The teacher walks through the aisles, handing out packets of multiple-choice practice questions, and the students groan. The teacher shrugs helplessly; what else can she do? When test preparation is paramount, teachers increasingly turn to traditional forms of assessment, drill, or repetition (Bustle, 2004; Oreck, 2006).

Using visual arts projects as assessments for higher level reading comprehension skills can offer an alternative that accommodates a variety of working styles and engages students in critical thinking skills. In this case study, 21 high school juniors created works of visual art to demonstrate their ability to synthesize and manipulate detail in their reading; to solve interpretive problems; to use metaphor and symbol to represent their interpretation of literary elements; and to make personal connections with the content of the reading.

Many research studies demonstrate the effective use of visual arts in constructing meaning from texts (Bustle, 2004; Chicola & Smith, 2005; Corwin, 1977; Grant, Hutchinson, Hornsby, & Brooke, 2008; Mills, 1975; Miller & Hopper, 2010; New York City Board of Education, 1981; New York University Center for Field Research and School Services, 1973). In addition, art education theorists such as Arnheim (1971), Corwin (2001), Eisner (1992), and Efland (2005) have established a clear link between the brain’s cognitive processes and art activities. Specifically, research connects experiences in the arts to higher level thinking and problem-solving skills (Bustle, 2004; Hamblen, 1993; Heath & Wolf, 2005; Lampert, 2006; Marshall, 2008; Silver & Lavin, 1977).

To assess whether a work of art demonstrates critical or higher level thinking skills, both terms require a specified definition. Ennis (in Lampert, 2006) defined critical thinking skills as “reasonable, reflective thinking focused on deciding what to believe or do” (p. 46).

On the other hand, Bissell and Lemons (2006) defined critical thinking as the upper half of Bloom’s taxonomy: analysis, synthesis, evaluation. In the latter case, critical thinking is indeed the higher level thinking skills.
This second definition will apply to this study, and therefore the terms critical and higher level thinking will be used interchangeably. Despite the clear links between art and higher level thinking processes, few researchers explore the use of visual arts as an assessment for reading comprehension (Bustle, 2004).

When clear objectives are established for the assessment, and students present a readiness to pursue an arts experience as an assessment (Oreck, 2006), they can experience many benefits from creating arts projects as assessments for reading comprehension. According to Oreck (2006), an aesthetic experience demands that students attend to form and its relevant qualities, connect the text to their own feelings or personal experiences, use multiple forms of expression, and manipulate symbolic objects.

When creating an art project, students negotiate a sea of details, a skill that must be nurtured and practiced to reach a level of efficacy (Heath & Wolf, 2005; Mills, 1975; Silver & Lavin, 1977). In addition to encouraging students to notice and manipulate detail, an arts experience develops problem-solving skills and thinking stamina (Heath & Wolf, 2005).

How can the particular qualities exercised in creating art connect to reading comprehension? Piro (2002) argued that “language arts and visual arts share... semantic and syntactic properties” (p. 128). Mills (1975) agreed that creating art requires students to use the same cognitive skills that students use when they read. He argued that the work a child does to control and use symbols in art prepares him or her for using the visual symbols associated with reading, specifically elements such as letters and numbers (Mills, 1975).

Bustle (2004) took the next step and explored the use of art as a more effective assessment, especially for diverse learners. One of the elementary teachers in Bustle’s case study found that the processes in creating art created the necessary scaffolding for students to become more engaged, to understand texts more deeply, and to develop “higher level abstract and critical thinking” (p. 418). This study seeks to further Bustle’s exploration by tracking the higher level thinking demonstrated by adolescent students as they created works of art to show their understanding of a literary text.

Traditional assessments may not trigger the same high level of thinking as succinctly as art does (Hamblen, 1993). But, for the teacher facing the challenge of a test-driven curriculum, the types of art projects used as assessments must demonstrate a very specific and rigorous skill set.

