with a wide variety of digital literacy skills. After issuing an **"I Can" survey (Professional Development Module)** at the beginning of the course, she learned that 7 students fell near the top of digital literacy, well above her own digital literacy level. In the first 8 weeks of instruction, 13 students have learned many basic digital literacy skills, including getting and using an e-mail account. They have various levels of aptitude. The remaining 4 students are new to the class, and each of them has minimal digital literacy skills. Her classroom environment is BYOD. All but 5 of the 24 students have smart devices or tablets. Sometimes Angela checks out five tablets from her school before a particular class, and sometimes she has students share devices.

She is planning a unit on housing. She wants students to learn about mortgage rates and different types of loans, as well as interest rates. In this unit, students compare houses and amenities, compute payments, evaluate neighborhoods and schools, and deal with realtors. After a brainstorm considering the digital literacy skills that might be required, she has decided on the following objective for one of the lessons: *By the end of class, students will be able to identify steps to buying a home.* In the next lesson, students will be asked to create a slide show of what they learned from the video. Angela has already had her students create three slide shows using presentation software at three times in the course for other units. She found on YouTube three videos on buying a home with links to various websites and additional information. Students will take notes from the first 5 minutes of the first **video**.

After the warm-up, Angela asks questions and takes an anonymous poll on how many students have housing they own and how many students have housing they rent.

She frequently conducts polls, as most of her students have a smart device. She uses a program called **Kahoot** to conduct the polls. Five students do not have smart devices; so they share with others. This poll takes just a few minutes, and the class reviews the information. She writes the objective on the board: *Identify steps to and information about buying a home in preparation for creating a short slide show.* She explains that there are two lessons. The first will be to gather information and the second to create the slide show.



TAKE A TIP: APPLICATIONS TO TAKE POLLS

There are many free applications that can be used to take polls, give quizzes, and supply interactive activities on smart devices. Other similar applications are identified at this website:

<http://www.edutopia.org/blog/5-fast-formative-assessment-tools-vicki-davis>

Next, Angela carefully groups the students. She identifies one student who has Microsoft PowerPoint experience, and she makes sure he is in a group that can function without him some of the time so he can help other groups during the lessons when needed. On the second day, "the PowerPoint expert" is able to help out when needed, like a roving assistant. Angela also makes sure her four new students are not in the same group. Angela wants to ensure that there is at least one high-level student per group. She asks students to discuss in groups of three or four any agencies, people, or websites that could help them make decisions about buying a house. The groups can use the Internet if they want. They are asked to make a list and share it with the class. Their lists might include *friends and family, real estate agencies, the Internet, and websites*. The groups are also asked to predict how much they need to earn as a family to buy a \$300,000 home. After 7 to 10 minutes of discussion, the groups report back to the whole class for additional discussion. If time and digital literacy needs permit, this might also be a good time to give instruction on how to evaluate sources of information.



During the discussion in groups, Angela sends the class a link to the YouTube video via e-mail. She passes out one worksheet to each group. The worksheet has a place to write all website names listed in the video, along with a place to write the names of people and agencies that can help buyers prepare for a mortgage and find a house. There is information at the bottom of the worksheet with a link for students to go online to a **calculator** and investigate how much of a mortgage they could afford on the basis of fictitious information provided. Angela does not preteach vocabulary because she wants the students to discover meaning on their own during the activity. As an evaluation, on the back of the worksheet, Angela creates a matching activity that asks the group to match each new vocabulary word with its definition. Students may have to review the video several times to complete this section.

Every student has a particular role and responsibility, and students record their names on the top of the worksheet, as shown below.

Angela understands the principles of student-centered instruction and project-based learning. She knows that students could perform these tasks individually, but she encourages students to follow simple steps and collaborate. For example, she gives each group only one

worksheet rather than providing one per student. She also gives the groups a sequence of steps. In this way, different students have a chance to lead at different times. The steps are as follows:

1. Open the video and watch the first 5 minutes. Do not stop it.
2. Watch the video again and stop it, when requested, to record all Internet addresses.
3. Watch the video a third time and stop it, when requested, to record all names and agencies.
4. Open the Bankrate website and enter the calculations.

Students in Angela's class are very engaged and have a genuine interest in obtaining the information. She encourages students to look at the websites listed in the video and hands out an additional worksheet for homework. The homework assignment includes tasks like looking up personal credit scores (which students do not have to disclose on the worksheet). This lesson is in preparation for the following lesson, in which each group will create a slideshow presentation on the video. Responsibilities to develop the presentation are again set up so that all students can participate. Responsibilities range from design to transitions to content.

STUDENT NAME	RESPONSIBILITY	DESCRIPTION
	Media manager	Manages video on smart device or tablet.
	Secretary 1	Records all Internet addresses on the worksheet and/or digitally.
	Secretary 2	Records all people and agencies discussed on the worksheet and/or digitally.
	Budget specialist	Opens Bankrate website and performs calculations.



Looking Back

In the vignette, Angela is keenly aware of her students and their abilities. She makes sure students have an opportunity to develop their skills while learning something relevant in their lives. One of the key features of her planning is that she has a “big picture” and goals for her students and their literacy skills. She provides similar activities several times and has a set routine that she follows. For example, students have used **Kahoot** many times. The students with lower level digital literacy can learn to point, click, and enter information. The technology enhances instruction, and students learn. She also has had students create different presentations over the term. In addition to PowerPoint, there are several presentation tools available. Students could use **Prezi** online, or they could create their slide show on **Google Drive**. Students will be asked to include **hyperlinks** and at least two images when creating their presentations. Angela will model these activities, and learners will have several opportunities to practice before they put these elements into their presentations. Depending on time and student level, Angela could also add instruction on how to organize presentations well, using guidelines like the **7x7 rule**.

Instruction should be in a relevant context, thus adding to student motivation and success. As with most skills that learners are exposed to, adult ELLs need repetition and practice in context to eventually master digital skills.



Angela monitors the work of two students, who are collaborating on a slideshow presentation for the class.

Also, it is important to note that, in Angela’s class, learners always have a role to play in group activities, and those roles are routinely identified and spelled out. In basic cooperative groups, standard roles of *leader*, *recorder*, *timekeeper*, and *presenter* are often used. Angela has taken the standard roles one step further and made sure that the roles related directly to the life-skill tasks. Also, because Angela provides students with a list of steps that are expected, students have opportunities to help or mentor one another.



TEACHERS ASK: *How do you manage not to overwhelm students with too much material that includes both language and digital literacy goals?*

Kathy Harris says, “Digital literacy skills are best acquired when the language and the topic are familiar and only the digital format is new and unfamiliar, and there are many opportunities to make mistakes.”



Lesson Plan

The following lesson plan is as Angela created it in the vignette. Angela has done many things in previous lessons to prepare her students to succeed in this lesson. They have created three PowerPoint presentations before this class, and they have used Kahoot several times. All but three students have and use e-mail addresses. The four new students will soon be mentored by other students to set up and use a free e-mail accounts. The following lesson plan may be reduced or changed significantly for lower level students. Surrounding callouts describe additional activities that could be inserted.

