

Creative Problem-Solving for the Foreign Language Class

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ABSTRACT *Small-group activities which require problem-solving allow students to practice creative thinking and foreign language skills simultaneously. Known techniques for stimulating creativity can be adapted to the language class. In the model suggested, creative problem-solving activities are built around problems that are clearly defined, admit many possible solutions, and entail a situation in which reality is slightly skewed. While working in small groups, students practice role-play by becoming*

"experts" in the matter at hand. Through the use of a recording secretary, the group is held accountable for its time. The teacher prepares the activity beforehand, tells the class the problem, checks comprehension, elicits questions that will help the students structure their discussion, divides the class, and withdraws from the scene. When enough time has elapsed, discussion is halted and the secretaries read their reports. Three sample activities are included at the end of the article.

More than a decade has passed since Emma Birkmaier called for increased creativity in the language class.¹ Birkmaier stressed that students have a need to create, that is, to engage in adventurous thinking or imagination, to permit one thing to lead to another, to discover and to innovate.² Yet to date, there is little evidence that foreign language teachers have challenged their students to think creatively and to solve problems in novel ways.

This is not to say that the issue has been entirely ignored. Humanistic educators such as Gertrude Moskowitz have made great progress in getting students to speak about their feelings, hopes, fears, memories, and aspirations.³ Clay Christensen has developed techniques for utilizing the values and fantasies that make up the

students' "affective domain."⁴ George Rooks has formulated a series of small-group activities in which students must make value-laden choices.⁵ However, for the most part, these authors do not present problems and situations that are ambiguous enough to require ingenuity and innovative thinking. Therefore, teachers wishing to tap student originality have to look elsewhere.

Fortunately, considerable research has been done on how to stimulate creative problem-solving. Though originally intended to improve the thinking of engineers and industrial managers, the methods developed can be adapted to language teaching. According to psychologist Morris I. Stein, "Creativity is a process that results in a novel product or idea which is accepted as useful, tenable or satisfying by a significant group of others at some point in time."⁶ Relying heavily on the work of Alex F. Osborn and Sidney J. Parnes, Stein describes a method which entrusts groups with the task of solving

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problems creatively. Group process, it was found, tends to enhance the imaginativeness of the participants. Sometimes called "Brainstorming," the procedure has three stages: (1) *Fact-finding*—selecting an appropriate problem and describing it to highlight its important features; (2) *Idea-finding*—collecting and extrapolating from existing and available ideas; and (3) *Solution-finding*—evaluating ideas and adopting one for further development. While the group is at work, four principles apply: (1) criticism is ruled out; (2) freewheeling (rapid idea production) is welcomed, for no idea is considered too crazy; (3) as many ideas as possible are wanted; and (4) combination and improvement of ideas is sought as participants are urged to build on the contributions of others.⁷ During the last twenty years, these techniques have been immensely successful in improving problem-solving in a wide variety of industrial and governmental settings.

Because of the very special nature of the language class, these methods cannot be employed without modification; much greater structuring is necessary. Nevertheless, language students, to use Stein's definition, can produce "a novel product or idea" that will be accepted as tenable, useful or satisfying.⁸ They can practice language and thinking simultaneously. It should not be assumed that the difficulties of mastering a language are so great as to cause "mental overload" and eliminate the possibility for dealing with sophisticated problems. In practice, the reverse is true. Creative problem-solving can be introduced during the first year of foreign language study. With interest focused on problem-solving and away from the language itself, students begin to speak more freely. They are, to use Earl Stevick's description, "using language in order to do something that they want to do for reasons that are independent of (unrelated to) their study of language."⁹ At least in part, they are motivated by the intense satisfaction of solving a problem together in a way that has not been done before and through the alien means of a foreign language.

Foreign language students cannot simply be asked or told to be creative. Except in a few Language for Special Purposes courses, the class members are not experts in any particular field. They do not feel work-related pressure to produce. Moreover, their powers of expression are, by definition, limited. Therefore, the problems posed to them must be structured in such a way that dealing with them does not require any special expertise and can be done with restricted

communicative skills. Also, the problems must be interesting enough in themselves to provide the motivation necessary to provoke sustained discussion; they must not be beyond the students' natural problem-solving ability or be threatening to them in any other way.

