Donald Schon (1996a), renowned for the study of reflective practice with professionals, observes about educational practice:

So when I work with teachers or teacher educators, it seems to me that the critical issue to begin with is not what the students learn, or their difficulties, but how the teachers have their own understandings of the material at hand. (np)

Schon's comments mirror my own concerns that art educators and art teachers frequently lack sufficient and tangible understandings of the processes that distinguish artmaking activity.

Personal experience as an art teacher and an art education professor working with preservice and practicing art teachers tells me that designing meaningful artmaking instruction can be quite difficult. The artmaking process is one in which there are no right answers and, as Schon describes the design process, "a reflective conversation with the materials of a situation." Schon (1996a) explains:

It is rare that the designer has the design all in her head in advance, and then merely translates it. Most of the time she is in a progressive relationship—as she goes along, she is making judgments. Sometimes the designer's judgments have the intimacy of a conversational relationship, where she is getting some response back from the medium. (p. 4)

These defining characteristics, an open-ended situation directed by ongoing dialogue, make for an elusive process that is difficult to get one's hands around. However, substantive knowledge about this process is needed to guide effective planning for artmaking instruction. This article addresses this concern by describing and analyzing the results of a 10-week art education studio methods course that sought to develop graduate and undergraduate students' abilities to plan meaningful studio
What is it that artists do when they create artworks? How do artists pursue meaning?

A major strategy for accomplishing this objective was engaging the graduate students (who ranged from highly to less experienced practicing art teachers and the undergraduate students who were preparing for future practice) with the artmaking process in a highly conscious and reflective manner.

The artmaking process, presented to the graduate and undergraduate students, evolved from my study of the artistic practice of numerous contemporary artists including sculptors, installation artists, photographers, and painters. The study of these artists' practices was motivated by two questions: what is it that artists do when they create artworks? and, in particular, how do artists pursue meaning? The goal was to understand conceptual approaches to artmaking and comprehend how specific artistic practices enabled conceptualization.

Other researchers and educators have used a similar methodology such as Schön's (1985) in-depth studies of the professional practice of architects and graphic designers and Manuel Barkan's groundbreaking curriculum reforms of the 1960s that approached art curriculum through the belief that professional artistic practice can serve as a productive model to instruct students about the artmaking process and its conceptualization.

The Artmaking Process

In researching contemporary artistic practice, I identified the use of big ideas as a major conceptual factor that shapes the artist's practice (Walker, 2001). Big ideas can be characterized as themes, issues, or perhaps questions that captivate the artist for extended time periods, often for years. The artmaking process under discussion in this article utilizes big ideas as a conceptual centerpiece that is elaborated by other elements such as personal connections, knowledge, artmaking problems, and boundaries. This structure provides insight into the conceptual nature of the artmaking process, but it does not offer hard and fast rules of practice. That is, the enactment of these elements carries great diversity with individual artists, and the study of individual artists can be extremely profitable in revealing a range of strategies and methods with these different elements.

![Figure 1. The Artmaking Process](image)

- **PERSONAL CONNECTIONS**
- **BIG IDEAS**
- **ARTMAKING PROBLEM**
- **KNOWLEDGE BASE**
- **CONCEPTUAL STRATEGIES**
- **BOUNDARIES**
Engaging the Artmaking Process

One undergraduate, who participated in the studio methods course, remarked:

When I began this class, I thought, 'hey, I know this, this is all stuff I've already done in my own art.' I wasn't sure why we had to take a whole class on the artmaking process. Obviously, we all made art before, right? So we should all be familiar with the process, right? It was only after I really started working with the ideas and trying to apply them to other artists that I realized how complex these concepts are.

This student is correct. These concepts appear simple but often after engaging in reflective practice their complexity becomes more apparent.

The undergraduate and graduate students initially investigated the artmaking process in the practices of professional contemporary artists as revealed in artist interviews (published and video-recorded), artworks, and critical writings seeking evidence of the artists' process in creating artworks. Students identified possible big ideas that informed each artist's practice and considered how personal connections, problem solving, knowledge, and boundaries assisted the artist in exploring and expressing these big ideas. However, this was not sufficient in itself, but required further elucidation through actual artmaking experiences. Schön (1985) observes that design students cannot learn what their instructors mean until they have plunged into designing.