Students will be asked to take the information they learn in this lesson and create a PowerPoint in the next lesson.

Level: ESL advanced

Unit focus: Housing

Class length: 2 hours

Language-learning objective: Research steps to buying a home and use *Wh-* questions to ask for information.

Digital literacy objective: Receive links via e-mail; open and view video.

Sites: <https://www.youtube.com/watch?v=SqrYYzwr-ZI>; <http://www.Bankrate.com>

The video is part of a three-video series on YouTube. In the unit, students will see more of this video, as well as the other two.

WARM-UP

Divide students into groups and ask each group to create a simple realtor's advertisement for the sale of a home in a neighborhood. The group should use one of the actual properties identified on the previous day through a Web search. In their advertisement, they must include the square footage, the amenities, and the asking price. Give groups no more than 15 minutes to complete this activity. Post the advertisements in the classroom.

The objective of the previous lesson was to describe housing. This activity could be performed with technology, but because of time constraints, it may be more fitting for an application activity or even a project.

INTRODUCTION

Use Kahoot to take an anonymous poll. Ask students how many have housing they own and how many have housing they rent. Make sure all students participate. Use identified peer mentors to help those who do not have a smart device or experience with Kahoot. Review the results with the students and calculate the percentage. State the language-learning and digital literacy objectives. Make sure to explain that there are two lessons: The first will be to gather information and the second to create the slide show about the information.

The instructor has identified peer mentors for different routine classroom functions.

The instructor could have had students calculate the percentage on their cell phones or even make a graph or pie chart in Excel if time had permitted and it met digital literacy goals.

PRESENTATION

(1) Group students carefully. Groups will stay the same for two lessons. Ask the groups to discuss and evaluate different resources (people, agencies, etc.) that they could use to help them get a mortgage. Get groups started by giving them two: *friends* and *realtors*. If they want, students may use the Internet for ideas. Have groups share their answers with the class. Lead students to areas they may not have considered, like budgeting. (2) Ask students how much a house might cost in their community and how much they need to earn to afford it. After group discussions, have a whole-class discussion. (Send a link to the video via e-mail to all students during group work.) The teacher routinely sends e-mails or text messages to students. (3) Introduce the video. Explain that they will watch 5 minutes of the video three times. Pass out the worksheet and carefully explain the first side. Ask students to assign themselves responsibilities according to the table provided.

Carefully group students, making sure there is at least one student who is comfortable with the software (in this case, PowerPoint).

The instructor does not send the link to the video earlier because she does not want students to watch it ahead of time.

This practice was established at the beginning of the term.

(continued on page 22)

Students should assign themselves responsibilities based on skills. Make sure to give students time to do this but not too much time. Ask for a show of hands for each responsibility.

*(continued from page 21)***PRACTICE**

Ask students to watch the video following the four steps identified on the handout: (1) Open the video and watch the first 5 minutes. Do not stop it. (2) Watch the video again and stop, when requested, to record all Internet addresses. (3) Watch the video a third time and stop, when requested, to record all names and agencies. (4) Open the Bankrate website; find the mortgage calculator, and enter the calculations.

EVALUATION

Have students complete the vocabulary–definition matching activity on the back of the handout. Check answers as a class.

APPLICATION

Ask students to make a summary of the video, including the key points and agencies. Then, in groups, have them make a how-to list preparing to buy a house.

Evaluations can be as simple as observations or can be additional activities.

Students may be asked to make their summaries formally, using technology. They may even be asked to post their list to a class blog.

Examples From the Field

An ideal way to foster group interaction and develop digital literacy is through problem solving. There are many names for strategies and classroom structures that involve problem solving. The most common are project-based and problem-based learning, both abbreviated as *PBL*. The [Edutopia website](#) has a good explanation of the difference and a chart that describes the two approaches side by side. In both approaches, students are asked to solve a problem or create a product on the basis of a real or fictitious problem, or circumstance with authentic resources. In [Problem-Based Learning and Adult English Language Learners](#) (Mathews-Aydinli, 2007), we are introduced to the following fictitious situation.

You are a family of four looking for a place to live in (name local city/area). The father has a job at (choose place) and earns (income). The mother has a job at (choose place) and earns (income). You have a 14-year-old son and 7-year-old daughter who need to start school next week. You do not have a car. Where should you live? To make the decision, you will need to consider information about local schools, costs of available housing, public transportation, and shopping locations—and to prioritize your needs to make the best possible choice.

In the 21st century, these problems are often resolved by researching on the Internet. Students may use cost-of-living calculators, such as those on <http://money.cnn.com/calculator/pf/cost-of-living> and a site such as <http://www.bestplaces.net>, where students

can investigate several different options for requested information. Students could also be asked to seek opinions on social media. It is important to note that knowing how to access and post on social media is not enough to say that students are digitally literate. Students must also learn the acceptable norms associated with social media, and this could be a good time to introduce them. It is often a good idea to design problem-based activities with a final product in mind. The product could be a completed handout or series of handouts, posters, brochures or booklets, presentations, a dramatization, slide shows, recorded interviews, or videos. The amount of technology required to complete the project could range from none to extensive technology, depending on the students' needs and digital literacy skills. Peruse the *Project-Based Learning Toolbox* found at <http://www.elltoolbox.com/pbl.html>.

A class at Renton Technical College worked on a project without technology. Students from 14 different countries created projects about customs surrounding celebrations of life and death. Watch the [video](#) and consider how you could integrate digital literacy skills into this lesson.

Susan Gaer, of Santa Ana College, maintains a [website](#) of such projects. On her website are examples in which students often share their ideas with other students in other schools throughout the country—and sometimes the world. For example, Susan asked students to send in home



TEACHERS ASK: How do you get all students in groups to participate, especially when technology is involved?

Rob Jenkins suggests that you follow a few important steps:

1. Make sure students are prepared. Be careful to avoid putting students in situations for which they are not ready. They must be given all of the tools before they start. Test it yourself to make sure nothing is too difficult or beyond student preparation.
2. Make sure you have enough activities so that each member of a team has a task. This is not to say that each needs to do it on his or her own. It just means that he or she is responsible for its completion.
3. Give tasks that are meaningful and check regularly to make sure that the assigned task is being led by the assigned student.
4. Always teach in context, but make sure that students are not overwhelmed with too much new language and too many new technology tasks at the same time. Teach the language and the context, then move on to the technology.

remedies. See some of the results of this [international project](#). Students are asked to send an e-mail to Susan, and then she posts the appropriate ones on the website. One approach to a lesson plan on this challenge would be for students to discuss home remedies in groups. The instructor could create a worksheet and have the group complete it by describing the health problem, indicating different ingredients to create the remedy, and providing

instructions. The students in the group could speak to family members via social media or e-mail to get more ideas. Students could also be encouraged to create an account and have a reason to send e-mails. Of course, just as always, in order to really teach a broad spectrum of digital literacy skills, teachers could also familiarize students with the basic norms for sending e-mails, what is and is not appropriate, and so on.

Web-Based Resources

The Internet abounds with resources to help students create projects. As is mentioned earlier, these projects can lead to interaction with students of all language and digital literacy levels. The following chart gives a partial list. As is mentioned often in this RESOURCE, all activities developed through online resources such as these should have a language-learning objective.

