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LANGUAGE TEACHERS— EARLY PIONEERS OF ICT INTEGRATION

Technology can expose teachers and students to authentic contexts for learning. A variety of technologies can also provide students with access to resources, as well as with alternative methods of representing and communicating their knowledge. The use of technology can foster innovation, facilitate dialogue and offer potential for developing new practices in the education and research communities.

The use of technology in the FSL classroom has progressed from large reel-to-reel tape players and state-of-the-art language laboratories to instantaneous access to an abundance of information via the Internet.

From the beginning, language teachers have often been at the forefront of the move to integrate technology into the classroom. Technology afforded students opportunities to develop all four language skills. The potential offered by technologies, such as audiotapes and video recorders, to make language come alive for students and bring authentic culture into the classroom motivated many language teachers to embrace technology in their teaching. As a result, teachers of second languages have often been viewed as early pioneers in the integration of technology for learning and language skill development.

The purpose of this chapter is to highlight how various technology-based resources available today can support language learning in the FSL classroom. In French 10–9Y, for example, students are expected to demonstrate knowledge of vocabulary related to information and communication technologies.

All four components of the FSL program of studies can be supported through the use of available technologies. Assistive technologies, formerly considered only for support of students with special learning needs, may also benefit all students as they learn French.

Please note that due to rapid changes in the field of information and communication technologies, some of the terms and applications named in this document may be obsolete; they were, however, current at the time of writing. Teachers are encouraged to contact their jurisdictional technology coordinators for updated information. Also note that throughout this chapter, particular product or company names are included as illustrative examples of particular technologies, not as endorsements of certain products. They are included solely as points of reference for the various topics addressed in this chapter.

SUPPORTING STUDENTS WITH SPECIAL LEARNING NEEDS

Students with special learning needs in the FSL class may require assistive technologies to support their learning. Assistive technologies are those media, devices and services that are used to help students overcome barriers to learning and achievement. For example, a student who is blind will need to have learning materials in an alternative format such as Braille or in digital format so that materials can be read aloud by text-to-speech software. Students with physical disabilities who cannot write using pencil and paper may need to use a computer with an alternative keyboard and mouse to communicate what they know. Students with learning disabilities may need additional supports to read print materials, even if they can comprehend the materials in other forms.

Traditionally, assistive technologies have been used by students with special education needs, such as physical, sensory or cognitive disabilities. However, using assistive technologies in the language learning classroom can benefit a wide variety of students, beyond those for whom the technologies may initially have been intended.

References to assistive technologies are included throughout this chapter as well as in **Appendix Y**.

To learn more about using appropriate assistive technology tools with students with special education needs, teachers may refer to **Chapter 9** for a resource provided by Alberta Education titled *Programming For Students With Special Needs Series–Book 3: Individualized Program Planning (IPP)*, which may be accessed at the following Alberta Education Web site page <<http://education.alberta.ca/admin/special/resources/ipp.aspx>>.

USES OF TECHNOLOGY IN FSL CLASSES

Information and communication technologies provide a vehicle for communicating, representing, inquiring, making decisions and solving problems. Outcomes related to the integration of information and communication technologies (ITC) are defined in the NINE-YEAR FRENCH AS A SECOND LANGUAGE PROGRAM OF STUDIES (GRADE 4 TO GRADE 12).

Both teachers and students can benefit from access to technology-based resources as a means of developing students' language skills. In an FSL class in particular, information and communication technologies allow students and teachers to:

- ▶ attain exposure to authentic language
- ▶ gather and analyze information
- ▶ communicate by sharing information and resources with people in other places, more efficiently and in real time
- ▶ collaborate with others by creating technology-supported communities
- ▶ develop cultural knowledge and intercultural skills
- ▶ concentrate on particular language skills
- ▶ access meaningful practice in authentic contexts
- ▶ create a range of text types
- ▶ expand skills in critical thinking, problem-solving and self-reflection
- ▶ explore or develop virtual realities.

Furthermore, some technologies allow for

- ▶ customization to account for individual differences
- ▶ “just-in-time” support as it is needed, and
- ▶ reliable diagnostic feedback of student progress.

Alberta Education Technology Initiatives

Alberta Education's Technology provides school jurisdictions with research in the use of technology in all subject areas and for different classroom settings. A part of this initiative is to provide access to a number of Web sites related to learning and technology in Alberta. These Web sites can be accessed from the Alberta Education homepage found at <<http://education.alberta.ca>>. The sites are intended to provide links to information regarding safe use of the Internet, policies related to integration of technology, the use of videoconferencing and other related topics. There are also details regarding the software agreements

that Alberta Education has negotiated on behalf of school jurisdictions in Alberta with Apple, Microsoft and Inspiration/Kidspiration. Teachers are encouraged to visit these links on a regular basis as updated and new information is added.

Additional information on Assistive Technologies for Learning (ATL) is provided on the following Alberta Education Web site page:
<<http://education.alberta.ca/admin/technology/atl.aspx>>.

