

THE ARTS AND EDUCATION: NEW OPPORTUNITIES FOR RESEARCH

Arts
Education
Partnership
2004



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FOREWORD

Our explicit goal for this report is to spark new conversations about research on arts and education. We also hope that the report will allow researchers from a wide range of disciplines to see opportunities for joining colleagues from arts and education in studying the complex learning and expressive processes of the arts; their implications for the intellectual, personal, and social development of children and youth; and their potential role in our collective pursuit of educational and social goals. These opportunities arise out of extensive work recently conducted in the field of arts and education research.

In 1995, the U. S. Department of Education (USDE) and the National Endowment for the Arts (NEA) co-founded the Arts Education Partnership (AEP) to examine the role of the arts in public education and in the learning and development of young people. A first charge from the two agencies was to propose an agenda for research related to these goals. AEP responded by publishing *Priorities for Arts Education Research* in 1997, the product of a year of deliberations by a task force of arts and education researchers and practitioners, drawing on and extending earlier agendas and data collection activities of the two federal agencies. *Priorities* urged research on the effects of the arts on children and young people and on the teaching and learning conditions that would yield positive effects. It also urged regular research that would reveal and analyze trends in the status and condition of arts education in the 15,000 school districts and 91,000 public schools in the United States.

The federal agencies and private funders responded to the recommendations in *Priorities*. The GE Foundation (then the GE Fund) and the John D. and Catherine T. MacArthur Foundation, which had commissioned a number of studies of arts learning and its effects, supported AEP and the President's Committee on the Arts and the Humanities in publishing seven of the studies in 2001 as *Champions of Change: The Impact of the Arts on Learning*. The USDE and the NEA cooperated in funding a National Center for Education Statistics survey of the status and condition of the arts in schools, released in 2002 as *Arts Education in Public Elementary and Secondary Schools*. They also joined to provide funding for AEP to commission a team of scholars to review existing research in arts education, and to produce a compendium summarizing and commenting on the strongest studies of the academic and social outcomes of arts learning. AEP published the compendium in 2002 as *Critical Links: Learning in the Arts and Student Academic and Social Development*.

Critical Links indicated that important cognitive and social processes and capacities are developed in arts learning experiences. It recommended that future studies pursue these indications more fully and intensively to increase knowledge about the specific characteristics and outcomes of learning in individual or multiple art forms. *Critical Links* also invited research on the interrelationships of the capacities engaged in arts learning and the capacities engaged in other intellectual, personal, and social pursuits.

Critical Links has attracted significant attention among arts and education researchers, practitioners, policymakers, and funders. AEP was deeply gratified that the American Educational Research Association commented favorably on the compendium, calling it a “benchmark” for arts education research, and offered to chair a task force to propose a new agenda for research on the arts building on the recommendations in *Critical Links*.

In the fall of 2002, a task force was convened comprising scholars in education and the arts: John D. Bransford, University of Washington; James S. Catterall, University of California at Los Angeles; Richard J. Deasy, Arts Education Partnership; Paul D. Goren, Spencer Foundation; Ann E. Harman, Harman & Associates, LLC; Doug Herbert, National Endowment for the Arts; and Steve Seidel, Harvard Project Zero. AERA Executive Director Felice J. Levine and Senior Advisor Gerald E. Sroufe, assisted by Project Director Lauren Stevenson (AEP) and Research Assistant Andrew Nelson (AEP), guided the task force’s deliberations over a fifteen-month period. This report is the fruit of that work.

These deliberations also benefited from the thoughtful input of authors of essays in *Critical Links*: Terry L. Baker, Education Development Center, Inc.; Karen Bradley, University of Maryland, College Park; Robert Horowitz, Columbia University; and Larry Scripp, New England Conservatory. A group of researchers from a variety of academic disciplines provided response to drafts throughout the development of the agenda: Helen V. Bateman, University of the South; Linda Nathan, Boston Arts Academy; Gil G. Noam, Harvard Graduate School of Education; George W. Noblit, University of North Carolina at Chapel Hill; Miriam Raider-Roth, University at Albany, SUNY; Reed Stevens, University of Washington; Deborah Stipek, Stanford University; and Shari Tishman, Harvard Project Zero. We are grateful for their extensive and generous participation. We would also like to thank Kathleen Cushman for her assistance in editing the final text of this report.

—Richard J. Deasy
Arts Education Partnership

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INTRODUCTION

The research agenda for arts education presented in this report is a challenge to researchers, foundation directors, and policymakers. It challenges us to go beyond traditional educational research approaches applied to the arts to methods requiring a more complex understanding of learners and their environments, more robust research designs, and new disciplinary and multidisciplinary perspectives. The challenge before the task force in producing the report has been to demonstrate our central belief that new research approaches will advance our understanding of the relationships between the arts and education, and even the basic learning processes themselves.

The intellectual stimulus for this report was the publication of *Critical Links: Learning in the Arts and Student Academic and Social Development* (2002), conducted under the leadership of the Arts Education Partnership. As a compendium of the best arts education research examining student intellectual and social development in the arts, *Critical Links* demonstrates not only the strength of the field but also the need and potential for future study. Its essays point to limitations of traditional research approaches and, indirectly, to limitations in the arts research infrastructure. Most important, an essay by James Catterall calls attention to the discrepancy between new understandings of cognitive processes and traditional research in arts and education. Our report provides a research agenda that begins with contemporary understandings of cognitive and personal development and offers an approach that we believe can move arts education research into the mainstream of social science research.

The research agenda represented in the report is illustrative rather than imperative. The reader will find no statements or recommendations typical of reports of blue-ribbon panels (e.g., “Increase investment in research in immunology”), but will find instead justifications for additional arts education research on specific topics, commentaries about the status of existing research on those topics, and research-based suggestions for new studies. Topics recommended for additional study are organized according to four well-established areas of concern for educational research: (1) cognition and expression; (2) personal and social development; (3) community, democracy, and civil society; and (4) teaching and learning environments. The fifth and final set of agenda topics relates to data collection and analysis of the status and condition of arts education.

The procedures for developing the research agenda within these areas were collaborative and inclusive. The task force began by identifying major research challenges and oppor-

tunities, listing specific topics, and—most important—identifying and engaging experts to fill in gaps and to critique the work as it developed. The process of deciding on agenda items was iterative, beginning with a large list and refining it through a series of passes. Once we had a feasible list, we assigned “champions” to make the case for each potential topic, with some champions coming from outside the panel. The next stage involved collective critiques of the statements and extensive rewriting of each. The final step engaged knowledgeable outside readers not associated with the project to offer commentaries on the draft.

As the task force worked through the complexities of the issues we chose to address, we experienced the heightened sense of apprehension that often accompanies a dawning appreciation of the magnitude of one’s presumptions. We know that others must be drawn into our discussions to augment the breadth of understanding provided in this report. We are certain—even hopeful—that they will critique, elaborate, and extend our work. But we are comfortable that the report provides a window onto a fresh landscape of arts education research and that it will serve as a provocation for new conversations about research in arts and education.

The agenda laid out in this report is addressed to scholars in arts and education, and to researchers in other fields who are interested in the learning and development of children and youth, in the functioning of schools, and in learning in other environments. In recent arts education research referenced throughout this report, we have found indications of multiple roles and effects of the arts in these areas of interest as well as suggestions for future lines of inquiry. Those lines of inquiry align with the interests and concerns of researchers working in the cognitive and learning sciences, in neuroscience, in child and youth development, in sociology, anthropology, economics, and other fields. Engaging the theories, perspectives, and methods of these fields in tandem with those of arts and education will create valuable new understandings of the human activities engaged and embodied in the arts, and will offer insights and guidance on their relationships to the goals of public education.

With this agenda, we also hope to engage education policymakers in a fresh conversation about the contribution of arts education, in order to provide a more robust set of school reform strategies for achieving the nation’s educational goals. School reform initiatives grounded in a full range of teaching, learning, and assessments are much more likely to be successful than those based on narrow conceptions of the learning process. If researchers across the disciplines take up the challenges of this agenda, arts and education research could provide additional and even more compelling foundations for education reform.