These [Websites for Classroom Projects](#) are among the many resources available online to help students expand a task into a project. Each one of these activities requires different digital literacy skills. In selecting the resource, be sure the digital task fits the language goal and reflects what students might do in real life. For example, the [SuperTracker website](#) could be used in a lesson on nutrition in which students are asked to create a plan for a fictitious person who is overweight and needs to control his or her diet. Students would be asked to design a meal plan with a specific number of daily calories on the basis of the information they glean from the trackers. This, like any other project, should conclude with presentations so that students can share their work. The presentation also serves to keep students motivated and accountable.

Websites for Classroom Projects

THEME	DESCRIPTION	URL
Personal Info.	Create applications or other forms.	https://wafco.com/form-builder/
Personal Info.	Create online family trees.	http://familyecho.com
Personal Info.	Create polls to schedule a meeting.	http://doodle.com
Personal Info.	Create a monthly calendar of activities.	http://schedulebuilder.org
School	Take learning style quizzes.	http://educationplanner.org/students/self-assessments/learning-styles-quiz.shtml
Clothing	Create an avatar.	http://avachara.com/avatar/fashion.php
Community	Build a city and add people and other objects.	http://citycreator.com/
Housing	Create a floor plan and add furniture.	http://floorplanner.com/
Health/Food	Make a healthy-eating plan.	http://weband.com/diet/food-fitness-planner/
Health/Food	Use calculators for nutrition, calories.	https://www.supertacker.usda.gov/
Health/Food	Use calculators for physical activity, weight, and goals.	https://www.supertacker.usda.gov/
Health/Food	Make recipes.	https://www.supertacker.usda.gov/
Employment	Identify jobs you are suited for.	http://elearningplanner.com
Employment	Design an office.	http://floorplanner.com/
Presentation	Tag images with text and video.	https://thinglink.com/
Presentation	Create collages by uploading pictures.	http://befunky.com/create/collage/
Presentation	Create presentations that can be stored online.	http://Prezi.com
Presentation	Make word clouds from different text sources.	http://tagxedo.com

click to enlarge



Theme 3: Evaluating Learner Outcomes (Assessing)



Key Considerations:

- **How do you know if digital activities are effective and students are learning?**
- **Are there any forums where ideas regarding digital literacy are shared?**

Assessing learner progress is essential for ongoing improvement. No progress can be measured if no goals, standards, or baselines have been established. Many programs do not have a standard for integrating digital literacy into instruction. To successfully integrate digital literacy into instruction, the teacher should look at the course as a whole and develop a plan to integrate these activities regularly. The plan should have benchmarks, such as *By the third week of instruction, students should be able to send and receive e-mail messages and have e-mail conversations with the instructor*. Familiarizing students with how to access e-mails and communicate effectively along with some basic skills like using a mouse might be the only literacy skills students learn in a term. Of course, what is taught depends on the results of an in-class survey, like “**I Can**” or an inventory, like **Technology Integration Self-Assessment** (TISA) or **Northstar**, and also on the instructor’s personal level of digital literacy. As the instructor individually acquires the new technology skills and becomes more comfortable in the role of facilitator, he or she may introduce more technology skills to the students.

After standards or benchmarks are set, instructors can more readily see if students are improving and if additional intervention is necessary. A series of **formative assessments** should be scheduled throughout the course to check student progress. Observation alone can be deceptive. A survey could be filled out online through social media or with applications designed for this purpose, like those mentioned at <http://www.edutopia.org/blog/5-fast-formative-assessment-tools-vicki-davis>. In classrooms without technology, this can be accomplished by passing out 3-by-5 cards to all participants and having students answer questions about content, instructional preferences, or general feelings about the course. Although surveys are useful, they only identify what students know or say they can do, but surveys do not demonstrate what students can actually do. A better way to evaluate student progress would be to give the learners a task that can be measured and then, on completion, record the results on a checklist. If the task is more complicated, a rubric could help measure the students’ demonstrated mastery or progress. For example, students could be asked to create and send an e-mail or respond to

one from the teacher. They could be asked to create a short presentation for the class or find some information online. These tasks would become part of a **portfolio assessment** and offer evidence that students are progressing with both digital literacy and ELA.

Formative assessment also helps the instructor reflect on his or her teaching. This reflection is nearly as important as student improvement. Keeping a **teaching journal** or engaging in activities such as **peer coaching**, **classroom research**, **communities of practice (CoPs)**, and **professional learning communities (PLCs)** are excellent ways to stimulate discussion and find new ways to include digital literacy in instruction. Engaging in these types of activities shifts the focus of discussion from teaching to learning (Eaker, DuFour, & DuFour, 2007). For a packet to start your own peer coaching, follow the link: <https://eslteacherdotnet.files.wordpress.com/2015/08/peer-coaching-and-research-packet.pdf>.

Many ongoing assessments can be integrated into instruction. A rubric may be required, especially if students are not working individually but with a group. Help in developing rubrics can be found in different online sites like <http://Rubistar.4teachers.org>. Instructors can gauge student progress from applications learners perform in lessons, projects they may do at the end of a unit, or **digital portfolios** that are assembled throughout the term.

Rubrics are an important tool for evaluating products and performance that are difficult to measure, unlike multiple-choice tests, which are more objective.



TAKE A TIP: TWO TYPES OF RUBRICS

Rubrics come in many different forms. In the most general sense, rubrics can be analytical or holistic. Analytical ones divide the task up into different skills and are very useful for formative assessment, while holistic rubrics combine all the skills for a grade or level designation.

Rubrics are not just a tool for measuring outcomes, however. They also can be used as a tool to help students perform to expectations. Consider, for example, the likely outcome if students are asked to give presentations in front of the class but the instructor has not informed them that only students





who speak loudly enough to be heard from the back of the room will receive top marks. It is essential that students know the expectations; therefore, stating the lesson's objective is important. A rubric could be as simple as three statements, or it could be very complex and detailed. It's good practice to review the rubric before students embark on an activity and to permit them to suggest changes and

ask for clarification. In addition, the instructor might show some samples of student work and the score based on the rubric or have students do the scoring through peer editing or reviewing. In measuring student progress in digital literacy, a rubric can help the instructor and lead to better student performance. The analytical rubric below is for the vignette that follows.

Sample Rubric

ESL Level: ESL low-beginning

Unit objective: By the end of the unit, students will be able to write three paragraphs when given a model. They can include a personal digital photo (optional: only for more advanced students). The first paragraph will be about themselves and personal information; the second, about their family; and the third, their likes and dislikes. These paragraphs will be written using a word processor. The students will go to a computer lab four times during the unit and will be assessed on the fourth visit.

CATEGORY	3	2	1
Punctuation	Used uppercase letters and periods appropriately.	Mostly used uppercase letters and periods appropriately.	Sometimes to never used uppercase letters and/or periods appropriately.
Content	Content reflected the model.	Content partially reflected the model.	Content did not reflect the model.
Mouse use	Moved the cursor comfortably.	Moved the cursor where wanted with difficulty.	Rarely moved the cursor where wanted.
Opening/Saving Programs	Opened, closed, and saved programs with no help.	Opened, closed, and saved programs with occasional help.	Did not open, close, or save programs without help.
Formatting	Formatted name and date flush left and title centered with no assistance.	Formatted name and date left-justified and title centered with some assistance.	Did not format name and date left-justified and title to center.



