



Creativity Forum
Georgia Art Education Association
Fall 2011 Convention

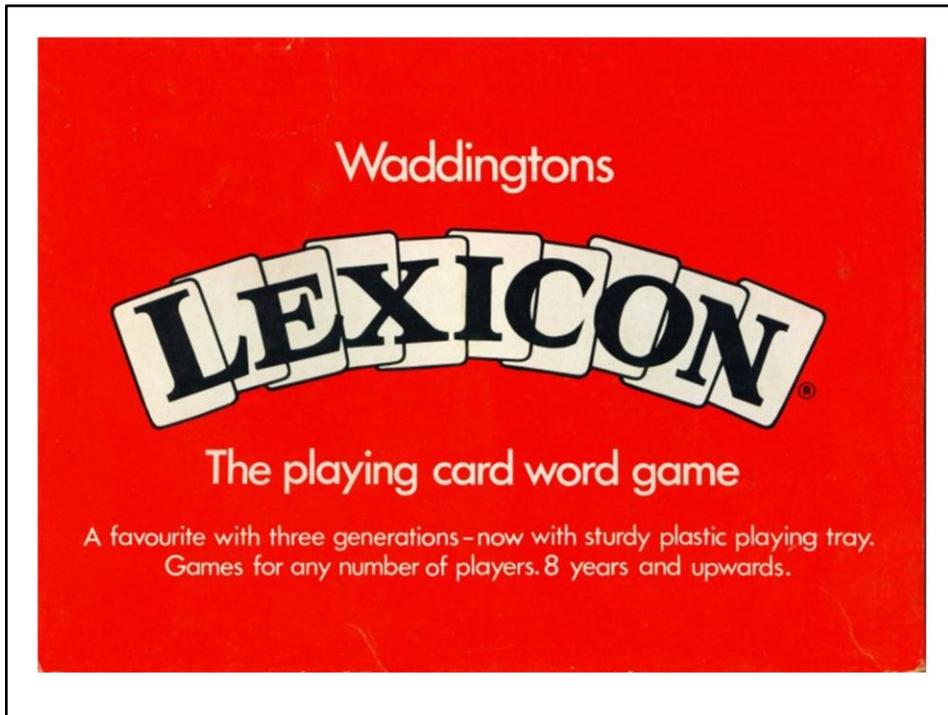
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Precision in use of terms—unpacking the concept



We use the term “creativity” to refer to a vast array of human behavior.

Our Lexicon Issue:



When it comes to precision and accuracy, we play word games as a profession and end up literally not knowing what we are talking about. At the same time, there is a hidden strength here—there is a kind of intellectual rigor that develops among those who are willing to devote extensive time and research into dealing with the ambiguity at the heart of our discipline. But at the classroom level and in terms of advocacy and communicating to administrators and other stakeholders, we need to be much clearer about our lexicon.



Our Lexicon Problem

- We need to unpack our concepts.

- Creativity, Imagination, Self-Expression, Art as Language, Personal Experience, Personal Meaning...
- No way of determining what the impact should look like





Humans—and especially us educators—can be very sphexish—that is, like the Spheg Wasp.

We do the same things in the same way at the same time each year, year after year. We have those sure fire lessons that always result in a reliable product, that pleases principals and parents, and that keep the kids busy.



The True North of the creative process points to the unknown, intangible, and unpredictable.

First, imagine a world of pure sound. There are no objects, people, or buildings—just sound. It could be like a dream in which none of your other senses exist. What would you be like in such a world? What makes imagining such a world difficult?
 Next, I'd like you to picture what your house looked like when you got up this morning. Then, I'd like you to picture yourself driving into work today. Now, picture yourself riding on a beam of light. Can you do it? Can you see yourself going 299,792,458 meters per second and riding on a beam of light? Is it harder than picturing yourself driving to work? Why? If you can picture yourself travelling at the speed of light, what are some of the implications?

