

Review Literature

## Fostering Transferable Creativity: A Core Role For Art Education In School Curriculum

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### Abstract

Arts education occupies a fringe position in school curricula because the arts are widely regarded as accessible to only a chosen few and of little practical use, or as purely recreational. What is needed is understanding of the potential contribution of arts education to other areas of curriculum, including those often seen as the real core of school learning ("the three Rs"). In fact, the psychological processes and personal properties inherent to arts education correspond closely to those now regarded as vital right across the curriculum, whereas they are often neglected in conventional academic disciplines. Arts education is capable of promoting these processes and personal properties in such a way that they transfer to other elements of curriculum in the form of transferable creativity, but this will not occur without changes in mainline pedagogy, for example, in the assessment.

Keywords: fostering transferable; creativity; art education; school curriculum

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## What is the Problem?

### The need for creativity

In a recent review of the situation of creativity in education in Australia, (A. Cropley, 2012) pointed out that official policy papers, such as the Australia 2020 Summit (Commonwealth of Australia, 2008), the Creative Connection Program (Western Australia Department of Culture and the Arts, 2010), the Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training, and Youth Affairs, 2008) or the Adelaide Declaration on National Goals for Schooling in the Twenty-First Century (Ministerial Council on Education, Employment, Training, and Youth Affairs, 1999), reveal widespread acceptance at policy-making level of the need for systematic promotion of creativity in the national education system. The reports emphasize the contribution of creativity to national prosperity, social justice, health and welfare, and similar aspects of the life of the nation, while the contribution of creativity to cultural life and personal well-being is also acknowledged.

However, (A. Cropley, 2012) pointed out that such documents clearly show that creativity is largely conceptualized as limited to artistic domains such as creative writing, fine Art, performing arts, film, and media, and the like. The "Queensland Academy for Creative Industries" added television and entertainment software, publishing and print media, advertising, graphic design and marketing, and architecture, visual arts, and design. Unfortunately, what is given little emphasis in such discussions is that creativity is desirable in fields well outside the arts such as engineering, science, industry, and indeed in everyday life. As a result, as (McWilliam & Dawson 2008) put it: "Evocation of 'more creativity' has been limited to rhetorical flourishes in policy documents and/or relegated to the borderlands of the visual and performing arts."

### What is the solution?

Huss (2016) concluded that the arts<sup>1</sup> create "a connection between cognition, emotion, and the senses, that *enables new perspectives* [emphasis added]." She also pointed out that in the present society, visual images have become "the most persuasive and pervasive tools for ... *changing behavior skills* [emphasis added]." The fusion of the two domains—opening up new perspectives and through this positively changing behavior—provides a compact psychological definition of education, and thus strongly implies a link between the arts and education. In the terms stated by Ruppert and (Ruppert & Habel, 2011), this involves "instruction that integrates content and skills from the arts with content and skills from other core subjects to increase knowledge *in both areas*" [emphasis added]. Such a fusion is frequently referred to as "arts integration." As Rabkin (2004, p. 8) put it in a catchy way, "arts for learning's sake."

However, in discussing the current situation of Art in education, Cutcher (2014) pointed out that it seems to occupy a uniquely *unfavorable* position. Unlike disciplines such as mathematics, science, or mother tongue, it has to struggle to achieve "curriculum parity," and lies "at the margins of the curriculum" despite its "special authority." As one example of this special authority, Cutcher mentioned art education's potential to function as the core of "a pedagogy across the curriculum," and asked (p. 7) whether there will ever be "a time when Visual Arts will be central to all children's learning?" I believe that it is time to ask the same question about all arts and not just visual arts. The present article outlines the nature of the special authority of arts education from the point of view of the psychology of classroom learning and argues that its time has arrived. Nonetheless, it is not being embraced as it deserves to be. The article offers a psychological analysis of why this is so. Finally, it gives an example of what arts integration could mean for one area of classroom practice (evaluation).