What Does It Look Like?

This vignette will explore an activity by a high-beginning ESL class in which a rubric to measure both writing and digital skills is introduced. The instructor uses the rubric introduced previously. She also reflects on her skills as a teacher. The instructor learns something about her students in this scenario.

Esther is a teacher of 18 beginning adult ELLs in a classroom with no computers but with access to a computer lab. She takes her students to the lab twice a week for an hour at a time. Esther prepares students for the computer lab by preteaching them vocabulary and bringing keyboards and mouse devices to the classroom for practice when modeling what they will do in the computer lab. She also shows her students samples of what she expects from them by the end of the unit. For the first unit, students are to write three paragraphs on their personal information on the basis of models she provides for them. On the second day of class, Esther takes her students to the computer lab and, by asking them to do a few tasks, evaluates their basic digital literacy skills. Rather than having them work independently, Esther groups them in teams of three to reduce potential student frustration because some may have limited digital literacy skills. She teaches them to open a word-processing program, type their names, and save their documents to a special folder on the computer desktop. She then uses the information she gathers to fashion a plan to help all her students become more comfortable with technology.

Because Esther has been given the opportunity of using the computer lab, she wants to make the most of this opportunity. She maps out the skills she hopes the students can develop in her class for each unit she will cover in the term. For example, students will learn basic word processing in the personal information unit; they will learn to go shopping on the Internet in the second unit on consumer economics; and so forth. She plans special projects for each unit so that she can evaluate her students' progress. She chooses what students will do on the basis of what she herself does with technology to accomplish certain routine tasks.

As is stated earlier, Esther's goal for the unit is to have students write three paragraphs about themselves. Students will work on one paragraph at a time. Esther has prepared models about herself, and she has several

samples of student work from previous semesters that she displays in the room so that students can see what they will do by the end of the unit. Even though digital literacy skills are important to Esther, she makes sure that any discussion about technology is integrated into language instruction and that students understand how digital literacy is helping them learn the language. She is fully aware that she is an ESL teacher, not an Information Technology teacher.

She teaches a lesson on personal greetings and giving personal information. Students learn to ask, "What is your name?" "Where are you from?" "Where do you live?" and "Are you married?" During the lesson, students write sentences about themselves and eventually put them together into paragraphs. This is all done without technology. Students learn to edit their work by looking for incorrect usage of uppercase letters and periods. She discusses punctuation and content, using the rubric to help clarify her expectations to the students. They are anxious to score well. After two drafts, the students complete their first paragraphs, and Esther uses the language of the rubric to tell them how they did. Students have all done well because Esther has made sure she has helped them until they have succeeded, even if it has taken a few extra drafts. The next day, they spend an hour in the lab. This is their second time in the lab, but Esther reviews all that they learned from the first time they were there. With some explanation and help, students work in pairs to transfer their first written paragraphs to word-processed documents and save these documents to their special folders.

Esther follows the same pattern for the next two paragraphs. Students add the paragraphs about their families after lessons in class and another trip to the lab. By this third day in the lab, Esther encourages many students to work on their own. She has students who finish early help other students. She teaches the students who are assisting how they should lead but not take over the keyboard. Occasionally, she types something





for a student having an especially difficult time, but then she deletes what she did and asks the student to try again. At this third lab visit, Esther explains the rubric to the students so that, if they have challenges, they can practice. Esther notices that a few students with lower digital literacy skills are nervous about the rubric and their scores. Esther explains that the rubric is more for her than them and that learning these skills takes time. She further explains that they will have the whole term to practice. In addition, she shows them that she has installed simple mouse and keyboard activities on the computer for practice if they need it. After additional practice in the classroom and drafting their third paragraphs, the students return to the lab to add their final paragraphs to their documents and Esther completes the rubrics for each student.

After the unit, Esther has a record of student progress in acquiring digital literacy skills, and the students have

a digital book online that they can share with family and friends. Esther has a class blog, where she posts student work and where she will eventually teach students to go for information about the class and to post comments or questions. She shows the students how to access the book they have just published on the blog, and now students are motivated to go to her web page. Esther is diligent in recording any challenges and unexpected issues in a journal. She realizes that maybe she has put too much emphasis on the rubric for technology because some students have less experience than others. She considers making the rubric simpler and easier for students so that they do not lose confidence. She considers how she can help her students as much on the digital literacy part as she does on the English part of the assignment. She also is part of a community of practice that discusses this concern and other issues. She is determined to continually improve her students' learning experience in order to help them be successful.

Looking Back

Formative assessments, whether they be checklists, rubrics, surveys, or other tools, help teachers reflect on what they might do to facilitate learning and foster better student outcomes in the specific lesson and in the entire course. Further classroom research, classroom observations, and participation in PLCs or CoPs can help educators find new and effective ways to facilitate learning. Also, with digital literacy, these forums provide opportunities for teachers to stay informed about constantly changing technology.



Esther works in the computer lab alongside her students so that she can experience what her students are experiencing and be better prepared to help them.



Lesson Plan

These lesson plans describe two days of Esther's plan for her class. The callouts include commentary on other activities Esther might incorporate, as well as explanations of several stages.

The focused digital literacy activities are repeated throughout the unit in the same routine over several lessons. This lesson is the computer lab portion and follows students' in-class writing about their families.

Instructors with more technology and time might record the presentations for a later podcast or video.

In lab settings, students first work in small groups or pairs and then, as they become more comfortable, begin to work on their own with word processing; however, group projects also can be carried out in a lab setting where students share a computer.

Depending on the level of the students, these steps could be developed during the class with input from students.

Level: ESL beginning

Unit focus: Personal information

Class length: 2 hours (45 minutes in the classroom and 1 hour and 15 minutes in the lab)

Language-learning objective: Create a paragraph about your family, using the simple present tense and the *be* verb.

Digital literacy objective: Use word processing to publish a paragraph.

WARM-UP

Before going to the lab, ask several students to read their paragraphs about personal information from previous lessons.

INTRODUCTION

While still in class, review the lab rules and the previous handout with steps students followed for the previous visit, when they transferred their personal information paragraphs to digital documents. State the objective and invite students to go to the lab.

PRESENTATION/PRACTICE

This time, ask each student to sit at his or her own computer, instead of forming groups of three, as they did before. Make sure to assign students who struggle with technology to sit near those who are more proficient. Pass out a copy of the rubric to each student. The rubric has two sections, one for writing and one for digital literacy skills. Review all the categories and demonstrate again how to open and close documents, and how to center and use the shift key for uppercase letters. Give students a handout describing the steps for this visit to the lab. Review it with them.

EVALUATION

Have students open their documents, which they saved in a special folder on the desktop during the previous lab visit. Identify students who could not do this task on their own and ask student mentors to help them.

