

Problem Solving and Critical Thinking in the EFL Classroom

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Many English as a foreign language (EFL) instructors are faced with the challenge of getting their students to participate in the language classroom. We have found, however, when EFL students are involved in activities where they use the second language (L2) as a means to solve a problem that has meaning to them, their motivation, participation, and use of targeted language increases. The reason for this high interest and involvement lies in students having to use their cognitive skills and logic to develop solutions to problems, which are relevant to their own lives. Additionally, the students learn and acquire the targeted language by using it for critical thinking and problem solving. Both critical-thinking and problem-solving skills enable them to evaluate and take charge of their own language learning. We have found that these types of activities have been very successful in our EFL courses.

This paper describes a work unit used with intermediate level Freshman English (FE) students. Three activities were chosen to develop students' problem-solving and critical-thinking skills: *Reason + x*, *situation resolution*, and *writing reinforcement*.

In the following activities, students are required to identify problems and solve them. Then students must use critical-thinking skills to examine the feasibility, appropriateness, and consequences of their solutions. In using their new skills, students begin to identify what is important to learn and what is not (i.e., students evaluate the amount of

time that the teacher spends on each activity in order to gauge the importance of that activity); for example, a 15-minute activity is more important to remember than a 2-minute one.

Whenever students evaluate their own language learning, their motivation to learn increases; in turn, they realize they are responsible for their own learning. Because students become aware that it is their responsibility to learn English and not the teacher's, the students begin to evaluate their own progress and to take charge. Thus, when the students are in charge of their learning, they become more motivated and active because they can direct their own learning. The transformation from a passive learner to an active learner manifests itself in increased interest and motivation to participate.

Moreover, instructors must keep in mind that making a class student centered does not automatically produce communication. True communication will only take place when there is engaging content that will involve learners and in which those learners have a stake (Taylor, 1987). For most students, language is best acquired when it is a means for doing something else, when they are directly involved in accomplishing something of interest (Saegert, Perkins & Tucker, 1974; Upshur, 1968; Tucker, 1977). They will be motivated to communicate when there is a compelling need (Warshawsky, 1978; Taylor & Wolfson, 1978). Communicative competence can only be acquired by actively communicating something of interest to the students (Krashen, 1977, 1979).

Japanese Students In American Classrooms

As the number of Japanese students increases in American public schools, their teachers have realized that these students

have experienced schooling differently from their American counterparts. Consequently, American teachers have discovered that the Japanese students must learn to question what they learn as opposed to reciting it as they would have in Japan (Graves, 1991, p. 10). Critical-thinking and problem-solving activities are ways for Japanese students to begin evaluating what they learn. The following are three activities which we implemented in our intermediate level FE classes this year. The activities progress from anticipation to expansion.

Reason + x (R + x)

This critical-thinking and problem-solving activity includes goals, targeted language, an anticipation activity, reading, partner interviews, problem-solving discussions, and summary writing. The activity is based on the theme *working*. From the general theme, the emphasized issue focuses on important aspects in finding employment in Japan after graduation from university (e.g., academic history versus working experience). Students are able to think, talk, and form their own opinions about the advantages and disadvantages of having work experience. The issue also allows students to reflect on the merits of academic affiliation and school names in becoming employed in Japan.

Goal and targeted language

The goal of this activity is to get students not only to express their opinions about a work-related issue but also to support their opinions with a strong argument. Supporting opinions requires students to justify their stances. The language focus is opinion language (e.g., *I think, I feel, In my opinion*), conditional statements using modal constructions

(e.g., *I would, he should, they could, if I were in his position*), and comparisons (e.g., *X is better than Y; X is not as good as Y*).

Anticipation activity

Before reading the passage which highlights the issue of ability versus academic history in Japanese society, the teacher elicits students' opinions on academic history and school affiliation. To do this, the teacher writes the names of three well reputed, high-ranking Japanese universities on the blackboard. The students then brainstorm any words or ideas which the names of these universities bring to mind. This anticipation activity allows the students to verbalize their ideas about university affiliation and employment future and sets the stage for the reading.

Reading

Students read a short passage about ability versus academic history in Japanese society. The article describes three major points of a government report which emphasizes the merits of working ability and experience as desirable aspects for job seekers in Japan as opposed to university affiliation only.

Partner interview

The interview includes eight statements about the passage or the ideas related to the passage. In pairs, one partner, A, reads the statement to the second partner, B, and then asks, "Do you agree or disagree?" Partner B responds. Partners A and B then switch roles. Some of the statements are about American work practices and encourage students to think about what roles academic history and ability might play in another country. These statements are included for a brief discussion on the

similarities and differences between American and Japanese work-related issues. By comparing and contrasting the students form more ideas and opinions about the working and hiring practices in their own country.

Critical-thinking task

The problem the students must find solutions for involves two university graduates seeking employment in Japan. One student graduated from a high-ranking university and another from a mid-ranking university. The students first make a grid and list the strengths and weaknesses of each candidate. After introducing the targeted language, students try to use the new phrases to tell their partners who they think should get the job and who should not get the job, including one reason for each. They then write three detailed sentences using the targeted language, explaining who should and should not get the job. Below are some of the responses from two students (student 1 and student 2). Note that there was no mention of the gender of the university graduates characterized in the example, so students based their opinions primarily on the candidates' academic histories and abilities.

Student 1 responses

1. I think that the high-ranking university graduate should get the job because he went to a good school.
2. I think that the high-ranking university graduate would get the job because he has a strong academic history.
3. I think the mid-ranking university graduate shouldn't get the job because he has too much working experience.

