

Enhancing Critical Thinking with Aesthetic, Critical Thinking

Inquiry-based classroom activities require students to solve problems and answer questions that have more than one possible resolution. These types of activities stimulate critical thinking skills and dispositions in students (Burton, Horowitz, & Abeles, 1999; 2000; Housen, 2001; King 1990; 1992; 1994; 1995; 2002; King, Staffieri, & Adelgais, 1998; Lampert, 2006). PreK-12 art classrooms are rich with opportunity for inquiry-based activities for children and adolescents. This article reviews research on inquiry-based instructional techniques that enhance critical thinking and offers suggestions on ways to use aesthetic, critical, and creative inquiry in art classrooms to stimulate higher order thinking in art students.

Definitions of Terms

This discussion focuses on the ways that critical thinking skills and dispositions can be developed through aesthetic, critical, and creative inquiry. Many researchers and theorists have defined critical thinking, and although each describes the construct in a slightly different way, most include language in their definitions that describes it as thinking which is focused on the evaluation of various alternatives (Jones, Hoffman, Moore, Ratcliff, Tibbits, & Click, 1995; Paul, Elder, & Bartell, 1997; Perry, 1999; Ennis, 2002). In acknowledgment of the many permutations of the construct which have arisen in contemporary literature, Ennis (2002) has developed what he refers to as a "super-streamlined" definition of critical thinking, which is: "reasonable reflective thinking focused on deciding what to believe or do." This description aligns with the synthesis of definitions cited above and illustrates how many contemporary researchers describe higher order thinking.

Dispositions are the inclination to use existing skills (Perkins, Jay, & Tishman, 1993; Facione, Giancarlo, Facione, & Gainen, 1995). Students who develop critical thinking dispositions approach experiences with an inclination for accepting that when confronting complex problems there are many possible solutions which must be reflected upon and decided on.

Aesthetic inquiry is an exploration into broad questions about the value, nature, meaning and definition of art. Aesthetic inquiry does not focus on analysis of specific artwork, but rather on discussions of art in general. Critical inquiry and analysis is the exploration and investigation of a specific piece or body of artwork (Stewart, 1997). Creative inquiry is artmaking, which entails exploration of expression with visual language. In many art classrooms, there is a great deal of criss-crossing and overlap in these three types of inquiry.

Critical, and Creative Inquiry

BY NANCY LAMPERT

The Value of Critical Thinking

Developing critical thinking skills and dispositions in young people affords them the means to make thoughtful choices. Aesthetic, critical, and creative inquiry can help facilitate the development of these skills and dispositions in art students. Lampert (2006) compared the critical thinking dispositions of arts and non-arts undergraduates and found that college students who were exposed to a fine arts curriculum that includes aesthetic, critical, and creative inquiry had significantly higher critical thinking dispositions than students who had no exposure to this curriculum. The instrument used in this study, the *California Critical Thinking Disposition Inventory* (Facione & Facione, 1992) tests the discipline-neutral internal motivation to approach problem framing or problem solving by using thinking and reasoning (Giancarlo & Facione, 2001). Lampert's findings, which showed that art students had significantly higher discipline-neutral critical thinking dispositions than non-arts students, indicate that the art students in the sample were more inclined than the non-art students to use thinking and reasoning when solving all problems, not only art-related problems.

Research with K-12 students has also shown that inquiry-based art curricula enhance critical thinking skills and dispositions (Burton, Horowitz, & Abeles, 1999; 2000; Housen, 2001). Burton, Horowitz, and Abeles (2000) found that students with high arts exposure showed clear evidence of an understanding of "multiple or alternative vantage points" (p. 246). The researchers refer to the competencies they identified in high arts exposure students as "habits of mind" rather than higher order thinking" (Burton et al. 1999, p. 43), but many of the cognitive competencies Burton and her colleagues identi-

fied in high arts exposure students, such as an understanding of multiple vantage points, are closely aligned with critical thinking competencies and dispositions as they are described in many of the construct models.

Because researchers have shown that developing critical thinking skills and dispositions in young people enhances their ability to be reflective when considering complex, open-ended problems, whether those problems are related to aesthetic or social issues, a K-12 curriculum which includes aesthetic, critical, and creative inquiry supports the development of valuable life skills in students.

Inquiry-Based Instruction

For over a decade, educational psychologist Alison King (King, 1990; 1992; 1994; 1995; 2002; King, Staffieri, & Adalgais 1998) has researched inquiry-based instructional techniques that stimulate critical thinking in both K-12 and college students. Her work has focused on a technique for guiding student learning with the use of "question stems" as discussion starters. These question stems are queries such as "What are the implications of...? Explain why... Explain how... What is the counterargument for...?" (King, 1994, p. 24). King's research has shown that these questions facilitate higher order thinking by requiring students to reflect upon and reconcile various perspectives and solutions for open-ended and ill-structured problems. When students consider responses on various content issues they are required to think deeply to develop answers. Developing thoughtful rejoinders to open-ended questions, and considering the varied responses of fellow classmates enables students to reconcile and link the new ideas of classmates with their own existing thoughts on content issues. Such linkages help to create complex, higher order cognitive networks in students

which then become more stable as they are further elaborated by continued inquiry into the content area (King, 2002).

