Abundant, high-quality Web sites on essential topics for teacher education make it possible to teach foreign language education (FLED) courses with increased flexibility. The Faculty Development Division at the Defense Language Institute Foreign Language Center (DLI) has created three models for using the Web for teacher education: FLED I ("Introduction") consists of pre- and post-reading tasks, with most texts read outside of class on the Web; FLED II ("Action Research") uses the Web to supplement a textbook; and FLED III ("Counseling") draws exclusively on Web sites combined with tasks requiring teachers to work in specified ways with students and report back during class. This paper discusses insights into improvements in both content and process resulting from using technology to successfully complement experiential learning. (Author/SM)
Using the Internet to Design Teacher Development Courses

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The fast pace of the web is, unfortunately, too often accompanied by fast—and superficial—reading practices on the part of screen observers, i.e. those people who take in information from web sites. However, the problem of using the web for educational purposes can start even before the "intake" phase of reading and/or listening. Many web sites whose content is related to foreign language education cover only an overview of content rather than an in-depth analysis. Out of 50 or more sites dealing with cognitive theory, for example, only one or two may have enough content to adequately introduce distinctions between behaviorist and cognitive theories. Unlike textbooks for foreign language education classes, the web sites may not include exercises, learning activities and projects intended to change class participants’ attitudes, knowledge base and awareness. On the other hand, the web has many advantages that textbooks cannot offer. FLED class participants can quickly move from concept to concept if links are provided. They may be able to cross-reference different authors with differing perspectives on the same topic in the syllabus. They might even discover additional sites on a topic such as cognitive theory by using search engines. All of these possibilities may lead to greater efficiency in the learning process.

The Learning Process and the Web Experience
Many cognitive theorists agree that the learning process can be described in terms of input, intake, short-term memory, working memory and long-term memory. The “intake” is that part of the input that is
registered in short-term memory. Van Lier (1991) emphasizes the need for focusing exercises, i.e. a task that encourages the listener or reader to concentrate on the particular aspect of the input that the learner needs to notice. Leo van Lier asserts that, in second language learning situations, “assisting students in their focusing efforts (including drawing attention to X) is, of course, a key task of the teacher. The success of such efforts depends in large measure upon the degree to which the teacher understands what the students are doing.” (p. 34). According to Earl Stevick (1996), the information taken-in remains in short-term memory a mere 20 seconds, if the learner does nothing with it. However, if the information is relevant and judged by the learner to be important, it passes on to working memory and has an improved chance of ending up in long-term memory. One of the keys to that process is, according to Stevick, the distinction between “academic motivations” and “life motivations.” Stevick identifies three types of academic motivations in foreign language classrooms: “(1) to get the right answer, (2) to keep the teacher happy, and (3) to enhance one's standing in the class. Unfortunately, [he adds] most students seem to have only a limited supply of these academic motivations.” (p. 8). Stevick contrasts these weak academic motivations with life motivations. “Life motivations, on the other hand, are virtually inexhaustible. I have sometimes heard teachers discussing how best they might ‘motivate’ their students. A better question, I think, would be how to identify our students’ particular combinations of existing ‘life motivations,’ and how to harness those motivations for the work at hand.” (p. 8) Life motivations concern professional and financial goals, personal development and social acceptance and standing within the community of the faculty. Later in this paper, we will discuss tasks that tap these types of interests and motivations in our teacher-participants. Once the relevance and motivation have been established, working memory acts much like a magnet. It pulls information related to the intake from long-term memory into working memory, which then begins to compare and contrast the intake with what was already in long-term memory. Madeline Ehrman (1996) defines this “deep processing” as “an active process of making associations with material that is already familiar, examining interrelationships within the new material, elaborating the stimulus through further development of it, connecting the new material with personal experience, and considering alternative interpretations.” (p. 173). The goal of classroom tasks in FLED is that participants will become actively and personally engaged in the web materials after the preparation work in class has sensitized them to the issues to be studied and that they will use new information to plan classes and teach in more efficient ways.
After a short introduction and discussion of these and similar concepts, FLED participants can begin their own research by starting, for example, with the following site.

