

Technology Integration for Meaningful Classroom Use

A Standards-Based Approach

Katherine S. Cennamo

Virginia Polytechnic Institute and State University

John D. Ross

Edvantia

Peggy A. Ertmer

Purdue University



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ISTE Standards addressed in this chapter

This chapter provides content-specific suggestions and strategies for addressing both ISTE's National Educational Technology Standards for Students (NETS-S) and the national standards for foreign language learning. This chapter also builds on the NETS-T concepts and skills presented earlier, with a special emphasis on skills related to Standard 1 "Facilitate and inspire student learning and creativity." Following an overview of the national standards for foreign language learning and how you can address the NETS-S in the foreign language classroom, this chapter outlines techniques, tools, and methods for developing authentic learning experiences that advance student creativity and innovation in the foreign language classroom.

Integrating Technology in the Foreign Language Classroom

Greg Kessler, Ph.D.

Human communication has always been interlinked with technology. Early tools for writing allowed messages to be archived and transported. The printing press contributed to an exponential increase in literacy and altered the distribution of language and information. Most recently, computers have dramatically altered linguistic interaction. The creative use of Internet technologies has also played an important role in advancing authentic learning in language teaching (Levy, 2006). Computer-assisted language learning (CALL) in the classroom, in the computer lab, or as homework in the home setting provides teachers and students with great flexibility (Hanson-Smith, 1999). Today's technologies offer teachers a variety of tools and solutions that can be inspiring. However, they may also be overwhelming for some teachers. Establishing solutions for meeting standards can help to maintain the inspirational nature of these evolving technologies.

Outcomes

In this chapter, you will

- Identify foreign language standards and explain how technology can support them.
- Discuss how the National Educational Technology Standards for Students can be addressed in a foreign language classroom.
- Understand how authentic learning principles can be addressed using technology in a foreign language classroom.
- Explain how technology can increase learning and facilitate creative thinking in a foreign language classroom.



STORIES FROM PRACTICE

Engaging Teachers

A few years ago I was teaching practicing teachers to use Internet resources and web-authoring tools for teaching language. I was surprised to find myself working with a number of very experienced teachers who had never used computers before entering my session. They had been told to use technology in the past, but never told why it would be useful. They had never been helped to understand how technology may be beneficial—specifically for language instruction. It appeared that many of them had developed distrust for the use of technology for

instruction. They also felt that they already had enough obligations and using technology was something they just didn't have time for.

Through the use of simple web-authoring tools, such as a "What you see is what you get" (WYSIWYG) editor, they quickly realized that creating and using Internet resources was within their grasp. By the time they left the training session, they were able to make engaging interactive language-based activities using Hot Potatoes software. They had also been able to record themselves and integrate their own and other pre-recorded audio

into their activities. They left energized and ready to take advantage of the technology resources they had at their schools. Most importantly, they began to "want" to engage in this kind of activity. I have received e-mail from a number of them assuring me that they continue to use these skills. From using a mouse to creating interactive multimedia in a couple of hours, they found a variety of easy-to-use software for use in their foreign language classroom.

Source: Greg Kastler

Technology and Content Standards

Language instruction is typically divided into five or six skill categories: writing, reading, listening, speaking, grammar, and (often) culture. Although there may be a temptation to limit the use of technology to the receptive skills of listening and reading, language teachers today can use technology to address all of the language skills categories quite effectively. In fact, it seems that the integration of technology may be improving students' oral performances in unexpected ways, particularly in comparison to the traditional language classroom in which a majority of instruction (and expectation) is based upon written and grammatical evaluation.

With the integration of easy-to-use audio and video technologies, teachers and students can engage in various forms of technology-supported communication, instruction, and evaluation that directly influence oral production. By focusing on authentic language materials and communicative tasks foreign language teachers are also likely to engage in a form of instruction that is learner-centered while integrating skill instruction. Recognizing the standards that guide foreign language learning will help you to better meet the needs of your students, regardless of the technologies you use in your classroom. Review the national standards for foreign language learning in Table 15.1 and consider ways that technology can be used to support the teaching and learning of each standard.

Language teachers are typically aware of software that is specifically designed for instruction of the language(s) they teach. Although these may offer some language-focused instruction, often these programs do not offer students the rich and varied exposure they can receive when used in combination with other commonly available software. Software that is intended for broader application can provide a familiar environment from which to engage many students and often offers greater flexibility than language-learning software. For example, word-processing software offers multitudes of instructional possibilities, including interacting with text, video, audio, and images. Students can utilize text as a model for their own writing. They can use commenting and reviewing features to conduct an ongoing interactive dialogue with other users of a document. They can do a number of other things as well. A creative teacher simply needs to identify potential uses and their appropriate inclusion in instruction.

Some examples of software that are commonly used in language instruction are found in Table 15.2. This table provides examples of how the ISTE NETS-S can be addressed in the foreign language classroom. It is important to note the wide range of technology available to teachers—including but not limited to computers—that

Table 15.1 National Standards for Foreign Language Learning**Communication:** Communicate in Languages Other Than English

- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics

Cultures: Gain Knowledge and Understanding of Other Cultures

- Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied
- Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied

Connections: Connect with Other Disciplines and Acquire Information

- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language
- Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures

Comparisons: Develop Insight into the Nature of Language and Culture

- Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Communities: Participate in Multilingual Communities at Home and Around the World

- Standard 5.1: Students use the language both within and beyond the school setting
- Standard 5.2: Students show evidence of becoming lifelong learners by using the language for personal enjoyment and enrichment

Source: American Council on the Teaching of Foreign Languages. (1999). *Standards for foreign language learning: Preparing for the 21st century*. Alexandria, VA: Author.

