

Chapter 6 Use of Technology in High School FSL

What has been the *historical use* of technology in second languages?

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. Except for one outcome pertaining to strategies for accessing and sharing information, the use and discussion of vocabulary related to information and communication technologies is not explicitly found in the program of studies. However, inasmuch as such technologies form part of students' regular experiences at school, at home, or possibly at their work life, related vocabulary could be a part of any content addressed within the personal, educational or occupational contexts.

All components of the FSL program of studies can be supported through the use of available technologies throughout the three-year course sequence. Assistive technologies, formerly considered only in support of students with special learning needs, may also be of benefit to 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, in current use 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 and are not provided as endorsements of certain products over others. They are included solely as points of reference for the various topics addressed in this chapter.

How can technology support *students with special learning needs* in an FSL classroom?

When a student with special learning needs decides to enroll in an FSL class, the FSL teacher may need to work with other district staff to determine which assistive technologies might be available to support the student's learning. Assistive technologies are those media, devices and services that are used to help students overcome barriers to learning and achievement.

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 have been intended initially. These include spell checking programs and sound amplification systems. References to assistive technologies are embedded throughout this chapter where their use appears particularly relevant to FSL.

To learn more about using appropriate assistive technology tools with students with special education needs, teachers may refer to Chapter 9 of a resource provided by Alberta Education entitled *Programming For Students With Special Needs (PSSN) 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>>.

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>>.

What is *Alberta Education's Technology Initiative*?

Alberta Education's Technology Initiative 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 and can be accessed from the Alberta Education homepage 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 information is updated and added.

How can *technology* be used in the FSL classroom?

Information and communication technologies provide a vehicle for communicating, representing, inquiring, making decisions and solving problems. 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.

How can technology assist in *accessing authentic examples of French*?

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 brief presentations, dialogues, or 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 as 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 7** provides guidelines to consider when selecting additional resources and makes reference to the *Guidelines for Recognizing Diversity and Promoting Respect*, which must be followed when resources are chosen for classroom use.

USING TECHNOLOGY FOR GATHERING INFORMATION

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.

◆ **Example:**

Students in a French 10–3Y or a French 20–3Y class working within the public context on language experiences related to identifying shopping venues or leisure opportunities typically found in a community (10 C 3.1 or 20 C 3.1) may use a telephone in the classroom to place calls to local businesses and services to find out their opening hours. The students can then use the information to create a document in French about the shopping or leisure opportunities accessible in their community that could be shared with French-speaking residents newly arrived in the area.

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 looking for information regarding Alberta’s Francophone Heritage may access Alberta’s Online Encyclopedia at <<http://www.albertasource.ca>>. This site provides source materials, explanations, biographies and audio clips on Francophone communities. Many of these materials are available in both French and English.

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 with the opportunity to view authentic texts geared to their Francophone peers.

◆ **Example:**

Students looking for information on a Francophone Canadian, such as Marie Anne Gaboury, may access both a French and an English encyclopedia article on the topic. The ability to toggle back and forth between the two versions may aid their comprehension of the French text.

◆ **Example:**

Students looking for names of Francophone Canadians to investigate further may view short profiles on a number of well-known Canadian figures in sport, art, architecture, and innovation. These profiles fall into a collection entitled *Rétrospectives* and can be found as a *Ressource Interactive* in *Historica, l’encyclopédie canadienne*, which is found in the Online Reference Centre accessible on <<http://www.LearnAlberta.ca>>.

◆ **Example:**

Students in a French 30–3Y class working with language experiences related to the recommendation of tourist attractions in various communities may wish to include some of Canada’s natural wonders. An interactive map entitled *Les merveilles naturelles du Canada* features a photograph and brief explanatory text for about 40 such wonders, which may provide students with a starting point for further research. This map may be found as a *Ressource Interactive* in *Historica, l’encyclopédie canadienne*, which is found in the Online Reference Centre accessible on <<http://www.LearnAlberta.ca>>.

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

How can one *communicate in French via technology*?

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 by 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 be used to promote and enhance the learning of French.

COMMUNICATION FROM ONE TO ONE

Various technologies can be used to support communication between individual people. These include 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 which 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 18**.

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

COMMUNICATION FROM ONE TO MANY

WEB SITES OR 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 using Web sites and/or blogs.

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 within 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

Teachers teaching in a distributed setting may require videoconferencing (VC) 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.

BLOG

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 some or all of the French classes in a high school. 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 secure 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

An interactive whiteboard 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.

VOICE TRANSMISSION 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:

An FSL 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 jointly celebrate *la journée internationale de la francophonie* on March 20. 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 research various activities planned in their region for *la fête de la Francophonie* to share with the partner class. They decide jointly how their two classes can also celebrate this day. Some activities, such as the sharing of multimedia presentations with embedded audio files, can be sent ahead of time; others are shared as part of the festivities via videoconferencing after introductions have taken place. The classes stay in touch with each other throughout the year to complete various cultural and linguistic activities and to plan for one final VC session toward the end of the school year.

How can *collaborative communities* be created?