Let's try one more:
 Picture a square. Now, take your two-dimensional square and give it three dimensions: turn it into a box, a cube. Now, take your three-dimensional cube and take it into ten-dimensions: what would a ten-dimensional cube look like? Can you do it? If not, what makes picturing a ten-dimensional cube harder than picturing a three dimensional cube? What makes imagining yourself riding on a beam of light harder than picturing yourself driving to work? Is either of these easier than imagining a world of pure sound? There are several things that these three thought experiments have in common. First, they all involve the unknown, the intangible. They all ask us to change our frame of reference from the ordinary to the extra-ordinary. Using terms that we will encounter in the next chapter, they ask us to alter the conceptual *constants*, *parameters*, and *variables* that we normally use to understand the world. And, to different degrees, they all demand that we use a different thinking framework to reason about the challenges they present. Chances are that you found the second thought experiment the easiest. This is in part because it involves movement through space, an experience that we are all familiar with. We walk, run, or dance, feeling the wind blow past us, and even simple movements such as lifting our arms or turning our heads give us a sense of moving through space. This experience gives us a starting point, an initial context that we can transfer to the new situation. This frame of reference (the experience of moving through space) suggests a possible framework for thinking about what it is like to ride on a beam of light. The idea of *moving through space* becomes a constant, something that is the same in both the real world and the thought experiment; what changes is how we move through space (the conditions or parameters) and what we experience (the variables, such as how fast we are going).

In contrast, we don't have a starting point in the first thought experiment about a world of pure sound because we immediately trip over fundamental questions, which may not be obvious at first. Our experience of sound is mediated by space, since sound is produced by modulating the air around us. Does a world of pure sound have a spatial dimension—an up and down, left and right, near and far? Sound is actually a mental phenomenon, something that occurs in the neural wiring of a brain, and brains take up space, too. So, before imagining a world of pure sound we need a new image of what space in a world of pure sound is like. But our everyday experience of space is determined by colors, shapes, and touch. We can't transfer our everyday experience in this case because we are not sure how to strip away color, shape, and touch from our concept of space. We don't know what to keep as *conceptual constants* between the real world and the sound-world. In this case, we have to answer basic questions before we can develop an adequate mental framework for thinking about a world of pure sound.

In the third thought experiment, a similar problem arises. Our everyday experience of space is three dimensional (or four dimensional, if you include time as a dimension of space). We lack a frame of reference for imagining a ten-dimensional space, in large part because we also lack a way of talking about space in terms of so many dimensions. Unless you happen to be a theoretical physicist, there is little in everyday experience that provides a foothold for thinking about ten dimensionality. In this case, we lack both a frame of reference *and* a framework for thinking.

These thought experiments illustrate several things. Each, while seemingly far from the world of the arts, illustrate the need for *speculative thought* when thinking about the unknown. In so doing, they suggest what speculative thought is like: it is conjectural, hypothetical, and provisional. Involving *speculative variables*, it is also non-rule governed and open-ended. These experiments also demonstrate the inter-connectedness between imaginative and speculative thinking. *Imagination implies* ways of reasoning about new ideas, while speculation *finds* ways of reasoning about them by elaborating and connecting them to other ideas in new ways. Our thought experiments also point to the importance of having a language, or thinking framework, in which to articulate new ideas. The parts of a disciplinary language (such as music, painting, or dance) include its core ideas, symbols, principles, skills, knowledge, materials and instruments or tools. In the creative process, the rules "governing" these parts are not immutable and inflexible, but can be used, adapted, even subverted. A language, whether visual, musical, or kinetic, provides the framework for reasoning about works of art, hence the term *thinking framework*. These thought experiments also points out what we have to do when confronted by the unknown; typically we deal with the unfamiliar by attempting to map a familiar pattern or set of ideas on to the indeterminate. But when confronted with a world of pure sound or ten dimensionality, our task is doubled: we have to stipulate possible scenarios that might capture what these concepts might be like, then try to map the familiar onto these stipulations, and then test them. A central function of any language is its ability to relate numerous parts according to a set of rules.

Synthesizer vs. Creator

“The synthesizer’s goal is to place what has already been established in as useful and illuminating a form as possible. The creator’s goal, on the other hand, is to extend knowledge, to ruffle the contours of a genre, to guide a set of practices along new and hitherto unanticipated directions.”

Howard Gardner, *Five Minds for the Future*, page 98

Margaret Boden built her argument on Ernst Gombrich’s classical analysis. why the history of art is one of discernible styles rather than unclassifiable, random quirks. **A style, he suggested, is a manifestation of a mental set which governs the perception of the artist. A set is extremely difficult to invent and generally develops over a period of time on the basis of the work of a number of artists each making their individual contributions. The intellectual and cultural grip of the set is powerful, and changing it calls upon creative intelligence of a high order.**

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Radical changes to the set are made at the risk to intelligibility that the set provides.

Boden reformulates this position as a logical one. **The concept of the “mental set” becomes one of a “conceptual space.”** She is interested in an explanation of creativity that embraces all arenas of expression, **including science and mathematics** as well as the arts and language. For Boden, the concepts and their interrelations are an agreed formal system within which intelligible propositions are generated.

Language is a prime example in which original and novel statements are continuously being generated by language users. Noam Chomsky describes this as representative of the “creative capacity” of human intelligence.

