EDUCATION WEEK

COMMENTARY

The Arts Have Much More to Teach Us

Two arts education luminaries reflect on their work and what's ahead

By Howard Gardner & Ellen Winner

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Fifty years ago, a small group of scholars joined together to launch Project Zero at the Harvard Graduate School of Education. The philosopher Nelson Goodman christened the interdisciplinary team "Project Zero" to convey that while there was plenty of useful lore in education in the arts, there was little systematic knowledge. Through much of the 20th century, it's fair to say that artistry had not been taken seriously in American social science.

Project Zero has drawn on several disciplines—pre-eminently developmental psychology and cognitive psychology—to elucidate the range of skills and understandings that were appreciated by artists and arts lovers but not by the broader public, including most educators.

During our long involvement with the project (Howard Gardner was a founding member of project; Ellen Winner joined the research staff in 1973), we came to realize that while building a base of knowledge about artistry was vital, it was also important to separate knowledge supported by research from claims that, however appealing, were not supported by the facts. One such claim is that arts education boosts children's academic performance. Numerous correlational studies report that students who study the arts do better in school than those who do not study the arts. But correlational studies are subject to selection effects (already academically strong students choosing to study the arts, for instance) and cannot tell us about causality. For that, we must turn to studies with an experimental design.

In the late 1990s, Lois Hetland and Winner took a close look at the experimental studies from 1950 to 1999—all those that were both published or unpublished and appeared in English—that tested the claim that studying the arts leads to higher academic achievement. Dubbing this undertaking the REAP project (for Reviewing Education and the Arts), the researchers examined studies looking at reading and math achievement in children before and after getting high vs. low exposure to the arts in their schools.

When these studies were combined statistically into a meta-analysis, it turned out that the students in the high-exposuregroups gained no more than those in the low-exposure groups. That result should not surprise us. After all, the ways of thinking learned in the arts are really very different from the skills assessed by verbal and math multiple-choice tests or by grades in traditional academic subjects.

Most studies examining that kind of transfer from the arts fail to do something very important: They forget to analyze what is being taught in the arts classes. Any plausible theory of transfer needs to be based on an understanding of the kinds of thinking skills being taught in the "parent" domain. Only then does it make sense to ask whether one or more of those skills might transfer to learning in another domain of cognition outside the arts.

—Raul Arias

To that end, REAP project researchers undertook a qualitative, ethnographic study of "serious" visual-arts classrooms. They observed high-quality visual-arts classes at the secondary school level and analyzed the kinds of habits of mind being taught. The researchers found that at the same time students were learning the craft of painting, sculpture, drawing, and more, four potentially generalizable habits of mind were also being taught: learning to envision, express, observe, and reflect. They also documented two important working styles being taught: learning to stretch and explore and to engage and persist.

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All these habits of the mind and working styles are certainly potentially generalizable to other domains, but that possibility still needs to be demonstrated experimentally. The habits-of-mind framework that grew out of this research—and was published in *Studio Thinking: The Real Benefits of Visual Arts Education* (Teacher's College Press, 2007)—is now being used by visual-arts teachers from many countries and at all K-12 levels.

The researchers' goal was to shift the conversation away from test scores as arts education's justification to broad habits of mind. And teachers have frequently reported that this framework proves to be a powerful advocacy tool. Now, researchers are adopting this method to uncover habits of mind taught in music classes and in theater.

Some of the habits of mind are taught across artistic media. For example, instruction in each art form helps students to develop aspects of craft, to imagine or envision various solutions to a puzzle, and to engage in critiques of specific works.

However, there are likely to be "habits of mind" that are specific to certain art forms. Learning how to participate in an ensemble is crucial in a performing art; paying scrupulous attention to the conductor is important in classical music; suppressing one's own personality and adopting a different persona is essential in the dramatic arts.

As the Roman adage has it, "ars longa, vita brevis"—it will take many lifetimes to elucidate the nature of artistic knowledge and thinking; to determine how best to nurture arts teachers as well as general teachers; and then to introduce young (and perhaps older) people to the arts—whether they are to become professional artists, amateur artists, or simply

In this package, *Education Week* has convened a range of researchers, professors, and practitioners to argue their case for arts education's path forward. Despite their many contrasting opinions, these experts all agree on one thing: Arts instruction is key to American schooling and is worth supporting, researching, and protecting.

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MORE OPINION

those who enjoy dabbling in the arts as audience members. The effort is worthwhile. Indeed, civilizations in the past are judged as much—if not more—for their artistry than for their other achievements.

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