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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.

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 was what 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.

The purpose of this chapter is to highlight how various technology-based resources available today can support language learning in the FSL classroom. All four components of the FSL program of studies can be supported through the use of available technologies. 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 used at the time of writing might not be current for long.** 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.

## **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 though they can comprehend the materials in other forms.

Traditionally, assistive technologies have been used with students with special education needs, such as physical, sensory or cognitive disabilities. However, using assistive technologies in the general language learning classroom can benefit a wide variety of students, beyond those for whom the technologies may have initially been intended. References to assistive technologies are included throughout this chapter as well as in **Appendix W**.

## 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 with others by sharing information and resources with people in other places, in a more efficient manner and in real time
- ▶ collaborate with others, 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 and
- ▶ 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.

## ACCESSING AUTHENTIC LANGUAGE

Language learners need to access a lot of spoken language in order to develop all of their language skills. Listening comprehension as well as 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 in 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, both in English and in 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 do 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 J** provides guidelines to consider when selecting additional resources. In particular, **Appendix J** makes reference to the *Guidelines for Recognizing Diversity and Promoting Respect*, which must be followed when resources are chosen for use in the classroom.

## GATHERING INFORMATION

The learning of a language is closely tied with 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.

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 Grade 6 FSL class working with the field of experience MY NEIGHBOURHOOD may use a telephone in the classroom to place calls to local businesses and institutions to find out their opening hours. The students can then use the information to create a document in French about the amenities of the 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 *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 with the opportunity to view authentic texts geared to their Francophone peers.

☞ *Example:* Students in a Grade 5 FSL class dealing with the subfield COMMON WILD ANIMALS view the collection of images and descriptions about *mammifères*, which is available by choosing the *Galleries* option in the section entitled *À la découverte. Les mammifères* are found under the heading *Nature*. Students are asked to identify one key fact presented in the brief description. The information found can be used for a range of purposes; e.g., to create cards for a memory game or to use on place mats, book marks or other projects that could be made to commemorate an event such as World Animal Day (October 4).

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 [http://www.education.gov.ab.ca/french/fsl/default\\_EN.asp](http://www.education.gov.ab.ca/french/fsl/default_EN.asp), as well as a site promoting the teaching and learning of second languages in Alberta: <http://www.education.gov.ab.ca/languages/>.

## COMMUNICATING 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 of the 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 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 X**.

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 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 considering posting content to their own dedicated space may be interested in developing their ability to use Web designing 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 (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 video conferencing suites to share information about themselves or class projects.

### **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 access to language learning at any time and any where. The Canadian Association of Second Language Teachers provides information about podcasting on its Web site <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 video-conferencing.

### **BLOGS**

A blog (or weblog) allows an individual 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 all the French classes in the 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. 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. Such online communities allow language teachers interested in facilitating written communication between their students and the students in a partner class 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. These tools often do include features that allow for synchronous communication (communication that occurs in real time), such as oral conversations and text messaging, that occurs 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 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 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 Grade 6 FSL teacher interested in facilitating a cultural exchange between students in his or her class with Francophone children 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 fête de la Sainte-Catherine*. 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 traditions related to *la fête de la Sainte-Catherine* to share with the partner class. Some multimedia presentations with embedded audio files are shared ahead of time; others, such as the steps of a game or a dance, are shared as part of the festivities via videoconferencing after introductions have taken place. Both classes sing a song to the other group and show off their plates of *la tarte* to each other before the VC session ends. 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.

### CREATING COLLABORATIVE COMMUNITIES

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**

A teacher can begin simply by 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 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 Grade 5 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 animals. One teacher sets up a blog and invites the other three as participants. When decisions need to be taken, one teacher posts a suggestion as well as a response deadline date. If others have an alternate 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**

Another resource for teachers interested in communicating and sharing ideas as well as possibly collaborating with colleagues is the many online discussion groups or newsgroups related to language learning available on the Internet. Participants access these and post message 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.

## **ACCESSING CULTURAL KNOWLEDGE**

The NINE-YEAR FRENCH AS A SECOND LANGUAGE PROGRAM OF STUDIES (GRADE 4 TO GRADE 12) identifies a number of Culture outcomes for grades 4 to 6 which involve recognizing French language conventions in texts such as:

- ▶ calendars
- ▶ schedules
- ▶ clothing labels
- ▶ food product information and
- ▶ neighbourhood signs.

These conventions include elements such as:

- ▶ abbreviations for forms of address
- ▶ date and time notation
- ▶ spacing for numbers containing multiple digits
- ▶ abbreviations for cardinal points, streets, avenues
- ▶ metric measurements 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 they 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 which 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 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 story, a teacher moves silhouettes of characters and objects that are projected on an overhead projector or classroom data projector to accompany and support the actions occurring in the story.
- ▮ *Example:* Students are given the text of a song with blanks for words that are familiar to them. They hear the song a number of times, writing words in the blank as they hear and recognize them. By the time the song has been replayed a number of times and most of the words are filled in, many of the students find themselves singing along with the lyrics.

When watching audiovisual materials such as video clips, film excerpts, commercials, cartoons, etc., language learners have the opportunity to gather meaning from not only the soundtrack but also from clues in the background, 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 before the segment is replayed with the audio turned on.