ACCESSING AUTHENTIC LANGUAGE

Language learners need to access a lot of spoken language in order to develop all of their language skills. Both listening comprehension and listening strategies are aided by the access opportunities that many types of technology afford students. Cassettes, audio CDs, video recordings or Internet-based audio resources allow learners to access a variety of examples of French spoken for authentic purposes. Using a range of audio resources allows teachers to ensure that their students are exposed to a variety of speakers and voices whose spoken French may differ slightly, depending on the origin, age and social class of the speaker. Oral text types, such as weather reports, can serve as models for students' oral production as well.

Depending on the physical arrangement of the classroom, the needs of the students and the availability of the necessary equipment, listening activities can either be set up in small listening centres or carried out with the whole class. Similarly, students may view audiovisual or digital resources individually, in small groups or as a whole class, depending on available hardware (e.g., computer monitors or multimedia projection devices).

In addition to the text, audio and video files being made available commercially and publicly through the Internet, an increasing number of interactive learning activities are being developed. These activities may be referred to as digital resources and can vary in size and complexity. Museums and other institutions may develop such resources in order to provide visitors to their Web site with their content. In addition, Alberta Education is developing resources for a number of subject areas, in both English and French, which are available to students, teachers and parents at <<http://www.LearnAlberta.ca>>. All resources, including interactive learning activities and videos posted on this site, align with Alberta programs of study. Currently, the majority of the resources available in French are targeted at Francophone and French Immersion students. However, these resources provide students and teachers with access to models of spoken French in a range of contexts.

Teachers interested in supplementing resources authorized by Alberta Education with authentic language samples, such those found on French Internet radio sites, are encouraged to do so; however, teachers must ensure that these resources are suitable for classroom use and that they align with outcomes in the program of studies. **Appendix K** provides guidelines to consider when selecting additional resources.

GATHERING INFORMATION

In particular, **Appendix K** makes reference to the *Guidelines for Recognizing Diversity and Promoting Respect*, which must be followed when resources are chosen for use in the classroom.

The learning of a language is closely tied to the desire and need to seek information about the people who speak the language. Prior to the advent of web-based technologies, teachers encouraged students to gather information from and about speakers of French by writing formal and informal letters, and sometimes by making inquiries using the telephone and fax machine. These older technologies may still be used, but teachers are required to abide by policies in place in their jurisdictions regarding the use of telephones and cell phones in schools. If permitted, telephones and cell phones may be used to gather information or pass on messages related to French class.

Where text documents are to be shared with someone at a distance and the use of the Internet as a means of communication is not available, the fax machine remains a standby. Teachers and students seeking information from individuals, businesses or agencies in countries where the use of e-mail is not widespread may find that their requests for information are more readily attended to if they are sent by fax or by mail.

The Internet allows teachers and students to access a substantial amount of information. A search on the Internet for the term “French search engines” can enable teachers and students to gather information from French language Web sites such as <<http://www.voila.fr>>. Some search engines, such as Google, allow users to set the interface and carry out the search in a range of different languages, including French.

The challenge for language teachers is to help students find information that is commensurate with their reading comprehension level in French.

Alberta teachers and students may access *L'Encyclopédie canadienne* through the Online Reference Centre/*Centre de référence en ligne*, which is accessible at <<http://www.LearnAlberta.ca>>. While this resource is not written for FSL students in particular, it provides them the opportunity to view authentic texts geared to their Francophone peers.

- ▣ *Example:* Students in a French 10–9Y class dealing with the subfield VISUAL ARTS access the reproductions of Canadian paintings found as a *Ressource Interactive* titled *La peinture au Canada* within *Historica, l'Encyclopédie canadienne*, which is found in the Online Reference Centre accessible on <<http://www.LearnAlberta.ca>>. The images can be used as the basis for a discussion related to the themes depicted or moods evoked by Canadian artists over time.
- ▣ *Example:* Students in a French 20–9Y class dealing with FADS AND FASHIONS search the topic *Création de Mode* in *Historica, l'Encyclopédie canadienne*, which is found in the Online Reference Centre accessible on <www.LearnAlberta.ca>. The article they will find lists a number of Canadian couturiers who have gained international recognition.

COMMUNICATING VIA TECHNOLOGY

Teachers can also use the Internet to gather information related to language teaching and learning. Alberta Education provides a number of Web sites with documentation regarding the teaching and learning of languages. These include a site specifically related to FSL at <http://education.alberta.ca/francais/teachers/progres/compl/fsl.aspx>, as well as a site promoting the teaching and learning of second languages in Alberta at <http://education.alberta.ca/teachers/resources/learnlang.aspx>.

Language is learned so that people can communicate with each other. In the past, FSL teachers interested in facilitating communication between their students and students in partner classes in other regions or countries had their students prepare audio or video recordings of messages to be sent by mail. Today, teachers may continue to use these methods when communicating with students in locations without access to high-speed Internet. Where accessible, a number of technologies allow for much more immediate communication, either between individuals or among or between groups of people.