### What do the Arts Bring?

Ludwig & Song (2015) summarized a large number of relevant studies and concluded that arts education brings benefits going beyond the arts themselves. (Perso et al., 2011) listed a wide range of benefits. Of greatest interest for this paper are the psychological *mechanisms* involved. (Duma & Silverstein, 2014) listed, among other things, that the arts encourage combining learning modalities, generating and elaborating ideas, and infusion of learning with emotional arousal. Other benefits involving cognitive processes include using the information to generate new knowledge, increased willingness to approach ideas from multiple perspectives, and higher levels of transfer of learning to remote areas of knowledge. (Ebert et al., 2015) concluded that

<sup>1</sup> Strictly speaking, Huss referred only to art education, but I believe that her remarks apply to the arts in general, and have taken a small liberty when citing her work. Throughout the paper, where research is cited that refers only to "art" this reflects the focus of the author(s) being cited, but is taken by me to include other arts such as music, drama, or dance, unless it is clear from the context that only fine art is intended.

studying the arts promotes sharpened perception, a clearer understanding of what is perceived, and improved ability to verbalize this understanding. (Thomson & Sefton-Green, 2013) listed use of the imaginations and generation of multiple possible solutions to problems, while (Dezuanni & Jetnikoff, 2011) showed that “creative pedagogies” develop children’s autonomy, foster investigation, and encourage them to have ideas.

Table 1. Examples of general psychological benefits of arts-integrated teaching and learning

| Area                  | Nature of benefit   |
|-----------------------|---|
| Cognitive benefits    | <ul style="list-style-type: none"> <li>• improved planning and goal setting</li> <li>• ability to make and accept constructive criticism</li> <li>• producing more ideas</li> <li>• asking better questions</li> <li>• recognizing inconsistent information</li> <li>• recognizing the need for additional information</li> <li>• recognizing patterns in information</li> <li>• giving physical expression to ideas</li> <li>• representing ideas in more than one form (e.g., both verbally and pictorially)</li> </ul> |
| Self-related benefits | <ul style="list-style-type: none"> <li>• confidence when confronting a problem</li> <li>• improved self-esteem</li> <li>• better expression of emotions</li> <li>• more positive self-concept</li> <li>• greater openness to the new</li> <li>• greater spontaneity</li> <li>• more initiative</li> <li>• greater self-efficacy</li> <li>• improved self-assessment</li> </ul>  |

<sup>a</sup>This table is based on a table in (A. Cropley, 2020).

In an earlier paper (A. Cropley, 2020), I summarized the more general benefits of arts integration outlined in the relevant literature, and this summary forms the basis of Table 1. The table does not lay claim to comprehensively listing all demonstrated or imaginable benefits but gives an idea of the kind of thing I am referring to.

### Why are the effects just outlined desirable?

With the successful launch in October 1957 of Sputnik I, the first human-made Earth satellite, Soviet engineers achieved what had eluded their American counterparts. This threw doubt upon the ability of US technology to win the Cold War. The psychology of the time offered an explanation of how it was possible for western scientists and engineers to have been defeated: they lacked *creativity*. Creativity rocketed into prominence and began to be regarded as a social resource through which the safety and welfare of the nation could be safeguarded. Nowadays, it is widely regarded as vital for dealing with the problems of modern life and an instrument through which it will be possible to deal with problems such as social change, political instability, accelerating degradation of the environment, pressure for fair and equitable working, and living conditions across the globe, international conflict, rapid technical and scientific advances, and many more. (D. Cropley & Cropley, 2005) referred to this “new” creativity as “functional” creativity, and (A. Cropley, 2016) labeled it “down-to-earth” creativity.

From almost the very beginning, a strong link was made between creativity in the down-to-earth sense and education. For example, the *Defense Education Act*, which was passed by the US Congress in September 1958, called upon the nation's schools to promote in students

the skills and psychological properties needed for them to become more creative. In the intervening years, psychological researchers have worked out details of the processes and personal properties of functionally creative students (for a detailed overview, see [\(D. H. Cropley & Cropley, 2015\)](#) Table 2 gives examples of these thinking processes, motivational states, and personal properties.

