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PROJECTS AND ACTIVITIES: A MEANS, NOT AN END

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THE LESSON was about Abraham Lincoln, and the primary grade teacher came up with what she must have thought was a nifty "hands-on activity." The students were instructed to make a Lincoln Log Cabin by pasting Popsicle sticks onto milk cartons. They may have learned something about pasting sticks onto cardboard, but they probably learned little about the sixteenth president or why he made a difference in the story of our country.

This is but one example of an educational fad gone awry. Under pressure to get students actively involved in learning, projects frequently wind up keeping youngsters busy without really teaching them anything of importance.

As Claudia Hoones, a teacher in Indianapolis who served on the Bradley Commission on History in the Schools, once observed about such projects:

> Now, something like this has happened to me, and probably to you. You find an activity you love, the kids love, it's peaceful, they're involved—so let's go for it! But when we're talking about teaching history [or any subject] responsibly, we need to ask ourselves regularly whether an activity we've planned is really hitting the nail on the head.

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Below are a few other examples of activities I have come across recently that either lacked serious content or strayed from the point of the lesson. They are all drawn from the field of social studies—which seems to bear the brunt of this problem—but comparable examples can be found in literature, science, and, increasingly, even in math.

- A history teacher assigns students to build a "pioneer home." There is no research involved, nor any requirement that the students explain why their structure looks the way it does. One student decided she would build a wattle-and-daub house and was flunked because it was not a "pioneer" cabin; everyone knows "pioneers" made log cabins.
- One lesson about the treatment of Native Americans notes that the Cherokee Nation had their own newspaper, the *Cherokee Phoenix.* It then goes on to suggest creating a newspaper about your class. The second activity in the lesson indicates that Sequoyah developed a written alphabet of the Cherokee language; create an alphabet of your own.
- A lesson on exploring world cultures, in a recent issue of a social studies magazine, provides instructions for making multi-colored beads from strips of magazine paper, cut into triangle pieces. This is intended to address the theme of "time, continuity, and change," and is meant to be a discovery project for "beads around the world."

These are all "hands-on" projects. The students probably passed their time in class enjoyably and had something to take home to show their parents. But how did the activities help students learn about history, and what did the students know when they finished?

Pressure for more and more activities has grown intense. Some textbooks, anxious not to be behind the curve, can't seem to cram their pages with enough of them. And in some schools, God help the teacher whose students aren't up and about and "doing" something.

Behind the push for the increased use of projects and activities seems to lie theories from three different but converging directions. First is the idea—heavily influenced by the writings of Jean Piaget—that young learners are "developmentally" unable to deal with abstract ideas or factual knowledge and that, therefore, it is better to approach learning through concrete, "real-world" terms. Piaget argued that children move through a series of progressive stages—sensorimotor, preoperational, concrete operational, and formal operational. According to Piaget, during the first two stages, infants and young children do not yet possess the levels of understanding and logical reasoning that are characteristic of older children and adults. Starting around age six or seven, however, children begin to develop concrete operations—cognitive capacities that enable them to solve concrete (hands-on) problems logically, adopt the perspective of another person, and consider intentions. Starting around age twelve, according to Piaget, they begin to develop "formal operations," which allow them to engage in more complex and abstract thinking without being so dependent on direct experiences or concrete examples.

In 1960, Jerome Bruner of Harvard disputed the contention of developmental learning by proposing that any subject could be taught in an "intellectually honest way" to students at any level of development.

Piaget's theories have more recently been questioned by such researchers as Dickinson and Lee, who warned that Piaget's notions about students' ability to reason historically, for example, could cause teachers to underestimate the complexity of their students' thought processes and to underappreciate the possibilities for teaching.

To continue in the area of history teaching and learning, which seems to indicate challenges to Piaget in other fields as well, researchers Levstik and Pappas found that (1) children were capable of constructing intelligible historical narratives; (2) even the youngest children were receptive to historical information and found aspects of history very appealing; and (3) historical context and style of presentation were both key elements affecting what students learned.

If these are accurate pictures of cognition, an overreliance on "hands-on" activities will delay the opportunity for children to make the shift from novice thinkers to experts.

The second theory underlying the popularity of "hands-on" activities and projects is the idea that the knowledge we acquire on our own is better than the knowledge we get from others. A full discussion of this idea—sometimes called "discovery learning" and frequently identified with a "constructivist" point of view and an "experiential," inductive approach to learning—is beyond the scope of this short essay, but I do want to note two cautionary points made by E.D. Hirsch, Jr. in his recent book *The Schools We Need:*

> ... discovery learning is an effective method—when it works. But there are two serious drawbacks to preponderant or exclusive reliance on discovery learning. First, students do not always make on their own the discoveries they are supposed to make; in fact, they sometimes make "discoveries" that aren't true. Hence, it is essential to monitor students to probe whether the desired learning goal has been achieved, and, if not, to reach the goal by direct means. Second, discovery learning has proved to be very inefficient. Not only do students sometimes fail to gain the knowledge and know-how they are supposed to gain, but they do not gain it very fast. Research into teaching methods has consistently shown that discovery learning is the least effective method of instruction in the teacher's repertory.