APPLICATION

Ask students to type their paragraphs and save their work to the same folder they saved it to during the last lab visit. Ask students to print their paragraphs. Have them share their paragraphs with a partner while reviewing the rubric. Ask students to read their paragraphs to the class.

Students write a total of three paragraphs in the unit, reinforcing the same language skills and practicing the same digital literacy skills as this lesson. The unit lessons include personal information, family information, and likes and dislikes.

Having norms while using technology is important to make sure that students work efficiently and effectively.

Mentors were determined on the first visit to the lab. They finish the assignment earlier and have time to help others.

All student creations should be "published," even if just printed and read to the class. *Published* could mean displaying, printing, posting online, video recording, etc.

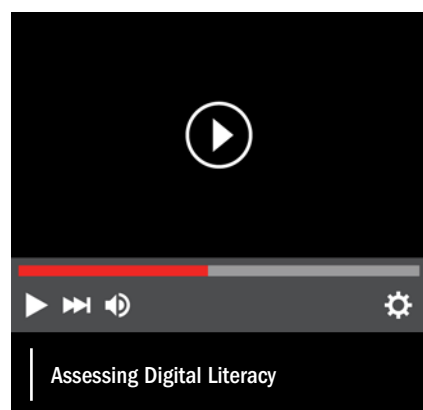


Programs that have computer labs have both a great resource and a challenge. Students may not have much access to technology in the classroom, and yet the instructor needs to prepare them sufficiently in the classroom before going to the lab, where time may be limited. Follow the link for another example of a lesson plan that utilizes a computer lab: http://www.apsva.us/cms/lib2/va01000586/centricity/domain/74/reepcurriculum/300-350_Navigation-and-Search.pdf. This lesson is one of many found at REEP in Arlington, Virginia.

Computer labs can also be used to learn other skills. See an example here: <https://www.oercommons.org/authoring/6942-presidents-day-computer-lab-research-project-for-b/view>. This is one of 60 OER reviewed through the LINCS ESL Pro project. To see more reviews, go to <https://lincs.ed.gov/programs/eslpro>.

Examples From the Field

Rubrics can be formative, meant to inform instruction, or summative, meant to apply a grade. There are several types of assessment beyond rubrics. In the following video, four different kinds of assessments are discussed: initial, diagnostic, formative, and summative.



Each of the four types has an important place in instruction, especially when integrating a digital literacy strand into an ELA curriculum. No measurement of student progress can be valid without a baseline. This RESOURCE has provided examples of diagnostic assessments, including the **Technology Integration Self-Assessment** (TISA) and **Northstar**. These assessments offer instructors opportunities to develop their own skills through basic tutorials.

Good assessment happens in every stage of a lesson, a unit, a course,

and a program. The instructor is constantly evaluating how students are doing during a lesson, whether additional explanation is needed, and whether students are ready for the next step. This kind of assessment leads to adjustments in instruction. One immediate assessment technique is called **Fist to Five Feedback**. In this technique, students are asked how much they understand and answer by displaying five fingers (if they understand completely), no fingers (if they don't understand at all), or one to four fingers (to indicate varying levels of understanding). This kind of instant feedback helps an instructor adjust instruction immediately, but this feedback is based on student perception and not feedback the teacher evaluates. Other assessments, such as worksheets or quizzes, allow teachers to learn more information on the basis of what students can do, such as how well they can answer questions or solve problems. These assessments don't rely solely on the students' perceptions. However, there is often time between taking a quiz or completing a worksheet and getting feedback; so it's not immediate.

Today, both student perceptions and feedback evaluated by the instructor can be merged through many different digital resources and be immediate

or nearly immediate. The Edutopia website provides a **Formative Assessment Toolkit**, which gives several resources that can be used in the classroom. These resources allow the instructor to take quick polls, provide on-the-spot quizzes that are prepared as needed or in advance, and ask questions that get at the effectiveness of instruction. The tools provide feedback that the instructor can see and evaluate instantly. This feedback is then used by the instructor to modify the lesson. A great example of this is offered by Vicki Davis, a full-time educator and technology integrator. Read about her **experience**.

Many of these ideas and resources require students to use some digital literacy skills. To really identify student progress in digital literacy itself, often the best practice is to require a product derived from using the technology. Portfolios and ePortfolios are very effective for measuring student progress in digital literacy. Click here for an **assessment toolkit**. **Mahara** is an **open source** program online that provides opportunities to upload files, interact on social media, and write in journals. **Edutopia** features an article and links to help teachers select which platform to use for their e-portfolios. Deeside College's e-learning manager offered a **description of their process**



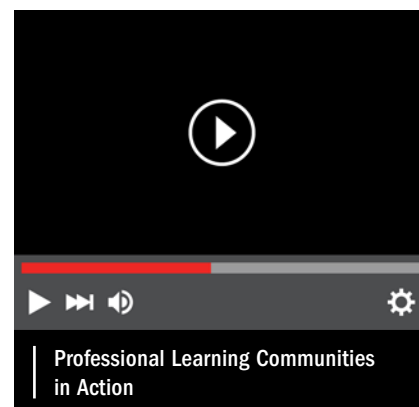
in using ePortfolios. What is most important about ePortfolios is that they are developed by the learner, not by the teacher, so that students develop digital literacy skills while building their portfolios.

Naturally, assessment cannot be only about student performance and learning. If students are not learning, what can be done about it? How can educators meet the needs of every learner? These types of questions are best addressed in forums such as PLCs and CoPs, where passionate instructors discuss what works and what doesn't. These types of focused discussions and collaborations lead to classroom research. These discussions also lead to evidenced-based instruction and increased rigor in the classroom. To read more about evidenced-based instruction, view ***Evidence-Based, Student-Centered Instructional Practices*** (Peyton et al., 2010). To learn more about increased rigor of instruction, view the suite of associated resources on *Meeting the*

Language Needs of Today's Adult English Language Learners via **LINCS**.

PLCs, developed originally for use in K–12 education, have demonstrated great success in improving student learning outcomes. These PLCs are now being used in many different adult programs throughout the United States. Through PLCs, instructors discuss standards that they have established, review student data they have accumulated, and test different approaches in the classroom to establish **best practices**. The following video, although not from an adult education program, shows the potential of PLCs. For more on PLCs, consider reading Eaker et al. (2007).

CoPs for teachers are somewhat similar to PLCs because both have a goal of improving instruction, but PLCs are tighter organizations, based on action and experimentation within an institution, while CoPs look for solutions to problems through sharing ideas from a wide range of individuals, who



are often from different institutions. The CoPs frequently meet face to face and/or online with colleagues to share ideas and challenges. Emerging from these interactions over time are best practices shared through tools such as discussion forums, wikis, blogs, and file sharing. Visit the LINCS community of practice on technology integration at <https://community.lincs.ed.gov/group/technology-and-learning>. To better understand the difference between CoPs and PLCs, go to <http://files.eric.ed.gov/fulltext/ED504776.pdf>.

Conclusions About Digital Literacy

Students can use tutorials to learn basic skills, but lasting skills come from implementing digital literacy in real life. Classroom activities that lead students to use newly developed skills outside of the classroom may help students be better prepared to keep up with advancing technologies as they continue to evolve.



