

On Interdisciplinary Curriculum: A Conversation with Heidi Hayes Jacobs

The editor of ASCD's Interdisciplinary Curriculum: Design and Implementation, Heidi Hayes Jacobs has worked with hundreds of schools across the country culling together best practices for curriculum planning. She has observed consistently that common sense and imagination go hand-in-hand when successful interdisciplinary programs develop.

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Educators are very interested these days in interdisciplinary curriculum. On surveys, we at ASCD find our members rate it as one of their highest priorities. Why?

For several reasons. One is that, while the school day has stayed about the same, knowledge has grown. The traditional confines of the school day are literally bulging, and much of the newest, most valuable knowledge falls between the cracks of conventional subject areas.

Second, we have a crisis. A lot of kids are dropping out of school; those are the ones who physically leave. A lot of others leave mentally; they sit passively in the back of the room waiting to graduate or survive the day. One of the common calls is for relevancy: "Why are we studying this? It doesn't seem to make any sense. How does it fit with my life?" We don't help kids to see the connections among school subjects.

Third, it's just common sense. If you believed that it made sense to have total subject isolation, you would argue that it helps the learner to have no deliberate connections between the disciplines. There is no logic in teaching world geography in September and world climates in December. We should

assign topics we teach so that they support one another.

If it's so reasonable, why is it so hard to do?

Well, we've created structures that make it very difficult. We have time barriers. We have personal barriers.

In secondary schools, for example, teachers become identified with their subject to such a degree that it's hard for them to look over the fence. "I'm a math teacher through and through. I think like a math teacher. I wear math teacher clothes. I've even got an 'I love math' coffee mug down in the faculty room."

Obviously, that's a parody—teachers laugh at themselves about this—but it's partially true. There are cultures in departments. They worked hard to get those degrees. They've got a lot of pressures on them, and although they do see the advantages of relating their subject to other subjects, it can be difficult.

It would seem to me that another problem is that teachers must be deeply knowledgeable about what they teach, and you can only be knowledgeable



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about so many things.

The National Science Teachers Association wants to do away with the "layer cake" curriculum and substitute an integrated science program at the high school level. But it's hard to find teachers who feel at ease with all that content, even though it's just one subject area.

Clearly there are long-term problems that depend a great deal on our ability to change teacher education.

But the biggest obstacle to interdisciplinary curriculum planning is that people try to do too much at once. What they need to look for are some, not all, natural overlaps between subjects. For example, it just makes sense in social studies when you're studying the immigration period to include math by looking at demographics and statistics. When studying the Renaissance, it just makes sense to include the literature, the social studies, the art, the music. It may not make as much sense to try to put in a lot of science.

The real misconception, though, is that schools have good vertical articulation within subject areas.

You've found that they don't?

If you go to your local high school science teacher and ask him to describe—not necessarily in great detail—the science that starts in the middle school, let alone the elementary school, he won't know.

Middle school people will say to me, "Gee, I wish they would do more of this, that, and the other in the elementary school." And I'll ask, "Have you been there? Do you know what they do?" Because the elementary schools are doing those things. Even within buildings, people often don't know what one another are teaching. I see tremendous repetition, even in novels and stories that are taught.

In one district, I'm seeing lessons over and over on environmental protection. Certainly that topic is important, but how many times can you study the rain forest? In one district, kids were studying it five times—in elementary, middle, and high school. The teachers were genuinely surprised to find out about the rain forest units in the various buildings. When teachers honestly write down what they teach and when they teach it, and then sit down together to look at the results, you'll hear things like, "I didn't know you taught *The Diary of Anne Frank*. I teach World War II in March."

You're saying that when you make it visible, the need for better coordination becomes obvious.

Oh, yes. One of the most exciting moments for me last year was when I was working with a newly formed English-social studies team. They'd met before in faculty meetings but not for curriculum purposes. They were planning to study six cultures in social studies, and the English department was going to use corresponding literature. The entire group had looked at the novels, and then the last day of the summer workshop, the social studies department chair mentioned the social studies text-

book. An English teacher asked, "Could we each have a copy?" It was extraordinary. No one from another department had ever asked for that before. Since that time, I've spoken with a few of those English teachers. One said, "What I learned just by looking through that social studies text made my teaching much more effective."

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It's a form of curriculum mapping.

Yes. And the calendar's the key. We line it all up according to the months of the academic year, and there on a page or two, it becomes evident. You see places where you can eliminate repetitions. In one school, we found that *Julius Caesar* was taught in the junior year, the 8th grade year, and in the 4th grade, where they were reading *Shake Hands with Shakespeare*.

The purpose is to demystify the process. I don't start by saying, "Hey, we've got to think interdisciplinary." I say, "Let's start by making more sense of what we do." From there, we'll find some natural places for going a step further, which is to design a few units in which we put the disciplines together, rather than only teaching topics concurrently. That requires some time and commitment, and it needs to be done rigorously.