## 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 W**.

## 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 within 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, depending on which technologies are available (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 the ability to type on an English keyboard using shortcuts for French accents. **Appendix X** provides some direction to teachers and students wishing to access French characters on a computer keyboard.

Assistive technologies that support learners with written production can prove useful to all students, in addition 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 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 W**. 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. A simpler version of the program is 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 Grade 5 FSL class are beginning to work with the field of experience MY HOME. 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 rooms and the structure of the rooms, and the second sheet for objects typically found in various rooms. Over the course of the unit, as students encounter new vocabulary items they enter them accordingly. From time to time, they alphabetize either column in order to 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 support 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 can 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 the previous class can be used 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 X's and O's, that have been modified for use with particular linguistic structures. Some of the activities described in **Appendix S** lend themselves to projection either by means of 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 simple 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 Y** 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. Both teachers and students are involved in a range of text creation—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 software such as Boardmaker (see **Appendix W**), 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 C**, that students will use as they carry out 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 Grade 4 FSL class working with the verbs *aimer, adorer, détester* prepare collages of images using free clip art and a simple desktop publishing program to illustrate their likes and dislikes. The teacher ensures that students learn to correctly reference 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 four to six are able to enter for such presentations is limited; 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 designing the layout of 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 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 as they learn more about the integration of technologies within 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 Grade 5 FSL class working with the field of experience CLOTHING decide to develop a *photoroman* style of story as their unit project. They develop a simple plot that can be illustrated by eight 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 and take pictures using a digital camera. The pictures are then downloaded to the 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 the documents has helped teachers customize and personalize their lesson materials.

▣ *Example:* Students in a Grade 6 FSL class working on the subfield of endangered animals can select one picture from a collection of magazines or Internet-based images showing various wild and endangered animals. A model structure is provided in which the teacher has prepared a sample poem addressing a wild animal which consists of four *pourquoi* questions and one response using *parce que*. Students follow the model to write their own poems. The final copies of the poems may be illustrated with a scanned or photocopied picture of the animal image, citing the source from which the photo was taken, and bound together into a classroom anthology to be read by other students.

## 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 / Kidspiration, allow students to graphically categorize concepts and visually express thoughts. These can be used by individual students or in small group or whole class settings in a language class.

▣ *Example:* Before starting a project related to the theme of *le Festival du Voyageur*, the Grade 5 FSL teacher uses a digital graphic organizer to guide the students as they list possible questions to gather information about the festival such as *Où est le festival? Quand est le festival? Qu'est-ce qu'on fait au festival? Pourquoi est-ce qu'il y a ce festival?* Over a period of classes, as the students and

teacher find 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 display and share as evidence of learning.

Applications related to the production of spreadsheets and databases, such as Access, Clarisworks and Appleworks, tend to be linked more to math and science classes than to a language course. Yet creative language teachers are finding ways in which to include them in their repertoire of language learning activities as well. One such way can be to use spreadsheets for data gathering activities such as surveys.

▣ *Example:* A Grade 6 FSL class has just completed a survey of students' preferences when it comes to healthy and less healthy foods. Pairs of students enter and sort various pieces of data gleaned from the survey in order to generate and discuss results such as: *Quatorze élèves sur 20 préfèrent les pommes.* or *Soixante-dix pour cent des élèves de notre classe préfèrent les pommes.*

## 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.

One feature in many virtual reality computer games is the creation of a virtual character or avatar. FSL 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.*

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 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 within 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 visiting the same chat room that they are. 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 gathers and shares information with others.

## CUSTOMIZING FOR INDIVIDUAL DIFFERENCES

The use of technology allows teachers to better 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 comes, the presentation is made and no time is lost as students can continue with 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 W** provides further information on a number of assistive technologies that may help teachers provide for individual differences within the classroom.

## ACCESSING “JUST IN TIME” SUPPORT

A number of tools built into most current software programs, such as the dictionary, spellcheck and grammar check features, allow students to access support with specific words and structures as they are creating texts in French.

While some students may wish to make use of 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.

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 W** 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 make use of 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, students are becoming able to post examples of their best work, as well as their reflective journals, into electronic portfolios of their own.

### 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 I need my students to do?
- ▶ Am I using technology as a quick fix, add-on or afterthought or am I really 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?

### Alberta Education Technology Initiatives

Alberta Education provides a number of Web sites related to learning and technology in Alberta that can be accessed from the Alberta Education homepage found at <http://www.education.gov.ab.ca>. These sites provide links to information regarding safe use of the Internet, policies related to integration of technology, the use of video-conferencing 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.

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://www.education.gov.ab.ca/k\\_12/specialneeds/ipp.asp](http://www.education.gov.ab.ca/k_12/specialneeds/ipp.asp).

Additional information on Assistive Technologies for Learning (ATL) is provided on the following Alberta Education Web site page  
[http://www.education.gov.ab.ca/k\\_12/specialneeds/atl.asp](http://www.education.gov.ab.ca/k_12/specialneeds/atl.asp).

### In summary

Technology opens up a range of opportunities for students and teachers both inside and outside of the FSL classroom. The many features inherent in information and communication technologies, as well as in diverse assistive technologies, provide a venue 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 best enhance their students' learning.

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