VOICES FROM THE FIELD

Rob Jenkins, ESL Coordinator of Santa Ana College, discusses how his teaching has evolved along with changes in technology.

A short time ago, in the mid-90s, most people were getting much of their information about the world from TV, radio, and newspapers. Mobil devices were not commonplace in every home, and e-mail conversations were just beginning to be a new form of communication for the average person on the

street. Today much has changed, and digital literacy is no longer a luxury or a convenience for a few. It is a significant part of society and must be included in any definition of literacy. Instructors, whether or not they are digitally literate themselves, must recognize that instruction in adult literacy must include digital experiences and a plan to help students learn what they will need in order to survive in an increasingly technological world.

Of course, with this conclusion comes challenges. This RESOURCE can only scratch the surface of such a dynamic and changing area of literacy. The secret is to get involved and begin to experiment with ideas that can help students to embrace new technologies, know what to do with them, and know how to responsibly use them in the years to come.



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GLOSSARY

The following terms are used in this RESOURCE.

Best Practices: Practices or activities that are considered by many in a profession to be effective. (Page 30)

Classroom Research: A process whereby instructors test ideas out in the classroom and study outcomes to develop best practices. (Pages 24, 27, 30)

Community of Practice (CoP): A group of individuals committed to improving their practice by sharing ideas and discussing experiences online, face to face, or in a combination of environments. (Pages 24, 27, 30)

Cross-Ability Activities: Also known as mixed-ability, cross-ability activities are used when students are put into groups of learners with various abilities. (Page 16)

Digital Literacy Aspects: Digital literacy aspects include Basic Literacy Skills, Creating and Communicating, Finding and Evaluating, and Solving Problems (Harris, 2015). (Pages 8, 13)

Digital Portfolios: Also known as an e-portfolio, a set of evidences or examples usually maintained on the Web in electronic form and often used as a type of assessment. (Page 24)

Formative Assessment: Assessments designed to check on progress during the term with the purpose of informing instruction and learning. (Pages 24, 27, 29)

Google Drive: This is a free Google product people can use as a group to share and edit documents, spreadsheets, and presentations. (Pages 15, 20)

Hotspot Device: Wireless local area connection to the Internet. (Page 6)

Hyperlinks: Links from a file to another location. To activate a link, the user typically clicks on a highlighted word. (Page 20)

Interactive Whiteboard: A whiteboard that allows you to interact with a projected image or application. (Pages 4, 5, 6, 14, 15)

Like-Ability Activities: Also known as same-ability, like-ability activities are used when students are put into groups of learners with similar abilities. (Page 16)

Open Educational Resources (OER): Open source with educational applications. (Pages 14, 29)

Open Source: Software in which the source code is made available free for use or modification by any users. (Page 29)

Peer Coaching: A series of observations with which teachers help one another to improve instruction. (Page 24)

Podcast: A digital audio file on the Internet. (Pages 9, 11, 28)

Portfolio Assessment: A collection of student work to demonstrate a level of competency. (Page 24)

Professional Learning Community (PLC): A team of individuals who set standards, share best practices, and analyze data for a specific group of students they share in order to improve learning gains and student outcomes. (Pages 24, 27, 30)

Rubric: A tool used for assessing performance by making otherwise subjective evaluations more objective. (Pages 3, 7, 24, 25, 26, 27, 28, 29)

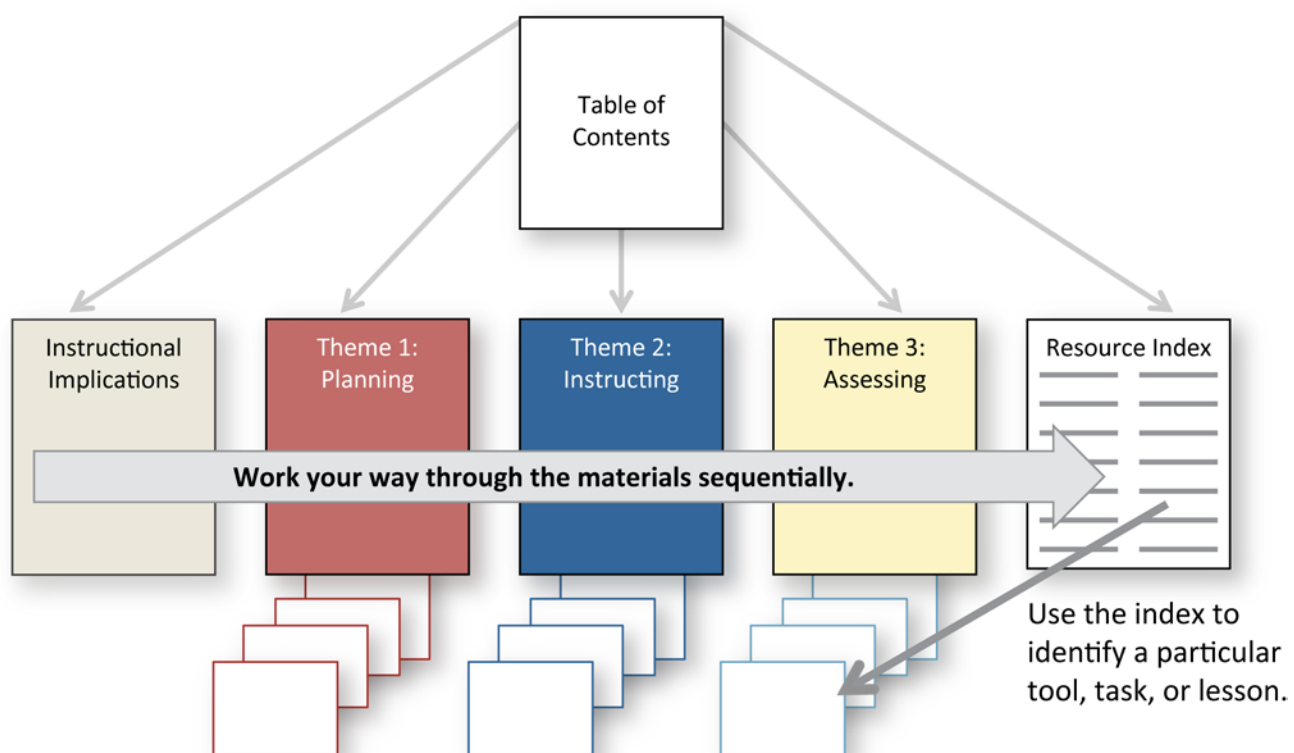
Scaffolding: Scaffolding is a series of activities or strategies that gradually get more difficult to build a foundation for learning. (Pages 8, 16)

Screenshot: An image of the computer screen often created with the Print Screen function on the keyboard. (Pages 5, 6)

Student-Centered Instruction: Student-centered instruction, also called learner-centered instruction or student-centered learning, is instruction that focuses on student interaction instead of instructor lecture. (Pages 4, 7, 8, 19, 30)

Teaching Journal: A reflective practice in which teachers write impressions about their class experience for later discussions with forums or for later planning. (Page 24)

Wi-Fi: A system to allow devices to connect wirelessly to the Internet in an identified area. (Page 6)



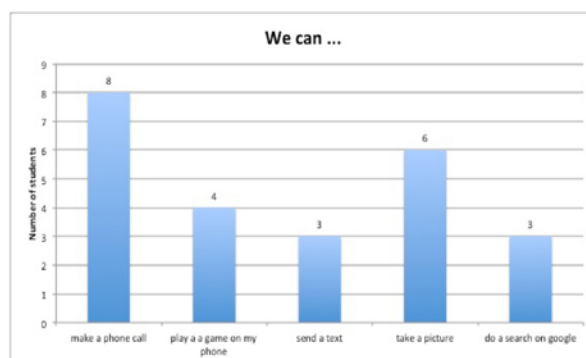


Class Activity: A Can Do List

This activity is important to do with all levels of adult ELA students.