Most recently, the push for "hands-on" activities has acquired new life from the largely non-critical acceptance of theories regarding "learning styles." The rush to honor "tactile" or "bodily-kinesthetic" learning can lead to a general disparagement of verbal learning. Again, Hirsch comments:

> Caution is especially required when the phrase "hands-on" is used to imply disdainfully that visual and verbal learning is artificial and unengaging. Antiverbal prejudices spell disaster for disadvantaged students, who have not been exposed to a breadth of verbal learning outside the school. In contemporary life, the verbal has a strong claim to being just as "lifelike" as the tactile.

Certainly, "hands-on" projects have their place in the curriculum. I am not suggesting their elimination, only that we not be pressured into having a "hands-on" component to a lesson when there are better ways to get to where we want to go and that when we do choose to include one, we think carefully about what it is we hope to accomplish.

Below are three questions we as teachers should ask ourselves when planning an activity.

What is it that I want students to know?

If the purpose of the lesson is to learn more about the Cherokee Indians, then make sure your activity deals with the Cherokees, not with a newspaper about classroom events. That would be a fine project for a journalism class, but not for a history class. And what is it about the Cherokees that you want students to know? The activity should relate directly to the standard or objective for the lesson. In fact, the standard should drive the direction of the activity. Clearly explaining what you want students to know provides added benefits when talking with parents, policy-makers, and the public as well.

It is also essential that the students understand how the activity relates to the goal. Will the lesson help them answer the "So what?" question they often have in their minds? Sometimes you may decide to answer this question at the top of the lesson, or you may discuss it in the debriefing of the activity—another important part of the lesson to bring the students' learning to some closure. It helps to ask students to summarize, to reflect, to synthesize, and then communicate connected understandings. Making connections with previous lessons and units, and foreshadowing what will be coming up in near-future lessons pays off in deeper learning.

Does the activity touch only superficial aspects of the topic?

The mass media has so conditioned kids to having everything presented as entertainment, we sometimes fear that our students will only find subjects interesting if we make them "fun." But "interesting" is not the same as fun, and when given the opportunity, students often find that serious subject matter is the most engaging of all. In the fall 1994 issue of this magazine, the historian and educator Paul Gagnon gave an example of just such an engaging and serious activity—this one as part of a high school history lesson exploring the causes and responsibilities for World War I:

> Starting with the "spark" that sets off great explosions, and then looking back at the longer build up of explosives, is more dramatic than memorizing lists of causes. In small-group projects, students (as "foreign correspondents," each with an assignment) will explore, and then put together in class, the haunting story of Franz Ferdinand's assassination on June 28, 1914, in Sarajevo: who, why, how, the plans, the errors, the role of chance, accident, coincidence, the passions, and obsessions on all sides.
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> But did one man's murder have to push all Europe into war? Again in small teams, students will follow the day-by-day crisis of July. Each team will focus upon its chosen European political or military leader, his background and character, his actions during the fatal month, and ask:
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> How were his reactions and choices shaped by that familiar list of *long-range* forces? For examples, the alliance system or his military plans? Or by *short-term* pressures on him from family, friends, the press, public opinion? By his own country's inner problems? By his character and temperament? By accident or misinformation? Or by any other factors the students can think of?
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> This exercise should present the class with a tangle of forces that cut down the number of acceptable options open to the actors and that tied the hands of even those statesmen most devoted to peace. Do students think other kinds of leaders might have done better in the "fog of crisis"? Would they themselves have done better? On the other hand, are they ready to let everybody off the hook of responsibility?

Is this the best use of our limited classroom time?

Making a mobile or diorama to illustrate the main concept of a passage is certainly very hands on, but it may be a very inefficient means to an end. Likewise, a shoebox made to resemble the interior of a Japanese home may consume more valuable time than we can afford—time that could be more productively used to explore the fascinating topic of Japanese architecture and design.

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None of my comments should be interpreted to discourage variety or spice in lesson planning. In my own field of history, for example, activities such as role playing, debates, the creation of timelines and maps, visits from local experts, well-planned field trips, the generous use of original documents, letters, photographs, and biographies, and a rich array of other options can each make its unique contribution. No activity, however, should be an end in and of itself, but a path or a tool in the labor of genuine learning. □

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