http://chiron.valdosta.edu/whuitt/col/cogsys/infoproc.html

This site is typical of the higher-end sites. 1) It contains colored graphics that illustrate concepts and help the learner focus on particularly important components of the message. 2) It has numerous links to associated sites, which helps the learner develop schemata and build the associations needed for transfer from working memory to long-term memory. 3) It relates theory to practice by giving examples of teaching activities that reflect the theoretical perspective and, in doing so, assists in activating the teacher-participant’s long-term memory by drawing into consciousness his/her experiences in the classroom. 4) It includes not only current views but also refers the reader to major works of the past that led the way toward contemporary perspectives, making it easier for teacher-participants to update their knowledge base by comparing what they already know with current developments in the profession’s understanding of the learning process.

Foreign Language Education I, One Way of Using the Web

Pre-Reading Activities

As mentioned earlier, both Stevick and Van Lier point out that learners can increase their learning efficiency by participating in activities that cause them to focus on specific content. For example, let’s assume that the following excerpt from a Drake University site contains a message that you want your participants to understand and digest intellectually.

Comparing the Two Dominant Paradigms

Though the behavioral paradigm still dominates much of our educational practice, we are moving toward the cognitive paradigm in our schools: whole language reading programs, cooperative learning methods, student projects and self-managed assignments, and (often but not always) "extracurricular" student-centered activities such as music, theater, and sports.

In the behavioral paradigm:

1. Learning is passive.
2. Students must learn the correct response.
3. Learning requires external reward.
4. Knowledge is a matter of remembering information.
5. Understanding is a matter of seeing existing patterns.
6. Applications require "transfer of training" which requires "common elements" among problems.
7. Teachers must direct the learning process.

**In the Cognitive Paradigm:**
1. Learning is active.
2. Students explore various possible response patterns and choose between them.
3. Learning can be intrinsically rewarding.
4. Knowledge is a matter of acquiring information
5. Understanding is a matter of creating new patterns.
6. Applications require the learner to see relationships among problems.
7. Students must direct their own learning.

from: [http://www.educ.drake.edu/romig/cogito/cognitive_paradigm.html](http://www.educ.drake.edu/romig/cogito/cognitive_paradigm.html)

Before FLED participants can profit from exposure to this information about the differences between behavioral and the cognitive paradigms, they will have to experience the differences themselves so that they develop a feeling for what it is like to be “active” or “passive,” for example. In order to do that the FLED instructor might divide the class into two groups and teach one group using the listen-and-repeat routine of the audio-lingual days. The second group observes and takes notes on the process. The following procedure might be used to teach the use of the definite article in English. The teacher says: “John has a dog.” Students are instructed to repeat the sentence. The teacher says “cats” and students say: “John has cats.” The teacher continues with such items as “money,” “phone,” and “time,” always making a point of rewarding correct responses with a “good.” The teacher then begins with a second model sentence. “Mary looks at a car.” Students repeat the sentence and begin the substitution drill. “Mary looks at a house/ people/ a bus/ children.”

After the experience phase of the lesson plan is finished, the observers discuss the process, i.e. who did what and how. What was the mental process involved? What are the assumptions about the learning process behind the teaching approach? FLED participants usually comment on the positive reinforcement, the repetition and something on the pattern sentences. At this point, it is not necessary to have a thorough discussion about behavioral theory. The purpose of the activity is to sensitize teacher-participants so that when they open the web site they will study it, analyze it and associate it with the activities carried out in class before receiving the assignment to go to the web.

In order to sensitize participants to the principles of the cognitive paradigm, the FLED teacher might want to hand out an authentic article with
lots of action, e.g., an article about a robbery or a car accident. Half of the class reads the article and participates in the teaching demonstration as students. The other half observes the process as in the behavioral experience described earlier. After students have read the article, the teacher asks them to collectively give oral summaries about everything they know about the people, everything they know about the locations and everything they know about the action, i.e. about what happened. The observers discuss the process as above. This time the discussion will center on student involvement ("active students"), meaning, schemata, etc. Again, the depth of the discussion is not crucial. The purpose of the activity is for teacher-participants to experience the differences between a behaviorist and a cognitive approach before going to the web site.

