On the goals and outcomes of arts education

An interview with Lois Hetland

A leading researcher points out how little we know about the effects of studying the arts . . . and why that shouldn't stop us from advocating for more arts instruction.

By Rafael Heller

KAPPAN: What's the best way to persuade Americans that the arts should have a significant place in K-12 education? Should we support the arts for art's sake? Should we argue that they have beneficial side effects, helping students become more successful across the curriculum? Or would you frame the argument in another way entirely?

LOIS HETLAND: I would choose a third way: My argument is that the arts are essential tools for thinking and communicating.

Keep in mind that the arts have been created and appreciated in every culture dating back to the earliest days of homo sapiens. This suggests that they are part of our basic human equipment, allowing us to ex-

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press things that can't be expressed otherwise. So I think it's a false dichotomy to choose between "arts for art's sake" and art for instrumental purposes. I prefer the phrase "art for *our* sake," as my colleague Ellen Winner and I put it in an article that we wrote for the *Boston Globe* several years ago. People hunger for art because it allows them to connect the rational with the intuitive, the brain and the body . . . It allows them to express a sense of the whole human being.

Why did they think the only way to defend arts education was to make silly claims about its effect on SAT scores and IQ and so on?

But I'm not saying that art is more important than other subjects. I agree with people who say that schools need to do more to prepare students academically so they can succeed in college and careers. It would be irresponsible and elitist to say otherwise. But there also has to be time in school to teach people to be fully human, which includes teaching them to "read" works of art and to create new ones. If we don't do that in school, then we produce impoverished citizens — and an impoverished society.

KAPPAN: Ironically, though, some people interpreted your early research to be hostile to art education, right?

HETLAND: True, and that was a shock. I was an elementary and middle school teacher for 17 years, and I always infused the arts into my instruction, so I never thought anybody would accuse me of denigrating the field. But here's the story: In the late 1990s, while earning my doctorate, I worked with Ellen Winner, my informal adviser, on a large-scale research project at Project Zero at the Harvard Graduate School of Education. At the time, a lot of people were saying that art classes could make kids smarter — for example, if students studied music, they would do better on the math portion of the SAT. It was an odd idea, but people were making these claims as a way to advocate for arts education at a time when budgets were being cut.

So Ellen and I decided to take a careful look at the evidence to see if the claims were true. Over two years, we did a huge meta-analysis, which is a statistical review of all of the previous research in this area. We started by gathering all of the existing studies we could find, both published and unpublished — every bit of research into the ways in which the arts might be connected to things like spatial awareness, logical reasoning, general academic performance, and so on. In all, we considered 10 distinct capacities that might be influenced as a result of studying music, drawing, and other arts.

For seven of those 10 capacities, we found no conclusive evidence that studying the arts had any significant effect at all. In some areas, we found strong correlational evidence. For example, Ellen found a link between taking a lot of arts classes and doing well academically in school. But this could just mean that the sorts of kids who do well in school tend also to be the sorts of kids who play in the orchestra; it doesn't show that playing in the orchestra leads to better grades. When she analyzed just the experimental studies (which were designed to see if studying art caused an increase in academic performance), the effect size more or less disappeared. In other words, the existing science simply didn't support the claim that art has a positive effect on academics.

KAPPAN: So you found no evidence that studying art had an effect on seven out of 10 capacities — but what about the other three?

HETLAND: There were some positive findings. First, we found evidence that if college students listen to music for 10 minutes before taking a test of spatial abilities, they tend to get a higher score, which suggests that there might be some overlap between parts of the brain that process music and that deal with spatial awareness. Second, we found that if young kids get active music instruction, they see similar gains on tests of spatial reasoning. But there was no evidence that this effect lasts more than a couple of years, and kids who don't study music tend to catch up within three years. Third, we found that play-acting in the classroom has a significant effect on a wide range of verbal skills. We don't know *why* that's the case — maybe acting things out gets kids to focus their attention in a certain way, or it gets their emotions involved — but it does seem to have a positive effect.