Make a “I can do” list. Depending on the level of your class, do this activity as a whole class discussion or as an information grid activity in which students ask each other. Be sure to generate ideas from students.

- *I can ... make a phone call.*
- *I can ... send a text.*
- *I can ... read a text message.*
- *I can ... take a picture with my phone.*
- *I can ... take video with my phone.*
- *I can ... play a game on my phone.*
- *I can ...*



To increase the rigor, add analysis to the activity by making a graph of the findings of the class with either paper and pencil or a spreadsheet program such as Microsoft Excel.

This activity was adapted from Harrison, Dwyer, and Castek (2014, pp. 28–29).

From Harris (2015), *Integrating Digital Literacy into English Language Instruction: Professional Development Module, Unit 1*.



Digital Literacy Brainstorm

ACTIVITY	DIGITAL LITERACY SKILLS	DIGITAL LITERACY ASPECTS	APPLICATION	TECHNOLOGY
Search for locations given the address, get directions, follow directions.	Use a mouse, open a web page, input addresses, refine searches.	✓ Basic Literacy Skills Creating & Communicating ✓ Finding and Evaluating Solving Problems	Online map application (e.g., Mapquest.com, Google Maps)	Computer/smart device
Find direction information on homepages of places in the community.	Maximize use of a search engine (e.g. Google, Yahoo, Bing), open a web page, interpret a web page, input data, follow links.	✓ Basic Literacy Skills Creating & Communicating ✓ Finding and Evaluating ✓ Solving Problems	Websites of places in the community	Computer/smart device
Give directions from a cell phone or using e-mail.	Use cell phone, texting, social media.	✓ Basic Literacy Skills ✓ Creating & Communicating Finding and Evaluating ✓ Solving Problems	Text messaging, e-mail	Smart device
Make an invitation and give directions to a place in the community using social media and/or attach a map link.	Use cell phone, texting, social media.	✓ Basic Literacy Skills ✓ Creating & Communicating ✓ Finding and Evaluating ✓ Solving Problems	Text messaging, e-mail	Smart device
Create an advertisement giving directions.	Use video device, edit clip, save to various formats.	✓ Basic Literacy Skills ✓ Creating & Communicating Finding and Evaluating ✓ Solving Problems	Audio editing (e.g., Audacity) Video editing (e.g., Movie Maker II)	Video camera, smart device
Extended Project: Search for a restaurant online for lunch with a few classmates. Evaluate reviews. Evaluate menus. Make reservations online. Send invitations via social media and e-mail, including links to the restaurant website and directions. Follow directions. Have lunch. Write an e-mail thanking all who attended. Write a review for the restaurant.				

Note: Checkmarks (✓) in the Digital Literacy Aspects column indicate the skills to be used.



Digital Literacy Activities in the Classroom

STEPS TO LESSON PLANNING	DIGITAL LITERACY CONSIDERATIONS
1. WARM-UP AND/OR REVIEW - Uses previously learned content to begin a lesson. - Materials are familiar to students from previous lessons.	- This task is often pair or group work to accommodate students who may not have had the earlier instruction.* - Require the same digital literacy skills that students used in previous lessons. Do not introduce any new technology at this stage. - Make sure students mentor each other. Especially make sure students who did not attend on the previous day are teamed up with ones who are experienced with the digital literacy task.*
2. INTRODUCTION - Focuses student attention on the lesson (asking questions, using visuals...). - Objective stated. - Objective is related to previous lesson.	- Identify the language learning objective first. <i>By the end of class, students will be able to ...</i> - Identify what digital literacy (DL) skills can be used to improve student learning and that mirror authentic use whenever possible. - Determine whether you want to introduce a DL skill, give practice on a DL skill students have already learned, or give them opportunities to expand their skills. - Identify DL objective(s). - Plan the application of the lesson before the presentation.
3. PRESENTATION - Introduce new information (through visuals, realia, description, explanation, or written text). - Check on student comprehension. - Prepare students for practice.	- Use technology whenever it reflects what students have to do on a regular basis in the real world. Be sure to use the technology students will have to use in the practice. - Demonstrate technology to use in short steps. If this is one of the first times using this technology, ask a student to act as a scribe and write steps on the board. Do not introduce too much unfamiliar technology at a time. - Spend a significant amount of time preparing students for practice, having them demonstrate for others, and making sure students can do the activity. If it appears to be too much for them, have them practice in stages. Also identify those who already have the necessary digital skills as leaders.*
4. PRACTICE - Students practice new knowledge through different activities. - Practice is guided through materials. - May be whole group, small group, pairs, or individuals. - Instructor models each activity, monitors progress, provides feedback.	- Consider making these pair or group activities if technology is included, especially if the digital literacy skills are being introduced for the first time.* - Make sure students share in responsibilities, but group students so that at least one person in each group has sufficient experience with technology.* - Teach experienced users how to be leaders and to not do the work of the group on their own.*
5. EVALUATION - Instructor evaluates students on attainment of objective. - Can be oral, written, or by demonstrated performance.	- Be sure to assess student efforts regarding the language-learning objective to confirm that they are ready for the application. If they are not, provide additional activities that will prepare them. - Assess the digital literacy abilities. Make sure all students had an opportunity to experience the technology.*
6. APPLICATION Students apply new knowledge to own lives or new situations.	- Make sure the activity reflects both the language-learning and the digital literacy objective(s) of the lesson. - Team projects are often most effective in the application stage.*

Note: An asterisk (*) highlights the student interaction addressing this theme.

Lesson plan format developed by the California Department of Education, Staff Development Institute. Adapted from Hunter (1984).



