Pedagogical Improvisation

Instruction, like life, cannot always be planned, especially when teaching students the skills for interacting with real life situations and problems.

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Improvisation is not often discussed by educators. The unspoken assumption is that while jazz musicians and actors may improvise, educators plan.

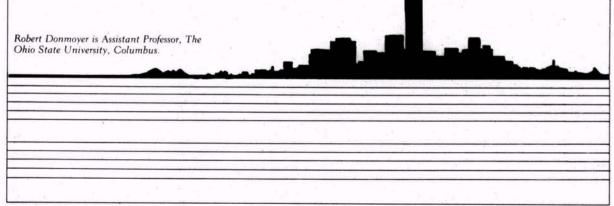
The best laid plans, however, can be inadequate (Jackson, 1977; Lortie, 1975), and certain conceptions of human development even suggest that the curriculum should not be entirely preplanned by professionals and imposed on students (Piaget, 1971; Dewey,

1963). For these reasons, this article examines improvisation in the classroom by describing what happened during two afternoons in an exemplary improvisational classroom and by drawing on a theory of improvisation in the arts to analyze classroom events.

An Exemplary Improvisational Classroom

The classroom described here is a seventh-grade interracial social studies class

in a rural, relatively poor area of California. The teacher is attempting to implement a curriculum called The City Building Education Program (Nelson, 1974) which requires improvisation. The curriculum guide presents an array of more or less open-ended activities, most of which relate to the construction of a scale model of a city of the future. Students are encouraged to both formulate and solve problems related to planning this city and constructing the



scale model. Democratic decision making and student leadership are encouraged throughout the process.

As I enter the classroom shortly after 1 p.m., students are gathering books and materials, others are rearranging desks into small clusters, and a few students are heading toward the library. The atmosphere is relaxed, almost lazy. Before long, however, most students seem involved in their various activities, yet even then there is an almost elegant calm and order to the classroom.

Individual and Small Group Work

During this first part of the afternoon, students are involved in one of five tasks. Two groups of students are engaged in architecture-related activities intended to give them the necessary background to plan buildings for the various zones of the proposed city. The agenda for the day indicates that one of these groups is to study a book on animal architecture and the other group is to go to the library to locate books about structure and design.

A third group of students is researching problems related to the proposed city's energy needs. One member, a boy named Carlos, is meticulously copying a diagram of an anemometer from a resource book. Later, I hear the classroom aide say to him, "That's a very nice drawing, Carlos, but how does that relate to our city?" The aide then proceeds to help Carlos discover relationships.

There are two additional groups busily at work in the classroom. One is preparing to add a large, attractive chart to "The Class History Wall," a display which covers most of the classroom's

four walls and presents, in sequential fashion, work created throughout the school year. This display is preceded by a list of criteria that guide the creation of the wall. This list indicates that the wall is to be bilingual, neatly lettered, arranged in chronological order, and colorful.

Probably the most interesting group in the room is the six-member planning commission. The chairman of the commission is the perfect picture of a harried bureaucrat who must direct and coordinate the efforts of the workers under him and contend with restrictive, sometimes confusing, directives from above. (In the City Building curriculum, the adults in the classroom play the role of federal government officials.)

Today the planning commission has been assigned several tasks. The first set of activities involves calculating the percentage of the proposed city zoned for various purposes and the amount of land that would actually be covered by buildings.

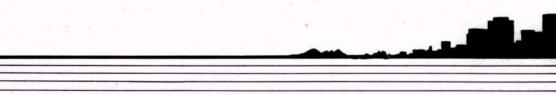
The second set of activities centers on preparing the scale model of the city. The model is a three-dimensional topographical map of styrofoam insulation which represents an actual parcel of land near the school. The site was chosen on the basis of predetermined criteria (such as climate and percentage of water and hills) voted on by the class. On this day, the planning commission is expected to develop plans for applying color to the model and beveling the styrofoam layers which signify the site's elevations. They were also asked to experiment with paint to find natural colors, to propose which areas of the site should be painted with colors, and to illustrate their proposal.