But while these were interesting findings, they didn't have clear lessons for educators (except maybe that in addition to having students read and discuss stories, teachers should have them act out those stories, too). The thing is, though, that people took each of these results and ran with them, making all sorts of bogus claims about the effect of music lessons on IQ and such. Florida even mandated that day care centers had to play classical music in the background for at least 30 minutes every day. In short, whenever they came across slightly positive

findings about arts education, people exaggerated them wildly.

And to the extent that our research called out those exaggerated claims, people wanted to bury our results. There was this huge outcry. We even got hate mail, people telling us that we were killing arts education. Most academic research gets ignored so I guess I should be grateful, but at the time it just seemed surprising and upsetting.

KAPPAN: With your newer research into the goals of arts education, you won over a lot of your former critics, didn't you?

HETLAND: Yes. We wanted to know why people were depending on these bogus arguments in the first place. Why did they think the only way to defend arts education was to make silly claims about its effect on SAT scores and IQ and so on? One reason, we speculated, could be that they didn't know how else to talk about the purpose of the arts in schools. They lacked a language or conceptual framework to use effectively in describing what art instruction is meant to accomplish. So we launched another research project in which we videotaped, observed, and interviewed teachers in two arts-intensive high schools — where we could assume that serious arts instruction was taking place — to learn what they aimed to accomplish in the classroom. This wasn't the same sort of big, quantitative analysis that we had done earlier, though. It was mainly a qualitative study, focusing on teachers of the visual arts (because that was the main interest of the Getty Foundation, which funded our work).

When we sorted through all of the purposes and practices that we saw and that these teachers described, we were able to identify eight main goals for students in the arts (we call them studio habits of mind, or studio dispositions): developing craft, engaging and persisting, envisioning, expressing, observing, reflecting, stretching and exploring, and understanding art worlds. It's important to remember, though, that these are intended goals of visual arts instruction, not a research demonstration of what's learned in arts classes. There's no evidence that says that if your kids take dance lessons for two

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LOIS HETLAND

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EDUCATION: Bachelor's degree in music and visual arts, Cornell College; master's degree in education, Harvard University; doctorate in education, Harvard University.

RESEARCH: Hetland is co-writing *Studio Thinking in the Elementary School,* expected in 2018; co-writing a chapter on a participatory evaluation of professional development for art educators; and working with Abt Associates to evaluate nine partnerships among community arts organizations, universities, and schools in Wisconsin and Alaska.

She is a co-author of *Studio Thinking 2: The Real Benefits of Visual Arts Education* (2007, 2013). She was principal investigator on a research and professional development project in Alameda County, Calif., funded by successive U.S. Department of Education grants (2003-10). With Ellen Winner, she conducted a series of 10 meta-analytic reviews of the effects of arts learning on academic outcomes (1997-2000). She was co-principal investigator on *Qualities of Quality: Understanding Excellence in Arts Education* (2005-08). She co-directed a National Science Foundation quasi-experimental study of potential transfer from visual arts learning to geometric spatial reasoning (2008-13). She co-led the Studio Thinking Network, a monthly online conversation among U.S. and international educators.

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Source: State Education Agency Directors of Arts Education (SEADAE), 2014. www.nationalartsstandards.org/

years, they'll become more skilled at envisioning, for example. Rather, the point is to suggest *language* that educators, researchers, and policymakers can use to talk about the aims of arts education.

The response has been overwhelmingly positive. Since we published our book in 2007, around 15,000 copies have been sold; numerous schools and districts have used the goals as a framework for their arts programs; researchers use them in studies; the National Assembly of State Arts Agencies formed a study group based on the book; the National Coalition for Core Arts Standards used the book as reference . . . So it seems to be serving the purpose we intended, giving people a way to talk about what they want art education to accomplish without having to resort to fuzzy language about "art for art's sake" or bogus claims about effects that the arts might have on math or reading or some other domain.

Habits of mind

KAPPAN: But can't students learn to observe, reflect, and develop other habits of mind just as easily in science or English or history? And if they can learn these things in other subject areas, then why do they need the arts?