Lampert (2006) recommended that teachers discourage mimicry, show multiple ways of solving a creative problem, and encourage a variety of responses from students. Marshall (2008) leaned toward the use of contemporary or more abstract art projects because they tend to elicit higher level thinking skills.

Abstract art also demands that students utilize formal elements to communicate what are often nonverbal concepts (Bustle, 2004). Bustle (2004) recommended that a teacher should determine which medium will more efficiently communicate the object of the lesson and carefully communicate expectations when implementing visual assessments.

In general, the criteria for visual assessments should be carefully crafted, including both the elements of process and product (Gruber, 2008) as well as potentially both informal and formal evaluations. Gruber (2008) suggested that the craftsmanship and the degree of difficulty be considered, while a teacher in Bustle’s study (2004) confessed that she relied heavily on the student’s commentary regarding the decisions made through the creation process in order to determine that learning occurred.

When higher level thinking skills are the targeted skill area, a teacher may legitimately distinguish between average work and work that takes intellectual or conceptual risks (Gordon, 2004). Students who perceive a gain from attempting “‘dangerous’ work that pushes the boundaries and tests the reader” (p. 64), are less likely to play it safe.

In short, the criteria of the assignment need to prescribe the higher level thinking skills that the teacher desires, as well as dictate the kind of personal qualities necessary for success in more challenging scenarios: effort (Bustle, 2004), perseverance, and risk taking. Through the context of the unique combination of art and reading, students can
demonstrate these personal skills, in addition to more highly developed reading comprehension skills.

Research Design

This study was designed to answer the following two questions:

1. How can visual arts projects demonstrate higher level reading comprehension skills?
2. Can visual arts assessments in reading be a rigorous alternative to traditional assessments?

This action research study was integrated into the regular classroom curriculum for 11th-grade academic (not honors) English students at a rural public school with a history of success in standardized testing and a continued focus on test preparation as a primary driver of curriculum. This school also enjoys a strong art program that is valued by students. In this environment, the researcher could anticipate certain positive predispositions toward the use of art in the curriculum, as well as expect that only rigorous assessments that demonstrate the skills needed for standardized test success would be acceptable to the administration.

For this study, students in three of the researcher’s four classes were invited to participate, and 21 students elected to do so. The researcher’s first-period class was not invited to participate because of the special events that often impinge on class time during the first period of the day.

Two of the three participating classes were large, with 27 and 29 students in each. The third class contained only nine students. Participants included students who struggled and excelled at reading, as well as students with a variety of experiences in art.

The study occurred at the conclusion of a literature circle unit, one of four throughout the year in which student groups read and discuss a novel together using student-generated questions and teacher-led minilessons to focus and clarify student understanding of the various novels. The novels included: *All the King’s Men*, *The Grapes of Wrath*, *Heart of Darkness*, and *The Jungle*. Students participating in the study were given a choice among visual arts assessments, including painting, drawing, sculpture, and photography, to demonstrate their understanding of concepts in the novels they read and discussed throughout the unit.

Methods of Data Collection and Analysis

As students worked on these visual arts assessments, the researcher circulated and jotted down anecdotal notes. Students referred to an instructor-generated rubric to guide their work; the student’s grade on the assignment was generally considered as a way to explore the effectiveness of the rubric. A video camera filmed the class, and the researcher also occasionally took photos of students and their work.

Students presented their projects verbally or in writing to the class, defending and explaining their decision-making processes as they completed their projects. After the presentations, the researcher invited 12 students who could represent a range of project choices as well as a range of abilities and learning styles for a follow-up focus discussion, which was also videotaped and analyzed. At this meeting, six students reflected on their experiences of using a visual arts assessment to determine their levels of reading comprehension.

The data analysis progressed from description, to analysis, and then to interpretation (Glesne, 2006). Student comments (both verbal and in writing), student writing, and student progress on the visual arts assessment were analyzed using a coding system that focused on categorizing the student’s comments into three major themes that emerged (Coffey & Anderson, 1996): (1) barriers to the successful demonstration of comprehension, (2) benefits of using art assessments, and (3) examples of higher level thinking. Within the third category, the researcher sought to identify the types of thinking processes demonstrated as the student completed the project and how he or she related the artwork to concepts in the novel.