In the case of many distributed learning environments in which students are working at a distance, all or most classroom interactions will be facilitated through the use of a variety of technologies. In other contexts, some of the technologies mentioned briefly below can be used for specific recurring contacts or one-time communicative projects.

This section addresses technologies that can be used to facilitate communication between teachers and students, between students in separate classes, and between students in remote areas or countries. Alternate uses for these technologies, as well as other examples, can be found for almost any of the points made below. This section is not intended to be exhaustive, but rather illustrative of the variety of ways in which technology can promote and enhance the learning of French.

Communication from one to one

Various technologies can be used to support communication between individual people, including telephones, answering machines and voice mail systems.

Where access is available, e-mail can facilitate communication between and among students and teachers as well as parents. External applications, such as Sound Recorder or QuickTime Pro, allow for the creation of audio files that can be attached to e-mails, thus enabling language teachers and students to share spoken messages in French. When it comes to written messages, keyboard settings can be added or shortcuts can be used to allow for the use of French characters and accents, as illustrated in **Appendix W**.

Where its use does not contravene jurisdictional or school policies, instant messaging or text messaging allows people to interact with each other using text on-screen rather than the spoken word. This form of communication can help in the development of decoding skills.

Communication from one to many

However, linguistic accuracy is often neglected due to the inherent immediacy of communication this type of technology affords.

WEB SITES and BLOGS

Teachers who find it beneficial for their students to access course and lesson materials via the Internet, particularly those teachers working in a distributed learning environment, often post their lesson content to a dedicated space on the Internet.

Teachers who consider posting content to their own dedicated space may be interested in developing their ability to use Web design programs. Various programs exist and require varying degrees of specialized knowledge. By creating a personal Web site or a more simplified blog (weblog, or online journal), teachers can post information, links, assignments, instructions for special projects, notices for parents and more. Some school jurisdictions allow teachers to access server space and technical support in order to create their own Web sites on the jurisdiction's mainframe. Teachers are required to contact their jurisdictional technology representatives for further direction before implementing this type of communication with students and parents.

VIDEOCONFERENCING (VC)

Teachers teaching in a distributed setting may require videoconferencing technology and/or interactive whiteboards in order to connect to their students at another location. School jurisdictional staff can provide further information, guidance and support in these areas.

Students in the regular classroom setting can also benefit from this technology. Students can be linked within a jurisdiction or to another jurisdiction via videoconferencing suites to share information about themselves or to share class projects.

However, when using this form of technology, teachers need to consider that much preparation is needed beforehand. Reliable and viable French-language providers are available, often at a cost. It is important to obtain this kind of information before engaging the services of a VC provider.

It is also important to consider the following when planning a VC experience:

- ▶ What is the purpose of the videoconferencing experience?
- ▶ How does it relate to the outcomes of the program of studies?
- ▶ How will students be engaged with the guest speaker?
- ▶ What happens if the technology fails?
- ▶ What back-up plans need to be in place so that valuable class time is not lost?

These factors are key to an enjoyable and meaningful VC experience for both the teacher and the students.

PODCASTING

Podcasting allows teachers or other individuals to provide media files over the Internet for playback over a computer or a mobile device commonly used for playing music. This technology allows teachers and students to access language learning at any time and anywhere. The Canadian Association of Second Language Teachers (CASLT) provides information about podcasting on its Web site at <<http://www.caslt.org/research/technology2.htm>>.

Communication from many to many

A range of technologies exists to enable teachers to facilitate communication between their students and other students, or other individuals, at a distance. These include, but are not limited to, Web sites or blogs, a range of shared online spaces, as well as videoconferencing.

BLOGS

A blog (or weblog) allows one to post content on either an open or a restricted space. This means that the content can be viewed either by anyone with access to the Internet or by individuals who have been provided with a password in order to gain access to the space. Some teachers use blogs to post materials created by their students and to facilitate communication between partner classes. In such a case, access to the content is limited to the members of both partner classes. Alternatively, the blog may be used as a way for classes within a single school to communicate with each other.

📖 *Example:* A teacher sets up a blog for high school French classes. Pictures of student work and sound files of the oral contributions in class are regularly posted on the blog. Students use free recording software, such as Audacity, to record their voices and obtain feedback from their FSL classmates. The teacher verifies in advance that the planned project complies with the *Freedom of Information and Protection of Privacy Act* (FOIP), as well as with jurisdictional technology policies.

SECURE ONLINE COMMUNITIES

An emerging technology that is making it possible to hold discussions in private with a select group of participants is the provision of online communities. At the time of printing of this guide, one such example is called Wikispace; however, as this technology develops further, names and services of such online spaces may change rapidly. Language teachers interested in facilitating written communication between their students and the students in a partner class can use online communities to set up a group Web site that can be accessed by all parties. All participants are invited to post entries and images, as well as to comment on the postings of others.