Similarly, the art education students engaged artmaking through individual projects focused around big ideas of their own such as identity, humans and nature, relationships, spirituality, and power. The students also selected a related topic for the big idea. For example, a graduate student selected identity as a big idea and the topic of male ritual, and an undergraduate chose identity as a big idea, but looked to advertising media as a topic.

A crucial aspect of this artmaking experience was maintaining reflective documentation of the process as it evolved. Over the 10-week period, students recorded decisions, changes, and insights which shaped their artmaking and thinking in regard to the artmaking process. Without this reflective documentation, an awareness of the conceptual nature of the artmaking process would most likely have been lost on many students. All of the students had prior experience with artmaking, but it is doubtful that their attention had been so directly engaged with the process itself.

Schön (1996b) argues this thesis regarding the reflective practitioner when he describes "knowing in action." He explains:

Sometimes we think about what we are doing in the midst of performing an act. When performance leads to surprise—pleasant or unpleasant—the designer may respond by reflection in action: by thinking about what she is doing while doing it, in such a way as to influence further doing. (np)

"How can I possibly begin to write all that this project and process has meant to me? From the start, this project consumed my life."

New Perspectives About the Purposes of Artmaking

It was surprising to discover how often the students' commentary expressed strong sentiments about increased confidence as an artist and decidedly new understandings of the role of meaning-making in artmaking. An experienced California art teacher, Deborah, enrolled in the online version of the course, remarked, "I don't think my work will ever be the same, and I look at all my former work with derision and a bit of horror. I feel much more confident about my work, and more comfortable with it." Liz, an American art teacher working in Saudi Arabia and also participating in the online version of the course, enthusiastically observed, "I have finally found my own artist's voice. This process has expanded my idea of what art is about and how it gets its energy. I am still aware that I have a long way to go in terms of technique, but now I feel like I have something important to say in my work." Similarly, an Ohio middle school art teacher, Rita, confessed, "I have learned that I have something to say." These remarks and others, including those by undergraduates as well as graduates, evidence a significant change in understandings about the purposes of...
artmaking. Dayna, an undergraduate, typifies this change. She remarked:

What have I learned about artmaking? Being involved in the project gave my artmaking a focus that it has never really had before. To be required to think about one idea for many weeks creates a sense of depth in artmaking that cannot be found in projects that are hurried through. This project was infused with a sense of meaning that almost all of my previous works lack. Much of my artmaking experience has been more skill-based; meaning was an afterthought. I much prefer this way of working—where meaning comes first, and skills are second.

The key to this dramatic change, for the undergraduates and graduates, was primarily their encounter with big ideas as a conceptual focus for artmaking.

Selecting a big idea with personal relevance is a key factor in the efficacy of the big idea for the artmaking process. Mollard (2003) finds that professional artists often conflate big ideas with their own personal identity. Finding personal connections was an explicit requirement for the undergraduates and graduates and it was often at this point that the project and big idea came to life for them. Hester, a Missouri elementary art teacher who focused her artmaking project on the big idea of spirituality, was motivated by personal experiences she acquired while traveling in Japan. Hester observed, "I have made more connections with this particular artmaking project, more than in most of the artmaking I have done in the past. The difference is I have a personal connection to the project and the research for the knowledge base helped to direct the progress." And Rita, an Ohio art teacher, declared, "How can I possibly begin to write all that this project and process has meant to me? From the start, this project consumed my life." As a middle school teacher, Rita found personal and social meaning in investigating the idea of ritual in women's lives, particularly young girls. She explored female rituals through the creation of several different artworks that incorporated diary and journal writing from young girls who were experiencing the social pressures of today's teen-age world and young girls from over a hundred years ago during her grandmother's lifetime.

Pursuing Big Ideas:
Artmaking Problems

Artmaking problems abet the artmaking process as a plan for investigating big ideas. Thus, the artist's construction of a conceptual artmaking problem becomes critical in determining the depth at which they pursue meaning and hence the fecundity of meaning in their artworks.

An analysis of the students' approaches to constructing conceptual artmaking problems evidenced widely variant results. Some students evolved big ideas with inventiveness, depth, and complexity while others produced much more conventional and non-exceptional results. One possible explanation for these differences was the students' willingness to delay closure during the artmaking process. That is, some students kept their options open throughout the artmaking process with openness to seeking new solutions rather than relying upon more obvious and normative possibilities for

Figure 3. Deborah Spatafore, Untitled, 2002, mixed media.