When I observe the group, two Chicano boys are attempting to come up with a method of shaping the model, while an Anglo boy is involved with mixing tempera paints to arrive at natural colors. The harried chairman is attempting to convince two Chicano girls to do the remaining tasks.

The Teacher

Mr. Diemo, the teacher, moves from group to group, spontaneously interacting with students. With his wire rim glasses, dark blue cordurov pants, and blue and white gingham shirt which could easily feel at home on the cover of a John Denver album, Diemo projects a contemporary image. He is also a consummate theatrical performer. His voice sings with a velvet intensity: his movements seem almost dance-like. Even when standing still talking to students about their various activities, his hips mirror the emotion in his voice. springing or sliding or oozing from side to side as though under the influence of Bob Fosse's choreography. His arms and shoulders move too, often in broad, intense, expressively flowing gestures, not unlike the gestures of a French cabaret singer.

Although Diemo is a skilled and energetic performer, this is clearly not a one-man show. Here everybody is expected to get into the act. His primary interest seems to be in getting people to think. In this context, thinking is a five-step process involving (1) defining the problem, (2) establishing criteria for solving the problem, (3) generating alternative solutions to the problem, (4) choosing the most appropriate alternative, and (5) evaluating the consequences of the chosen alternative.



Diemo, therefore, gently chides the chairman of the planning commission for arbitrarily deciding to paint the site model in a certain manner without first establishing a criteria for what the paint job should represent and communicate. To the Chicano girls who had finally accepted the chairman's directions, he says with mock, melodramatic derision, "You paid attention to a man who doesn't know what he's doing." The two boys making plans to bevel the model's styrofoam layers are urged to establish criteria which will help them decide how much of the site should be beveled and how much should be left as cliffs. When they tell him they plan to bevel the entire site. Diemo responds with the muted passion of a hip T.V. evangelist saying, "But what are your reasons! You gotta have criteria! If you go into the class meeting without criteria you're gonna get torn apart! But if you can give them reasons, you can convince them of anything!"

This concern with rational problem solving dominates Mr. Diemo's interactions with other groups as well. For example, when the girls putting up the large chart on the History Wall have difficulty getting the tape to simultaneously hold up the chart and remain out of sight, Diemo suggests they consider alternative ways of putting up the chart which might better meet the criteria they have established and then experiment to find out which alternative is truly the best.

The Class Meeting

As 2:25 p.m. approaches, students begin returning from the library and soon the student mayor invites members of the various groups to share information they

have gathered. One of the presenters is Carlos, who shows his drawing of an anemometer. The aide's influence is obvious as Carlos explains that an anemometer produces 2,000 volts and as he explains that he intends to call Pacific Gas and Electric when he gets home to find out how much power 2,000 volts really is.

Among the many other presenters at this class meeting are the two students who have worked on the beveling plan. They have stuck with their ideas to bevel the entire site and have formulated a reason to justify their plan: children will get hurt if there are steep grades. The plan and the justifying criteria, however, are presented somewhat meekly and the class refuses to approve them.

As 3 p.m. approaches, the class meeting ends and homework is assigned. Students are (1) to create a design for a particular building in their previously assigned zone that relates form to function and (2) to write a rationale to explain this relationship.

After-School Activity

After dismissal, several students remain in the room. I had noticed one of them, Sam, during the class, or, to be more precise, Sam had made himself noticeable to me. He had proudly told me about previous activities of the City Building Program, including a field trip to the U.S. Geological Service where the class learned about topography and mapmaking. He had even given me his work folders to take home and examine. I assumed that Sam was one of those enthusiastic, hardworking, self-motivated, and self-disciplined students that teachers just love to have in their classes. Therefore, I was surprised to discover that Sam was the school's resident

discipline problem.

Now, after school, he is standing in front of the scale model, engaged in an animated conversation with the district's Director of Migrant Education who entered the room as most of the students were leaving. They discuss the zoning plan designed by the planning commission, focusing on wind direction and the possibility of pollution from the industrial zone being blown over the residential section of the town. The best location for harnessing solar power is also considered.