Combined Web-based authoring, delivery and learner management tools such as Moodle, WebCT, Blackboard or Nicenet's Internet Classroom Assistant facilitate interaction among a number of people and are often used to offer online courses or various forms of professional development. These technologies are a primarily asynchronous form of communication, whereby participants can post text and audio files for their peers to access and respond to at a later time. However, these tools often include features that allow for synchronous communication as well (communication that occurs in real time), such as oral conversations and text messaging between participants linked with each other at the same time. Features such as a built-in, interactive whiteboard allow teachers and students to communicate with all participants who are able to speak, write and prepare visual representations in order to share and discuss as a group at the same time. This technology usually requires a fairly high bandwidth, along with a certain level of comfort with technology. Reasonable precautions must be taken to ensure that the safety and identity of the participants are not compromised. However, tools such as these facilitate the creation of virtual learning environments that allow for interaction, feedback and exchange of documents between and among students and teachers, in a way similar to learning in a face-to-face environment.

INTERACTIVE WHITEBOARDS

This classroom technology consists of a display panel that can function in many ways, including as an ordinary whiteboard, a projector screen or as a computer projector screen. Users can control the image by touching or writing on the panel. They can also write or draw on the surface, save the image to a computer, print it off or e-mail it to others. Clip-on whiteboard conversion kits, such as Mimio and eBeam, offer some of the same features. Students who cannot use a computer mouse often find they can work better if they have access to this technology.

TRANSMITTING VOICES OVER THE INTERNET

Transmitting live conversations over the Internet can be of special interest to language teachers as it is relatively inexpensive and easy to do. Applications such as Skype allow small groups of teachers and students to connect with each other or with other speakers of French who have an Internet connection, a microphone and sufficient bandwidth to carry on a conversation in real time. If the parties involved also have access to a digital camera, visual images of the speakers can be transmitted, but this is not a requirement. Because of differences in time zones, connecting with native speakers during school hours might not be possible; however, conversations between students within a school jurisdiction are possible.

VIDEOCONFERENCING

Whether through a state-of-the-art school studio or a personal desktop studio, the use of videoconferencing technology and the associated infrastructure to simulate face-to-face communication is expanding. Whether it is used to connect groups of learners with students in other

countries, to broadcast presentations or special events or as the primary means of conducting teacher and student interaction, videoconferencing offers a number of possibilities for language classes.

▣ *Example:* A French 10–9Y teacher interested in facilitating a cultural exchange between students in his or her class and Francophone students in a partner class in another part of Canada investigates whether both classes can obtain access to a videoconferencing facility in order to exchange information on tourist attractions in their respective communities. In preparation, the two classes make use of other technologies and applications, such as e-mail, to share portraits of themselves and their interests with a partner in the other class. Students also prepare to share with the partner class brief oral descriptions, with accompanying visuals, of attractions in their community. Some multimedia presentations with embedded audio files are shared ahead of time; others are presented live. During the VC sessions, students from both schools present their projects, while those whose projects were viewed prior to the session can ask questions of the groups who did not present. After the VC session, each class writes a letter to another partner group indicating what they liked about the presentation and to ask further questions about the community.

CREATING COLLABORATIVE COMMUNITIES

In addition to the tools mentioned above, certain technologies support collaboration between learners in the same location as their peers or at a distance from them.

Technologies such as telephones, instant messaging and videoconferencing support interaction in real time among people who are not in the same place at the same time. Similar to a face-to-face speaking situation, the focus of the interchange is on sharing and comprehending key ideas and messages, rather than on the accuracy of linguistic details.

Applications and technologies that support asynchronous communication (communication that does not occur in real time and therefore has no immediacy) allow learners to reflect on and edit their messages before posting. The result is a more thoughtful, yet less spontaneous use of language. Issues of security, access, and file management might restrict the use of such applications to teaching situations in which technology-mediated communication is essential—that is, when students and teachers are not working in a face-to-face environment. However, as solutions to some of these barriers are found, teachers in some face-to-face settings are finding ways to integrate aspects of these technologies into their teaching or professional development practices as well.

Within a single classroom, students working on individual or group activities or tasks may use concept mapping tools such as Inspiration/Kidspiration to help them organize their work conceptually. Results of group work can be projected digitally or by using an overhead projector so that students can share their results with classmates. Alternatively, by using some of the communication technologies mentioned above, results can be made accessible to peers in another location to allow

those students to contribute and, thus, collaborate jointly on a larger project.

Teachers to teachers

Technology provides teachers with a number of options when it comes to pooling their expertise or becoming part of a collaborative professional community. The following tools can be used to become part of or to build a professional learning community.

DISTRIBUTION LISTS

Teachers can begin by simply signing on to a distribution list to receive information from their choice of various organizations, institutions or publishing houses related to the teaching and learning of French, such as the *CASLT Digital Newsletter* or *La minute FLE*. Teachers provide their e-mail address in order to regularly receive updated information, such as teaching ideas, details regarding new resources or opportunities for professional development.