What Creative Problem-Solving Activities Are Like

To be effective in the foreign language class, creative problem-solving activities should contain as many as possible of the following characteristics:

1. *The students are presented with a clearly defined task or problem.* The most effective problems are of three basic types: (1) identifying an ambiguous object or the contents of a picture, photograph, or piece of music; (2) deciding on the possible uses for existing things or inventing and designing new ones; and (3) persuading others of the advantages of something or someone.¹⁰ The task can be as simple as finding new uses for the parts of an old car; it can involve the planning of a new transit system. Students can be asked to devise an advertising campaign for a space-age invention or write a new ending to a one-act play. In all cases, they should know exactly what they are to do, what type of response is expected of them, and what limitations are placed upon their deliberations. For instance, they should be told the extent to which financial and time constraints affect the types of solutions they may suggest. The situations presented need not relate directly to the target culture, or, for that matter, any particular culture. However, if there are any cultural restrictions inherent in a problem, students should be made aware of them.

2. *Students understand that there is no one "right answer" to the problem and that any coherent solution, however fanciful, will be applauded.* The questions posed should be sufficiently ambiguous that they lend themselves to many interpretations. "Yes-no" type issues like "Should cigarettes be heavily taxed?" are not useful in stimulating creativity.

3. *In the problems presented, reality is slightly (and perhaps humorously) skewed.* The best sort of situation is that which might occur but probably would not. For example, students can be told that because of an error, thousands of papayas will be delivered to their classroom; they must decide what to do with them. They can be asked to design a limousine in which to take class

trips or concoct new uses for discarded classroom furniture. Or they can aid the police by devising the perfect crime before the criminals do. By making clear the "mock severity" of these problems, the teacher conveys that playfulness and a sense of fun are not only allowed but encouraged. The problem need not always be a funny one, but its success in stimulating discussion will be increased if students become emotionally involved in some way.¹¹ Asked to develop new activities for a senior citizen center, students may be motivated, at least in part, by care for the well-being of others. Writing publicity for one's school, one may be prompted by feelings of loyalty (or distaste!).

4. *Role-play is utilized.* While not absolutely necessary to problem-solving, giving students temporary new identities often causes them to speak with less inhibition. Besides, foreign language students are familiar with the technique. Culture-specific personal identities as used in Georgi Lozanov's Suggestopedia are not required. Rather, students can be told that they are experts in the very area of knowledge needed to solve the problem at hand. For the duration of the activity (about twenty-five minutes), they can be architects, city planners, biologists, antique appraisers, astronauts, toy makers, travel agents, detectives, musicologists, or whatever else is appropriate. In most cases, this new identity will result in a rise in status and hence flatter the students. It also serves to make it easier for them to speak up. As "experts," students are freer to comment on topics about which they do not in fact know very much. Ordinarily, they might well avoid participating. Also, the role-play provides the rationale as to why this class is being presented with the specific problem: since they are experts, they are the ones most likely to come to an appropriate solution.

5. *Through the use of a recording secretary, the small group is kept accountable for its use of the allotted time.* From the start of the activity, the class members know that they will have to report on their conclusions. The existence of a secretary acts as a check on the group and keeps it from wasting its time. The groups of three to five should choose their own secretaries. Though a participant in the discussion, the secretary's main task is to take notes on the discussion or write down advertising copy as it is being formulated. Accuracy of form is not as important as getting as complete a record as possible of what has been said.

6. *The activity is structured in a way that makes problem-solving easier.* Except in very advanced classes, students cannot simply be given a problem and told to solve it. It is up to the teacher to prepare the class for the activity and to provide the students with clear guidelines on how to proceed.¹³ While there are potentially a number of ways to do this, the following steps have proved successful in helping students participate:

a. Advance preparation on the part of the teacher is in most cases necessary. After selecting the problem, the teacher collects any required props (objects, pictures, newspapers) and decides how to tie the activity into the overall lesson plan. The tie-in may be grammatical—a desire to practice imperatives, or thematic—a textbook unit on automobiles is followed by an activity in which students are asked to find new uses for junked cars.