Table 15.2 NETS-S in the Foreign Language Classroom**Creativity and Innovation**

Students create original works in the languages they are studying, such as biographies, historical guides, and short works of fiction using word-processing, web-authoring, and digital audio and video tools that can be accessed by a computer, CD player, or an MP3 player.

Communication and Collaboration

Students use computer-mediated communication tools, such as e-mail, chat, and text messaging to develop written fluency by communicating with other students, their teacher, and others with greater language proficiency.

Research and Information Fluency

Students use government websites from foreign countries and mapping software, such as Google Maps, to plan a (hypothetical or real) visit to a country in which the language they are learning is spoken.

Critical Thinking, Problem Solving, and Decision Making

Students use internet resources, currency calculators, and word-processing or document layout software, to research and create a brochure for visitors to a country in which the language they are learning is spoken.

Digital Citizenship

Students use the Internet and other digital materials to explore and better understand cultural and human issues in countries where the language they are studying is spoken, comparing, for example, variations in dialect, pronunciation, and language use in Spanish-speaking countries, such as Spain, Central and South American countries, Puerto Rico, Cuba, and even communities within the United States.

Technology Operations and Concepts

Students use word-processing software to write in different languages, to conduct peer reviews, and to create documents that include cultural artifacts, such as digital images of landmarks, persons in native dress, and foods.

WEB LINK

For additional examples of commonly available technologies and how they can support foreign language instruction as well as detailed examples of the alignment of the NETS-S to the national standards for foreign language learning, visit the textbook's companion website.

THE GAME PLAN

Content Standards

Set Goals

Research the foreign language standards for a state where you plan to seek a teaching position and create an action plan to ensure that you will have the knowledge and skills necessary to help your students achieve those standards. Identify the concepts, knowledge, and skills you will need to ensure that you are prepared to help your students meet the foreign language standards in your state.

for how to meet the technology standards in the context of foreign languages.

Monitor

Did you find the information you needed? Do you need to contact the department of education for more information about where to find the foreign language standards or the technology standards for teachers?

Take Action

Explore the department of education website in the state where you plan to seek a position. Review the K-12 foreign language standards in that state and compare them to the state's technology standards. Identify those standards that specifically relate to applying technology in foreign language instruction. Develop a plan

Evaluate and Extend

Discuss in class the action plan you developed for meeting the technology standards for instructional personnel. Compare your plan to others. Note the strengths and weaknesses of the various plans. Strengthen your plan by incorporating ideas you have heard in class.

can be utilized to maximize the potential of CALL. The lesson plans at the end of this chapter provide specific examples of how you can design learning experiences that meet both content area and technology standards.

Authentic Learning Strategies Incorporating Technology

The first question that must always be asked when considering the use of CALL for teaching is whether the instruction could be done equally well without the use of CALL. If the answer is yes, then it is probably not worthwhile to use the technology. However, when we focus on authentic instruction, the benefits of CALL become exceedingly evident. As you learned in Chapter 3, authentic instruction involves learner autonomy, active learning, and holistic, complex, and challenging activities. Let's explore a few ways that these characteristics of authentic instruction can be achieved in the foreign language classroom.

The ultimate goal of foreign language education is the successful autonomous use of language. Learner autonomy, both as a self-reflective student and ultimate language user, can be influenced intentionally through language instruction. Autonomy is sometimes misunderstood as being "teacherless," but this is not the intent. As Little (1999, p. 14) clarifies, learner autonomy does not mean that students do things "on their own, but rather for themselves." Technology can be used in many ways to help learners achieve autonomy in a target language, such as supporting the development and delivery of audio- and text-based language through word processing, online discussions, and the use of digital audio and video. Collaborative and self-reflective activities allow students to develop their own systems of critiquing their developing language skills.

Another goal for language instruction is for students to express themselves effectively in a target language. This includes the ability to formulate and effectively

present their ideas. Digital tools and resources are available to support the development of student-centric language projects, such as by investigating language, skills, and knowledge related to areas of student interest, whether courses of study or hobbies and other interests. Whether students are interested in automobiles, finance, musical entertainment, or cooking, they can draft their own dialogs that incorporate language artifacts they find online. Through the use of communicative language teaching students can be empowered to engage in authentic tasks that illustrate varied and meaningful use of the target language.

Students should be challenged to perform effectively in the target language, and there are a variety of projects you can incorporate in your instruction to help them do so. Tasks need to be designed so that students explore language creatively and in varied ways. Students should not be limited to objective decisions, but engaged in the learning process in a manner that motivates them to strive for autonomy as a language user.

Information gap is a common language teaching technique in which each student in a group has a different portion of a set of information. All of the information is necessary to complete the desired task and the students face the challenge of conveying this information to one another in the target language. Such activities can range from simple interactions such as putting together the pieces of a puzzle to complex activities such as synthesizing research data. This authentic use of language in a task-based context contributes to successful language learning and can be accomplished with a range of commonly available technologies, especially those that support dialog and discussion.