—Gerald E. Sroufe
American Educational Research Association

COGNITION AND EXPRESSION

Essays and study summaries in the research compendium, *Critical Links: Learning in the Arts and Student Academic and Social Development*, directed our attention to the opportunities and potential rewards of further studies of the cognitive processes and expressive abilities developed in arts learning experiences. Authors in *Critical Links* discuss a variety of important cognitive capacities and achievement motivations engaged in the arts. They propose future studies, among others, of the specific cognitive characteristics and effects of each of the art forms, their relationships to other domains of learning, and their roles in the intellectual development of children and adolescents. The task force considered these proposals in our discussions and sought to frame opportunities for research that would engage the interests and methods not only of those currently involved in studying the arts but also of those concerned more generally with learning, cognition, and neural processes. We believe that the engaging and complex processes of art making, performing, and responding could prompt valuable and rewarding study and dialogue among scholars and researchers from multiple disciplines.

THE ARTS AND COGNITIVE DEVELOPMENT

The arts have long been identified as highly demanding cognitive activities (Eisner, 2002; Perkins, 1994). Recognizing this, recent research in arts education explores the cognitive development of students engaged in arts learning, and attempts to unpack the cognitive processes employed and developed in creating, performing, and responding to works of art. Research summarized in *Critical Links*, for example, identifies a range of cognitive capacities engaged in and nurtured by learning in the arts, including focused perception, elaboration, problem solving, and elements of creative thinking including fluency, originality, and abstractness of thought (Deasy, 2002). Research might continue to examine both how students develop these skills and their inclinations and dispositions to use them, as they grapple with ideas, materials, and meanings in the arts (Fiske, 2000).

Further research is also needed to explore how cognitive capacities develop in the context of different arts learning experiences. Each of the artistic disciplines makes some similar and some unique demands. This area of research might examine both similarities and differences in cognitive demands and development across artistic disciplines. How are judgment, reasoning, interpretation, discernment, and reflection—capacities demanded broadly across arts disciplines—developed and deployed? How are ideas represented in music, as distinct from visual arts or dance? What are the interpretive demands of theater and how do those align with the interpretation of sculpture or poetry? Finding alignment among the ways in which the study of different artistic forms demands and nurtures complex thinking has significance for the development of comprehensive arts programs and for our understanding of the nature of thought in arts learning.

Research in arts learning must take into account not just the specific art form being learned, but the nuances of the particular art experience with which the learner is engaged (e.g., choral vis-à-vis instrumental music; classical vis-à-vis modern dance; or solo vis-à-vis ensemble learning and expression) and the pedagogical approaches and classroom contexts (discrete arts classes vis-à-vis integrated arts instruction; composition or improvisation vis-à-vis skill-based instruction) (Horowitz and Webb-Dempsey, 2002). Research might also ask: What are the differing effects of an arts experience for the audience and the artist? Do the differing venues and procedures of practice and performance engage and promote varying modes of learning and expression, and do they affect the development of adaptive expertise?

Future research on the arts would benefit from the involvement of scholars who bring a range of tools and perspectives to the study of cognitive processes. Close observation and documentation of learning and teaching, structured examination of artwork both produced and viewed by students, and analysis of students' self-assessments and reflections are among the methods that show promise for yielding insight into these intellectual dimensions of arts learning.

Also important are the effects of artistic activities on the development of students' identities as creators and contributors to society. With artistic productions, even young students can draw upon a source of knowledge typically richer and more personally meaningful than the knowledge required. This means that arts activities can allow even young students to create "authentic products" valued as contributions to society rather than simply as completed assignments in schools.

THE INTERACTION OF COGNITIVE AND AFFECTIVE PROCESSES IN THE ARTS

Researchers have established that there are both cognitive and affective dimensions to work in the arts, but their interactions are still not deeply understood. Ideas persist about the dichotomous nature of cognition and emotion. To many, they preclude each other. Others find them inextricably linked. Exploring ways in which these processes interact is an important opportunity for researchers. Research could focus on their interactions in individual artistic disciplines and in different aspects of artistic activity, including composition, improvisation, interpretation, and performance. Because arts experiences are part of many school learning environments—as discrete arts classes or integrated with the teaching of other academic subjects—researchers may also study cognitive and affective engagement and development in these varying contexts, considering whether or in what ways they relate to student engagement, and learning more broadly.

Study of the relationship of cognitive and affective processes in the arts will likely include methods from the fields of ethnography, anthropology, and psychology—including neuroscience. These investigations will require close observation of students at work in authentic settings, interviews with students and teachers, and analysis of student work and reflections. Researchers might focus on at least four distinct, but interrelated, aspects of the arts learning experience:

- The emotional content of the art being made or studied and how students' affective responses inform and are formed by their cognitive engagement with those works.
- The emotional dimensions of the social setting in arts learning environments and how these inform and are formed by the cognitive demands of the work.
- The impact on student engagement in learning, if cognitive and affective development are activated simultaneously in an arts learning experience.
- The impact on learning of the motivation involved when creating artistic products to be shown to real audiences outside of class (Cognition and Technology Group at Vanderbilt, 1997).

Damasio's work on the influence of emotion on logical reasoning (1994; 1999), along with work in neuroscience on the ways in which learning alters the physical structure of the brain, may suggest ways in which the techniques of neuroscience could, in coming years, focus on the arts as an especially powerful setting for examining the ways in which the various regions of the brain influence each other.

Findings from this line of inquiry should inform teaching and learning in all disciplines, and support educators seeking to understand the role of emotion in learning.

LEARNING AND ARTISTIC EXPRESSION

The role of language in acquiring and expressing knowledge of self and the world is well established, as is the understanding that its oral and written forms are not only expressions of learning but themselves acts of thinking and reflecting. Increasing competence in the forms of expression deepens and disciplines thought and understanding. Composing imaginative works in language also engages and embodies rich emotional content, intensifying and stimulating the learning experience for writer and reader.

Theoreticians (Eisner, 2002; Greene, 2001) and artists have long argued that the arts serve similar purposes, a case readily made for the literary and dramatic arts. Visual, musical, and dance forms are also clearly intended by the artists to shape and convey intellectual and emotional content and to evoke intellectual and emotional response. The process of producing a work of art engages the artist in an iterative exploration of ideas and emotions as the work proceeds. The process also engages the artist in drawing on, expanding, and deepening knowledge related to and embodied in the form (for example, human anatomy, motivations, and behavior; history; and the structures of the natural world). Intensive study and response to artwork can elicit similar processes in the respondent; therefore the arts present a learning experience for both artist and audience.

Advances in the theories and methods of the cognitive sciences and neurosciences make possible new explo-

rations of these claims for the arts and their import for human education and development. Each of the art forms engages in its own way specific physical, cognitive, and affective processes—modes of thought in action. Exploring the specific expressive activities of drawing, sculpting, composing, dramatizing, choreographing, or writing poetry might add to the understanding of the cognitive processes engaged in learning and could yield insights important to the quest for effective educational practices. Opportunities to experience the iterative processes of “art making” (continually refining ideas based on formative assessment by oneself and others) may be especially valuable for enhancing students’ abilities to learn throughout life.

A more general question goes beyond the relationships of artists and their creations and the responses of audiences to them. This is the question of what role the representations engaged by art forms may play in the stimulation, cultivation, and production of new conceptions and deeper understanding in other domains. Visualization and drawing, for instance, are at play in scientific thought, as Da Vinci, Einstein, and Crick and Watson testify. Scholars such as Tufte (1983, 1998) show how artistically informed presentations of data can enhance understanding. How might human thought and development also be advanced by intentional deployment of the processes central to music, dance, and theater? And how would more consistent and intentional engagement with any of the artistic forms and processes affect learners?

THE ARTS AND THE TRANSFER OF LEARNING

Many recent studies examining student cognitive and social development in the arts, including those in the compendium *Critical Links*, have looked at issues of what cognitive scientists refer to as “transfer”—that is, whether learning in one context has a relationship to learning in other contexts. As identified in *Critical Links*, an important task for future research on arts and education will be to attend to complex contemporary theories of learning and transfer (Catterall, 2002).