MAILING LISTS OR LISTSERVS

Whereas distribution lists only allow teachers to receive information, mailing lists or listservs also allow information to be posted. These lists are automated systems that allow a number of people to participate in online discussions. A copy of the e-mails subscribers send to the system is automatically forwarded to other subscribers to the list.

▣ *Example:* A teacher who wishes to communicate with other second-language teachers might consider subscribing to a mailing list hosted by a specialist council in order to receive information about upcoming professional development events, or to post and reply to questions that are then forwarded to all members of the list.

BLOGS, BULLETIN BOARDS OR DISCUSSION BOARDS

Blogs, bulletin boards, discussion boards and interactive message boards are examples of applications that allow participants to post messages for other participants to access asynchronously.

▣ *Example:* Four senior high FSL teachers living in different locations in the province meet at a professional development event. They decide to collaborate in the planning, development and sharing of activities for a unit on SHOPPING. One teacher sets up a blog and invites the other three as participants. When decisions need to be made, one teacher posts a suggestion as well as a response deadline date. If others have an alternative suggestion, they post their responses prior to the date. Once teachers have completed their design of an activity, they share it with the rest of the group by posting it to the blog. In addition to communicating asynchronously via the blog, the teachers might find it valuable to plan to speak together as a group using Internet voice transmission technologies and applications described earlier in this chapter.

ONLINE DISCUSSION GROUPS OR NEWSGROUPS

For teachers interested in communicating and sharing ideas, as well as possibly collaborating with colleagues, another resource is the many online discussion groups or newsgroups dedicated to language learning available on the Internet. Participants access these and post messages through a news reader, an application that can be downloaded for free or that is a feature of some common Internet applications such as Internet Explorer or Firefox.

ACCESSING CULTURAL KNOWLEDGE

Cultures are forever changing and evolving. Digital technology opens doors to access Francophone cultures, in particular, in the here and now. In the NINE-YEAR FRENCH AS A SECOND LANGUAGE PROGRAM OF STUDIES (GRADE 4 TO GRADE 12), a number of culture outcomes for grades 10 to 12 are identified that involve recognizing French language conventions in texts such as:

- ▶ calendars
- ▶ schedules
- ▶ clothing labels
- ▶ maps
- ▶ forms
- ▶ menus
- ▶ food product information
- ▶ neighbourhood signs
- ▶ magazine or newspaper articles or books
- ▶ informal letters and
- ▶ business letters.

These conventions include elements such as:

- ▶ titles and subtitles used in written texts; e.g., newspaper articles
- ▶ abbreviations for forms of address
- ▶ date and time notation
- ▶ spacing for numbers containing multiple digits
- ▶ abbreviations for cardinal points, streets, avenues
- ▶ appropriate conventions for writing addresses
- ▶ metric measurements
- ▶ abbreviations and spacing rules for Canadian and foreign currencies
- ▶ conventions and spacing rules for punctuation marks, and
- ▶ the use of Celsius in measuring temperature.

The culture outcomes also include an awareness of how French language accents and characters can be accessed on a computer keyboard, as well as the existence of French language Internet search engines.

Teachers can make use of French language resources delivered through media such as interactive CD-ROMs or Web sites to illustrate the

various cultural conventions mentioned above. By providing students with opportunities to use French language search engines and French keyboard shortcuts, teachers not only help students attain the cultural outcomes, but also infuse information and technology outcomes into their lessons.

CONCENTRATING ON SPECIFIC SKILLS

Students are expected to develop skills in listening and reading comprehension as well as in oral and written production. Additionally, students must develop knowledge of vocabulary and language concepts. Various software applications and assistive technologies can support learners as they develop this knowledge and these skills.

LISTENING COMPREHENSION

Some schools use classroom amplification systems, such as sound field systems, to support students with hearing impairments and to reduce teacher vocal fatigue. These systems allow teachers to speak in a normal tone of voice and ensure that all students can hear them clearly, regardless of where in the classroom the students are seated. Classroom amplification also benefits students with behavioural and attention difficulties, as well as students who are learning a second language. These systems enhance students' ability to perceive and understand language in almost all instances.

Cassettes, videos, DVDs and Web-based multimedia resources provide students with rich opportunities to develop listening comprehension skills and strategies. When listening to these audio materials, students can refer to teacher-created materials that provide support for comprehension. Teachers can develop a range of activities to promote the development of listening comprehension skills, a number of which are described in **Chapter 6**; only a few are included here to illustrate how a range of technologies may be employed to develop this skill.

📖 *Example:* As students listen to a recording of a news story, the teacher projects illustrations with an overhead projector or classroom data projector to accompany and support the ideas presented in the story.

📖 *Example:* Students are given a song with blanks for missing words. Before they hear the song, which is recorded as an MP3 file and is accessible to the students at any time, they attempt to fill in the blanks with what they anticipate they will hear. As they listen to the song the first time, they put a checkmark beside the words they were able to anticipate and they indicate at the bottom of the page the number of words they predicted correctly in the first listening. In subsequent listenings, students continue to fill in the missing words. At the end of the activity, students can be asked to reflect on any difficulties they may have encountered in carrying out the activity and to consider which listening and reading comprehension strategies they used to help fill in the missing words.