Technology increasingly provides opportunities for people to interact with one another in varied and flexible ways. Since language learning is fundamentally tied to interaction and communication these technologies always have something new to offer. Students can collaborate across networks, geographies, language backgrounds, political affiliations, and any other barriers that keep humans from communicating with one another. Students who work collaboratively in a task-based language-learning environment are likely to benefit from the language negotiation with peers and construction of knowledge that such tasks require.

Web-based collaborative writing tools and environments such as blogs, discussion forums, wikis, shared whiteboards, and webconferencing tools allow students to collaborate as they construct knowledge and refine language skills. Through collaboration students are exposed to more of the target language and encouraged to produce more language. They are also likely to engage in extensive negotiation of meaning, which has been determined to be effective toward their overall language learning (Long, 1996). Through this kind of social interaction and negotiation of meaning they are also likely to develop a better sense of social presence and self-reflection upon the purpose of their language learning.

Problem-based learning activities can be designed that focus on the needs and interests of individual students and allow students to use the target language in a meaningful context. Students can utilize prior knowledge from their first language to assist them in accomplishing the task set before them in the target language. Many technologies can be used to support problem-based learning, but those that allow students to manipulate and manage all aspects of the environment may be the most appealing. Environments such as wikis that allow all contributors to participate in an egalitarian manner encourage participation. Such technologies, along with virtual environments, can also support role-playing and simulation activities. Through the use of avatars within appealing contexts, students can imagine themselves in other personas, perhaps personas that are uniquely inclined toward learning the language in question (Heift, 2007).

Although the bulk of this discussion surrounding technology in instruction currently revolves around computers, it needn't be solely limited to the use of computers. There are a number of additional technological resources, with which you may be familiar, that can maximize the learning potential of your classroom. Some of



STORIES FROM PRACTICE

Language Learning in a Gaming Context

Dr. Douglas Coleman at the University of Toledo has been experimenting with gaming as a tool for second language learning for decades. He has released a few prototypes and actual games intended specifically for this purpose. Included are a variety of games that support a language-learning context. For example, Dr. Coleman has used various incarnations of Sims™ software in the language classroom as a means of

providing students with a meaningful problem-solving task. Although it might be ideal to have the software menus in the target language this is not necessary. The goal is to have the students engage in the target language together as they collaboratively interact with the software. Thus, the computer is enabling the communication to take place, but not actually engaged in exchanging the target language with the students.

The tasks are inherently appealing, and even engrossing. As a consequence, students use the language in ways that can be very impressive and—sometimes—unanticipated by their teacher. By providing a meaningful context that motivates students to communicate with one another in order to continue to participate in the appealing environment, Dr. Coleman has inspired many language students.

these are intended to work in conjunction with computers and others as stand-alone technologies. Some newer tools for the language classroom include the use of Global Positioning System (GPS) technology along with the concept of geocaching. **Geocaching** is an activity in which participants use a GPS receiver to locate items that have been hidden. Typically this requires a negotiation of coordinates as a participant narrows in on the object she seeks—usually physically in real time, but geocaches can be virtual as well. Virtual caches can be conducted with some of the new Internet-mapping software, such as Google Earth, that can include satellite images of distant locations and the ability to embed text and hyperlinks to other resources. This provides an opportunity to create a scavenger-hunt-type activity that also incorporates aspects of information gap.

Cultural inquiry activities can provide students with motivation to collaborate. Students work in groups to collect, organize, and present various aspects of a target culture. This may include specific historic events, art forms, famous individuals, or other cultural information. Students may be assigned specific topics or allowed to choose their own. Some example topics may include:

1. The food of Mexico
2. Origami and Japan
3. Famous immigrants from Italy
4. French poetry
5. Russian dance
6. The fall of the Berlin Wall

Students take on the role of the teacher as they present their cultural information to the class. Students may collect images, sounds, videos, text, and even print media that help to illustrate the cultural presentation.

CALL has been steadily moving toward more collaborative and authentic activities that empower learners and guide them toward the goal of becoming autonomous language users. Providing students with the opportunity to not only participate in, but to play a role in, designing their own instructional materials can be motivational (Kessler & Plakans, 2001). Engaging in simulated, or even real-world tasks, through web-based communication allows students to take responsibility for their own work and make better-informed decisions. Encouraging students to take more responsibility for their learning helps guide them toward successful autonomy (Little, 1999).

Technology and Creative Thinking Skills Instruction

Creative thinking skills are important for students to develop in any learning area. It is important that teachers recognize the potential for using technology to support

these skills. As you will recall from Chapter 4, computers and related technologies can be used as tutors, mindtools, and supports for conversation. Likewise, Computer-Assisted Language Learning (CALL) is commonly divided into three types of activities: Tutorial CALL, CALL for Critical Thinking, and CALL for Communication. Each of these categories of CALL use can support instruction that develops creative thinking skills.