Research on the arts and learning might, for example, follow the cues of Bransford and Schwartz (1999), who present a definition of transfer that contrasts sharply with prevailing conceptions, including those seen in *Critical Links* (Catterall, 2002). These scholars argue that traditional studies of transfer are narrow in their search for direct and immediate applications of learning. (That is, typical approaches to transfer are based on “direct application” theories that use tests of “sequestered problem solving” where no new learning resources are made available to the learner). A contrasting approach assesses the degree to which a learning experience might prepare students for future learning. This requires new kinds of assessments that provide resources for new learning rather than testing transfer in a sequestered problem-solving mode.

Bransford and Schwartz (1999; see also Schwartz, Bransford, and Sears, in press) show that new approaches to conceptualizing and measuring transfer make visible the benefits of a variety of learning experiences whose value remains invisible when researchers use only traditional measures of transfer. For example, hands-on opportunities to manipulate data from a set of memory experiments are much less valuable for learning about memory theories than simply hearing a lecture about these theories. However, if these same hands-on opportunities are accompanied by the lecture, students learn more from the lecture than if they had read a summary of it before hearing it. The hands-on exploratory activities better prepare students for future learning (in

this case from the lecture), because the students now have a much more nuanced basis of experience from which to begin.

Future research might thus ask how engagement with the arts affects students’ thinking skills, dispositions, and inclinations to work with complex ideas in ways that prepare them for future opportunities to learn new information, invent, collaborate, and otherwise engage in productive activities. Particular attention might be paid to students’ preparation for learning not only within school contexts but in work contexts as well. Many of the skills and habits developed in the arts (Deasy, 2002) are similar to those that have been identified by employers as highly desirable (SCANS, 1992).

In addition to focusing on “preparation of future learning” measures of transfer, it is important to focus on the specific kinds of arts experiences made available to students. As suggested in *Critical Links*, studies aimed at developing a more thorough understanding of the transfer of learning in the arts will benefit from increased specificity in defining and measuring the arts learning variable (Catterall, 2002). Current studies of the roles of the arts in cognitive and social development do not unpack the learning processes in the arts that could account for transfer either in fine detail or within comprehensive cognitive models. Many employ simple treatment-control designs, looking for a particular development among students who have had an arts learning experience versus those who have not (for example, one group dramatizes stories, a comparison group reads and discusses stories; one group takes keyboarding lessons, another does not). A widespread limitation of such designs is that they pay little or no attention to specific qualities of arts learning or any scaling of the extent of learning in the arts. Thus such studies typically do not contribute to an understanding of how variations in learning in the arts relate to variations in outcomes under investigation.

THE ARTS, LITERACY, AND LANGUAGE

Two interrelated perspectives are brought to bear in discussions of the arts and literacy. One holds that “literacy” describes the processes used to acquire and express meaning in symbolic form, and so is appropriately applied to visual and performing art forms (Boyer, 1995; Eisner, 2002). In this sense, the generic term “language” describes modes of communicating. We embrace this view in our discussions of cognition and expression elsewhere in this document. A second perspective holds that mastering the visual and performing arts can advance students’ uses of oral and written verbal forms (Deasy, 2002). Studies and commentaries in *Critical Links* demonstrate that solid work is accumulating to support this perspective: that the arts and oral and written language share interrelated physical and symbolic processes.

Nearly half of the studies reported in *Critical Links* explore the relationships between the arts and literacy and language development. While these relationships are found across all of the visual and performing art forms, research is currently most robust on the relationships between literacy and language development and learning in music and in drama.

Music features a symbol system that shares fundamental characteristics with language, for instance, decoding and encoding procedures and syntactic and expressive structures (Scripp, 2002). Hetland (2000) and Rauscher et al. (1997, 2000) firmly establish the relationship of music and spatial-temporal reasoning, a capacity employed in both language and mathematics, as

pointed out by Scripp (2002) and Catterall (2002). Scripp also discusses the complex marriage of sound and text in both music and language.

In an essay summarizing the body of drama studies in *Critical Links*, Catterall finds that dramatic enactments, particularly by young children, enhance their abilities to comprehend texts, identify characters, and understand character motivations (Catterall, 2002b). Studies also indicate that dramatic activities improve writing proficiency. The majority of the studies discussed by Catterall focus on young children. He suggests continued exploration of their findings and implications for early literacy development, and urges attention to the “obvious void” of studies involving older students.

Dance and visual arts studies are underrepresented in *Critical Links*. Clearly, dance employs its own symbolic system embracing both choreographic notation and a language of movement and gesture. The visual arts, which rival music in their prominence in our schools, offer opportunities to explore imagery and visualization as modes of thought and expression. Research could explore relationships among these modes and the oral and written forms of language.

Critical Links also presents indications that the arts, as intense forms of self- and group expression and realization, engage and motivate students to learn and to master the forms of oral and written communication. This suggests another line of inquiry that could relate the arts to literacy and language development.

THE ARTS AND YOUNG CHILDREN

The importance of arts experiences in the development of young children is virtually uncontested, because it is a universally shared experience. As was shown in *Young Children in the Arts: Making Creative Connections* (Goldhawk et al., 1998), play is the work of young children, and the arts are a natural vehicle for young children's play.

While the place of the arts in the development of young children requires no justification, it does merit deeper understanding. Many have asserted a constructive relationship between arts experiences and benefits such as increased motivation, skill in symbol manipulation, and even enhanced skill in building social relationships among young children (Deasy, 2002). How might one go about providing deeper understanding of the role of the arts in providing platform skills for later achievement?

The concluding section of *How People Learn: Brain, Mind, Experience, and School* (Bransford et al., 1999) suggests that the development of initial learning competencies provides the foundation for transfer to new learning opportunities. Bransford and colleagues assembled by the National Academy of Sciences, argue that young children actively seek to make sense of their world and develop knowledge of their own learning capacities (i.e., metacognition) very early. However, they argue that these natural capacities for learning depend on catalysts and mediation. Arts education was not the focus of this analysis, and additional research within this specific conceptual framework of the developing child will be most productive.

Within this general framework of potential research, two areas seem especially ripe with potential for exploring the relationship between the arts and development: self-regulation and expressive skills. Self-regulation of behavior generally refers to controlled, cognitive monitoring of the actions and steps required to obtain a goal, or to bring about a desired response from the environment. According to an ERIC/ EECE report (Blair, 2003), "preschool activities that exercise impulse control, sustained attention, and working memory are likely to promote the development of cognitive skills important for knowledge acquisition in the early elementary grades." Expression, the ability to communicate meaning and feelings, while clearly related to self-regulation and cognitive development, appears to be a necessary task of child development that is too often overlooked and is especially appropriate for research in arts education.

An interesting side note to this research topic is that some researchers (e.g., Schwartz, Bransford, and Sears, in press) argue that effective learning at all ages requires a balance between, on the one hand, well-learned routines that provide efficiency and, on the other hand, opportunities for innovation that involve play and social interaction, which often allows new insights to emerge. The research discussed in this section may therefore have implications beyond the development of young children per se.



SOCIAL AND PERSONAL DEVELOPMENT

We share the concerns of those investigating the processes and conditions that promote healthy and successful growth and development of children and youth. *Critical Links* prompted us to take a look at how arts learning and involvement, in a variety of in-school and out-of-school contexts, might contribute to these developments. The studies it reports indicate that the arts, as individual and collective forms of expression, engender both self- and group identity, and that coping with and succeeding at the inherent challenges and frustrations of art-making demands persistence and supports resilience. Ensemble art forms require a balance of individual expression within a social context that appears to foster a variety of personal and social skills, including cooperative learning, empathy, and tolerance. We believe that exploring these aspects of the arts learning experience may help to address issues of concern to policymakers, practitioners, and researchers in education, sociology, and child and youth development.

ARTS LEARNING AND SELF-IDENTITY

Arts learning experiences provide young people with opportunities to be producers as well as educated consumers of art and culture. These experiences have the potential to help students develop a positive sense of identity in two ways: one, students envision a positive future for themselves, and two, they develop an identity for themselves as individuals who can contribute to the social and cultural life of their communities. Given the critical nature of identity formation and personality development that occurs in adolescence, it is especially important to understand these processes as they take place in middle school and high school arts settings.