Figure 4. Rita Walbeck, Diary, 2002, mixed media.
What is it that artists do when they create artworks? How do artists pursue meaning?

expressing the big idea. They were also receptive to reformulating the problem as the process commenced.

Delay in closure often surfaces as an important factor in creativity research that investigates problem finding and problem solving. Mace’s (1997) study of the practices of 16 contemporary artists noted that frequently, as a result of constant conceptual reevaluation and reformulation, final solutions were often forestalled. Getzel’s and Csikszentmihalyi’s (1976) seminal study of Chicago Art Institute art students recognized that the students who were judged to be more creative tended not to utilize pre-conceived ideas or principles, but rather let the artmaking solution gradually emerge during the process. Mollard (2003) finds that installation artist Ann Hamilton, video artist Bill Viola, and technology artist Nam June Paik consistently delay closure in the production of their artworks. I also have discovered this strategy as it is utilized in the artmaking practice of contemporary artists as diverse as graffiti artist Keith Haring, sculptor Claes Oldenburg, and installation artist and photographer Sandy Skoglund. These artists begin artworks without clear end-goals and engage cycles of problem reformulation throughout the process. Further, McCarthy and Sherlock’s (2001) transformational method for drawing advocates forestalling final solutions and actively reshaping the problem throughout the process. With this approach McCarthy and Sherlock encourage flexibility and invention by requiring students to “resist the natural tendency to state the obvious” and “not to seek out familiar landmarks.” The authors explain, “if they resort to the safety of the familiar they will cut themselves off from their drawing’s true potential before it has even begun.” The evidence for the significance of delaying closure with artistic practice in order to produce more substantive results is convincing, but why do some artists enact it and others do not?

Delay in closure is intimately related to disposition in that it requires a high degree of tolerance for ambiguity and innate curiosity. Jay and Perkins (1997) observe, “abilities, knowledge, and strategies enable a person to problem find, and contexts provide the stimulus, but it is dispositions that actually promote the initiation of problem finding” (p. 285). These authors acknowledge that the role of disposition has barely been scratched in creativity research, but it is definitely needed in explaining how “an individual’s tendencies, such as openness to new directions, fending off closure, or bias for originality, might influence the way a problem occurs” (Jay & Perkins, 1997, p. 287). These remarks parallel the findings from my own research into professional artistic practice. That is, I have concluded that, although an artist might enact all of the elements of the artmaking process—big ideas, personal connections, knowledge, artmaking problems, and boundaries—inventive artworks, rich in possibilities for substantive meaning, are subject to the artist’s handling of these elements. To investigate this in the undergraduate and graduate artmaking projects, I analyzed the students’ artmaking process as to whether the student appeared to seek closure or delay closure.

Seeking Closure/Delaying Closure

The following is a description of the steps one undergraduate undertook in delaying closure. Emily began her exploration of the big idea of identity and gender with the following comments:

Gender roles is such a broad concept. There are a million different avenues...it’s overwhelming! In the past I have explored gender roles through art. For one project, I burned feminist slogans into clothing. In another project, I explored how women deal with anger. I wrote different words in the air with fire and captured it with a camera. These both were exploring women and gender roles. I would like to explore a new and different aspect.

It appears obvious from Emily’s descriptions of previous artworks that she is a student who is willing and inclined to take risks. Further, her comments strongly indicate openness, tolerance for ambiguity, and a willingness to delay closure. For her artmaking project, she created a photographic series built around unexpected juxtapositions of gendered objects such as a barbeque grill topped with five fluffy pink carnations roasting over lighted coals, a partially filled baby bottle with floating cigarette butts positioned alongside an open can of powdered baby formula littered with stubbed out cigarette butts, and a cropped image of a male hand holding a flaming cigarette lighter next to a metal hammer head. Emily explained her process for conceptualizing this artmaking problem, stating:

Since gender roles are perpetuated by the media, creating advertisements against gender roles would be a way to use the media against itself. This doesn’t seem like a very original idea...it doesn’t quite excite me enough. What about creating gender roles with non-human things such as animals, plants, or even just objects? What about taking very specifically associated gendered actions and displacing them into opposing situations? How could I depict the destruction/breakdown of gender roles? By burning and melting? Melting could be symbolic of transforming into something else—the real you.

Creating something new out of the old. It can also show a change in gender roles—new gender definitions created.