Tutorial CALL

Tutorial CALL involves activities in which a student interacts primarily with a computer, with the computer serving as a type of automated tutor (see Figure 15.1). This type of CALL is typically associated with grammar instruction but can also serve as effective instruction in pronunciation, writing, reading, and listening at various levels. Using the computer as a tutor can provide students with extensive exposure to accurate forms of language as well as opportunity to gain beneficial automated feedback. Some examples include *La Chaise Berçante*, a CD-ROM that teaches French through the culture of Canada and Quebec; the *Learn Language Now!* series by Transparent Language with titles in 15 languages; and the popular *Rosetta Stone* series found in and out of classrooms.

CALL for Critical Thinking

The notion of computers aiding in the development of critical thinking, rather than as tutor, further encourages authentic learning (Bikowski & Kessler, 2002). CALL for Critical Thinking refers to the range of materials that may be utilized in various critical thinking activities. The Internet provides access to a wealth of authentic linguistic content for any target language that can be used to support critical thinking. Education, government, and commercial sites all offer authentic language content that can provide students with the extensive exposure that will help them to critically explore a target language.

Similarly, authentic cultural content can help your students develop a better understanding of the target language and culture. Obtaining information about a target language and/or culture via the Internet has greatly enhanced language learning.

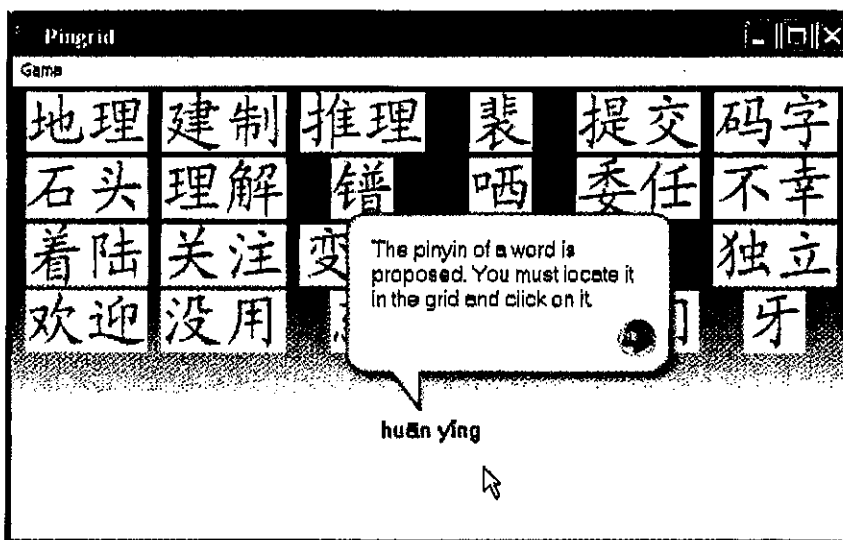


Figure 15.1

A variety of tutorial software applications are available for the foreign language classroom.

Source: Courtesy Emmanuel Hatan

Rather than relying solely upon your experience within the target culture, your students can compare a breadth of information to develop a more comprehensive awareness. Students have the opportunity to gain valuable and unique insight into aspects of the language and culture in which they are interested. Utilizing a varied set of materials, including multimedia, text, images, and audio, students are able to develop a holistic understanding of the target culture. Such materials may include authentic samples of the target language, authentic content about the target culture, grammar references or pronunciation guides. This information will likely serve to enhance their subsequent language learning. (See Chapter 11 for more information on using communication tools to develop cultural understanding.)

Another recent development in Internet-based self-access study is the online learning lab (see Figure 15.2). Traditional language labs have been moving online in the past few years, allowing students to do self-study tasks from home, a library, or another convenient location. The ability to record and play digital audio over the Internet is revolutionizing language learning. Language teachers who are familiar with the variety of digital audio and video recording, editing, and playing software and procedures will be well-positioned to integrate these extremely useful materials into their classes. Such integration includes identifying useful authentic audio and video materials and providing an instructional context in which these materials can be explored by students. Such context may include follow-up discussion that reviews the material or considers alternative perspectives, outcomes, or related scenarios.

Teachers may also utilize these technologies to make their own recordings for students. Such recordings can integrate photos and narration into a video or animation demonstrating the target language and culture. It may also involve video that is shot on location in the target culture, thus exposing students to material they would otherwise not be able to access. Teachers may also choose to use these technologies for student projects. Students can create their own video projects that focus on a topic of interest reflecting the target language and culture. These kinds of projects can be most effective when collaboratively performed by teams of students. This allows them to reflect upon the ongoing development of the project and critically assess their work.



Figure 15.2

Using online learning labs provides access to speakers of languages from across the globe.

CALL for Communication

CALL for communication involves the use of technologies sometimes referred to as computer-mediated communication (CMC) tools. Tools such as e-mail; text chat or messaging; and audio-, video-, or webconferencing support new dynamic forms of human communication. Many of these tools not only offer enhancement to the traditional language classroom, but also influence the very nature of our use of language. Some researchers suggest that CMC has served as a democratizing force in human communication (Kiesler, Siegel, & McGuire, 1984). Herring (1993) explored roles of power, gender, and hierarchical conventions within the new means of communication. People are able to communicate across expanses of time and space in new and exciting ways.

Text-based chat allows you and your students to write to one another in a real-time manner. Voice chat tools allow you and your students to speak to one another individually or in small groups without the use of telephones and associated expenses. Video chat allows you and your students to share additional visual information as you speak with one another from diverse locations. These technologies can be integrated into the language classroom just as they have become integrated into our daily lives.