A comparison of the outlines of what arts education brings (see Table 1) and of what transferable creativity needs (see Table 2) shows that, in fact, there is considerable overlap. At the risk of engaging in stereotyping, creativity-facilitating processes and personal properties seem to be the "natural" norm in arts education, whereas they would be "unnatural" in, let us say, mathematics or indeed, most mainline disciplines. Thus, art education offers a breeding ground for psychological properties now widely recognized as of core importance in education.

Table 2. Examples of the components of transferable creativity

| Psychological domain        | Component  |
|-----------------------------|--|
| Cognitive processes         | <ul style="list-style-type: none"> <li>• generating ideas</li> <li>• elaborating ideas</li> <li>• building broad categories</li> <li>• combining concepts</li> <li>• crossing domain boundaries</li> <li>• associating ideas from remote fields</li> <li>• generating multiple solutions</li> </ul>                                |
| Motivation                  | <ul style="list-style-type: none"> <li>• wanting to go beyond the hum-drum</li> <li>• preferring complexity</li> <li>• being willing to take risks</li> <li>• being willing to transfer knowledge across fields</li> <li>• being willing to see the familiar in a new way</li> <li>• pursuing a wide range of interests</li> </ul> |
| Attitudes, values, feelings | <ul style="list-style-type: none"> <li>• tolerance for uncertainty</li> <li>• enjoyment of a challenge</li> <li>• being attracted to unorthodoxy</li> <li>• being attracted to a wide range of interests</li> <li>• having a positive attitude to work</li> </ul>  |
| Personal                    | <ul style="list-style-type: none"> <li>• openness</li> <li>• unorthodoxy</li> <li>• resisting conformity pressure</li> <li>• self-acceptance</li> <li>• willingness to go it alone</li> <li>• having a feeling of self-efficacy</li> <li>• being resilient when things do not work out</li> </ul>                                  |

<sup>a</sup>This table is based on a table in [\(A. Cropley, 2020\)](#)

## Why isn't Arts Education already central to the curriculum?

### The myth of the divine origin of creativity

If arts education is potentially so beneficial, there must be reasons why it is not enthusiastically demanded by everybody. In fact, the reasons have historical roots whose influence is still alive today. In the world of Ancient Greece and Rome, making things through manual effort was a sign of inferior status: In his *Satyricon*, the Roman writer [\(Petronius & Mitchell, 1923\)](#) sarcastically referred to the snobbish tendency in the circles in which he moved to look down on Phidias, still regarded today as a great sculptor, as a "silly little Greek" because he worked with his hands. The problem thus arose of explaining the differences between artists and "mere"

artisans such as potters or carpenters. The more or less universally accepted explanation was that artists enjoy divine inspiration (Carritt, 1950), but artisans do not. This made artists a breed apart from mere mortals. (Edwards, 1998) suggested that this view is possibly pre-historic and may have prevailed even at the time of the cave artists.

Plato and Aristotle concluded that the chosen ones were not only set apart from mere mortals as just described but were forced to carry out their artistic work whenever the divine power acted on them. This was because they were in the grip of what Plato called a "divine frenzy" (McWhinnie et al., 1970) and touched by the "tincture of madness" identified by Aristotle (Langsdorf, 1900). This linkage of the arts and psychological otherness, even madness, was still prominent around the turn of the twentieth century (e.g., Lombroso, 1895), and remains the subject of extensive discussion even today, although in a much more differentiated way (for an overview of modern research see (Silvia & Kaufman, 2010) Belief in the sublime origin of the work of artists continued into the Renaissance, although in this period the source of inspiration was argued to be the special "genius" of the individual creator. According to (Kant 1914), the person of genius is a "favorite of nature" (p. 204) with an "innate mental predisposition" (p. 188, emphasis added). Seeing artists as favorites of nature was particularly attractive to the Romantics, especially when linked with the image of the penniless artist starving in a freezing garret for Art's sake. Théophile Gautier, a leading exponent of the French Art for Art's sake movement, went so far as to argue in the preface to his own book (Gautier, 2005) that nothing is truly beautiful unless it is *useless*.