Findings

The observation and analysis of student behavior and comments during the study indicated that
students demonstrate a variety of critical thinking skills as they relate their reading to art. Of the 21 students in the study, 14 produced work that demonstrated connections beyond the illustrative, and 10 produced work that established metaphorical connections, or synthesized details in a way that required a clear understanding of thematic concepts in the text.

In addition, because the project rubric rewarded metaphorical and personal connections, careful selection and manipulation of details, and a proficiency of basic art skills and design concepts, students who had the most sophisticated understanding of the text also earned higher scores.

**Inhibitors**

The researcher observed several barriers as students worked.

**Comprehension Without Reading.** “I didn’t read it, but I know what happened,” said Carla. Several students in the study freely admitted they either could not or would not invest the time necessary to read the texts in this 22-day unit of study. Three of the four novels were quite lengthy, around 600 pages each. Reading the book over a 3-week period required a serious commitment to homework.

A charismatic student Pete summarized it this way: “I read the first 25 pages, but it was 600 pages; I told you my minutes per page, didn’t I? Like 2 ½—to read that book it would take me literally probably 12 hours.”

**Clinging to Quotes.** “How many quotes do we have to have?” This common question emerged as students struggled to adapt to the new standards of assessment. Clinging to traditional methods of demonstrating reading comprehension, many spent an exorbitant amount of time searching the text for quotes, although none were actually required as part of the project. The researcher encouraged this initially, however, counseling students that relating quotes to the artwork was “a good way to stay grounded in the text.” Two students had to be prodded to move beyond this stage though, possibly because of its comforting familiarity.

**Narrow Definitions of Art.** “That’s art?” said Pete. When the researcher responded affirmatively, Pete said, “Are you kidding me?” Because abstract works may more easily lend themselves to metaphor connections to text (Marshall, 2008), the researcher presented a slide show of abstract works in a variety of media to challenge students’ notions of art, and encouraged students to attempt found objects sculptures as well as traditional modes of art for their projects. Student reactions made it clear that many had very narrow definitions of art, and breaking down these notions became important as they pondered their own project choices.

**Lack of Confidence.** “My name is Pete Hess, and I took art in ninth grade, and I wouldn’t have passed the class but Mr. Simms drew everything for me.” This cheeky manifesto echoed many students’ experience with art.

Students repeatedly made negative comments about their work and their abilities, even when projects seemed to be going well. A relatively skilled student in drawing, Kevin repeatedly said, “I can’t draw.” In some cases, students felt their lack of ability in art inhibited their choice of projects. Carla said, “I had great ideas, but I’m not that great of an artist that I can draw it out, or paint it.”

**Unfamiliarity With the Medium.** While some students chose projects in mediums with which they had experience, others wanted to “try something new” but found their lack of familiarity with the art medium to be a barrier. For example, a student with limited experience in art overall, Lane created no fewer than three puddles of sopping clay before understanding how to use water more sparingly. Pete, who had no experience with mixing paint, resorted to recruiting his seatmate to mix it for him.

The teacher in this scenario must constantly balance his or her time between providing mini-lessons and helping students to develop their ideas about the text. Consequently, the teacher must feel competent to deliver instruction in a variety of mediums on an introductory level.
Higher Level Thinking Skills
As students formatively discussed their project choices, and worked through the artistic problems that emerged, the researcher observed three types of higher level thinking.

Metaphoric Connections. Ashton, who read Robert Penn Warren’s *All the King’s Men*, painted a “tower of power” to represent “power’s relationship to good versus evil.” As the tower ascended, the windows darkened, showing that “with the rise of power, you’re gonna be corrupt, even if you try to stay on the good side. You still get darker.”