Teachers can use communication tools to connect their language students with native speakers or classes of students studying their native language. For example, a high school Spanish class in Ohio can interact and even collaborate on projects with a high school English class in Chile. Communication may take place in one or both languages (depending on the level of the students and the purpose of the interaction) and final projects may also be monolingual or bilingual. Students may share insights into actual language use in their countries or regions as well as cultural aspects that might otherwise be overlooked by other sources. Such exchange projects, typically using e-mail as the medium of communication, have been very popular with web-savvy language teachers. Recently, newer mediums have enhanced these interactions. Language students can now communicate with one another using voice and video technologies. These mediums can also be used to present the final products of such exchanges.

One comprehensive way to integrate these technologies is through the use of course management systems such as Blackboard, Angel, Desire2Learn, and Moodle. In addition to communication, these web-based systems allow teachers to manage students' assignments, grades, and other typical aspects of instruction. They allow teachers to create and manage various CMC activities. By utilizing web boards or discussion forums—communication tools commonly integrated into course management systems—your students can participate in discussions and reflections about their interaction with materials upon immediate use rather than later when they are in the classroom. This immediacy offers students the chance to further improve their communicative competence by engaging with the language at a time when it is relevant and they are consequently motivated.

The Role of the Teacher in CALL

Language teachers have had commercial materials available for use in computer labs for decades. Many of these directly address standards-related issues. More recently, as technologies have become more transparent and easier to use, language teachers have found a wealth of new materials available to them. They have also begun to create and customize their own materials for their students' unique needs. Many of these can be shared online with other language teachers while others are created and maintained collaboratively. Becoming familiar with a variety of authoring tools allows teachers to design materials that meet their students' needs at any given point in a program of study or individual lesson. This kind of customized design can increase motivation among students and contribute to their increased participation in various communicative activities in the target language. Often, commercial software does not offer the same individualized characteristics.

THE GAME PLAN

Identifying Web-Based Resources

Set Goals

Find online resources you can use for a range of activities in a foreign language classroom. You may need resources to help students understand a target language or culture or want to incorporate authentic linguistic content.

Take Action

Review the web resources on the textbook's companion website. Conduct other searches on your own for resources of interest to you.

Monitor

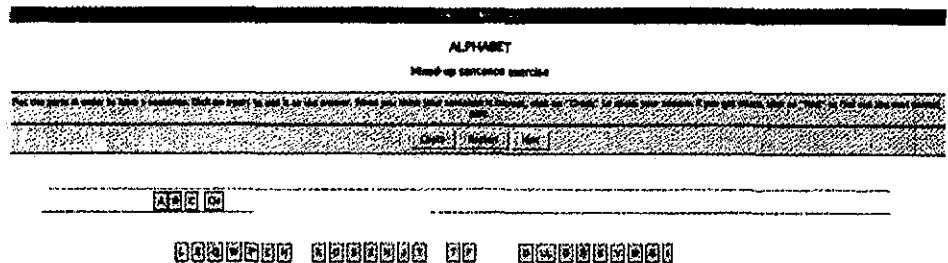
How well do the resources meet stated goal(s)? Are there clearinghouse websites or sites that review online foreign language resources? Did you find resources you did not know existed that might be helpful to you in the foreign language classroom?

Evaluate and Extend

Select the best resources you have found and include a list of them in your portfolio. Share your list with other foreign language students to compile a master list that covers a range of grade levels and languages.

You can utilize a handful of easy-to-use, yet powerful tools to create custom language-learning activities for your students. These include automated "What you see is what you get" (WYSIWYG) exercise generators, audio and video software, and course management systems. Each of these tools will allow you to cater to the unique needs, abilities, and levels of your students. Among the most common and accessible authoring tools is Hot Potatoes (see Figure 15.3), which allows teachers to make matching, crossword, multiple-choice, multiple-selection, sentence-order, and Cloze exercises. Readings, movies, audio, and hyperlinks can easily be incorporated into these exercises as well, making them uniquely suited for your language classroom. Authentic media can be reviewed through the use of these exercises, or they can serve as schema-building materials as students begin interacting with new or challenging content. Like any browser-based materials, exercises developed in Hot Potatoes can be delivered via the Internet, a school-based intranet, CD, e-mail, or posted on a course management system. This flexibility ensures that no matter how limited your resources, you have multiple opportunities to integrate these materials into your classroom.

Further power over the materials you provide your students can be gained by learning to use audio- and video-recording and editing software. Software, like the freely available Audacity or Garage Band, allows teachers and students to easily record themselves and share files. They can also use authentic audio material and edit it into accessible chunks for instructional delivery. Video-editing software, such as Movie Maker and iMovie, allows teachers to do similar things with video. Students can also use these programs to create projects that demonstrate their proficiency with the language or explore cultural aspects while using the target language.





STORIES FROM PRACTICE

Creative Uses of Technology

Chris Hauser and Patricia Thornton (2006) of Kinjo Gakuin University in Japan have been using cell phones with their language students. They observed that most of their Japanese students did not use computers regularly, but did rely on their cell phones on a

daily basis. They also noticed that they were text messaging friends and family with great alacrity. The teachers decided to utilize this resource and began engaging in text messaging as a form of homework for their students. They then began distributing exercises

among their students through their cell phones, based in the animation software Flash. They have found that this approach motivates students and that they are able to do a lot of additional out-of-class work while commuting on the subway.