We might be reluctant to agree with Chomsky. **The mere capacity to generate new combinations from a given set of rules within a rule-driven system is easily within the capacity of a simple computer or may be achieved indeterminately on the throw of a dice.** Furthermore, conceptual spaces might be more or less open. The conceptual space that defines the game of chess is a relatively closed system whereas that which contains the various articulations of the conceptual artists over the past century has been fairly open (perhaps too open and thus too prone to the encouragement of non-sense).

Teaching for unexpected results? How to talk about the unknown in terms that parents and principals can understand...



Constants
Parameters
Variables

We have to argue and advocate for our terminology—the vocabulary central to the unique benefits that art education brings to students. We need to colonize the minds of our administrators and parents with this vocabulary rather than try to shoe-horn what we do into their closed-concept educational framework.

Vice president is the spare tire of government

Variable: detached eyes (normally a constant)

Parameter (chosen constraint or context): Binoculars (as opposed to glasses, microscope, telescope, camera lens)

Constant: Instruments of sight





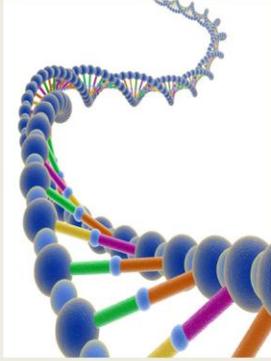
Creativity and Structure

- Constants and parameters determined by one or more of the following:
 - Final product/end state
 - Procedures, processes or standards
 - Initial problem statement
- To what extent are these "open" ?



Open-ended =
Constants,
Parameters,
Constraints not
pre-determined

- Final product/end state predetermined
 - Problem statement or process could be "open"
- Predetermined procedures, processes or standards
 - End state or problem statement could be "open"
- Initial problem statement predetermined
 - Process or end state could be "open"

		
<p><u>Stage 1 Assessment</u> Did you Risk and Reframe?</p>	<p><u>Stage 2 Assessment</u> Did you question, intersect, and connect? Did you explore and exploit points of tension?</p>	<p><u>Stage 3 Assessment</u> How does this come out of your own creative DNA?</p>

Stage 3 meeting yourself by biting off more than you can chew—you learn who you really are

Clear about goal: not zany ideas, not just solving a problem, but establishing a mindset that continues to generate rich insights, perspectives, problems on an ongoing basis—which is why we introduce generative themes to students. We want them to create their own creative DNA—which will connect and recombine in multiple ways to generate new problems for them. The greatest gift an artist can have is an intractable problem.

- **Use existing contextual frames as source material**

Historical, Emotional,
Social/sociological,
Psychological, Educational, Economic
Cultural, Familial, Mythic, Scientific,
Phenomenological/Experiential, Vices,
Virtues, Isms

- **Use strategies to expand, alter, explore, transform or generate new contexts**

Anthropomorphizing,
Psychological projection,
Empathy, Narratives, Reframing
familiar stories, Reframing issues
and historical events, Presenting
arresting juxtapositions, Binary
oppositions

Formula: Using abstract qualities (*adjectives and adverbs*) to describe intangible processes (*verbs*) and abstract entities (*nouns*) in unusual ways

LESSON: Update the myth of Icarus. Is there a dangerous dream of progress in the modern era that can be used as a cautionary tale? Use elements from both the ancient myth and its modern parallel in your product.

- Source material: Myth
- Strategy: Reframing narratives and issues

Hint: Perhaps the dream of nuclear energy or some other modern panacea might be used.

LESSON:

Produce plans for a composition or sound sequence that simultaneously expresses immensity and intimacy.

Source material:
Psychological or
Phenomenological
Experience

Strategy:
Juxtaposing opposite
abstract qualities

- **Question of emphasis**
- **An automobile made of postage stamps**
- **Focus on visual transformation (image) or meaning of cars/stamps have for us (context) or both (idea)?**
- Assess process or product?
- Different standards—degree of exploration or resolution
- Preliminary plans—open issues
- Final product—unity of idea and expression

- Construct rubric that measures imagery or context on a continuum ranging from unique to cliché
- What standard?
- As compared to a cohort (class, grade level)
- How do we set criteria based on cohort?
- Action research (Model tells what to look for)
- What are the types and range of images produced by students a) in class as part of lessons, b) at home/alone, c) with peers
- Image Bank: Kids sort and arrange images on a continuum of familiar to unique to “out of this world.” Time passes; repeat or have kids arrange own work on a continuum; compare and look for patterns; express in terms of image qualities