In addition to the tools mentioned above, certain technologies support collaboration between learners who are 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 up 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 which 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 high school 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 units involving vacations and travel to Francophone destinations. 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 devoted 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 Netscape.

How can *cultural knowledge* be accessed via technology?

As discussed in Chapters 1 and 3 of this guide, the **THREE-YEAR FRENCH AS A SECOND LANGUAGE PROGRAM OF STUDIES (GRADE 10 TO GRADE 12)** contains a number of outcomes related to sociocultural interactions and sociolinguistic awareness in the Intercultural subcomponent of the Repertoire, such as the following:

- recognizing social conventions used by Francophone speakers when greeting, taking leave, expressing sympathy, etc. (R 3.1)
- identifying and applying written conventions used by Francophone writers including those related to punctuation, capitalization, abbreviations and dates (R 3.4)

The Intercultural component includes outcomes related to the acquisition and dissemination of cultural knowledge (R 4). In addition to developing an awareness of the location of Francophone communities and the contributions of French-speaking men and women in Alberta, Canada and *la francophonie* at large, students are encouraged to seek information on aspects of everyday living and popular culture in the Francophone world, in keeping with their own interests. For all of these purposes, information and communication technologies can assist teachers and students to access cultural knowledge.

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 to access authentic information directly, teachers not only help students attain the cultural outcomes and demonstrate that French is a living language, but also infuse information and technology outcomes into their lessons.

How can *different skills be developed via technology?*

As students engage in communicative acts, they will develop skills related to the comprehension, expression and negotiation of meaning. Additionally, students will develop their linguistic and intercultural repertoire. Various software applications and assistive technologies can support learners as they develop knowledge and skills in these areas. Some technologies allow teachers and students to concentrate on specific skills.

DEVELOPING 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 behavioral 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 different activities to promote the development of listening comprehension skills, a number of which are described in **Chapter 3**. Only a few are included here to illustrate how different technologies may be employed to develop this skill.

◆ **Example:**

As students listen to a recording of a story, a teacher projects illustrations or photographs using an overhead projector or classroom data projector. Students indicate with the raise of a hand if the illustration or photograph represents what is being said.

◆ **Example:**

Students are given the text of a song with blanks for words that are familiar to them. They hear the song played to the class using a CD or DVD player or at computer stations with headphones where the song is made available through an MP3 file and an audio player. Students listen to the song a number of times, writing words in the blanks as they hear and recognize them.

When watching audiovisual materials such as video clips, film excerpts, commercials, cartoons, and so on, language learners have the opportunity to gather meaning from not only 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 as well as to develop sociocultural and sociolinguistic awareness.

◆ **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 also suggest interpretations regarding the relationships between the characters based on their observations of gestures, facial expressions and personal distance.

DEVELOPING 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 19**.

DEVELOPING SPOKEN EXPRESSION

A number of existing and emerging technologies can be used in support of spoken expression. Web tools such as Sound Recorder allow teachers and students to record spoken text and attach it to e-mails or embed it within multimedia presentations. In this way, students can share their spoken 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 (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 *for* or *of* 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 their 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.

DEVELOPING WRITTEN EXPRESSION

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 allow users to type in French, as well as giving them the ability to type on an English keyboard using shortcuts for French accents. **Appendix 18** 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 identified with special education needs. For example, the spell checking feature included with 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 19**. More information about these and other assistive technologies can be located by consulting <http://education.alberta.ca/admin/technology/atl.aspx>.

Where available, these technologies may be used by the general class population for support with writing in French.

DEVELOPING VOCABULARY

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 within the context of an authentic communicative situation.)

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

◆ **Example:**

Students in a French 30–3Y class who are working with language experiences related to tourist destinations in Francophone communities (30 C 3) may set up multiple sheets in a spreadsheet application, such as Microsoft Excel. Each travel destination they wish to examine is listed in one column of the spreadsheet. The remaining columns are set up to include various categories of information such as descriptions of typical seasonal weather for summer or winter; the names and value of local currencies; the costs of flights from their

local communities; tourist attractions in the vicinity; names of actual hotels or other forms of accommodation, as well as other information of interest. Once this information is complete, students can role-play vacation planning conversations between a travel agent and a customer by drawing from data in their spreadsheets.

DEVELOPING LANGUAGE STRUCTURES AND DISCOURSE

The ability to project visual supports when presenting students with new language structures is important in teaching 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 Tic-Tac-Toe, that have been modified for use with particular language structures. Some of the activities described in **Appendix 14** lend themselves to projection by means of either a multimedia projector or an overhead projector.

How can *meaningful practice* be carried out 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 19** illustrates a number of variations on a single task, each using different available technologies.

How can *texts* be created using technology?

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 spoken and written expression.

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 language structures, including the classroom expressions found in **Appendix 6** 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 learning how to share their personal preferences (10 C 1.2), describe their hobbies or interests (20 C 1.1) or describe their regular routines (30 C 1.1) may be given a task that requires them to recommend to people looking for advice on activities that can be pursued locally. Students may access images related to social, cultural and physical activities using collections of free clip art and a simple desktop publishing program to prepare a collage, brochure or other document illustrating their recommendations. The teacher ensures that students learn to reference correctly the source of all of the images used.