Even in early arts experiences in school, such as participation in concerts, plays, and art exhibitions, students find ways to entertain, educate, and inspire peers and adults. These experiences provide students with a sense of their competence and their ability to make things that are valued in their communities (Heath et al., 1998); they may also contribute to a young person's sense of belonging, an important component of identity development (Noam, 1999). Arts-related internships and community-based arts learning provide opportunities for older students to learn about and experiment with work in the arts. These opportunities also allow them to meet and work with adults who have chosen to become artists or to make the arts a significant part of their lives. All of these experiences provide students with images of a variety of alternative roles to take in their own futures.

In adolescence in particular, development of self-identity may be strongly affected by young people's ability to practice and refine their newly developing cognitive capacities for processing and analyzing information (Eccles & Gootman, 2002). Existing research in arts education suggests that arts learning experiences provide opportunities for youth to practice and further develop these types of cognitive skills (abstract thinking, critical thinking, reflection) and that learning in the arts often both demands, and provides vehicles for, alternative ways of examining and communicating important ideas, information, feelings, and understandings (Deasy, 2002). The arts may thus provide important opportunities for adolescents to hone their skills for exploration and analysis and direct them inward, and to develop a positive self-identity and understanding of themselves in relation to the world around them. In addition, the arts often include a strong component of self-assessment, which may also support identity development.

Work in the youth development field, such as that of McLaughlin (2000) and Heath (1999), could be a starting point for further research in this area. Studying the impact of arts experiences on students' futures calls for longitudinal studies. In addition, attitudinal studies can reveal how students see their options in the near future and their possible roles as adults.

ARTS LEARNING, PERSISTENCE, AND RESILIENCE

Arts learning experiences, especially in the ensemble arts, provide a rich environment for personal and social development. Research on these settings suggests that these experiences challenge students to work collaboratively, build a sense of responsibility to the group and the project, and to persist despite anxieties and fears (Fiske, 2000). The development of this capacity to persist in the face of internal and external challenges is crucial to one's health and functioning as a young person (Dweck, 1989).

Youth growing up in conditions of comparative economic disadvantage often experience a large number of risk factors that present challenges in pursuing basic life goals—success in school, securing employment with possibilities for advancement, and building and supporting families, for example. Research suggests however that protective factors that help young people to mediate risk are more predictive of positive outcomes than risk factors are of adverse outcomes (Benard, 2004). All children have natural capacities for overcoming life challenges, and opportunities to engage and strengthen these capacities are important for healthy development (Benard, 2004; Noam, 1999). Researchers might pursue indications in *Critical Links* that arts learning experiences provide such opportunities for children and youth (Deasy, 2002). Arts learning for example, supports the development of empathy, self-efficacy, creativity, critical thinking, and problem solving (Catterall, 2002)—abilities identified as evidence of resilience (Benard, 2004). The findings of research exploring these outcomes of arts learning experiences would be important for all students and not just for students considered 'at-risk.'

While the term "resilience" has particular meaning in the context of traumatic experiences, it can also carry similar meaning in arts learning. Resilience has been described as the capacity to emerge from difficult experiences, not only surviving and recovering, but with the ability to make a positive contribution to one's community or social group (Noam, 1999). Recent work with adolescents in New York City has employed the arts as part of the strategy for building resilience in youth particularly traumatized by the tragedies of September 11, 2001. The multiple forms of expression provided by the arts created the possibility that these young people could share thoughts and feelings that might otherwise seem "unspeakable," relating both to the September 11 disaster and to more general feelings of fear, distrust, and rage. The arts helped to transform the process of dealing with the situation into an act of creation rather than one of passive endurance. Resilience, in this context, implies an ability to emerge from a traumatic experience with the interest and capacity to explore complex thoughts and feelings and to pursue, even insist on, a new kind of civic discourse among individuals and groups. Many instances of this type of work have been cited across the country and merit systematic investigation.

Research could deepen understanding of the role arts learning can play in helping young people in difficult situations not only to survive those experiences but to become active, progressive, and creative forces in their schools and communities. Research from youth development and social anthropology may provide clues to promising methods for these studies.

ARTS LEARNING AND SOCIAL SKILLS

Arts learning experiences engage a set of competencies that define and can influence a child's relationship with others, including peers, teachers, and family (Horowitz and Webb-Dempsey, 2002). Group processes are an obvious feature of the arts; they include, for instance, the give and take of ensembles during rehearsals; the active interchanges while planning a production; the interrelationships formally ordered by script, choreography, or musical composition; group reflection and peer critiquing as a mural takes shape; and a host of other complex and engaging interactions. When children work collaboratively in an arts learning experience, they may learn to respect differing viewpoints, take alternative perspectives, listen to others, compromise, and harness their collective skills in service of an overall artistic vision (Deasy, 2002). In the best circumstances, they learn the art of attentively listening to others' verbal and musical expression and viewing their non-verbal and visual expression. Wolf's study of young children creating an original opera (2000) summarizes this activity as "sustained collaborative action" to realize a narrative in music incorporating experiences from the children's daily lives. During this process, Wolf reports, children grow in the quality of their judgments about individual and group contributions to the work and in their ability to express the judgments to one another in honest and objective language.

The arts can strengthen relationships in schools, often involving multiple opportunities for collaboration among students, teachers, visiting artists, and parents, and provide an opportunity, in performances and art shows, for the entire school community to come together (Burton et al., 2001). Studies also show the role of the arts experience as a mediating environment enabling students who feel marginalized in other social settings to become more comfortable and active participants in group processes (Deasy, 2002). Research might explore the role of arts instruction, particularly drama (Catterall, 2002b), in helping children develop an understanding of or empathy for other people, historical figures, and different cultures.

Critical Links urges that further studies explore the specificity of the processes and effects of individual art forms, in this case the specific characteristics of the social interaction that each involves (Horowitz and Webb-Dempsey, 2002). Researchers might examine the relationships between an art form's processes and effects and student social attitudes and behaviors in other settings.



TEACHING AND LEARNING ENVIRONMENTS

The arts are present in schools in multiple ways, and they show up in the learning and developmental experiences of children and youth both in school and in other settings. *Critical Links*, as well as a number of recent large-scale arts education evaluation studies and the research of scholars we consulted in developing this report, prompted us to consider the effects of the arts on teachers and teaching, on the relationships of students and adults, and on school culture and climate. Investigating and invigorating these aspects of schooling has been a constant concern of education policy and research. We believe those efforts can be substantially advanced by research into the specific contributions of the arts. In our deliberations we also took note of new technologies that may reshape educational practices and present new modes of artistic activity. Careful study of these developments and their effects is an important area of inquiry. We believe, too, that advances in technology as well as other social changes will prompt researchers to examine how teaching and learning activities in schools should relate to learning and experiences outside of school. Partnerships between schools and community cultural organizations are one attempt to make those relationships effective, but a larger issue may be how to bridge the cultural life of the young person—saturated and shaped as it is by dance, drama, music, and visual forms—with the formal culture of the school and formal instruction in the arts.

PRACTICES AND ATTITUDES OF CLASSROOM TEACHERS

National data indicate that approximately half of American teachers leave the profession within the first five years of teaching (Ingersoll, 2001). The reasons no doubt vary, but such a large-scale exodus suggests not only the daunting demands and challenges of teaching but also that current supports and rewards are not sufficient to provide the skills and motivation to continue teaching. Policymakers and administrators are searching for support systems and incentives to attract and hold teachers in the profession. Recent studies that indicate positive changes in the attitudes of teachers who integrate the arts into their teaching practices suggest fruitful lines of further inquiry (Deasy, 2002).

Oreck (2004) found that teachers in general—regardless of their own personal knowledge or experiences in the arts—believe that arts experiences are valuable for students. A strong motivation for non-arts teachers to integrate the arts into their classrooms, he found, was the desire to increase their own enjoyment of teaching. Similarly, teachers involved in studies summarized in *Critical Links* reported a new enthusiasm and commitment to the teaching profession, and also reported that their roles in arts programs and instruction positively changed their perceptions of, and attitudes toward, students (Deasy, 2002). Burton and others have also found that teacher-student relationships are improved in arts-rich schools (2001).