b. The problem is most effectively presented in script form. The teacher begins with an exclamation such as "¡Tengo una gran noticia!" (I have great news!) or "¡No lo comprendo!" (I don't understand it!) The problem is then recited. Care should be taken to ensure that vocabulary is appropriate to class level. (A new word or two could be taught.) The problem statement is, in effect, a listening comprehension exercise. Depending on the class, it may be necessary to repeat it twice. Asking a few short questions such as "¿Quién me llamó?" (Who called me?) "¿Por qué?" (Why?) is helpful in ascertaining whether the class members have, in fact, understood the problem.

c. At this point, relevant vocabulary can be reviewed or, if necessary, taught. A short list of words and phrases (up to ten) can be elicited from the class or presented. If a specific grammatical construction such as comparatives is particularly useful, it too can be quickly reviewed (but not taught).

d. A clearly stated set of questions directed toward aspects of the problem will provide students with a way of organizing their discussion. These questions can be elicited with a query such as "¿Cuáles son las preguntas que un arquitecto tendría que contestar para diseñar una mansión?" (What questions would an architect have to answer in order to design a mansion?) When students have run out of suggestions, the teacher can supplement them. Six to eight questions is normally sufficient. They should be written on the blackboard by the teacher who, where necessary, corrects the grammar. If a grammatical structure is to be practiced, the teacher can adjust the ques-

tions so that as many as possible contain that form.

e. The questions agreed upon, the class is divided into groups of three to five. While there are a number of methods for doing this, the quickest is to simply count off students into groups of the desired number. Groups should be kept small since in larger groups intimacy is lost and shy students are less likely to participate.

f. After the groups have been formed, the students are reminded of the questions on the blackboard. The strategy to be followed at this point depends on the proficiency level of the students. In elementary level classes, the students are told that, in round-robin fashion, each of them is to answer the first question on the board; then they will proceed to the second question, and so on. A student with absolutely nothing to add is allowed to pass, but this should be discouraged. The groups may want to answer each item more than once in order to accumulate more ideas. The group should decide which answer they like best and have their secretary record it. They then proceed to the next question. In practice, students will leave the list from time to time to discuss more freely; this should cause no difficulty. In more advanced classes, it is not necessary to insist that students adhere to the questions written on the board. Those students should be encouraged to ask other questions that may come to mind in the course of the discussion.

g. When enough time has elapsed (usually about fifteen minutes), the teacher stops the discussion. In turn the secretaries read aloud their group's conclusions. The teacher corrects glaring errors, but ignores minor ones. Other students may ask for clarification or make comments. The comparing of results adds to the students' enjoyment, group loyalty, and sense of accomplishment. When appropriate, the solutions can be listed on the blackboard.

h. Numerous possibilities for follow-up can be exploited. As homework, students can write up their group's solution or propose an entirely different one. The problem, somewhat altered, can be used again in a later class or as a writing assignment. The activity can lead to a more serious all-class discussion. For instance, the activity dealing with car parts can lead to a discussion of the future of the automobile. Or, the activity can lead to a discussion of an aspect of the target culture. Thematically related writing assignments—compositions, dialogues, or letters to the editor—can derive from the in-class activity.

7. *During the time that the problem-solving is going on, the teacher withdraws from center stage.* The teacher may act as a "walking dictionary," responding to questions of "¿Cómo se dice _____?" Minor grammatical points can also be clarified. For the most part, correction of errors should be left to the students.¹⁴ The teacher can correct an occasional overheard error. From time to time, students will revert to their native language. The teacher should remind them to use the target language. A student who persists is spoken to privately. The use of native language seems to diminish as students become accustomed to problem-solving.

The very act of presenting students with the sort of activities suggested here signals the unspoken message that the teacher believes the students capable of handling them. Extensive experience in Spanish classes at Northeastern University and Harvard University Extension, and in ESL classes at Harvard Summer School and Georgetown University has shown that students react favorably to this sort of challenge. Often their responses are amazingly creative and filled with unexpected combinations of ideas. But even when their answers are more mundane, the activities succeed in making students interact with each other, which is the primary goal. When presented with fictional problems whose premises resemble real life but are distinct enough from it to allow for an element of freedom and play, students find that they want to speak. As Christensen points out, "It has been demonstrated that when students' imagination is stimulated, their motivation is enhanced, and they begin to express the ideas they want to communicate."¹⁵

Creative problem-solving shifts the focus away from linguistic form and onto content and the need to communicate. Placing responsibility on the small group and not on any one individual lessens the risk for the participants while playing on their sense of group loyalty. Avoiding serious and difficult topics such as euthanasia or drug abuse lessens the chance that students will say nothing because they believe only profound answers are expected of them. These shifts of emphasis seem to allow students to think in an innovative manner and communicate those thoughts in a foreign language. The result can be intensely satisfying for students and teachers alike.