HETLAND: These habits of mind have parallels in other subject areas, but they're not the same. For example, there's a kind of envisioning that goes on in history, where students are taught to imagine life in another time and place without resorting to presentism (the inclination to project their current values and beliefs onto people in the past). But the arts require other kinds of envisioning, having to do with the steps involved in making an artwork, the ways we choose colors and sounds and movements, the ways we think about how people are likely to respond, and so on.

In addition to identifying eight studio habits of mind, we also identified four core structures that art teachers tend to use in the classroom: demonstration-lectures, making (students-at-work), critiquing, and, exhibitions of work. Now, these are basically the same strategies I used when I taught 7th-grade social studies, and I would love to see them adopted by teachers in other subject areas. But at the same time, it seems to me that there's something distinct about the kinds of things we make in the arts; how we critique an artwork is different from how we critique a history paper; how we exhibit our work differs from how we might present a

science project; the kinds of judgments we make are different from how we might judge a mathematical theorem. So yes, every subject area can be said to require similar habits of mind, but every subject area is distinct as well.

Actually, where I thought we would get resistance was from the specific arts communities. I expected that the dance teachers, the musicians, the actors, and the visual artists would each want to come up with their own language, getting at the ways in which they're distinct from each other. But in fact, each group has picked up on our habits of mind, saying that the framework is good enough, with minor adjustments (like "listen and observe" for music instead of just "observe"), for them to describe what they do.

KAPPAN: If the arts teach distinct habits of mind, then why is there so much interest in blending the arts with other subject areas? What do you make of the arts integration movement that has emerged as a leading strategy for K-12 arts educators?

HETLAND: Arts integration can mean at least three different things, and I'll have to give a different response for each. One is to use the arts as a vehicle to teach other academic content. For example, a science teacher might teach kids a dance to help them learn physics. And that can be totally appropriate and useful. But it's important for school leaders to acknowledge that this is science instruction, not arts instruction, and they shouldn't pretend that it's a good substitute for arts classes. The second kind of integration is to combine the teaching of two subjects in a way that allows students to learn both. For example, a history teacher and a visual arts teacher might collaborate on a unit about the war in Vietnam (as my colleague Shirley Veenema and a history teacher did recently), each of them providing instruction that meets their subject-area standards while also creating interesting links and points of comparison. And the third kind of integration is for a school to take on a big, multifaceted topic — climate change, for example — that can't really be understood by relying on one or two fields alone. To grasp something like climate change, you need to touch on earth science, economics, international relations, history, and so on. Whichever domains you draw from, the arts should be included, since they have a lot to contribute.

KAPPAN: Are you particularly optimistic about any current trends in arts education, or any states or districts that are making progress?

HETLAND: There's great work going on to promote arts education in cities like Chicago, Dallas, and New Orleans (and the Obama administration's Turnaround Arts initiative deserves some of the credit for this) and on a larger scale in states like Washington, Colorado, and New York. But I'm most excited by what I see in California, especially in Alameda County (which includes Oakland, Hayward, and Fremont) and Los Angeles.

I've been consulting with Alameda for years so I know that work really well. I don't think there was any secret to how they got started. Mostly it was serendipity: There was a go-getter in charge of the local arts leadership alliance, she saw potential to use my work and other frameworks from Project Zero, and together we got a grant from the U.S. Department of Education. A lot of school districts have poured money and effort into the arts, but Alameda is unique in that it created a whole structure based on research that holds things together, including strong arts instruction in the schools, ways for local artists to get involved, programs for the community, professional development for teachers, and more. Right now, it's