**Post-Reading Activities**

Post-reading activities have a different purpose than pre-reading activities. After teacher-participants have finished viewing the web site, the goal is to embed the knowledge gained (or, perhaps, it is only exposure) into the experience of actually teaching in the foreign language classroom, i.e. to tap life motivations. As in the pre-reading experiential activity, this is accomplished through doing rather than discussing. Typically, after teacher-participants in FLED classes have read about the cognitive paradigm, they are given several textbooks or lesson plans to analyze. They look at each activity and identify the assumptions about learning behind the activity. In older textbooks, the reading texts, for example, are usually followed by who/where/what questions. These are closed-questions in which there is only one correct answer. "Bob went to the grocery store at 5 o’clock to buy bread." "Who went ... ?" "Where did Bob go?" "What did Bob buy?" etc. Often the listening text will be followed by the same type of questions or perhaps multiple-choice exercises. Participant-teachers work in pairs and arrive at a consensus about whether they are looking at a textbook based on behaviorist or on cognitivist assumptions about learning. The second half of the activity is to look at a more modern textbook, presumably one influenced by cognitive theory, and analyze it in the same way. As homework, they may be asked to write a lesson plan for their next class and analyze it. In this example, participant-teachers use their newly gained knowledge/exposure to the two dominant paradigms to understand their own assumptions and teaching practice from a new perspective. The purpose of post-reading activities in FLED I is to embed the information obtained from the web site into teaching practice and bridge the gap between theory and
teaching decisions. This is the final phase of the learning process, the application phase.

**Foreign Language Education II, Another Way of Using the Web**

The purpose of FLED II is to teach participant-teachers to carry out action research. The procedures for carrying out action research are fairly simple. However, the shaping of participant-teachers' attitudes and the development of the skills needed to reflect on the teaching process constitute a major challenge to the FLED instructor. In this course, a textbook is used, Jack Richards' and Charles Lockhart's *Reflective Teaching in Second Language Classrooms*. In the first chapter of this textbook Richards and Lockhart (1994) provide an overview of the tools needed to carry out action research, journals, lesson reports, surveys and questionnaires, audio or video recordings and observation. A few examples of teachers carrying out action research are provided. The second chapter represents the first of several chapters on reflection and what it is. This chapter dwells on teacher beliefs: the source of those beliefs and categories of beliefs concerning the language taught, the learning process, the teaching process, the program of instruction, the curriculum and the teaching profession. The chapter is filled with questions asking readers to search their own belief systems to discover what they believe and how they came to believe what they believe. However, little mention is made of how people—teachers in particular—convey beliefs and what effect semi- or sub-conscious beliefs have on students in the classroom. The authors presumably made a conscious decision to limit the chapter to the classification of belief systems and not expand it into the more extensive area of communication systems, such as body language, facial expressions, tone of voice and other more subtle ways in which subliminal meanings/beliefs are expressed and transmitted. In this case, as well as in most other chapters, the web provides a convenient and rich resource. Here, as well as in other instances, the depth of the FLED II course is derived out of web sites. In fact, the claim could be made that the textbook itself is more of a supplementary source for the essential content of the course, which is to be found on the web. Students, in this case, are directed to several sites on the Pygmalion effect. Often, teacher-participants read a portion of a chapter, carry out a selection of activities developed by the authors and then read related web sites, such as those on the Pygmalion effect, before finishing the chapter in the textbook. While it goes beyond the scope of this paper to discuss the merits of the Pygmalion effect, it may be helpful to provide examples of some of the information teacher-participants find. For example,
• Better performance resulting from high expectations leads us to like someone more.
• Lower performance resulting from low expectations leads us to like someone less.
• We tend to be comfortable with people who meet our expectations, whether they’re high or low.
• We tend not to be comfortable with people who don’t meet our expectations, whether they are high or low.
• Forming expectations is natural and unavoidable.

http://www.accel-team.com/pygmalion/index.html

Armed with the perspective of the Pygmalion effect at work in their classrooms, teacher-participants have a reason to take the work of discovering their sub- and semi-conscious belief systems seriously. The web site provides them, in this case and in a series of other cases in FLED II, with a framework that makes sense out of the steps involved in carrying out action research, i.e. initial observation, hypothesis formation, planning the action, carrying out the plan/gathering data and evaluation.