Student 2 responses

1. I think that the mid-ranking university graduate should get the job because he has a lot of working experience.
2. In my opinion, the mid-ranking university graduate would get the job because he can speak English and has international experience.
3. I don't feel that the high-ranking university graduate should get the job because he does not have any working experience.

Reason + x

In this activity the students express opinions and reasons as to who they think is better suited for the job. The Reason + x (R + x) component requires learners to add more supporting information to their reasons (reason + more information). R + x can also be adapted so that students expound on the reasons for x, depending on the amount of supporting information available. As a communicative activity, students work in pairs and read their opinions and reasons to their partners and then question each other to add more supporting comments. For example, one student's opinion, "I think the graduate from the mid-ranking university shouldn't get the job because he has too much working experience" is further developed with, "Too much working experience in Japan is a disadvantage because companies think that such people will be difficult to train." The communicative inquiry can continue until students feel that they have made their points or cannot think of any more supporting information. Students then write their complete opinions with R + x. Below are some examples:

Student 1: Opinions and R + x

- a. I think the mid-ranking university graduate shouldn't get the job because he has too much working experience. Too much working experience in Japan is a disadvantage because

companies think that such people will be difficult to train. If a person who looks for a job has too much working experience, maybe he thinks that he can do everything and does not want to listen to the boss.

- b. I think that the high-ranking university graduate would get the job because he has a strong academic history. In Japan, the name of the university is important. If a student graduates from a high level university, he is probably intelligent and hard working because he passed the entrance examination. The name of a university is also important because this is traditional thinking in Japanese society.

Student 2: Opinions and R + x

- a. In my opinion, the mid-ranking university graduate would get the job because he can speak English and has international experience. Speaking English and international experience are important for getting a good job because now companies are international. Companies need employees who can speak foreign languages and know how to work with foreigners. This is why University B graduate should get the job and not the University A graduate. University A graduate can only speak Japanese.
- b. I think that the mid-ranking university graduate should get the job because he has a lot of working experience. Working experience is important because the new employee can work soon. The new employee does not need training. So, the company can save money. If the person has working experience, he knows how to work.

Follow-up questions

In groups or pairs, students ask for their classmates' opinions about other issues related to working and finding employment. The follow-up questioning helps students use their opinions and supportive reasoning skills as well as newly acquired language to discuss further issues.

Summary writing

The teacher can end the activity after the follow up or add a writing component. Summary writing allows students to tie all the parts of the activity together. Students write one to two

paragraphs in response to one of the follow-up questions or the issue presented in the critical-thinking task.

Situation Resolution

The situation resolution problem-solving activities are designed to activate the students' interest as well as to provide a situation in which students communicate their thoughts and ideas. Moreover, the students must use the language to solve the problem; the language becomes a vehicle for offering solutions or advice as opposed to a means of practicing a grammatical point. In a unit about discrimination in the workplace, students offer advice to a Japanese wife wanting to work and her husband not wanting her to work, and to an African-American female engineer seeking engineering work in Japan. Both scenarios include issues with which students have familiarity. The students become engaged in offering advice, thereby developing communicative competence.

Each situation resolution activity consists of a short explanation of a problem, comprehension exercises, discussion questions, problem identification, solution identification, consequence identification, and letter or essay writing exercises. The activities are sequenced so that the students are first introduced to the language and the concepts. Then the students practice the language and concepts through activities which become progressively more difficult. By the end of the unit, the students are able to proficiently use the language and the concepts on their own.

Before they read the problem, the instructor reminds the students of the language of reasons and advice. Learners

practice the language with a variety of cloze exercises and short scripted dialogues. They also make original sentences.

On the first day, the students read the problem aloud to the class, paragraph by paragraph, and identify new vocabulary. Next, they read the problem again in pairs, taking turns reading the paragraphs. Following the reading, the students turn the problem sheet over and the teacher reads approximately 10 statements to which they must reply *true* or *false*, either in writing or orally.

On the second day, each student reads the story again and answers in detail approximately 10 questions about the problem. In groups of three to five, the students then answer the discussion questions. Each group is responsible for reporting the answers to specific questions to the class.

In small groups, on the third and fourth days, the students identify the problems and report them to the class. The instructor records the problems on butcher paper for future reference. The class then selects one problem and comes up with several solutions. After writing as many solutions as possible on another piece of butcher paper, students select one problem, identify the consequences, and write the consequences on another piece of butcher paper. Having seen solutions and consequences modeled, the students select one of the other problems and identify solutions and consequences in their groups.

On the fifth day, the students compose a letter of advice to the person described in the scenario; they revise the letters on the subsequent day. Finally, on the last day of the activity, the students discuss their advice in different groups

of three to five people, expressing their agreement or disagreement with the other students' ideas.

As the students proceed with this activity, their critical-thinking skills and problem-solving skills improve. Students become more adept at identifying problems and solving them. The students perceive a need to communicate in English and to use their language, critical-thinking skills, and problem-solving skills. They also begin to take more responsibility for their own learning, asking more questions of the teacher.

Writing Reinforcement

Each week the students submit a summary of the week's lessons. When the students write the class summary, they must use their critical-thinking skills to answer the questions. Answering the questions requires students to evaluate the lessons and to prioritize the activities. They also communicate their thoughts and opinions about the week's lessons thus using the language to express themselves rather than to pass an exam.

Conclusion

Teaching students critical-thinking and problem solving-skills enables them to become more active learners. They begin to evaluate what is important in their language learning, to prioritize their learning, to identify what and how to learn, and to identify the consequences of their decisions. As they become more active in their learning, students are better able to use their new and prior language knowledge to communicate. Meaningful activities which use language as a means for students to express their ideas often lead to successful language teaching and learning. Activities requiring learners to think

also increase student motivation and participation in the classroom and lead to enjoyable communicative language sharing.

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