The practice that works best is a two-

to three-year plan, where the first year we work on parallel articulation, and next move on to a unit that's a natural. Say, for example, that we're studying native Americans in the 4th grade. Obviously, that involves social studies, literature, art, and music. It could include math, but wouldn't need to.

What's exciting is not only that several subjects are involved, but that teachers are working together. Many teachers have felt very isolated. One of the reasons middle schools are succeeding is that they're collections of adult cooperative learners. They have a sense of community. Teachers feel a part of the school decision-making process.

That leads me to ask about the settings where interdisciplinary work is prospering. What are the conditions that contribute to collegiality?

There are some very important conditions that make it easier—although I do want to say that if an individual really wants to, he or she can do it. I've worked with teachers with inadequate physical facilities, in difficult neighborhoods. But these teachers—under the poorest conditions—have produced powerful units anyhow.

But of course there are things that can and should be done to make it easier for them.

Yes. Teachers need to be empowered with the skills and the time to examine what they're going to teach and how. Time is crucial. Schools that have flexible schedules, where time can be used to maximize teaching, are in a much better position. A back-to-back block in a high school or a whole morning under the control of three or four middle school teachers is ideal. Common planning time is the necessary communication vehicle for teams.

What are the other conditions?

Good teams, like good marriages, are voluntary. So when forming a team, it's good to have some kind of precounseling. The point is, too often we throw people together involuntarily, and they're not ready to work with other people. That's as true in elementary schools as in secondary schools. Interdisciplinary planning requires interpersonal skills.

As we think about conditions that do or do not facilitate local planning, let me ask what you think about the idea of a national testing system and the implied curriculum that it will represent.

I think it's a lot of wasted energy and money. Within a 25-mile radius of this building, you have some of the poorest and some of the wealthiest schools and everything in between. You have a school on the corner where people speak 14 languages, and you have another that is about as homogenous as you can get. Can you imagine a national curriculum that could even be considered for every 2nd grader in those schools? I understand that the intention is to give a sense of direction and encourage quality, but it just can't work.

The advocates insist that all students should reach the same high standards.

Sure, by the year 2000 everyone's going to read well and do calculus. We'll all wake up in the morning, and it'll be Glory Hallelujah. I think it's rather presumptuous for anyone to think that they could determine what is best for all 8th graders within a 25-mile radius of New York City, let alone the United States of America.

But isn't the alternative everyone doing something different?

Beware the polarity. John Dewey, who used to walk these halls, would say that polarities are the death knell of educa-

tion. It's not all or nothing. As you know, a lot of thought goes into our current state and district curriculums. We have a lot of standardization already; maybe too much—and it hasn't brought about uniformities in achievement.

The teachers at a specific site are in the best position to set curriculum standards for their particular constituents. Private schools have been doing it for more than a hundred years.

I asked about efforts to standardize expectations because I'm curious about how they will affect curriculum integration. If we do arrive at some kind of national definition of what everyone is supposed to learn, it will probably be by subject area. And if it is, will that make it more difficult to work on curriculum integration?

Yes, it could. But on the bright side, look at the recent recommendations of national groups, like the National Science Teachers Association you referred to earlier. Look at mathematics. Math was the bastion; the hardest one to crack—but now it's one of the hottest areas in education. And one of the reasons is the excellent work of the National Council of Teachers of Mathematics. They want little Charlie to realize that math is not just isolated numbers on a page, but something he can use. He can use it in science, and he can use it in social studies. He can use it in the work force. To me, that's exciting. I have never advocated the elimination of the subject areas; rather, I would like us to invest in the disciplines and demonstrate their power. Curriculum integration can be a pragmatic use of the disciplines.

Okay, let's say I'm a local leader—maybe a principal—and my school hasn't done much of this. I'm convinced that what you say makes sense. How do I start?

First, I think that it's always appropriate for a principal or a teacher leader or

superintendent to say, "Let's take an authentic look at what we're teaching."

What do you mean by "authentic"?

I mean not a pro forma needs assessment, like questionnaires that ask do we like school or do we not like school, are we happy or not happy. It must be in-depth. There should be small-group interviews, opportunities for people to tell the truth—and to start a calendar year map of what is taught.

I think readings can help—articles from professional journals like yours—and talking with teachers who've had some success. I don't much like site visits. Instead, I'd bring a team of teachers who've been doing interdisciplinary curriculum to my school—not in a workshop, but in more of a "think tank" mode.

But again, it isn't necessary to rush into it. I'd start with some information gathering in my own school. "What are we teaching now? What could we do that might make more sense? We seem to be teaching dinosaurs every year. How could we eliminate that kind of repetition?"

Then step back and look at some possibilities that go beyond grade levels. Could we do some multi-grade collaborations? Could we do something schoolwide? Could we try a special day on a current theme—maybe even let the kids help plan it?

After reflecting on sensible possibilities, it's time to do one—just one—well-designed, interesting, and meaningful unit of study that's interdisciplinary. If it's planned effectively, it should be successful, because the conditions are right and the choice was deliberate. Then, teachers will say, "I liked it. This was a better experience for my kids. I want to do it again." And you're on your way. □

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