King (2002) notes the importance of teacher guidance and intervention in inquiry-based activities for students: Without teacher intervention students may revert to seeking just one "right answer" to a problem rather than working to reconcile various and opposing viewpoints and perspectives. Because critical thinking requires the reflective consideration of various solutions and perspectives before deciding on one resolution, it is important for teachers to guide students in resisting early closure when they work to resolve complex, open-ended problems.

Housen's (2001) research has shown that using aesthetic and critical inquiry techniques with 5- to 18-year-olds helps facilitate higher order thinking in ways similar to those that King has demonstrated with the use of question stems. Housen's technique is like King's in that both utilize questioning techniques. Whereas King works with students in several content areas, Housen uses questions based on artworks. For example, she asks students viewing an artwork to explain, "What is going on here...? What do you see that makes you say that...?" (p. 2). She explains that she uses aesthetic and critical inquiry to develop critical thinking because the interpretation of artwork allows for "more than one right answer... the natural complexity and ambiguity of art... insures that many differing observations can be supported" (p. 2). A key element in Housen's technique is motivating students to cite evidence in their evaluation of a work of art. This cognitive challenge encourages students to look closely at the work and to think carefully about their reactions to it.

Inquiry Strategies

Geahigan (1997) Model of Aesthetic and Critical Inquiry

- Students exchange observations and opinions about a work of art
- Students compare and contrast related works of art
- Students reflect on controversial art

Stewart (1997) Strategies for Fostering Critical and Aesthetic Discussions

- Keep the discussion focused
- Raise questions without providing answers
- Ask participants for clarification and supporting evidence for their opinions
- Relate viewpoints to aesthetic theory
- Encourage and suggest alternative viewpoints
- Provide closure by summarizing the opinions that emerge in the discussion

Barrett (1997) Three Critical Inquiry Questions

- What do I see?
- What is the artwork about?
- How do I know?

Facilitating Creative Inquiry with Artmaking

- When the goal is inquiry, discourage students from imitating existing artwork
- Stimulate inquiry with visual examples showing multiple approaches for solving a creative problem
- Encourage students to develop unique solutions to artistic problems
- Embrace the differences between students' creative solutions

As with King's inquiry technique, Housen's aesthetic questioning is done in a group setting so that learners are exposed to various interpretations and observations and are stimulated to actively construct and reconstruct understanding of a work of art by reconciling varying perspectives on it. Housen's research has demonstrated that these critical inquiry techniques develop new, higher order patterns of thinking in students who are exposed to them.

Critical and Aesthetic Inquiry

Geahigan (1997) developed a model of critical and aesthetic inquiry which is highly workable, user-friendly, and which utilizes the techniques researched by King and Housen for facilitating the development of higher order thinking. His model of inquiry is based on three strategies: students exchange observations and opinions about a work of art; students compare and contrast related works of art; and students reflect on controversial art.

The first component of the Geahigan model of critical inquiry calls for students to exchange observations and opinions. Based on her or his personality, background, and level of sophistication in viewing art, each student will have a unique reaction to an artwork. If students

are encouraged to share their observations and interpretations, they reconcile and link the ideas of classmates with their own ideas. This is the process that King (2002) has shown facilitates the development of complex, higher order cognitive networks which then become more stable as they are further elaborated by continued inquiry into the content area. If students continue to reflect on an artwork with journal entries after they have listened to classmates' opinions on it, they develop higher order reflective thinking as they form an increased depth of critical and aesthetic understanding.

In the second strategy of the Geahigan model, students compare and contrast carefully selected works of art. Geahigan explains that "the act of comparing and contrasting can challenge prior assumptions about the nature of art that foreclose thought and reflection" (p. 186). For example, if students view and discuss half a dozen portraits by artists from various time periods and genres, many aesthetic questions about the nature of portraiture, symbolism, and expression may arise. Class discussion of these topics will likely challenge preconceived opinions that students may hold about the purpose of representational painting, the use of symbols, and the use of expressionistic techniques, and foster reflective thinking and increased depth of aesthetic awareness in relation to significant art issues.

In the same way that comparing and contrasting works of art might challenge students' preconceptions about genres and artistic intentions, inquiry into provocative works of art—the third Geahigan strategy—can be used to engage students in discussions about social or aesthetic issues. Discussions about works that challenge artistic or societal norms provide students with new perspectives to reconcile with existing beliefs; this approach further develops thinking skills and dispositions, and aesthetic understanding. Such inquiry into provocative works of art might also include discussions of visual culture, which ranges from advertising, film, television, video, to folk art, tribal art, apparel design, toy design, "and other forms of visual production and communication" (Freedman, 2003, p. 1).