In contrast to the FLED I model of using the web, in FLED II the web is used to supplement a textbook rather than as a surrogate for a textbook. In FLED I the activities are developed to augment the intake of the participant-teachers from the input provided by web sites; in FLED II the activities are, for the most part, in the textbook. The differences between the function of the web in these two models has to do with the differing objectives of the two courses. FLED I is a survey course covering a variety of topics related to foreign language teaching and learning; FLED II is a much more focused course targeted at teaching participants to reflect on their own teaching and use their teaching practice as an object of scientific investigation.

**Foreign Language Education III, Yet Another Way of Using the Web**

The third course, FLED III, a course on assisting weaker students to develop effective study skills, represents the third and final model. FLED III meets only two hours a week for 16 weeks. Most of the work for participant-teachers consists of assisting students, collecting data and reporting the results back to the class as a whole. The web is used as a resource for information. For example, when participant-teachers want to determine a student’s learning style, they are urged to go to several sites that discuss a variety of perspectives on learning styles. One of those sites is the following:
Participant-teachers may decide to ask a student to use one of the on-line instruments to determine his/her learning style. They may decide to interview a student as well in order to corroborate their findings. The student’s particular situation or circumstances direct what the teacher will do. If, for example, the student is weak in listening skills, the approach for assisting the student might focus on how the student uses or does not use cassettes and CD’s or, perhaps, it might focus on listening strategies. If, on the other hand, the student is weak in vocabulary, the teacher might want to look at the student’s learning style in general and adapt his/her learning strategies. FLED III focuses on the class being taught at the time the teacher is participating in the FLED course, thereby tapping into life motivations. The problems that arise during the 16 weeks of the course determine the syllabus. This tremendous amount of flexibility is only possible because of the rich array of web sites immediately accessible on the web. Teacher-participants move through approximately five to seven projects. During each project they begin by focusing on a problem they have noticed, for example, a student’s unexpected and rapid decline in achievement. The second stage is to decide what data to gather and how to gather the data. After gathering the data, teachers analyze the information and make tentative plans on how to resolve the problem. During this stage—and other stages as well—they investigate possible solutions by searching the internet for options. Once they have gained confidence that at least one of the options has a chance of succeeding, they make a plan for data collection on the student, analyze that data and plan the intervention. After an appropriate amount of time, they reexamine the situation and evaluate the change. During any of these stages, they may seek assistance from other teacher-participants during the FLED class meetings. This is also the time when they can get assistance from either the FLED instructor or from colleagues in finding web sites that address the particular problem they are attempting to resolve. The course does have a core set of concepts that have to be addressed, e.g. learning theory, learning styles and strategies, data analysis, educational psychology and action research procedures. These topics are woven into the project cycle and most of the reading texts are to be found on the web. Unlike FLED I, participants in FLED III use their own classroom and their own students as the textbook and use the web as a tool for
developing the knowledge base they need. By applying that knowledge, they develop their counseling skills.

The series of FLED courses helps participant-teachers develop from dependent web-users to independent researchers. In FLED I certain sites are chosen and assigned as required reading. The course is highly structured and all participants are expected to accomplish the same goals. In FLED II participant-teachers choose the area of focus for their projects independently but are advised and assisted by both the instructor and the other course participants. In FLED III there is no textbook. There are few assigned readings. Participants learn to use the web to attain their own unique goals. They reach what we might call web-mastery. They are able to define and resolve problems that relate to counseling and assisting learners.

References


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