In the Oreck study, teachers cited three conditions crucial to incorporating the arts into their teaching:

adequate time to plan and deliver these new instructional approaches, support from direct supervisors, and appropriate space. They want and respond to professional development programs that strengthen their self image and self-efficacy relative to the arts, programs that develop their understanding and art-making capacities. “Surprisingly,” Oreck reports, “neither prior formal arts instruction nor current artistic practice outside of schools were found to be significant predictors of arts use in teaching.”

Corbett and others, in the evaluation of the A+ Schools program in North Carolina (2001), found that professional development programs that engaged an entire school faculty in exploring the role of the arts in instruction created a context of support for experimentation and change. Similarly, they found that forming networks of school personnel across the 35 A+ schools fostered a sense of support for innovation.

Studies that build on these findings can further clarify the professional development processes and conditions that invigorate teaching, and explore the role that the arts might play in doing so. How have the participants modified their own learning and teaching practices? What conditions were supportive or detrimental to their development? How have they modified their perceptions of students and the teaching profession?

STUDENT-TEACHER RELATIONSHIPS AND THE ROLE OF THE STUDENT IN ARTS LEARNING ENVIRONMENTS

Research suggests that the role of the young person in arts learning environments (both in discrete and integrated arts experiences) may be different from the student role in non-arts learning environments—in particular—that the former may be naturally youth-centered (Heath and Smyth, 1999; Stevenson, 2004; Wootton, 2004). In an arts learning experience, individual students taught the same artistic skills will create different works of art, not just because of their varying levels of skill mastery, but also because of the unique sets of experiences and ideas they bring to bear in the artistic process (Stevenson, 2004). The student creates something new, something even the teacher cannot create. The student is thus purposefully engaged and at the center of the learning experience, and the teacher a facilitator (Wootton, 2004). Exploring these dynamics may be of particular interest to researchers pursuing indications in youth development literature and cognitive science that youth-centered, purposeful settings support both positive youth development and learning (Eccles & Gootman, 2002; McLaughlin, 2000; Bransford et al., 1999).

Research might also examine the efficacy of teachers' instruction in classrooms where the arts are integrated with other academic subjects. As students bring their life experiences into the classroom through arts learning activities, a window opens through which teachers can come to know students and their cultural backgrounds in meaningful ways (Stevenson, 2004; Wootton, 2004). Keeping in mind evidence emerging from cognitive science that student learning is stronger and more persistent if new knowledge is built in connection with prior knowledge (Bransford et al., 1999), researchers

could examine whether teachers use understandings of their students developed through the arts to help students make connections between prior and new knowledge. Research might also pursue indications from Oreck (2004) that the arts help teachers to better understand their students' profiles as learners. Teachers in Oreck's study state that their strongest motivation for including the arts in their classrooms was the arts' positive effect on "their awareness of the diversity of student strengths, learning styles, and intelligences."

When teachers in a large-scale arts education evaluation were asked which of their students benefited from the arts, they consistently stated that the arts benefited all sub-populations within their classrooms (Corbett et al., 2001). A new report (Stevenson, 2004) looking at arts education in high poverty schools finds that teachers describe general positive changes in their instructional practice after bringing the arts into their classrooms, but also that they see those changes as most important for students previously regarded as "hard to reach," including English language learners and students from economically disadvantaged backgrounds. Similarly, Oreck (2004) found that teachers believe arts learning experiences have important benefits for "students who speak English as a second language, those with various special therapeutic needs, and artistically talented students." Research might examine the indication that arts-related changes in teacher practice may be particularly beneficial for certain populations of students.

THE ARTS AND SCHOOL CLIMATE AND CULTURE

School climate is typically seen as a commitment to an explicit set of beliefs and is usually measured by survey instruments (Brookover, 1978). School culture is typically described as the assumptions that undergird explicit statements and is usually studied using qualitative methods. Researchers see school climate as a manipulable variable. In contrast, predicting the results of intervention on school culture is more complex and difficult, since school culture constitutes the assumptions that people use to interpret efforts to change (Sarason, 1971). Culture also includes “material culture” (Johnson, 1980; Proshansky and Wolfe, 1974). In this, the physical environment shapes what is perceived to be possible, because of assumptions about its meaning and what it allows or discourages. Both climate and culture affect learning and the ability of schools to improve (National Center for Effective Schools Research, 1989; Pink and Noblit, 2004). Some school reforms (James Comer’s School Development Program, for instance) explicitly track changes in school climate as part of their reform strategy. It is also clear that, to be effective in improving student learning, school reform efforts must either fit the culture of the school or be able to change the culture of the school (Pink and Noblit, 2004). Finally, many studies have demonstrated that instruction that is “culturally responsive or congruent” with students is likely to lead to better student outcomes (Gay, 2000). These same studies have shown that typical school culture reflects the norms of the middle class and thus disadvantages other students.

Only limited study exists regarding what the arts contribute to the climate and culture of schools. Indeed, the argument is often framed in the other direction, namely that the existing school culture often limits the possible contributions of the arts (Geahigan, 1992; Goodlad, 1992). An evaluation report of the A+ Schools Program in North Carolina, *The Arts, School Identity and Comprehensive Education Reform*, concluded that A+ schools

developed different cultural identities with the arts, and that these identities made a large difference in what the arts could contribute to the school and to education reform (Corbett et al., 2004). Schools that had a “substantive identity” used the arts both to change themselves and to manage the environments external to the schools. These same schools also had impressive gains in student achievement. Adkins and Gunzenhauser (2001) found that aligning the schools’ definition of the arts with that of its community had effects both on achievement and on the perceived role of the school within the community. Gordon (2002) examined how a school made meaning from an arts-based school reform initiative and how those meanings changed as the school context changed. Finally, McKinney (2002) demonstrated that the material culture of arts and regular elementary classrooms affected what students could accomplish. In particular, the arts classroom was structured for production and afforded movement and materials related to that end. The regular classroom was structured to restrict movement and access to materials and to reinforce individual practice of skills for achievement testing. Importantly, we know little about how the arts contribute to making school culture more continuous with the cultures of students outside the dominant social and economic groups.

Comparative studies, both quantitative and qualitative, would seem to be especially important in establishing the specific contributions of the arts to changes in the climate and culture of schools. Ethnographies of arts and arts-enhanced schools are needed to better understand the role the arts play in shaping culture, instruction, and learning in schools. Such research might also compare the role of the arts in schools and the home cultures of students, and provide information about how the communities’ cultural beliefs about the arts influence arts education.

INTEGRATED AND INTERDISCIPLINARY ARTS PROGRAMS

Education policymakers and administrators are increasingly inclined to promote—particularly in the elementary or middle school years—“integrated arts” or “interdisciplinary arts” programs that link arts learning and experiences with instruction in other school subjects and skill areas. Rationales for these programs range from the theoretical to the practical. The programs often involve a thematic or project-based design, which proponents argue engages students actively in processes that deepen their understandings and abilities more richly than study within a single discipline. Other proponents are more motivated by practical considerations, including the need to fulfill curriculum mandates to cover an array of subjects and skills in the limited school day.

The current standards-based environment expects curriculum, instruction, and assessments to be shaped by standards, which are discipline-specific. Designers of integrated programs typically select a cluster of content and skills from a variety of standards and develop learning experiences intended to enable students to master the cluster of outcomes. They assume that the programs will engage students in activities that enhance their knowledge and competence in each discipline as well as across disciplines (for instance, in history and visual art, or music and reading).

These programs raise a number of questions concerning the content and skills that students learn and the intellectual processes involved. Is learning actually deepening in each of the related disciplines, and, if so, in what ways? Might students develop important understandings that are deeper or different from those articulated within the standards? How do we assess the learning within these programs? What preparation and support do teachers need to deliver these programs?

In their *Critical Links* essays, Catterall (2002), Horowitz and Dempsey (2002), and Scripp (2002) suggest that the cognitive capacities engaged in arts learning are interrelated, interactive, and similar to capacities engaged by other school subjects. Intentionally constructing learning experiences involving the arts and other disciplines to engage these processes, they suggest, could strengthen students' overall intellectual development and the application of the processes within academic and social settings. Opportunities that the arts provide for iterative design and continuous improvement may be especially important experiences for students. Integrated and interdisciplinary arts programs provide the opportunity for researchers to explore these suggestions and assist in improving program designs.