When watching audiovisual materials such as video clips, film excerpts, commercials, cartoons, and so on, language learners have the opportunity to gather meaning not only from the soundtrack but also from clues in the background, in the setting and from nonverbal communication (e.g., gestures, facial expressions). Using these kinds of materials, teachers can stop at any time to review or confirm understanding.

📖 *Example:* A teacher shows the class an excerpt from a movie clip with the audio turned off. Groups of students make suggestions and act out what they believe the conversation might have been; then the segment is replayed with the audio turned on. Students assess how close they were in guessing the content.

READING COMPREHENSION

There are a number of assistive technologies to support learners with reading comprehension. These include text-to-speech software and portable devices known as reading pens. These provide auditory support to students with reading difficulties or visual impairments while reading. Where available, these technologies may be used by the general class population for support with reading in French. They are described in further detail in **Appendix V**.

ORAL PRODUCTION

A number of existing and emerging technologies can be used in support of oral production. Web tools such as Sound Recorder allow teachers and students to record oral text and attach it to e-mails or embed it in multimedia presentations. In this way, students can share their oral message with others.

The ability to have pairs of students record themselves speaking and listening to their spoken interactions is invaluable when they are learning another language. Pairs of students may follow a skeleton model of a dialogue and, using available technologies (e.g., cassette recorders, voice recording features included in newer operating systems or mobile devices), they prepare audio recordings of these dialogues. The recordings can be reviewed in a conference with the teacher for the purpose of assessment *as* or *for* learning, or they can be shared with peers or parents as a demonstration of what students are able to do with the language.

Developments in voice recognition software will allow students to receive accurate and useful feedback on their pronunciation of isolated words and the use of specific expressions. At the time of publication, some software programs include a rudimentary indicator of pronunciation accuracy that may be of limited use. Whether or not a program provides feedback, however, students benefit from the ability to hear their own voices and to compare their pronunciation with a model, possibly in conjunction with one-on-one conferencing with their teacher.

WRITTEN PRODUCTION

Teachers and students can use word processing software to create and edit text in French. Most word processing programs include a French keyboard setting and features that allows users to type in French, as well as giving them the ability to type on an English keyboard using shortcuts for French accents. **Appendix W** provides some direction to teachers and students wishing to access French characters on a computer keyboard.

Assistive technologies that support learners engaged in written production can prove useful to all students, not just to those with special education needs. For example, the spell checking feature in many word processing programs was originally created for students who struggle with writing but is now commonly used by everyone. A French language spell checker can provide additional support to all learners of French, not only those with special needs.

Other assistive technologies, such as word prediction software or word processor functions that provide oral support as a student types, are outlined in **Appendix V**. Where available, these technologies may be used by the general class population for support with writing in French.

VOCABULARY DEVELOPMENT

Tools or programs such as Quia, Spellmaster and others that are accessible on the Web allow teachers and students to create learning activities ranging from crossword puzzles to quizzes, games and test banks. Simpler versions of these programs are often available free of charge with the option of purchasing the right to access more complex tools and features, such as the tracking of student results. (These programs are often used with the learning of discrete vocabulary items. Care must be taken to ensure that vocabulary is developed in the context of an authentic communicative situation.)

Teachers and students may be able to access applications such as spreadsheets that can also be used to support vocabulary learning.

📄 *Example:* Students in a French 10–9Y class are beginning work on the field of experience ACTIVITIES and, in particular, as it relates to communication and technology vocabulary. The teacher has shown them how to set up multiple sheets in a spreadsheet application, such as Microsoft Excel. Students enter each new vocabulary item in one column of the spreadsheet with a clip art graphic to illustrate the item in the second column. Students may decide to use the first sheet for words and expressions related to types of communication technologies. Over the course of the unit, as students encounter new vocabulary items, they enter them accordingly. From time to time, they alphabetize either column, print off a fresh copy of all the words they have gathered thus far and use this copy in various ways. Depending on the nature of the content, the context of the class and the needs of the students, other columns can be added for definitions and examples of sentences in which the words are used.

DEVELOPMENT OF LANGUAGE CONCEPTS

The ability to project visual supports when presenting students with new linguistic structures or new information is crucial for the teaching of languages. Teachers may find it useful to have a projection device, such as an overhead projector and/or classroom data projector, when illustrating or having students examine various French language concepts.

Teachers often make and display transparencies showing class notes or new structures. Where possible, the use of colour helps learners differentiate between categories of content such as masculine and feminine nouns in French. Slides or transparencies presented in previous classes can be used again as a basis for review activities.

When planning for whole-class guided activities, teachers may choose to project common board games, such as Battleship or *Les X et les O*, that have been modified for use with particular linguistic structures. Some of the activities described in **Appendix S** can lend themselves to projection by means of either a multimedia projector or an overhead projector.