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Geahigan's model of inquiry emphasizes that students' personal responses to a work of art are the starting point of aesthetic and critical analysis. He stresses that teachers should encourage multiple readings of an artwork—including those from the point of view of students, from the artists who created the works, and from critics and historical and contextual documents. As students gain experience in learning to support their individual interpretations with reasoned explanations, as critics do, they develop skills in building evidence-based arguments—a key component in critical thinking.

Facilitating Critical and Aesthetic Discussions

To facilitate open-ended class discussions which aid in the development of aesthetic awareness and reflective thinking, teachers should model respect for divergent thinking in classrooms. If an atmosphere of trust, open-mindedness and honesty is encouraged in a classroom, students will willingly express their individual opinions and will not feel pressured to conform to the teacher's or the majority's opinion. In *Thinking Through Aesthetics*, Marilyn Stewart (1997) outlines a list of guidelines for facilitating open-ended critical and aesthetic discussions. She recommends teachers initially take the leading role in such discussions, but that "as students become more adept in

dialogue, they can take turns functioning in the role of facilitator" (p. 37). Stewart recommends that in a friendly, non-threatening way the facilitator should: keep the discussion focused; raise questions without providing answers; ask participants for clarification and supporting evidence for their opinions; relate viewpoints to aesthetic theory; encourage and suggest alternative viewpoints; and provide closure by summarizing the opinions that emerge in the discussion.

Barrett's Three Critical Inquiry Questions

In *Talking about Student Art*, Terry Barrett (1997) lists three, easy-to-remember questions for stimulating student discussions about art. His questions are: What do I see? What is the artwork about? How do I know?

Barrett's three questions are effective tools for stimulating critical thinking because responding to these questions requires that young people provide evidence and reasoning with the descriptions and interpretations they share. As Barrett explains,

providing reasons for interpretation prevents accepting any and everything someone might say about an artwork. Some interpretations are better than others because they have more evidence, and are more convincing and enlightening. Some descriptive observations are faulty (the subject may be a goat and not a unicorn); therefore, the interpretations built on them are likely to be flawed. Good interpretations are those that accurately reflect what is in the work and what brings life to it; they reveal to viewers what there is to consider about the work, and engage others in informed thought and discussion about art and life. (p. 49)

Careful, sound, evidence-based discussion may convince one student to reconcile the perspective of another with their own viewpoint when interpreting an artwork, which is an important facet of higher order thinking.

Creative Inquiry and Critical Thinking

Many art teachers will recognize the techniques for facilitating divergent and critical thinking in classroom discussions because they resemble the techniques that teachers use to guide the production of studio work. In studio production, the act of resolving open-ended, creative problems is also a key form of inquiry in which art students engage. As Eisner (2002) explains, "Thinking in the arts is a form of qualitative inquiry in which sensibility is engaged, imagination is promoted, technique is applied, appraisal is undertaken" (p. 232). Teachers facilitate the process that art students undertake in formulating individual solutions to creative problems when they emphasize that there is more than one "right answer" to open-ended artistic problems, such as the problem of how students might visually express joy, or strength, or impermanence. Teachers foster critical thinking in students when they urge students to consider many possible resolutions of artistic problems, and also, when in classroom critiques they reflect upon the divergent perspectives of classmates who have resolved the same creative problems with a variety of outcomes.

To facilitate effective creative inquiry in K-12 art classrooms, teachers will want to insure that the creative problems they present to students are open-ended. Rather than giving students examples of an artwork that displays one way to solve a creative problem, which students are then expected to merely imitate, classroom examples should suggest multiple resolutions. The goal of effective creative inquiry is to guide students in thinking deeply and originally so that they make individualized choices about how best to express their resolution of the problem. When students follow multiple paths of creative inquiry in a classroom, the artwork of one student may look very different from that of another.

For example, with a self-portrait assignment, a teacher might use a specific self-portrait by Vincent van Gogh as a cultural exemplar for students to emulate when painting their own self-portraits. This type of classroom artmaking is not open-ended problem solving and it limits the choices of students in their expression of self. In contrast, the self-portraits of many artists and genres could be presented to students as examples of the multiple perspectives of artists who have created representations of themselves. For their self-portraits, students could then be presented with the open-ended problem of choosing for themselves the styles and media they feel best enable them to express specific ideas about themselves through visual language. In this scenario, what students will say and how they will say it becomes an open-ended problem, with myriad possible solutions. As students develop individual solutions to open-ended creative problems and reflect on the unique solutions developed by fellow artists, they engage in higher order thinking.

Conclusion

Students' critical thinking as well as their understandings of visual communication can be deepened by classroom inquiry into aesthetic, critical and creative questions. When teachers facilitate artmaking and student discussions about artwork in ways which enable young people to openly express what they see and believe, and what it means, students learn from each other about art and how it relates to individual life experiences, and they engage in activities which stimulate higher order thinking. These activities enhance students' abilities to approach both art and life with a disposition for accepting that when confronting complex problems and issues there are many possible solutions which must be carefully reflected upon and resolved.

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