Looking back on the past year, I realize that I have used fire a lot as a medium in my artwork. I feel as though I have done so much I have exhausted the possibilities. This interests me to push further and see if I can’t find new ways to create art using this medium. To make it a little more interesting, I would like to extend it to heat.
This internal dialogue between the artist and herself reveals someone who is striving to push her thinking further, rejecting repetitions of past artmaking, seeking the novel and original over the reliable and safe, raising questions, and employing contradiction. Her remarks demonstrate an important hallmark of inventive artistic practice in recognizing and indeed searching for contradictions and ambiguities whereas more conventional artistic practice would disregard these elements in favor of correspondences and similarities.

This example contrasts with that of less open students, undergraduates and graduates, who demonstrated a proclivity for closure and an acceptance of the conventional. They posed few questions, embraced the familiar, and sought balance and stability. This of course is not an unusual occurrence; an inventory of artistic production from professionals or student artists could evidence similar results. The idea that all artists are not equally inventive, inclined toward risk taking, or engage in deeper critical thinking is not a new finding, but it does raise questions about the absence of such traits. Is it a failure to conceive of artmaking as a discovery process? Is it misplaced attention? Is it the influence of past artmaking experiences or the lack of such experiences? Is it factors of disposition?

McCarthy and Sherlock (2001), designers of the transformative drawing approach described earlier, admit that the process they recommend with its cycles of construction, deconstruction, and reconstitution is extremely demanding. Thus, in the classroom, they actively and overtly promote a tolerance for ambiguity, a search for the non-obvious, and a process of construction, deconstruction, and reconstitution. I suggest that such manifest and directed pedagogy should be considered. Successful professional artists often practice artmaking in this manner, but experience tells us that students most likely will not embrace artmaking practice in this manner. It is one thing to introduce students to an artmaking process or to instruct them to engage it in a reflective manner, but it is another for students to utilize the process with invention and deeper critical thinking.

Acquainting students with the artmaking process and reflective practice, as described in this article, represents an initial first step. That is, evidenced by the response of the undergraduates and graduates to the big idea, an artmaking process structured around big ideas orients students toward the notion that

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artmaking can be about meaningmaking that has both personal and larger social consequences. Additionally, the use of big ideas, personal connections, knowledge, artmaking problems, and boundaries nourishes and enables the employment of meaning in artmaking. Space did not permit a discussion of the role of the knowledge base, but this aspect of the process had considerable effect on students' construction of more substantive meaning in their artmaking.

Further, the reflective aspect was a highly significant factor in developing the students' understanding about artmaking as a conceptual process. As one undergraduate, Andrew, remarked:

This course has given me the opportunity to explore the process of how I create art. This knowledge can only benefit me as well as the students that I will eventually teach. I was amazed at how much more I was able to draw out of my studio experience by being aware of my own creative process. While I do not personally consciously function in the manner in which the course material was presented (big idea, key concepts, knowledge base, boundaries, etc.) the course has given me the vocabulary to clearly communicate my ideas to others. In a discipline where all too often the process is based on feelings, it is extremely helpful to have a model that demonstrates the concepts of the artmaking process.

Conclusions

I strongly concur with the notion that artmaking cannot be reduced to a formula, but I suggest that the structure of the artmaking process as described in this article is both sufficiently general and specific enough to effectively direct artmaking practice toward meaning and can function as a first step in developing more substantive artmaking practice. This first step, however, requires further instructional intervention, perhaps in the form of overt, directed student reflection upon artistic practices that characterize more inventive and critical artistic activity such as delaying closure, risk-taking, actively searching for contradictions, rejecting the conventional and familiar, and exhibiting tolerance for ambiguity. Would it not behoove art educators to directly address these practices through instruction rather than simply hoping that students might employ them?

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REFERENCES


ENDNOTES

1. The 10-week artmaking project was part of three undergraduate and graduate art education courses, "The artmaking process: How artists think," taught by the author at The Ohio State University, Columbus, Ohio.

2. The artmaking project required the 45 undergraduate and graduate students to individually select a big idea and related topic; build a knowledge base about the big idea; set artistic and media boundaries with students; and complete a project for exploring the big idea and produce multiple works based on this foundation. Fourteen graduate students were enrolled in an online version of the course, 4 graduate students participated in an independent study version of the course, and 27 undergraduates attended a traditional classroom setting for the course. Throughout the artmaking project, students posted their commentary and art on a personal website that became the basis for my analysis of their understandings of the artmaking process.

3. All student commentary derives from the undergraduate and graduate student websites as a requirement for the artmaking project.