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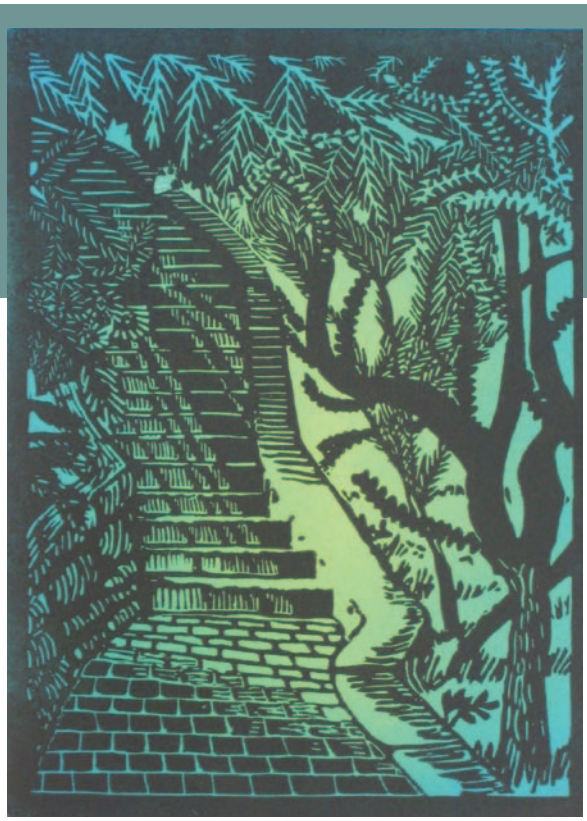

Artwork by Helen Forman, Freeman High School, Rockford, Wash., and a member of the National Art Honor Society, which is sponsored by the National Art Education Association. Used with permission.

the best example I know of a system that's scaling things up in a rigorous and coherent way.

Studio thinking

KAPPAN: Tell us a bit about your current research — what are you working on now?

HETLAND: We're co-writing a book now that offers practical suggestions for teaching studio thinking in the elementary grades. To inform the book, we've been interviewing and collecting materials from a lot of teachers and administrators, and they've been telling us that when they teach the studio habits, they see their students becoming much stronger at thinking meta-cognitively, even at early ages. It's intriguing and worth a closer look.

But let me back up here for a second: In our earlier work on studio habits of mind, we raised more questions than we answered. I wouldn't want anybody to get the impression that we found solid evidence about the benefits of taking art classes in school. Our work was an initial step. We made a good start in creating a grounded theory of teaching and learning in the visual arts, and people working in other arts forms adopted it. But now we need more research to see whether students are actually learning the habits of mind that we identified, what sorts of instruction they need to do that, how much instruction (or how high a "dose") it takes before students learn these things, and so on. So I don't want to overpromise about the research we're doing.

That said, some of the research that I've been involved in recently has taken a new look at whether certain skills transfer from the arts to other domains. For example, we were curious to see if providing high school students with serious visual arts instruction would have a positive effect on their geometric reasoning. So we designed a study that included groups of students who were studying visual arts, theater, and (for a control group) the sport of squash. We found that the visual arts students did perform better in geometry, but it wasn't clear *why* they did better. For example, we created a rigorous test of the capacity to envision while producing artworks to see if that skill might be the mechanism that led to better performance in geometry. But it turned out that while art students improved more in geometry than did the theater students and squash players, the art students didn't improve on the test of envisioning! In short, the study was inconclusive. Learning how to envision things in art could be helping them learn geometry but maybe not. Doing research on transfer is difficult.

KAPPAN: Is it frustrating to come up with inconclusive findings, or is that just the nature of the research?

HETLAND: For me, one of the takeaways is that while this kind of research is interesting and worthwhile, nobody should expect it to result in the kinds of strong conclusions that will lead directly to new policies and practices, certainly not any time soon. It seems to me that there are more effective ways to advocate for arts education than to rely on the glacially slow emergence of new research in this area.

I'm reminded of a story — though I don't know if it's true — about the violinist Isaac Stern: He's said to have scheduled an hour-long violin lesson with a group of district administrators who were cutting back on funding for arts instruction in their school systems. Rather than arguing with them about research findings and spending priorities, he spent most of the time having them learn to play. Nearly all of the administrators went home and reinstated their arts funding. Now *that* is effective advocacy. We support arts because we've experienced their power. So let's give more arts lessons to administrators and policymakers! K