The image of the supernaturally inspired true artist devoid of crass earthly ambitions and giving all for an art that is beyond the reach of ordinary people became a core element of the public persona of artists. They did not object to the stereotype of divine possession, and the reason is obvious: it yielded handsome rewards. It gave them what (Deresiewicz, 2015) called a "sacred aura," and had important positive consequences for their social standing and the physical comforts they enjoyed: it entitled them to the benefits of a "sacerdotal tax." As Horace put it in the *Ars Poetica* [Art of poetry] (2005/ca 19BCE, lines 9-10), in Ancient Rome, artists enjoyed special license to *do as they pleased* [emphasis added].

This linking of creativity with divine forces is still alive and widely accepted: (Hunter 2012) emphasized the divine connection and concluded that Art enables humans "to connect with the eternal." The American blogger (Rothman, 2014) recently warned against "creativity creep," a slow, stealthy move towards looking at creativity in any terms other than the spiritual. He seems to regard linking creativity to practical activities as contemptible or even disgusting, or in some way fraudulent or a pose. According to him: "If you're *really* creative, *really* imaginative, you don't have to make things. You just have to live, observe, think, and feel" [emphasis added]. A qualitative study with teachers (Albrecht, 2016) cited a participant who argued that producing artworks *blocked* her creativity and that it is the process of "following my inner voice," which constitutes creativity. In a later section, I will contrast this self-centered, onanistic creativity with "down-to-earth" creativity.

(McWhinnie et al., 1970) concluded that even in the modern world, there is an "almost unanimous belief" that artists are, among other things, "egocentric," "temperamental," "rebellious," and "licentious," and of generally disreputable character, as well as given to "excessive boasting" (p. 7), and puffed up with inflated self-esteem. (Winner, 1982) reported strong support among famous artists for the idea of sudden inspiration. (KAMPYLIS & VALTANEN, 2010) expressed the view that even today, as a group, famous artists are inclined to agree with the popular stereotype of irresistible, supernatural inspiration, because it strengthens their public image or their own self-image as special. According to Silvia, Kaufman,

Reiter-Palmon und (Silvia et al., 2011), this belief by artists in their own otherness does not involve any deliberate intent to deceive but is merely pretentious.

The widespread acceptance of the stereotypes just outlined has had serious negative effects on the reputation of arts education and has made it difficult for it to achieve "curriculum parity" with disciplines regarded as respectable, rigorous, and useful. Engineers and accountants or bus drivers and shop assistants are not expected to be egocentric, temperamental, rebellious, or licentious. Indeed, despite the fact that this paper emphasizes the value of arts education, I am glad that the heart surgeon who carried out a triple bypass on me did not just follow his inner voice. Thus, it is scarcely surprising that in a system dedicated to preparing children for life in the everyday world, the arts have traditionally been regarded as having little to do with "serious" learning. In fact, artists' public relations machine has been too successful over the millennia. The result is that, as (McWilliam & Dawson, 2008) put it: "Evocation of 'more creativity' has been limited to *rhetorical flourishes* in policy documents" [emphasis added]. Arts integration has largely remained something to talk about enthusiastically but has made little real progress, except perhaps in isolated instances.