MEANINGFUL PRACTICE IN AUTHENTIC CONTEXTS

The various technologies described in this chapter, particularly in the section on communication, can be implemented as a part of the classroom activities and tasks that teachers plan for their students. Students can simulate interviews, telephone calls and a number of other interchanges while following dialogue outlines based on the language structures being learned in class.

Depending on available technologies, teachers can plan activities and tasks in any number of ways to provide meaningful practice opportunities for their students. **Appendix X** illustrates a number of variations on a single task, each using different available technologies.

CREATING TEXTS OF ALL TYPES

The expanding array of technologies is particularly useful in FSL classes, where both teachers and students are involved in a range of text creation tasks; teachers plan for their students' learning and students create various text types as they develop skills in oral and written production.

FSL teachers may choose desktop publishing programs, multimedia presentation tools or other software to create posters, transparencies, board games, certificates, handouts and worksheets; or to create other materials including models of authentic text types such as menus, tickets and advertisements. Teachers may illustrate and post the necessary linguistic structures, including the classroom expressions found in **Appendix D**, that students will use as they carry out various activities and tasks.

Students can also use available tools and applications to create a range of document types as they develop and apply their French language skills.

Example: Students in a French 10–9Y FSL class prepare travel itineraries using free clip art and a simple desktop publishing program. The teacher ensures that students learn to reference correctly the source of all of the images they use.

Multimedia presentation tools, such as Powerpoint and Director, allow students to prepare presentations and other types of documents that they can then share with their classmates or a wider audience using communication technologies. The amount of text that students in grades 10 to 12 enter for such presentations should be limited as students need to be able to “talk” to the slides and not read the content verbatim. The ability to personalize their presentations by adding images from free clip art collections and citing the sources should be encouraged. Presentation tools can also be used by students when designing the layout of certain text forms, such as posters or brochures.

As teachers and students make use of content found on the Internet, including images and graphics, it is important to ensure that the provisions of the *Copyright Act* are followed and that sources are correctly referenced. Jurisdictional technology coordinators or other jurisdictional staff working with ICT integration can advise teachers as to local policies on the use of image collections and Web sites in student or teacher work.

District staff may also be able to provide support to teachers who want to learn more about the integration of technologies in their teaching.

Example: An FSL teacher consults with district staff to seek advice as to how students can use an external sound recording application, such as Sound Recorder or QuickTime Pro, to record themselves or others and how to attach the recorded files to e-mails or link them to other documents.

Example: A teacher learns that recent applications contain tools for inserting links to different files—such as sound, text and image files—in a single document. The ability to add these hyperlinks to documents they have created enhances student projects and provides a context for their developing production skills.

Allowing students to take still photographs or make videos of their projects or interactions in the classroom and to view or post these in the context of a classroom activity can help build student motivation and provide them with opportunities to develop their oral production and listening comprehension skills. *Freedom of Information and Protection of Privacy Act* (FOIP) guidelines need to be observed when showing images or videos of students outside of the classroom. Teachers may consult with their jurisdiction’s FOIP contact for jurisdictional FOIP policies. For more information on this matter, access the FOIP Web site at <<http://foip.gov.ab.ca>>.

The ability to scan print images such as student drawings, charts or other items and manipulate them in documents has helped teachers customize and personalize their lesson materials. However, in keeping

with copyright law, the source for the scanned or photocopied pictures, including appropriate permissions, needs to be cited by the user.

▣ *Example:* Students in a French 20–9Y class working with the subfield of experience FADS AND FASHIONS decide to develop a slide presentation of fads and fashions for a certain era. The students prepare descriptions of the fads and fashions of the selected time frame. They use the Internet to seek out copyright-free photographs or use their own scanned drawings to illustrate their information. Using a slide program, such as Powerpoint, the students prepare the slides and then record, in an MP3 file, the audio track that will accompany each slide; they then embed the audio track into the presentation. The students could then attach the presentation to an e-mail file and send it to another group for a test run and preview. Using an assessment *for* learning form, students could also provide feedback to their peers.

EXPANDING CRITICAL THINKING SKILLS

Students who use information and communication technologies while developing their language skills benefit from the opportunity to communicate, inquire, make decisions and solve problems while learning French.

Concept mapping tools, such as Inspiration, allow students to categorize concepts graphically and to express thoughts visually. These tools can be used by individual students or in small group or whole class settings in a language class. Examples of graphic organizers can be found in **Appendix S**.

▣ *Example:* Before starting a project related to the ROLE OF THE MEDIA, a French 30–9Y FSL teacher uses a digital graphic organizer to guide students as they list questions they might ask to gather information about the media. For example, they might ask, *Quels sont les différents médias disponibles? Lesquels de ces médias sont les plus accédés par les jeunes? Quel est le rôle des médias électroniques? Quels médias ont la plus grande influence sur les jeunes, les adultes, les personnes âgées?* Over a period of classes, as the students find answers to these questions, the web is revisited and information is added in order to provide students with a completed concept map that they can display and share as evidence of learning.