NOTES

1. Emma Birkmaier, "The Meaning of Creativity in Foreign Language Teaching," *The Modern Language Journal*, 55 (1971), 345-53.

2. *Ibid.*, 345.

3. Gertrude Moskowitz, *Caring and Sharing in the Foreign Language Class* (Rowley, MA: Newbury House, 1978), p. 14.

4. Clay B. Christensen, "Achieving Language Competence with Affective Learning Activities," *Foreign Language Annals*, 10 (1977), 157.

5. George Rooks, *The Non-Stop Discussion Workshop* (Rowley, MA: Newbury House, 1981). For an earlier discussion of activities of this type, see: Douglas Morganstern, "Eight Activities for the Conversation Class," *The Modern Language Journal*, 60 (1976), 35-38.

6. Morris I. Stein, *Stimulating Creativity*, II (New York: Academic Press, 1975), p. 253. See also: Alex F. Osborn, *Applied Imagination* (New York: Atheneum, 1963).

7. *Ibid.*, 27.

8. *Ibid.*, 253.

9. Earl Stevick, *Teaching Languages: A Way and Ways* (Rowley, MA: Newbury House, 1980), p. 206.

10. Alan Maley and Alan Duff have suggested a fourth variety of activity. They have students work out, present, and discuss pantomimed scenes. See: Alan Maley and Alan Duff, *Drama Techniques in Language Learning* (Cambridge: Cambridge University Press, 1978).

11. Stevick, *op. cit.*, p. 200.

12. For a description of Lozanov's work see Stevick, *op. cit.*, especially p. 237. Short-term, culturally non-specific role-play is discussed by David Wells in "Role-Playing in the Foreign Language Class," *The French Review*, 48 (1975), 760-63.

13. For a discussion of task-oriented activities, see: Peter Cole, "An Adaptation of Group Dynamics Techniques to Foreign Language Teaching," *TESOL Quarterly*, 4 (1970), 353-60 and Lorraine E. Heard, "Foreign Language and the Group Context: Expanding Student Roles," *Foreign Language Annals*, 5 (1972), 313-20.

14. Much has been written on peer correction. For example, see: James J. Kohn and Peter Vajda, "Peer-Mediated Instruction and Small Group Interaction in the ESL Classroom," *TESOL Quarterly*, 9 (1975), 381; Christina Bratt Paulston and Howard R. Selekman, "Interaction Activities in the Foreign Language Classroom or How to Grow a Tulip-Rose," *Foreign Language Annals*, 9 (1976), 251; and Clyde R. Smith, "Contextualizing Pattern Drills: The German Circle Games," *Foreign Language Annals*, 14 (1980), 206.

15. Christensen, *op. cit.*, p. 159.

16. Adapted from Stephen A. Sadow, *Idea Bank: Creative Activities for the Language Class* (Rowley, MA: Newbury House, 1982). Reprinted by permission of Newbury House Publishers.

APPENDIX

The lesson plan and scripts that follow illustrate three types of creative problem-solving activities.¹⁶ Depending on the class, the language can be simplified or made more complex. A typical lesson would include: preparing; presenting the problem; checking comprehension; presenting vocabulary and reviewing grammar; eliciting a list of questions to be answered; dividing the class into small groups; letting the groups seek solutions; and calling for reports from the group secretaries.

Treasures

Prepare: Select an object that will not be readily identifiable by students. Knickknacks and figurines from faraway places or unusual kitchen gadgets work well. The exact nature of the object is not as important as its being ambiguous and subject to various interpretations.