Technology also empowers teachers to share their success stories and challenges with peers. Presentation software has become ubiquitous and you can utilize it to document and present your experiences to other teachers and administrators in your school or district, to parents, and at local and national conferences. This exchange of information is critical for the ongoing success of language teaching programs. Further, there are a number of resources that can be utilized in order to stay professionally connected, informed, and involved. A sample of these would be the Computer-Assisted Language Instructors' Consortium (CALICO), which hosts a very active member discussion list; the International Association for Language Learning and Technology (IALLT); and WorldCALL, an emerging international community of CALL professionals. These organizations contain free resources and opportunities to increase your professional involvement with language professionals across the world.

As has been illustrated in this section, you can choose from a range of technology tools that support CALL. However, it is important to note that although each of these forms of CALL may appear to some to take place solely between the student and the technology, there is a vital role for you—the teacher. You must make important decisions determining which content is most appropriate at all points in instruction. You must also determine the appropriateness of materials for students' levels and ages and how well the materials support the learning goals you have designed for your students.

In-class activity may also involve teachers introducing CALL technologies to students. The need to explicitly demonstrate how CALL resources should be used by students has been addressed by Hubbard (2004), who recognizes that all too frequently teachers simply tell students to perform a certain CALL-related task without preparing them to do so. This can lead to a breakdown during the task that impedes language learning. It is imperative that students be taken through a step-by-step process of how to perform the expected tasks prior to the assignment. It may also require that teachers prepare print-based or digital handouts or guides to assist students. Consequently, teachers must become extremely well acquainted with the materials before using them with their students.

Chapter Summary

Technology in the foreign language classroom is constantly improving. In our rapidly progressing technological world, there are new developments daily that may influence future language instruction. These developments continually make active participation for both teachers and students more accessible. We are able to both use and produce technology solutions for the classroom. This reality presents us with exciting opportunities to reflect upon current or past practice and strive for more effective or efficient classroom practices. Although we are not all capable of staying current in all areas of technological development, we can adopt the core skills and considerations presented in this chapter to utilize any potential technological development.



WEB LINK

View the textbook's companion website to review a list of the software, hardware, and internet resources mentioned in this chapter, as well as additional resources for your foreign language classroom.

YOUR PORTFOLIO

To demonstrate your understanding of creating learning experiences in the foreign language classroom that address the National Educational Technology Standards for Students, create a lesson plan for common activities in your foreign language classroom using the GAME Plan template available on the textbook's companion website, or one of your choosing.

1. Identify the national foreign language standards that relate to your lesson. Review the state-specific content standards you discovered earlier in the chapter and determine appropriate assessments you can incorporate in your lesson based on the achievement standards.
2. Research and select appropriate technologies that can support the activities in your lesson. Identify technology standards (NETS-S) addressed by your lesson. List all hardware and software required for the lesson and consider any preparation or prerequisite skills you may need to address before the students can complete the lesson.
3. If using the GAME Plan lesson template, include justifications for your technology application and reasons why you selected it in the section labeled Lesson Reflections and Notes. If you are using a different lesson plan template, include this information either on the template or in a separate file. Your justifications may relate to your skills or familiarity with the technology or the skills of your students, the match between the intended outcomes of the technology and your lesson, or even accessibility concerns.

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For Further Reading

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TECHNOLOGY INTEGRATION FOR MEANINGFUL CLASSROOM USE

Daily Lesson GAME Plan

Lesson Title: Recognizing and Organizing Letters in an Alphabet

Related Lessons: Alphabet Song, Colors, Numbers

Grade Level: Elementary

Unit: Letters, Colors, and Numbers

GOALS

Content Standards:

- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics
- Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own

ISTE NETS-S

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| <input type="checkbox"/> 1. Creativity and innovation
<input type="checkbox"/> 2. Communication and collaboration
<input type="checkbox"/> 3. Research and information fluency | <input checked="" type="checkbox"/> 4. Critical thinking, problem solving, & decision making
<input type="checkbox"/> 5. Digital citizenship
<input checked="" type="checkbox"/> 6. Technology operations and concepts |
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Instructional Objective(s): Students listen to the Alphabet Song in the target language and identify the letters as they are presented. Using a Hot Potatoes Jmix (sentence order) activity, students drag and drop letters in the proper order as they listen to the song. When completed, this script will let students know which letters are not in the correct order by returning them to the position below the lines. The Alphabet Song is available in most languages and serves as a fun way to introduce the letters.

ACTION

Before-Class Preparation: Students are oriented to using the mouse to drag and drop the letter images. Students have previously been exposed to the target language alphabet. The teacher has created the very simple exercise using Hot Potatoes software (approximately 5 minutes of preparation time) and made it available to the students on individual computers, a school file server, or class web page.