Applications for producing spreadsheets and databases, such as Access and Excel, tend to be associated with math and science classes rather than a language course. Language teachers, however, are finding ways to include them in their repertoire of language learning activities as well. For example, students can use spreadsheets for data-gathering activities such as surveys.

▣ *Example:* A French 10–9Y class has just completed a survey of students' shopping habits. Pairs of students enter and sort various pieces of data gleaned from the survey in order to generate and discuss results, such as *Chaque mois, 14 élèves sur 20 dépensent tout l'argent qu'ils ont gagné. Six sur 20 épargnent au moins la moitié de*

leur salaire. / Soixante-dix pour cent des élèves dépensent leur argent tout de suite. L'autre trente pour cent en épargne une certaine quantité.

EXPLORING VIRTUAL REALITIES

Students used to playing computer games are familiar with simulations and virtual realities. Research and development of virtual realities for use in language learning is in its early stages. With time, opportunities to explore and make use of this emerging technology may enhance or otherwise impact language learning.

Chat rooms provide another form of virtual reality for many students in their activities outside the classroom. When precautions are taken to ensure that chat rooms are secure and private, and when the learning activities that are carried out via chat are well-designed, chat rooms can be a valuable learning tool for language students. They can allow teachers and students to engage in a virtual, synchronous exchange of textual, visual and auditory information as they develop their skills in French.

Note: Prior to embarking on any projects involving this technology, teachers need to check with their jurisdictional technology coordinators whether or not the use of chat rooms for instructional purposes is supported in the school jurisdiction.

☞ *Example:* Students are at computer stations in the school or at home. The teacher has provided different information to different students; e.g., each student has a new identity and personal information related to this identity. Using questions learned in class, the students are asked to find out about others who are visiting the same chat room they are in. Once students are familiar with this type of activity, more complex activities such as jigsaws can be attempted. This type of activity involves groups of three or more students. Each student is seen as an expert on one aspect of a topic and each student gathers and shares information with others.

CUSTOMIZING FOR INDIVIDUAL DIFFERENCES

The use of technology allows teachers to meet the needs of individual learners. For example, teachers may find that by incorporating visuals into specific lessons, they can present some concepts more clearly, especially to visual learners.

By using an external application to create audio files of explanations for various points in the lesson and then linking corresponding slides to the audio files, teachers can make entire lesson presentations available to students who were not present when a lesson was shared in class. Conversely, if the teacher is absent and a substitute replaces him or her, the class presentation can still be made with no time lost as students are able to continue with their learning. Presentations can be saved, modified and reused at a later time.

Teachers and students may need to make adjustments to text font and size, as well as text and background colour, to assist with visual perception. Many computer systems allow for such changes. Teachers

who are providing texts such as worksheets or activity sheets for their students may easily make a large print version for students who require this type of accommodation.

Appendix V provides further information on a number of assistive technologies that may help teachers provide for individual differences in the classroom.

ACCESSING “JUST-IN-TIME” SUPPORT

Most current software programs come with a number of built-in tools such as a dictionary, spell check and grammar check features, which allow students to access support with specific words and structures as they are creating texts in French.

While some students may wish to use online translators, they should be made aware of the pitfalls of this type of resource and shown how they can access more reliable assistance by using bilingual dictionaries.

Auditory learners may benefit from the ability to hear their written drafts being read aloud as they are writing. The assistive technologies listed in **Appendix V** include tools that can make writing audible, as well as others that could be accessed by all students as particular needs arise.

RECEIVING FEEDBACK ON PROGRESS

Teachers can use applications such as word processing programs and marksheet programs to plan for and keep track of student progress. Some software programs or online tools, such as Quia, keep track of the numbers of correct answers provided by students as they carry out particular activities. This form of immediate feedback can be valuable for some learners for the purpose of assessment *as learning*. However, it is not intended as the sole basis upon which student progress is assessed.

More recently, technologies have enabled students to post examples of their best work, as well as their reflective journals, in electronic portfolios of their own. These can then be assessed in the same way as hard-copy portfolios.

Teacher reflections

As teachers make decisions about the use of technologies in their French classrooms, they may consider questions such as these:

- ▶ Do I understand the different types of technologies available to me and my students and do I know how they can be used to enhance or motivate my students?
- ▶ Am I choosing a particular technology because it will enhance and/or facilitate learning for my students?
- ▶ Am I using the appropriate type of technology for what my students need to do?
- ▶ Am I using technology as a quick fix, add-on or afterthought or am I planning its use and integration in a purposeful manner?
- ▶ Am I harnessing the capacity of technology to allow students to play a greater role in their learning and use of French?

In summary

Technology opens up a range of opportunities for students and teachers both inside and outside the FSL classroom. The many features available in information and communication technologies, as well as in diverse assistive technologies, provide a vehicle for the development of many components of the FSL program of studies. When planning for the meaningful integration of technologies in the language class, teachers are encouraged to reflect on ways they can use these technologies to enhance their students' learning.

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