The Second Afternoon

On the following day, Sam presents a counter zoning proposal to the class. He exhibits considerable confidence which is shaken only briefly when students dispute his claims concerning solar energy. At the end of the presentation, Mr. Diemo indicates that Sam should submit his proposal and his criteria to the planning commission for consideration.

Carlos also reports on his call to Pacific Gas and Electric. He indicates that with a 25 mile-per-hour wind, an anemometer like the one he drew during the previous class would produce enough electricity for 18 homes. This data is a shot of adrenalin for members of the class. One person immediately calculates the number of volts needed per household and shares this information with the class. Others begin to calculate how many homes a community of a proposed population of 3,235 will likely have. Diemo reminds the latter group that the planned city will have multifamily as well as single family housing, while others question whether it is reasonable to expect 25 mile-perhour winds in the site area. After much

calculating and discussing, Carlos agrees to pursue further anemometer-related research.

This class session also contains a report by the two members of the planning commission who once again attempt to get the class's permission to bevel the entire scale model. Their manner this time is less diffident and they present, in addition to the safety criteria, an additional reason for beveling the entire site. They report that Diemo has taken them out to see the actual site and that the actual site is smooth and rolling.

Opposition still surfaces, however, from certain boys in the class who are determined to have cliffs. When asked for their criteria, one boy says that they are needed for people who want to commit suicide. Diemo says matter-offactly, "Be serious or leave," and the boy quickly removes the tongue from his cheek. Another reason, however, the need for a place for hang gliding, is taken more seriously. An ad hoc committee is formed to discuss the best location for a hang gliding cliff. Once again the problem-solving method provides the parameters and the structure for this discussion. First criteria related to the amount of wind and wind direction are established and then various locations considered in light of these preestablished criteria.

Eventually it is decided that the entire site will be beveled and that cliffs can be added later, since retaining the topographical layers would not provide sufficiently high cliffs for hang gliding.

Improvisation in the Theatre . . . and the Classroom

Why does this improvisational classroom work while other attempts at improvisation in education disintegrate into confusion and chaos? Given the dearth of theorizing about improvisation in education, these questions might best be answered by turning to the arts where improvisation has been given considerably more attention. Here three concepts from Viola Spolin's (1963) Improvisation for the Theatre will provide a basis for analysis.

Natural Competition. Spolin employs a game metaphor to discuss aspects of improvisation. She indicates that "any game worth playing is highly social" (p. 5), and emphasizes that true social situations require individuals to work cooperatively and interdependently. The competition in such situations does not involve comparisons with others, comparisons which lead to self-consciousness and interpersonal antagonism. Rather it is what Spolin calls natural competition,

wherein each individual strives to solve consecutively more complicated problems. These can be solved then, not at the expense of another person and not with the terrible personal emotional loss that comes with compulsive behavior, but by working harmoniously together with others to enhance the group effort or project (p. 11).

In improvisational theatre, this emphasis on the social translates to the promotion of ensemble playing rather than a star system. A similar emphasis on ensemble efforts can be seen in Diemo's classroom. It is not a grade but the class project that is uppermost in Diemo's students' minds; it is not a desire to score high on a test but a desire to contribute to the successful completion of a shared project that is the primary source of motivation. The stage is set, therefore, for cooperation rather than competition, a condition Spolin indicates is a prerequisite for spontaneity.

Intrinsic Control. A second characteristic of games relates to the issue of control. "Any game," Spolin writes, "has a problem that needs solving within it—an objective point in which each individual must become involved, whether it be to reach a goal or to flip a chip into a glass" (p. 5). Echoing Dewey, Spolin indicates that in a game it is this shared problem rather than external authority that governs activity.

Spolin finds such intrinsic control much more desirable than control by externally imposed authority. The latter inhibits spontaneity because both students and teacher are constrained by predetermined possibilities. Spolin writes.

The teacher cannot truly judge good or bad for another, for there is no absolutely right or wrong way to solve a problem: a teacher of wide past experiences may know a hundred ways to solve a particular problem, and a student may turn up with the hundred and first!