## The Solution: Transferable Creativity

The key need is thus to bring the arts down to earth. What this requires is breaking the link with divine inspiration, which sees the arts as a world for themselves, existing in isolation from conventional society and essentially useless. This does not mean denying the existence of sublime creative talent or that some people can be consumed by their own creativity. As (Guilford 1987) pointed out, historically speaking, only about two in every million people succeed in making exceptionally high achievements, and such people no doubt deserve special treatment. However, arts education will not find widespread acceptance if it is perceived by students, parents, teachers, planners, employees, and politicians as something that involves only the .0002% who reach sublime heights. Conversely, if Art is regarded as simply good fun, relaxation, a hobby, something that is culturally desirable but has no real *use* except for the promotion of rebelliousness and licentiousness—a view of which artists may approve—this will also hinder public willingness to accept arts education. What is needed is to demonstrate that the arts lead to something that is good for learning *across the curriculum*. This "something" is "transferable creativity" (A. Cropley, 2016).

The first core idea of transferable creativity is that there are creativity-related cognitive skills, thinking strategies, motives, attitudes, and aspects of self-image that promote learning and thinking in *all* disciplines. Table 2 has already given an idea of what these are. In fact, there is now a concerted call for education to foster such psychological resources (Plucker et al., 2004), but as (A. Cropley, 2012) concluded, little understanding of what is actually involved, or of where and how to promote it. The second core idea is that these properties are *generic* and can be fostered in the arts and subsequently transferred to other disciplines. Hetland et al. (2015) argued that what is transferred are not highly task-specific skills but more general "habits of mind": They gave the example of the habit of "envisioning" spilling over from arts into geometry (p. 7). Sternberg (2012) put the matter of such habits in a down-to-earth way: When I speak of a habit, I refer to 'an acquired behavior pattern regularly followed until it has become almost involuntary' ... That is, creativity becomes a way of life that one regularly utilizes so that one is hardly aware one is engaging in it.

Thus, once students have become used to, let us say, linking ideas from disparate fields or approaching the same idea from different perspectives, or to enjoying the risk of trying a new approach, or the feeling of being on the verge of something new (for example in art lessons),

these processes and personal characteristics can be transferred to other subject areas. In fact, they may be transferred without the person involved, actually noticing.

### **The benefits of transferable creativity for conventional disciplines**

Despite this enthusiastic presentation, reviewers such as Moga, Burger, (Moga et al., 2000) and Rooney (2004) have pointed out that there is little evidence that simply doing arts automatically leads to better marks in other subjects. This is scarcely surprising. The arts are not a magic bullet that delivers higher grades in other disciplines without anyone needing to do anything differently—like a new vitamin pill that promises massive weight loss without any dieting. The link between the arts and improvement in other disciplines is not direct and linear. As (Burton et al., 2000) pointed out, what is necessary is an *interaction* among disciplines.

To put this in a metaphorical way, the seed of transferable creativity sown by art education in the form of skills, thinking processes, attitudes, motives, or self-image must fall on the fertile ground if it is to blossom in, let us say, mathematics lessons. For example, encouragement of the processes and properties listed in Tables 1 and 2 will not deliver large improvements in grades in conventional disciplines if the grades continue to be based on forms of performance for which these processes and personal properties are irrelevant. This can no more be expected than teaching children to play the piano could be expected to give them sweeter voices, although developing their musicality is not irrelevant to singing. Arts education will only deliver its true benefits when education has been reformed to focus on the kinds of processes and the personal properties outlined in Table 1.

### **The Example of Classroom Assessment**

In advocating the promotion of creativity in the classroom, (D. Cropley & Cropley, 2005) worked out guidelines for setting classroom tasks in all disciplines in such a way that the tasks foster transferable creativity. These are summarized in Table 3. The guidelines focus on four dimensions of a task (degree of structure; clarity of definition; specificity of preparation; the level of pre-definition of the solution) and contrast the kind of structuring of a task that fosters creativity with the kind that inhibits it (e.g., "multifaceted" structuring versus "standardized" structuring). Assignments with the properties listed in the column headed "creativity-promoting tasks" provide students with the *opportunity* to work creatively, give them an *incentive* for doing so, and *reward* them when they do see (R. Sternberg, 2007) for a discussion of these three elements of the promotion of creativity).