NEW TECHNOLOGIES AND ARTS LEARNING

New technologies—notably computers, digital sound and visual image recording, and the Internet—are changing both the nature of the arts and the nature of arts education. The public now has unprecedented access to works of art from all historical periods and across many cultures. The Internet, in particular, has made whole museum collections as well as extraordinary amounts of scholarly material widely available to students and teachers. Research might examine how teachers have used these technologies both in the teaching of the arts and in bringing the arts into the teaching of other subjects (for example, the use of appropriate visual art works in the study of a particular historical period). In collaboration with museum education researchers, arts education researchers could productively study the most—and least—promising uses of these resources.

New technologies have led to the creation of new artistic media and forms. To date, little research has explored the particular cognitive and physical demands and possibilities inherent in work in these new media. Further

research might be done to explore the consequences of pursuing work in these new media and forms. What might students lose or gain from such artistic experiences? Will some learners find unique expressive outlets in these forms and others be left behind? Computer scientists and the designers of new technologies might well join in and even provide critical leadership in this area. As technologies are adapted and discovered, and as new uses for available technologies are devised, researchers might find further grist for work pertaining to the arts.

From a methodological perspective, this is an exciting area of research. The new technologies themselves provide intriguing ways of capturing student work, student reflections, and critical appraisal from a variety of audiences and experts. Researchers in the area of distance learning have begun to pioneer some sophisticated, yet accessible techniques for studying learning through the use of technology, including the creation of digital portfolios. Research into the arts could usefully employ such tools.

PARTNERSHIPS BETWEEN SCHOOLS AND CULTURAL ORGANIZATIONS

Structured collaborations between schools and cultural organizations to provide arts education to students have grown and matured in recent decades. In *Beyond Enrichment* (1996), Remer describes an evolution from occasional experiences—visits by students to museums or concerts, or performances by artists at schools—to planned and coordinated arts programs, which attend to the curricular and instructional expectations of schools and to the support and developmental needs of teachers and artists. A variety of factors prompted the evolution, including the involvement of what have been called “mediating entities”—government agencies, private foundations, universities—that encouraged, supported, and often financed the relationships. For instance, grant programs of the National Endowment for the Arts and the U.S. Department of Education encourage, and in some cases require, partnerships for both in-school and after-school arts education.

The Arts Education Partnership has published analyses and guidance on the processes for structuring and managing partnerships (Dreeszen et al., 1999). Seidel and others at Harvard’s Project Zero have analyzed through case studies the factors contributing to sustainability

and the differences in arts education partnerships from other partnership types (Seidel et al., 2001). Recent evaluations in which arts education partnerships were formed as instruments for whole school change discuss a variety of effects on individuals, schools, and cultural organizations (Horowitz, 2004). A new study by Stevenson (2004) examines their effects on schools and cultural organizations serving populations of economically disadvantaged students.

Because partnerships are a growing and substantial facet of the institutional configurations providing arts education to students, they merit study from multiple perspectives. For instance, at this juncture researchers might examine partnerships from the perspective provided by microeconomics, employing its concepts of “reciprocity” and “transactional costs.” House has recently called attention to this approach in public education in *Schools for Sale* (1998). House’s approach provides a powerful tool for examining the transaction costs of school reform proposals engaged in partnership and of the partnership’s potential viability. Applying this or other social science frameworks could be very productive in arts education research.

PROFESSIONAL ARTISTS TEACHING IN SCHOOLS

A central aim of education policymakers is to improve the content knowledge and teaching methods of teachers in elementary and secondary schools. New federal and state policies related to teacher certification and undergraduate accreditation reflect this concern. In addition to strengthening the performance of individual teachers, many call for school faculties to create learning communities that nurture continuous intellectual development and advances in pedagogy (McLaughlin and Talbert, 2001). Explorations of the characteristics and roles of distributed expertise within such communities and their impact on teaching quality and student learning might attract the attention of researchers.

Of the subjects in the school curriculum, the arts are virtually unique in having a cadre of professionals in the community skilled in the disciplines taking an active role in instructing students. The growing and extensive collaborations of these professional artists with teachers in delivering arts instruction provide a potentially fruitful area of inquiry into the characteristics and effects of such collaborations and their relevance to other school subjects.

In part, the increasing role of “teaching artists” in recent decades has been stimulated by the arts education policies and support of the National Endowment for the Arts and related state arts agencies, which have promoted artist-in-residence programs. At the same time, national and community arts and cultural organizations have responded to a variety of circumstances and motives—cutbacks in school programs, audience development, desires of financial supporters—to expand the scope of their program offerings in schools. Recognizing that teaching will be an option for students planning a primary career as professional artists, higher education institutions have begun offering these students training in pedagogy. Similarly, arts and cultural organizations have developed training programs and provide support

both to artists and to arts and classroom teachers in schools, recognizing the needs and complexities of effective collaboration.

Several studies in *Critical Links* examine programs that involve professional artists. They indicate that artists’ involvement can intensify the learning experiences of students, add to the skills repertory of teachers, and improve the pedagogy and classroom management skills of participating artists (Deasy, 2002). Funders and cultural organizations actively engaged with schools have commissioned evaluations of these collaborative programs, finding positive impacts on students, teachers, and other school personnel as well as on artists and cooperating institutions (Horowitz, 2004). In addition to the content instruction in the arts that occurs through teacher-artist partnerships, their ancillary effects also warrant examination. For example, a classroom teacher working with a teaching artist often must take the learner role in front of the class. Teachers report being reminded of what their students experience in their classrooms every day, and students report that seeing their teacher in the learner role supports their own positive risk-taking in the classroom (Stevenson, 2004).

This growing phenomenon of artist-teacher partnerships offers a body of practice that can be investigated to determine the characteristics of the most effective collaborations and their impact on teachers, students, and school communities. What are the effects of such collaborations on the learning of students? What are their effects on the collaborating individuals, schools, and community organizations? What conditions foster the most effective collaboration and learning experiences for participants? For policymakers and practitioners in other academic areas, such research could offer guidance as to the strategies and practices that may be applicable in other school subject areas.

COMMUNITY, DEMOCRACY, AND CIVIL SOCIETY

America and its schools face new challenges in embracing and mediating among the varying beliefs, values, and backgrounds of an increasingly diverse population. Our fundamental commitments to pluralism and democracy require that we do so, or put at risk the civic and social institutions rooted in those commitments. Public education is charged with nurturing those commitments and preparing the young for civic and social roles, a charge made firmer by *Brown vs. the Board of Education* and subsequent civil rights decisions regarding race, ethnicity, gender, and disability. The case that the arts contribute to the development of democratic values has been argued eloquently by philosophers and theoreticians. We are encouraged as well by empirical studies—including a number in *Critical Links*—that point to arts' effects such as positive social interactions, tolerance, attention to moral dilemmas, and the development of personal and group identity. At a time when engagement in civic activities nationwide is at an all-time low (or, as Putnam (2000) describes, a time when Americans are increasingly “bowling alone”), schools might look to the arts for meaningful ways to nurture a sense of community and create a climate and culture that models and imparts democratic values to students.

THE ARTS AND GROUP LEARNING

Arts learning experiences often involve more than one learner. Music ensembles, theatre productions, dance presentations, classroom murals, and collaborative creative writing are all examples. While the arts do not have a monopoly on group learning experiences, they offer rich opportunities to gain skills in a group setting and also to create and display final products.

Because the arts provide many and diverse examples of group learning, they are a laboratory for exploring the dynamics of group learning in general, including the distributed nature of expertise in groups and motivation-related learning experienced by group members. The arts are also a venue for exploring specific elements of collaborative learning environments such as scheduling, the nature of group work assignments, enlisting and managing sub-groups or teams for various purposes, and the potential roles of the expert (whether teacher or mentor) in the group learning process.

Researchers might also inquire into the specific qualities the arts bring to group learning processes. What qualities of achievement motivation might they observe in group-fostered artistic growth and creation (such as the engagement of learners, their feelings of agency, or the place of intrinsic and extrinsic reinforcement and the tendencies of the arts to induce motivation)? Do these qualities depart systematically from acknowledged wisdom about group learning in general? Do group efforts in the arts provide instances in which groups harness distributed expertise in novel or informative ways to

advance the learning of members or the quality of artistic products? Do such processes tend to differ systematically by art form? When pursuing work collaboratively, do children respond differently to differences in artistic expertise than to differences in, say, mathematics proficiency?