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 French 10–3Y are able to enter for such presentations is limited at first; however, they have the ability to personalize their presentations by adding images from free clip art collections and citing the sources. Presentation tools can also be used by students when they design a layout for certain text forms, such as greeting cards 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 referenced appropriately. 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—within 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>>.

◆ **Example:**

Students in a French 20–3Y class working within the personal context on language experiences related to the description of personal friendships and relationships may be given the choice of several types of tasks to illustrate their knowledge. A group of students decides to develop a *photoroman* style of story as their project. They develop a simple plot that can be illustrated by ten still images and associated speech bubbles. On an appropriate day, they bring various pieces of clothing and props to school in order to dress up for the various scenes in their story; they then take pictures using a digital camera. The pictures are then downloaded to a computer and students use a desktop publishing program to add speech bubbles and captions to the images. Once the *photoroman* is completed, each group member prints off a copy. A few additional copies are placed in the classroom library for other classmates to read. The teacher has ensured well in advance that all students in the group received parental permission to have their photographs used for this project.

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:**

A teacher wishes to encourage students in their use of the imaginative function of language (A 5). Over the course of a few weeks the teacher and the students search for images or magazine pictures that are somewhat ambiguous in nature but that have a relationship to contexts and vocabulary that is familiar to students. The sources of the images are noted. The teacher also reviews interrogative structures with the students (R 2.4). On a given day, all images are displayed and each student selects one that appeals to him or her. The teacher provides a model structure consisting of four *pourquoi* questions and one response using *parce que*, which when read together have a poetic appeal. Students follow the model to write their own poems inspired by the images they have chosen. The final copies of the poems may be illustrated with a scanned or photocopied picture of the image along with a reference to the source. All of the poems are bound and published as a classroom anthology which can then be read by students in other classes.

How can *critical thinking skills* be expanded?

Students who use information and communication technologies while developing their language skills benefit from the opportunity to inquire, make decisions and solve problems while learning French. Concept mapping tools, such as Inspiration/Kidspiration, allow students to categorize concepts graphically and

visually express thoughts. These 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 16**.

◆ **Example:**

A French 30–3Y class is about to begin working with language experiences related to reflections on personal skills and aptitudes in light of possible jobs or careers (30 C 4.1). The teacher uses a digital graphic organizer to assist students as they list possible questions to guide their reflections such as *Quelles matières est-ce que je préfère à l'école? Quelles sortes de projets est-ce que je préfère entreprendre? Est-ce que je préfère travailler seul, avec des jeunes, des personnes plus âgées ou des gens de mon âge? Quelles sortes de compliments est-ce que je reçois de temps en temps? Quels milieux de travail est-ce que ne peux pas supporter? Le travail à l'intérieur, à l'extérieur, monotone, intensif, etc.? De quels traits de personnalité suis-je le plus (le moins) fier/fière?* Over a period of classes, as the students reflect on answers to these questions, the web is revisited and information is added in order to provide students with a completed concept map which they can individualize, 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 with a language course. Language teachers, however, are finding ways to include these programs 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 20–3Y class working within the occupational context has just completed a survey of students' spending and saving habits in relation to part-time jobs they may have. Pairs of students enter and sort various pieces of data gleaned from the survey in order to generate and discuss results; for example, *Quatorze élèves sur 20 dépensent tout l'argent qu'ils gagnent ou reçoivent par mois. Six sur 20 épargnent au moins la moitié./Soixante-dix pour cent des élèves de notre classe dépensent leur argent tout de suite.*

How can exploring *virtual realities* contextualize language learning?

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.

One feature in many virtual reality computer games is the creation of a virtual character or avatar. Teachers may direct their students to create a character of their choice as a part of a digital resource found on <<http://www.LearnAlberta.ca>> entitled *Visite virtuelle : Entrez dans l'édifice de l'Assemblée législative de l'Alberta*. Students working with language experiences such as identifying or describing themselves (10 C 1.1) or reflecting on their personal image and clothing style preferences (30 C 1.2) may describe the appearance of the character they create. Students working with the language experience identifying tourist destinations (30 C 3.1) may participate in a guided or independent virtual

tour of the Alberta Legislature in French in order to learn about an experience offered to French-speaking visiting Alberta.

Chat rooms provide another form of virtual reality for many students in their lives 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: 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 prior to embarking on any projects involving this technology.

◆ **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. 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.

How can technology be used to *customize 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 specific students who require this type of accommodation.

Appendix 19 provides further information on a number of assistive technologies that may help teachers provide for individual differences in the classroom.

How can “*just in time*” support be accessed?

Most current software programs come with a number of built-in tools such as the 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 particular type of resource and shown how they can access more reliable assistance by using bilingual dictionaries.

How can students receive *feedback on their 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 students 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, into electronic portfolios of their own. These can then be assessed in the same way as hardcopy portfolios.

How can teachers consider the *use of technology in their classrooms*?

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 of 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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