During Class

Time	Instructional Activities	Materials and Resources
5 minutes	Students listen to the alphabet song first and then open the exercise in a web browser.	Hot Potatoes (to create activity) CD, cassette, or online audio recording Speakers Computers with web browser
10 minutes	Students drag the letters into the correct order based upon their recollection of the song.	Computers with web browser
10–20 minutes	Students listen to the song again and complete the order of the letters. (Repeat as necessary.)	CD, cassette, or online audio recording Speakers Computers with web browser
10 minutes	Student results are shared with the class. Teacher identifies errors and repeats the portion of the song that reflects any errors.	CD, cassette, or online audio recording Speakers Computers with web browser
10–15 minutes	Students sing the alphabet song together with the teacher recording it for potential reflection.	CD, cassette, or online audio recording Speakers

Notes: Students can work independently if enough computers are available. If not they can be grouped in pairs or rotated through computer workstations. Times may vary for languages with less familiar or more complex alphabets. This example uses Spanish for illustrative purposes since the written form of the alphabet is very similar to English. Hot Potatoes software allows the use of any written font to be used in this manner.

MONITOR

Ongoing Assessment(s): Students should be able to identify the letters and organization of the alphabet by the end of the lesson. They will also begin to practice accurate pronunciation of the letters. The productive stage of this activity will provide the teacher with opportunities to identify areas of difficulty that may require additional attention. The final recording of the students singing the alphabet song together can serve as a documentation of development for portfolio assessment. The teacher may want to group students (boys, girls, A versus B side of the room, etc.) during repetitions of the final singing to better monitor individuals.

Accommodations and Extensions: All students should be able to participate in this activity if it is performed as a group project. ELL students can complete this activity for English.

Back-up Plan: Students listen to alphabet song while identifying characters in a book and then sing the song as a group.

EVALUATION

Lesson Reflections and Notes: This is a simple and fun activity for the teacher learning to use the *Hot Potatoes* software.

TECHNOLOGY INTEGRATION FOR MEANINGFUL CLASSROOM USE**Daily Lesson GAME Plan**

Lesson Title: Famous Person Digital Collage

Related Lessons: WebQuest

Grade Level: Middle grades

Unit: Culture

GOALS**Content Standards:**

- Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied
- Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied

ISTE NETS-S

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| <input checked="" type="checkbox"/> 1. Creativity and innovation | <input checked="" type="checkbox"/> 4. Critical thinking, problem solving, & decision making |
| <input checked="" type="checkbox"/> 2. Communication and collaboration | <input checked="" type="checkbox"/> 5. Digital citizenship |
| <input checked="" type="checkbox"/> 3. Research and information fluency | <input checked="" type="checkbox"/> 6. Technology operations and concepts |

Instructional Objective(s): Students create digital collages of famous persons representative of a country/culture in which their target language is widely spoken. Students justify the individual(s) and the artifacts they select.

ACTION

Before-Class Preparation: Students need to have access to computer with reference tools, such as access to an Internet search engine, encyclopedia, or other database with varied cultural artifacts. Students should be familiar with one of the software tools that may be used for creating the digital collage: presentation software, web-authoring tools, video editor, word-processing, or other software that allows a variety of media to be integrated.

During Class

Time	Instructional Activities	Materials and Resources
15–30 minutes	Orient students to the project and activate prior knowledge by raising their awareness of famous people in their own culture: artists, entertainers, political, historical figures, etc. Students search using digital research tools (search engines, encyclopedias, databases, etc.) to identify famous people in the target culture(s).	Computer workstations with reference tools Internet access (optional)
10 minutes	Students pair or group (small group to whole class) to share the famous people they have identified and determine which may be worthy of further investigation. Students must identify persons from a range of backgrounds (the arts, politics, science, athletics, etc.), time periods, and both genders. Students should justify the reasons for their selection.	Checklist created by students identifying important characteristics of each person and justifications for inclusion.
30–60 minutes	Students work in pairs or small groups to collect information and various digital artifacts related to the famous person they have chosen. Students should collect at least 3 pertinent artifacts and explain why these are representative of the person they are studying. They construct their projects using multimedia-authoring software (see Before-Class Preparation for options). All sources should be appropriately documented.	Computer workstations with reference tools Internet access (optional) Multimedia-authoring software
5–10 minutes per group	Groups present famous person collages to the class.	Computer workstation Projector or large monitor

Notes: Students may be grouped in a variety of ways, but it may be best to group them according to their particular interest in the persons identified.

MONITOR

Ongoing Assessment(s): Monitor student decision-making during the brainstorming session. Students' lists of persons and justifications can be collected. Monitor students as they progress through the task to ensure they identify appropriate artifacts and work within time constraints. The synthesis of information as well as target language skills can be evaluated during the presentation of the final product.

Accommodations and Extensions: Students with limited technology skills may be paired with those with greater facility. English language learners can complete the activity for English-speaking persons.

Back-up plan: Students use magazines, musical recordings, and other traditional cultural artifacts to construct their famous person cultural collages.

EVALUATION

Lesson Reflections and Notes: A checklist can be used to evaluate the final product.