Equity of learning in artistic collaborations might be of particular interest. Do arts collaborations exhibit general tendencies to enhance learning across all members of a group? Do they tend to include or exclude members with differing expertise, especially those with low expertise? Can one observe qualities of equity that set such projects apart from group work in other academic disciplines?

Finally, researchers might explore collaborative arts experiences as a special case where learning in the arts might transfer to students' general academic and social development. Transfer of learning from the arts is a central concern of *Critical Links*, but the work is rather silent on the dynamics and design of group learning and the roles that collaboration in and of itself may play in arts learning or transfer. Does increasing expertise in arts-based ensemble work transfer to individual skills in group process and group learning that might bear on non-arts group projects? Do art collaborations generally, or do specific arts ensemble activities, produce high levels of generalized group production skills in comparison to other sorts of non-arts project-based learning activities commonly orchestrated in schools?

THE ARTS AND PARTICIPATION IN A DEMOCRATIC SOCIETY

A fundamental purpose of schooling in America is to enable students to develop the values, understandings, and habits essential to a democracy and to apply them in their personal and public lives. Dewey (1954) famously called these the “capacities for associated living.” More recently, in *Democratic Education* (1987), Gutman describes a set of “participatory virtues,” including “a sense of social commitment, political efficacy, a desire to participate, respect for opposing points of view, and a critical distance from authority, among others.”

Concern that young people may not be developing these capacities is currently stimulated by reports ranging from acts of violence in schools to low turnout by young voters. Schools also reflect the broader society’s challenges in integrating an increasingly diverse and pluralistic population into our democratic processes. Within the curriculum, instruction in history, civics, government—the “social studies”—has sought to develop student knowledge of the nature and responsibilities of civic, social, and political participation. But, as habits are formed by practice, the culture, attitudes, and behaviors of administrators, faculty, and students must also model and inculcate democratic principles and practices. Recent efforts to involve students in “community service” programs recognize that active engagement in civic life complements and enlivens academic instruction.

In his summary essay of the studies reported in *Critical Links*, Catterall (2002) discusses effects of arts learning

that correlate strongly with Gutman’s list, as well as with other analyses of the fundamentals of democracy. For instance, studies suggest that the intellectual and social processes engaged in arts learning promote empathy, tolerance, and the inclination to seek solutions to problems by invoking multiple perspectives. Eisner (1998) and others have pointed out that making and performing works of art involve a productive tension between an imaginative and bold openness to new possibilities and a commitment to the discipline and rigor of the form’s technical demands. This resembles the give and take of freedom of expression and rule of law that is central to a democracy. Catterall also discusses the growth in self-efficacy—the positive and authentic view of one’s capabilities and achievements—developed in mastering an art form, and the critical and reflective dispositions that accompany its development.

In their evaluation of the A+ Schools program in North Carolina, Corbett and others (2001) point to the effects of the arts in developing shared values and a school identity among faculty members; despite typical changes in school leadership, demography, and resources, they succeed in sustaining a positive school culture.

These studies suggest that arts engagement and processes nurture essential democratic values, habits, and actions. Pursuing these lines of inquiry more deeply may advance a fundamental purpose of schooling.

THE ARTS AND SPECIAL STUDENT POPULATIONS

Special student populations at risk of exclusion or failure in school are many: children lacking facility in English, recent immigrants unfamiliar with school norms, students with feelings of difference accompanying special physical or emotional needs, students of comparative economic disadvantage, or any group tending to experience prejudicial or exclusionary treatment.

The arts may contribute to the success of these students in various ways. Students marginalized through self-imposed or induced withdrawal to the periphery of the classroom may increase their involvement, perhaps because they enjoy or feel competent enough to participate in arts activities. If, as a result, special populations gain self-concept through the arts, their classmates and teachers may perceive them in a new and more positive light, and a more reciprocal, inclusive social atmosphere in the classroom could enhance instructional effectiveness for all students. Another possibility is that arts education may, through intentional or serendipitous mechanisms, boost the academic achievement of all students, including special populations (e.g., Baum and Owen, 1997; Catterall and Waldorf, 2000).

Observers of arts education in action typically report that children are drawn to arts activities with enthusiasm, and often with less concern for how their talents compare to those of classmates than they display in

other school subjects. Studies reported in *Critical Links*—particularly evaluations of large-scale arts infusion in school curricula—note generally higher levels of achievement motivation and engagement in arts-rich school settings. *Critical Links* studies also point to an array of cognitive and affective benefits of engagement in the arts especially for special populations (Catterall, 2002).

Students identified as needing special education services (currently over six million U.S. students) (Edwards, 2004) present a particularly interesting research opportunity. Federal law requires an annual Individualized Education Plan prescribing each such student's instructional program. In *Arts Education in Public Elementary and Secondary Schools* (NCES, 2002), one-third of music and arts teachers surveyed reported having input into the designs and implementation of these plans. Research could explore the interrelationships of arts instruction with other components of the plan.

Struggling adolescents might be considered a special population. With regular cadence over the years, some adolescents claim the arts as a main reason for staying through high school (Horn, 1992). Research pursuing this possibility could have implications for addressing high student dropout rates, particularly in urban schools.

THE ARTS AND BUILDING UNDERSTANDING AMONG DIVERSE GROUPS

It is difficult to engage in any discussion of American education's prospects and challenges without encountering the issue of diversity. Racial and ethnic diversity is growing in schools; the nation's students collectively speak over 400 different languages (Kindler, 2002); and recent federal education legislation demands the reporting of educational achievement data by significant "subgroups" reflecting students' race, relative economic advantage, level of English language acquisition, and gender. There are opportunities for research to explore the role of the arts in addressing diversity in meaningful ways and the implications for the design of effective schools and instruction.

Engaging in art rooted in cultural traditions may enable youth to identify more deeply with their cultures and share their cultures with others. When integrated into the teaching of other school subjects, the arts provide a vehicle for students to introduce their life experiences into the classroom in purposeful ways for the recognition of their peers and teachers (Wootton, 2004). Students from diverse backgrounds can also use the arts to engage with each other and to build understanding around issues of race, culture, and socio-economics, taking positive risks as they explore and express important ideas and relationships (Deasy, 2002).

Researchers might pay particular attention to the body of practice in drama that engages youth in social change and builds understanding among diverse groups (Mandell and Wolf, 2003; Rohd, 1998). Drama allows youth to take on and explore multiple roles and perspectives (Deasy, 2002); it helps students understand character motivation, complex issues and emotions, and social relationships; and it promotes conflict resolution skills, engagement, and positive self-concept (Catterall, 2002). Research could usefully build on these findings as they relate to a diverse student population.

Another promising direction for research in this area is to explore multiple-arts experiences, where students are engaged in more than one art form. Researchers have found that empathy can be an important outcome of these arts experiences (Catterall, 2002), which could hold promise in building understanding among students from diverse backgrounds. Researchers might pursue the relationship between imaginative skills developed in the arts (Deasy, 2002) and the ability to empathize. Greene has suggested, "it may well be the imaginative capacity that allows us also to experience empathy with different points of view, even with interests apparently at odds with ours" (Greene, 1995).

THE STATUS AND CONDITION OF ARTS EDUCATION

We are concerned for a number of reasons that we lack reliable data on the amount of time students in the United States spend studying the arts; on who provides the instruction they do receive and under what conditions; and on the money spent on school arts programs. Infrequent and inconsistent efforts are made at the federal level to develop national figures, and state and local data are similarly spotty. The arts may not be alone in this regard, but since claims are regularly made about their growth or decline in schools in response to policy and economic changes, the absence of solid data prevents systematic analysis and response. Similarly, federal law and state policies assert that the arts are “core subjects” that should be taught to every student. The absence of data makes monitoring of compliance difficult and raises questions about equitable access to policy-mandated instruction in the arts. We suggest, as well, pursuing international comparisons of the status and condition of arts instruction and achievement to prompt rigorous and healthy debate about their implications, as with recent comparisons of math and science instruction and achievement.