Even positive reinforcement is viewed negatively by Spolin:

Authoritarianism is more difficult to recognize in approval than in disapproval—particularly when a student begs for approval. It gives him a sense of himself, for a teacher's approval usually indicates progress has been made, but it remains progress in the teacher's terms, not his own (p. 8).

The control in Diemo's classroom is similar to the sort of control Spolin indicates is found in games (see Dewey, 1963, p. 65). The absence of externally imposed authority in Diemo's class is best indicated by the following excerpt of an interview I taped with a student:

Author: What do you think you learned from the class?

Jeff: Well, I learned that the kids have the power to overrule the teacher if they vote on it or get up a pet...on, and I learned that . . . Author: Do you really have the power or do you think Mr. Diemo ultimately has the power? Could you really decide anything?

Jeff: Pretty close to it. We could rule out anything Mr. Diemo says

In place of authoritarian control is the control generated by a common problem: the planning of a city of the future and the construction of a scale model of that city. This problem gives meaning and direction to individual, small group, and full class activities. When a student's work becomes aimless, as happened with Carlos and his anemometer drawing, it is the class's common problem not the personal judgment of an authority figure which is called upon to get the student back on track. Similarly it is concern for the class's commonly shared task, not the fear of Mr. Diemo's wrath, which gives legitimacy to Diemo's directive, "Be serious or leave!"

The Point of Concentration. Spolin compares a point of concentration to a ball in games. A point of concentration, she says.

gives the control, the artistic discipline in inprovisation, where otherwise unchanneled creativity might become a destructive rather than a stabilizing force. . . It provides the student with a focus on a changing, moving single point ("Keep your eye on the ball") within the . . problem, and this develops his capacity for involvement with the problem and relationship with his fellow players in solving it . . . (p. 22).

At another point, Spolin also compares the point of concentration to the rules of the game. She indicates that a point of concentration functions as a

boundary . . . within which the player must work and within which constant crises must be met. Just as a jazz musician creates a personal discipline by staying with the best while playing with other musicians, so the control in the focus provides the theme and unblocks the student to act upon each crisis as it arrives (p. 23).

In Diemo's classroom, the pedagogical version of Spolin's point of concentration is the rational problem-solving method, which is the "ball" Diemo carries from group to group. He continually throws "the ball" to his students, expecting them to carry it in their individual work and to pass it back and forth as they work together in groups.

The rational problem-solving method also provides the rules for the game. It structures virtually every activity, from beveling and painting a scale model of a city to creating a bulletin board to presenting a city zoning proposal.

A point of concentration serves much the same function as an objective does in more traditional classrooms. Behavioral objectives advocates, in fact, might be tempted to think of a point of concentration as a lazy person's objective. Such a characteristic would be unfair, however. Certainly, a point of concentration can be thought of as a goal: Diemo wants his students to become adept at approaching problems rationally, just as basketball coaches want the members of their teams to become adept at playing within the rules of the game. His goal, however, is not the sort that can be translated into a behavioral objective. The rules in basketball do not prescribe specific player moves; similarly a point of concentration cannot dictate specific student behavior.

Furthermore, just as it would be absurd for a basketball coach to cancel all further practices once his or her team demonstrates mastery of the rules of the game, it would be equally absurd for Diemo to believe his goal had been achieved when his students could apply the rational problem-solving method in a particular situation. Problem solving is normally not the sort of thing one can or

cannot do; rather it is the sort of thing one does more or less well, based to a large extent, on prior experience. Diemo wishes to provide a wealth of such experiences; his point of concentration provides focus and direction to these experiences without inhibiting spontaneity.

Conclusion

Ordinary living requires constant improvisation, vet schools seldom provide opportunities to develop this ability. Recent emphasis on direct teaching toward precisely defined objectives lessens such opportunities even further. It is not surprising that a recent National Assessment indicates that while students' knowledge of facts has remained constant or even improved over the past several years, their ability to apply knowledge in problematic situations has plummeted. If students are to learn how to apply knowledge to solve real life problems, more improvisational classrooms are required.

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