Comparison of creativity-promoting tasks with creativity-inhibiting tasks strongly suggests—at least at the intuitive level—that the kind of task described in the creativity-promoting column resembles common practice in arts education, whereas the creativity-inhibiting column is closer to practice in traditional disciplines (i.e., arts education operates in a way that promotes transferable creativity, whereas other disciplines do not). To take a simple example, art teachers would probably regard it as normal and desirable for the artworks of students to vary widely from student to student, even if the basic task—let us say, “draw a human head”—were the same for everybody. In fact, it would be extraordinary if they did not, as the task has a low level of structure and definition, can be assigned without any specific preparation, and leads to an only loosely defined solution. For example, I have experienced a student drawing the *inside* of a head. By contrast, most of the time, a mathematics teacher would regard it as a triumph if every student in the class obtained the *same* answer to a task using the same procedures applied in the same way: Let us say, “Work out the minimum value of the function  $y = 3x^2 - 9x + 14$ .” (The correct answer is 7.25.) The task is solvable in your head in seconds if you mechanically re-apply the known standard procedures of basic calculus. These lead to the one and only possible correct answer, which would be obtained by every

person who possessed and rigorously applied the right knowledge and arithmetic skills. If evaluation focuses on promoting processes like this, arts education will not help much.

Table 3: The characteristics of school tasks that promote/block transferable creativity

| Task property                        | Task Characteristics   |   |
|--------------------------------------|--|---|
|                                      | Multifaceted structuring (promotes transferable creativity)  | Standardized structuring (blocks transferable creativity)   |
| Degree of Structure                  | <ul style="list-style-type: none"> <li>• complex</li> <li>• multifaceted</li> <li>• changing</li> </ul>                              | <ul style="list-style-type: none"> <li>• clearly defined</li> <li>• highly structured</li> <li>• standardized</li> </ul>        |
| Clarity of Definition                | <ul style="list-style-type: none"> <li>• unfamiliar</li> <li>• ambiguous</li> <li>• open to interpretation</li> </ul>                | <ul style="list-style-type: none"> <li>• highly familiar</li> <li>• unambiguous</li> <li>• permits no interpretation</li> </ul> |
| Specificity of Preparation           | <ul style="list-style-type: none"> <li>• abstract and general</li> <li>• unsupervised</li> <li>• incomplete</li> </ul>               | <ul style="list-style-type: none"> <li>• concrete and specific</li> <li>• closely supervised</li> <li>• thorough</li> </ul>     |
| Degree of Pre-Definition of Solution | <ul style="list-style-type: none"> <li>• unspecified</li> <li>• unpredictable</li> <li>• variable from student to student</li> </ul> | <ul style="list-style-type: none"> <li>• pre-defined</li> <li>• highly specified</li> <li>• standard across students</li> </ul> |

<sup>a</sup>This table is based on a table in (A. Cropley, 2020)

### The paradox of arts education

Ironically, as absurd as it may seem, the stereotype of lack of inhibition or control, freedom from constraints, and fundamental uselessness (see the discussion of the stereotype of the artist discussed above) which has "quarantined" the arts in schools are having a paradoxical effect. Many stakeholders in school education readily accept that arts education promotes processes, personal properties, and interpersonal interactions like those in Table 2. It even seems perfectly appropriate that such phenomena should be promoted through the arts because, in many cases, arts education is regarded as mainly a bit of fun and a chance to let yourself go, or simply a cultural duty imposed by good taste. Thus, this stereotyping of arts education, with which I have disagreed in other places (A. Cropley, 2016) even if it is wrong-headed—makes the arts socially acceptable as the natural mechanism through which the psychological aspects of transferable creativity can be fostered. However, it simultaneously greatly weakens the willingness of parents, curriculum developers, examiners, school leaders, and even students themselves, to accept the arts as a foundation discipline for all content areas. Ironically, the arts need a new public image: They need to come down to earth in order to take over an, in a sense, loftier role as the cradle of transferable creativity.

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