Tell the class: Tengo un problema. Esta mañana caminando a la escuela me encontré con un hombre que llevaba una bolsa grande de papel. El sacó de la bolsa *este* objeto y me aseguró que tenía muchísima valor. Sin embargo, como a él le hacía falta de dinero, ofreció venderme el objeto por cien dólares solamente. Bueno, yo nunca puedo resistir una ganga, así que se lo compré en seguida. Ahora bien, no tengo ninguna seguridad de haber hecho una buena compra, puesto que no tengo ni la las más mínima idea de lo que puede ser este objeto. No obstante, como sé que todos Uds. son expertos en antigüedades, por favor, díganme qué es este objeto y si me engañó o no.

(I'm very puzzled. This morning on the way to school, I was stopped by a man carrying a large paper bag. He took *this* object from the bag. He assured me that it was of great value but, since he needed the money, he would sell it to me for only \$100. I can never pass up a bargain, so I bought it immediately. Now I'm not so sure I did well since I have no idea what this thing is. I know all of you are experts in antiques, so I'm asking you to explain this thing to me and tell me whether I have been cheated.)

Check comprehension:

1. ¿Qué tenía el hombre?
(What did the man have with him?)
2. ¿Por qué compré yo el objeto?
(Why did I buy the object?)
3. ¿Qué necesito saber?
(What do I need to know?)

Present vocabulary (choose some of these):

antiguo; artificial; blando; costoso; cuadrado; duro; espeso; frágil; pesado; redondo. (ancient; artificial; costly; fragile; hard; heavy; round; square; soft; thick.)

Review grammar: Review comparatives.

Ask the class: What questions will you need to answer? (Write questions on the blackboard)

1. ¿Qué es?
(What is it?)
2. ¿Cuántos años tiene?
(How old is it?)
3. ¿Qué hace?
(What does it do?)
4. ¿De qué color es? ¿De qué forma?
(What color is it? What shape?)
5. ¿A qué se parece?
(What does it resemble?)
6. ¿Tiene una historia?
(Is there a story behind it?)
7. ¿Tiene valor? ¿Mucho valor?
(Is it valuable? Very valuable?)
8. ¿Fue engañado el maestro?
(Was the teacher cheated?)
9. Si fuera mío, ¿qué haría con él?
(If it were mine, what would I do with it?)

Divide the class: Form groups of 3-5 students. Have each group choose a secretary. Remind them of the questions on the board.

Do the activity.

Call for reports: The secretaries read the conclusions. Encourage other students to ask questions and make comments. Summarize the responses.

2. Acabo de recibir una llamada telefónica del director de un jardín zoológico no muy lejos de aquí. Me dijo que estaba muy preocupado porque cada día viene menos gente a ver el zoo, y que parece que los animales no le interesen a nadie. El director quisiera que Uds., que son biólogos expertos, inventaran un animal completamente nuevo que fuera interesante y atrajera al público. Sería de gran ayuda que Uds. describieran en detalle este nuevo animal en su ambiente natural, lo que come, sus hábitos y costumbres y otras particularidades.

(I just received a phone call from the director of the local zoo. He told me that he is very worried because attendance at the zoo is the lowest it has ever been. It seems that the animals no longer interest the public. He asks that you, expert biologists, invent a new, more interesting animal. It would be helpful if you could describe this

animal along with its habitat, food, habits, and other special features.)

3. Tengo un problema. Hace seis meses que trato de vender mi carro pero nadie me lo quiere comprar. Mi carro funciona bien y está en buenas condiciones y el precio que pido es justo; sin embargo todos me dicen que tiene una forma demasiado rara, extraña, diferente y no me lo quieren comprar. ¡Uds. son mi última esperanza! Por favor, como Uds. son especialistas en componer avisos publicitarios y propaganda, escriban un aviso para vender mi carro. Oh, se me olvidó traer una foto del carro, pero estoy seguro que Uds. se pueden imaginar la forma de un carro muy poco corriente. Si quieren pueden dibujarlo.

(I've got a problem! I've been trying to sell my car for six months now, but no one wants to buy it. It runs well and I'm asking a fair price, but people keep telling me that it is too weird, too strange, and too different and that they don't want to buy it. You are my last hope! I'm asking you, as specialists in writing advertising, to compose an ad that will sell my car. Oh! I forgot to bring my picture of the car, but I'm sure you can imagine what my very unusual car is like. You may even want to draw a picture of it.)

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