Websites for Classroom Projects

THEME	DESCRIPTION	URL
Personal Info.	Create applications or other forms.	https://wufoo.com/form-builder/
Personal Info.	Create online family trees.	http://familyecho.com
Personal Info.	Create polls to schedule a meeting.	http://doodle.com
Personal Info.	Create a monthly calendar of activities.	http://schedulebuilder.org
School	Take learning style quizzes.	http://educationplanner.org/students/self-assessments/learning-styles-quiz.shtml
Clothing	Create an avatar	http://avachara.com/avatar/fashion.php
Community	Build a city and add people and other objects.	http://citycreator.com/
Housing	Create a floor plan and add furniture.	http://floorplanne.com/
Health/Food	Make a healthy-eating plan.	http://webmd.com/diet/food-fitness-planner
Health/Food	Use calculators for nutrition, calories	https://www.supertracker.usda.gov/
Health/Food	Use calculators for physical activity, weight, and goals.	https://www.supertracker.usda.gov/
Health/Food	Make recipes.	https://www.supertracker.usda.gov/
Employment	Identify jobs you are suited for.	http://elearningplanner.com
Employment	Design an office.	http://floorplanne.com/
Presentation	Tag images with text and video.	https://thinglink.com/
Presentation	Create collages by uploading pictures.	http://befunky.com/create/collage/
Presentation	Create presentations that can be stored online.	http://Prezi.com
Presentation	Make word clouds from different text sources.	http://tagxedo.com



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ADDENDUM

VOICES FROM THE FIELD

Steve Quann, Director of the EdTech Center at World Education, Inc., describes the difference between just learning basic computer skills and developing digital literacy skills.

When I first began integrating technology into instruction, it involved helping learners to develop computer skills and navigate the Internet. But in the same way as I learned that basic computer skills are only part of digital literacy, integrating technology is only part of integrating digital literacy into instruction. There is overlap, but for me, the stress is different. Now when I speak about integration of *technology* it is only a part of the broader effort of integrating digital *literacy* into instruction.

For example, I can fully integrate a technology like Google Docs into my teaching, helping students learn to use its features to write grammatically correct and punctuated sentences and paragraphs. New technology is integrated and computer skills are developed, and certainly this is part of digital literacy. But I now see there is much more to digital literacy than being able to use a device or tech tool. Learners need the communication and higher-level thinking skills called for in preparing them for the 21st century skills they need.

Previously, showing students how to use e-mail might have been part of my lessons, but I did not teach the class how to craft an e-mail with an effective subject line and a succinct message so that they could improve their communication skills for college and careers.

Now I make sure to not only integrate computer skills but to initiate purposeful integration of digital literacy skills into instruction. And, if at all possible, do it within the context of solving a problem and the creation of a final product through project-based learning. In this way, we work toward a deeper digital literacy and go beyond the mere physical realm of using a tool and accessing and manipulating information.



VOICES FROM THE FIELD

Janet Sparks, Lifelong Learning Facilitator at Hubbs Center of Saint Paul Public Schools, speaks about challenges using technology.

One challenge is that lower-level English learners can struggle with the terminology and vocabulary (username, password, login, etc.) because of the language barrier. This isn't to say that limited English proficiency equals less digital literacy. However, being able to explain technology concepts and vocabulary can be confusing to a lower-level ELL. I generally use a lot of out-of-lab time (non-computer days) to broaden their lexicon on technology or explain concepts with interactive activities. I use manipulatives—such as matching an e-mail subject to the e-mail body (on paper), keeping both simple at the lower levels. This way they get the idea that the subject is an abbreviated explanation of the body of the e-mail. Or I might show a screenshot of a Gmail account and have them point to the button they click if they want to write a message. I might use symbols and icons in a Bingo board. With that same screenshot, I might ask which symbol should you click if you want to attach a document to your e-mail. (Using an actual paperclip with papers is great at reinforcing the paperclip symbol for attachments!) This is when I'm explicitly teaching a new technology skill or perhaps on a review day (when technology is a category in my Friday Jeopardy game, for example).

Because the possibilities are limitless, I look forward to integrating technology as often as I can. The challenges that arise can be conquered and new ones will crop up, as the nature of technology is ever-changing (and at such a fast pace!). Part of having an inclusive classroom means bringing our students up-to-speed on the digital literacy skills they will need in life. They are eager, excited, nervous, and, most of all, grateful. What could be more rewarding?



VOICES FROM THE FIELD

Barry Bakin, ESL Instructor of Los Angeles Unified School District, suggests five questions to ask for choosing technology.

In choosing technology, first I ask, “Does it serve an English acquisition purpose?” My primary function is to teach ESL, not digital literacy. So if I look at an activity, and I decide that it will take me too much time to explain it, or it will require a lot of time for students to finish it for minimal language progress or practice, I look to change or modify it.

My second question is “Does my classroom or school support being able to accomplish the digital literacy activity that I envision?” My classroom is well-equipped for technology, so I can have most of the students working on a project in the classroom simultaneously. But a teacher with access to only 5 computers for 35 students would have to think carefully about how to work on the same project.

My third question is, “Does the book I’m using suggest a particular activity already, or is there a clear tie-in to an exercise in the book?” For example, in many textbooks nowadays, there’s a “before you write” section, a “topic sentence” section, a “plan your paragraph” section, a “write” section, and then an “after you write” section. Well, for me, I can easily insert “now let’s transfer your paragraph to a document” and display it on the wall after the “write” section.

A fourth question is, “Will the students enjoy, have fun, appreciate, and learn from the lesson?”

Finally, the last question is “How much time or effort will the activity take to set up, teach, and work with the students on, and is it worth the time for the expected outcome?” Listening to 30 or 40 digital recordings of students reading a passage that they’ve sent me from their phones, sending an e-mail to each one suggesting areas to correct, and then getting second and third attempts takes a large amount of time on my part. I make a personal decision if that’s a good use of my time.



VOICES FROM THE FIELD

Rob Jenkins, ESL Coordinator of Santa Ana College, discusses how his teaching has evolved along with changes in technology.

When technology was the new thing for me anyway in the early '90s, I often thought about how I could use it to make my class more interesting. I would use a video game called Sim City to teach students the community unit. I also used a lot of video. Both the video games and the video were for enhancing instruction. When the Internet came into use in the late 90s, I gave a lot of workshops to teachers. I wasn't teaching them how to use it in the classroom, but just teaching them how to use it for themselves. Eventually many of us figured out how to use it to enhance instruction.

It wasn't until we had in our classrooms a row of 10 Apple computers that I began to see how enhancing instruction was not enough. Students needed to learn to use the technology. Many of my colleagues thought it was a distraction, but I felt confident that my students were learning English better as they began to learn to think through the computer applications available at the time. It was a challenge, however, to balance technology and the classroom. I finally figured out that I would use it in instruction only to help my students meet the objective of the class.

Then came the realization that new technologies were here to stay but constantly morphing into something else, and we were becoming more and more dependent on them to function in our daily lives. This is when technology use in the classroom changed for me to digital literacy development as one of the competencies I needed to integrate into my ESL classroom. The windows it opened to applying what students learn in the classroom in real-life settings is revolutionary for them. However, it also brings added pressure to make sure students learn how to use it effectively and prudently opening many new avenues to teach critical thinking. To me, the most important thing to remember is that digital literacy is no longer an option in today's society and we have to embrace it to help our students succeed!



Suggested citation: Jenkins, R. (2015). *Integrating digital literacy into English language instruction: Companion learning resource*. Washington, DC: U.S. Department of Education, Office of Career, Technical, and Adult Education.

LINCS ESL Pro: Integrating Digital Literacy into English Language Instruction: Companion Learning Resource.
Available at LINCS Resource Collection, Adult English Language Learners: <https://lincs.ed.gov/programs/eslpro>