TECHNOLOGY INTEGRATION FOR MEANINGFUL CLASSROOM USE

Daily Lesson GAME Plan

Lesson Title: Cultural Documentary

Related Lessons: WebQuest, Famous Cultural Artifacts, Famous Persons

Grade Level: High School

Unit: Cultural Awareness

GOALS

Content Standards:

- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics

GOALS

- Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied
- Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.
- Standard 5.1: Students use the language both within and beyond the school setting

ISTE NETS-S

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| <input checked="" type="checkbox"/> 1. Creativity and innovation | <input checked="" type="checkbox"/> 4. Critical thinking, problem solving, & decision making |
| <input checked="" type="checkbox"/> 2. Communication and collaboration | <input checked="" type="checkbox"/> 5. Digital citizenship |
| <input checked="" type="checkbox"/> 3. Research and information fluency | <input checked="" type="checkbox"/> 6. Technology operations and concepts |

Instructional Objective(s): Students will use the target language to collaboratively design, develop, and present a short documentary about a country in which the language they are studying is spoken. The final project can use presentation software, or can be a podcast combining still images and audio, or a video. Throughout this production they are strongly encouraged to use the target language in their small groups.

ACTION

Before-Class Preparation: This is an activity for students with strong technology skills, as they must have at least rudimentary understanding and skill with using digital audio- or video-editing software. Students uncomfortable with using a digital video camera can use a digital camera, scanner, or obtain images from digital reference resources. Students should also have a thorough understanding of the effective use of search engines and other resources and how to cite materials appropriately.

Determine student groupings and have groups select a country or region and read introductory information to prepare for the project. This information may come from the textbook, other class reference materials, and may occur throughout the semester or year prior to this cumulative activity.

Students construct a list of questions they would like to answer or critical issues they plan to explore in their documentary. Students bring these preliminary plans with them to class to share with classmates.

The class will create a rubric to evaluate the project by identifying the value of potential topics, measures of quality of the presentation, and appropriate language use during production and presentation.

During Class

Time	Instructional Activities	Materials and Resources
20–30 minutes	Students share lists with their group. Each is evaluated based upon the supporting documentation presented with it and the merit that it offers to the final product. Students must reach consensus on the items to be included and their justification for inclusion. This portion of the activity continues until all artifacts are assessed or there is a group consensus that enough critical resources have been identified to produce a storyboard and script.	Student lists and notes for storyboard
20–30 minutes	Students create a storyboard for their documentary using presentation, concept-mapping, or word-processing software. Each segment of the storyboard should contain text or graphics that describe the visual and aural components of the documentary. As they negotiate the timeline, they are encouraged to communicate in the target language.	Software for storyboarding (presentation, concept-mapping, or word-processing software)
10 minutes per group	Storyboards are shared with the teacher to determine appropriate topics and length.	Storyboard
1–2 hours	Students conduct research in order to compose a draft script for their documentaries, with 1 or 2 students composing each segment of the storyboard and identifying potential artifacts. Students should conduct peer reviews of their script segments with their group using the rubric, and sharing drafts with the teacher.	Presentation or word-processing software

During Class

Time	Instructional Activities	Materials and Resources
1–2 hours	Students create or find media elements for their documentaries based on their storyboards and scripts, perhaps taking digital pictures, creating digital images, or finding and editing images and video.	Internet or other digital reference tools Digital cameras or video cameras Scanner for print-based artifacts
30–60 minutes	Students record themselves narrating their scripts, giving each student an opportunity to speak. Narration can be recorded in segments.	Audio- or video-editing software
1–2 hours	Students use audio- or video-editing software to construct their documentaries by putting all of their media elements artifacts into the timeline and adding any transitions, effects, or other information.	Audio- or video-editing software Presentation software (optional)
15–20 minutes per group	Students present their rough draft documentaries to at least one other student group and the teacher, sharing the storyboard, script, and other notes and information created during the project. Suggestions for elaboration, enhancement, or other improvements are made.	Media player Draft documentary Storyboard Script evaluation rubric
1–2 hours	Students refine their projects.	
10–20 minutes per group	Students present their documentaries to the entire class in the target language. Discussion and questions are encouraged.	Media player Projector or large monitor Evaluation rubric

Notes: Students are grouped according to the country or culture they will be exploring. Groups are no smaller than two individuals and no larger than five. Each group must have access to a computer, and ideally a computer for each student is helpful, but not necessary. Groups may benefit from access to a digital video camera, but this is also not necessary as videos can be made from still images, pre-existing video, animations, text, sound files, and many other authentic products of the target culture students can locate.

MONITOR

Ongoing Assessment(s): Students' use of the target language should be assessed throughout the process of identifying resources, gathering resources, synthesizing information, eliminating redundant or ineffective information, and presenting. A formal assessment of language abilities can be made during presentation of the project as well as in response to the student-generated language within the project itself.

Student-written language can be assessed through the review of the storyboard, script, and final project.

Accommodations and Extensions: Depending on the skill and knowledge of the students, documentaries may be limited to 5 or 10 minutes and no more than 3 topics. Some students may need an outline or template from which to create their storyboards or scripts. Giving students parameters, such as identifying at least one critical economic, social, and political issue to be explored in the documentary and lengths for each topic can help organize and focus students.

Back-up Plan: If video editing is beyond the reach of all students, some students can create digital presentations with images and text or complete a WebQuest based upon target cultures.

EVALUATION

Lesson Reflections and Notes: While student engagement can be high during multimedia projects, efforts should be made to continually emphasize the content and purpose of the activity. Focus is on language use and developing an understanding of culture. Students can meet these purposes through a range of different types of technology use, from very minimal to extensive.