STATUS, CONDITION, AND FINANCING OF ARTS EDUCATION

Federal and state laws and policies have put increased pressure on public education to hold schools accountable for student performance in curricular areas. This has not been matched, however, by government efforts to collect data that would permit analysis of the resources for, and impact of, those policies. Arts education, generally believed to be a curricular area particularly susceptible to policy changes and reallocations of resources, is a case in point. Reliable information is unavailable about student access to arts instruction, about the current and predicted availability of qualified teachers, and about student performance. The National Center for Education Statistics (NCES) conducted "Fast Response Statistical Surveys" of principals and teachers in 1995 and 2000, but trend analysis was limited and no state data can be derived from these surveys. A survey planned for 2004 has not been funded. In three decades only two national assessments of arts learning have been conducted, in 1972 and 1997; another is proposed for 2008. Few states include arts assessments in their accountability systems.

It is often asserted that arts education programs are subject to budget cuts or elimination during times of economic downturn, and when policy changes require schools to focus on specific programs or needs. Many believe that schools in urban and rural areas are likely to be hit harder during these times, and that the students in these schools lose access to arts programs more quickly than do their suburban counterparts. Unfortunately, there is no empirical data at the national level,

nor consistently at state and local levels, to support or refute these hypotheses.

To move the discussion from anecdote to evidence will take rigorous and regular empirical research on funding levels for arts education in schools. The research would establish spending patterns over time for arts education, providing the basis for analyses of growth and decline relative to other school expenditures at times of policy change and relative to general economic conditions. Such research would have a number of benefits for policymakers and educators alike. For example, analyses based on empirical data would help better assess the financial impact on arts education of proposed policy changes, and would help weigh the implications before their adoption or implementation, clarifying both the intended and unintended consequences of policy decisions. Of particular importance, such analyses could monitor the distribution of financial resources and program impacts for general and special populations of students in various school settings and geographic regions. These analyses would provide guidance on how to insure equitable access to arts education for all students.

Federal government support is essential for comprehensive and regular collection, aggregation, and reporting of national arts education data. Designs, systems, and resources for similar efforts at the state and local level also are badly needed. Research on arts education is seriously hampered by the absence of these efforts.

THE IMPACT OF FEDERAL AND STATE POLICIES ON THE ARTS

Standards-based education and its related accountability systems have been the dominant policy response at the federal and state level over the past two decades to the critiques of public elementary and secondary education, most famously the 1983 national report, *A Nation at Risk*. The Goals 2000: Educate America Act of 1994 and the No Child Left Behind Act of 2001—both reauthorizations of the Elementary and Secondary Education Act of 1965—advanced this policy agenda at the federal level. Virtually every state, in response both to requirements of these laws and to public and legislative demands energized by *A Nation at Risk*, has adopted standards for student learning, as well as incentives and sanctions to encourage local schools to provide curriculum and instruction aligned with the standards. These policies express a commitment to equity and access to quality instruction for all students as a necessary condition to meeting the expectations of the standards. The primary method for gauging school success and holding schools accountable for student progress are standardized tests, primarily in reading and mathematics.

In addition to the general debate about the effectiveness of the standards and accountability movement, there are specific concerns about the impact of the standards movement on student access to arts education. Federal and state laws and policies assert the need

for schools to provide arts education to all students and declare that students will progress in meeting content and achievement standards in the arts. Virtually every state has adopted standards for the visual and performing arts. However, few states incorporate assessments of arts learning into their accountability systems. The federal government has conducted only two national, limited assessments of arts learning during the past thirty years. Another is projected for 2008. Conventional wisdom holds that “what is tested gets taught” and anecdotal reports claim that the arts and other school subjects are being denied time and resources as a result of time allocated to preparing and administering tests in reading and mathematics. These assertions need empirical scrutiny.

Methods and models other than standardized testing also are needed to monitor the implementation of standards, including arts standards. For instance, efforts could be made to develop methods to determine how the “enacted curriculum” compares to officially adopted mandates. Similarly, processes are needed for determining actual student engagement time with arts instruction, compared to reports that the arts are “offered” in schools. And work needs to continue in developing appropriate methods for assessing and reporting arts learning.

INTERNATIONAL COMPARISONS OF ARTS LEARNING

In *To Open Minds: Clues to the Dilemma of Contemporary Education*, Howard Gardner (1989) offers a paradigm for examination of the arts and education through international comparisons. Based on his experiences in observing classrooms in China, the book provides a sensitive treatment of the differences in the total experiences of children in China and in the U.S. Additional comparative research on the arts and education in other cultures and countries, handled with similar sensitivity, would provide more clues for educators about how the arts relate to learning.

The difficulties of comprehending other cultures should not be minimized, but, as *To Open Minds* shows, the rewards of such ethnographic study are great in understanding the total arts and learning experience. Indeed, the Committee on a Framework and Long-term Research Agenda for International Comparative Education Studies (NRC, 2003) recommends that the U.S. should “focus on understanding the education experiences of other countries in their own context to provide a broader context for U.S. experiences and efforts to innovate.”

In addition to ethnographic studies, however, international comparative research is needed that identifies the basic landscape of arts and education from a world perspective. We need to replace assumptions about the roles of the arts in other countries with comparative information. Pertinent topics to explore might include the objectives of school and non-school arts programs for children, the participation of adults in the arts, the arts experiences of children in the schools, the characteristics of the formal and informal curriculum, preparation of instructors, and absolute and relative resource investments. Such information is essential to developing fresh hypotheses about the arts and education.

We concur with the case for international comparative studies made by the NRC committee (2003). They state that such studies (1) help define what is achievable, (2) help us understand the consequences of different practices and policies, (3) bring to light concepts that have been overlooked, and (4) help us question beliefs and assumptions that are taken for granted.

A CONCLUDING COMMENT FROM THE TASK FORCE: MOVING THE AGENDA FORWARD

In the scholarly work and research studies that our nine-member task force examined in preparing this report, we find that arts education research has quietly matured as a field, and that its studies identify a set of similar developmental outcomes of arts learning experiences. The work is robust around issues of student development, and about the effects of the arts on communities and learning environments—issues that are the subject of inquiry by researchers in many fields. Though the methods used in this work vary in their type and quality, a host of similar and mutually reinforcing findings gives the accumulating research a good deal of weight.

The recent advances in arts education research provide a solid base from which to further explore and assess learning and development in the arts. The recent work also clarifies challenges we identify in this report, such as better defining the arts learning variable and being more specific about the nature of the arts learning experience. It gives impetus to new paradigms for considering the relationships between the learning and development that occur in arts engagement and in other developmental experiences. The arts as a mutual point of focus could fruitfully engage scholars from many disciplines. Cooperative development and deployment of new or modified methods of both research and assessment would enrich investigations of learning in the arts and other fields. Assessment processes used in teaching the art forms have much to contribute to those of other disciplines, and much to learn from them.

The task force encourages government and private funding sources to move this research agenda forward in two ways. The first is to help convene interdisciplinary meetings of researchers and scholars to evaluate, clarify, and expand on the opportunities for research identified in this report. Publication of the report represents a necessary but not sufficient effort to call attention to this new approach to research in arts education.

The second way government and private funding sources can be instrumental in moving the agenda forward is to support the research of scholars pursuing the kind of research it advocates. One obvious mechanism for achieving this objective would be a competitive research grants program modeled after those the federal government, foundations, and private

organizations manage in other areas of scholarship, but not yet in the field of arts education research. AERA, an organization with expertise in the conduct of such research competitions, has indicated its willingness to be involved in the creation and perhaps management of a competitive, peer-reviewed, grants program.

We hope that our colleagues from the arts, education, and other disciplines will join the work of designing a research infrastructure for arts education similar to those in other fields of inquiry involving human behavior: achieving and maintaining a critical mass of researchers, developing frameworks of common understanding of central questions and methodologies for addressing such questions, and creating a network appropriate for effective translation of research and for communication with policymakers and practitioners.

As we take these next steps, we invite advice and comment on the research opportunities we have identified in this report and on our suggestions for carrying the agenda forward. We will be gratified to have begun a lively conversation.

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