Andrew read the same novel but chose to work in photography, creating a collage of images with Photoshop that related to the character Ellis Burden, the ex-husband who chooses to abandon his life in the aristocracy in favor of mission work. In the novel, Ellis cares for a homeless and emotionally dysfunctional man who chews up bread and sculpts angels from the masticated dough.

Andrew montaged the image of a wide-open mouth behind an image of a statue of an angel holding out her hands (see Figure 1). In her hands, he added an image of a scale. The novel’s protagonist, Jack, dangles on one side of the scale, while a pile of currency weights down the other side. For Andrew, this collage represented Jack’s moral dilemma throughout the novel, and he positioned Ellis as a symbol of judgment over Jack’s choices. Hidden in the folds of cloth behind the mouth are Ellis’s words, “Foulness, foulness.”

Another stunning example emerged in a multimedia piece that Ivy called “Willie’s Tree.” Interested in the development of the character Willie Stark in *All the King’s Men*, Ivy created a wire tree covered with painted papier mache (see Figure 2). Decorated with quotes from the local paper that hinted at corruption and death, the tree branched magnificently into tiny silver extensions that represented the “silver lining” resulting from Willie Stark’s time in office—the hospital named for his son.

This time-intensive piece was artistically compelling, and it demonstrated Ivy’s interpretation of character in an abstract but accurate way that she clearly articulated in her explanation of her piece.

Figure 1 “Foulness, Foulness”

![Image of a statue with a scale](image1)

Note. A photoshop montage of images from *All the King’s Men* based on a quote by the character Ellis Burden.

Figure 2 “Willie’s Tree”

![Image of a wire tree](image2)

Note. A multimedia piece to represent the corruption of the character Willie from *All the King’s Men*. 
Metaphoric connections like these were documented over and over throughout the study.

**Manipulation of Detail.** For student readers, synthesizing details as they played into students’ works of art became a critical way to connect to the text. Kaitlyn, who often struggles as a reader, obsessed over the name of the meatpacking plant in Upton Sinclair’s *The Jungle* and claimed she just could not go on until she had figured it out. A dozen of these kinds of details became important to students as they worked: Was there a hill in the grove of death? Did Jesus have a mustache? Should I have the eye looking up or down?

Dakota, working with John Steinbeck’s *The Grapes of Wrath*, created a list of all of the factors that prevented the Joad family from fulfilling its dream of happiness in California, and he included each in his multimedia piece. Dakota created a wooden gate, complete with artificially rusted hinges and the word “happiness” scrawled in chalk across its panels (see Figure 3). Each mishap or condition that the Joads faced became represented literally or metaphorically on the outside of the gate: their wrecked truck, death, poverty, past sins, and naïve ideas about life in California.

On the other side of the gate, on a green felt field, Dakota placed a bathtub to represent the grandfather’s desire to bathe in grapes upon reaping the bounty of California’s vines and a little white house to represent the mother’s dream of a family home. Both of these were overshadowed by a huge white billboard sign emboldened with the gold letters “FAMILY.” Clearly, Dakota had selectively chosen the details that mattered, and he organized and synthesized them to communicate his understanding of the main conflict in the novel.

**Problem Solving.** Mitchell chose a Photoshop project that involved cutting and moving images to represent a passage in *All the King’s Men*. He wanted to create a giant eye, predominant in the upper corner of the piece, but it looked very pixilated using Photoshop tools.

After collaborating with Andrew, he created it in iFlash but then had trouble importing the file back into Photoshop. For this process, Carla’s help was required, and the three of them spent several minutes experimenting and hypothesizing, trying various solutions, until at last the eye was successfully imported.

Examples of solving complex problems existed in other art media as well. Pete, for example, with no painting experience, had to figure out how to create a three-dimensional hourglass wooden bottom and top using light and dark tonal values. He also found he had to show the change in color as the glass arched around the back of the hourglass globe, showing the purple background wall as well as the brown base beneath.

Sometimes, media-based problems mixed with the challenge of determining the method of representation. For example, Jillian carefully planned a drawing to represent the effects of capitalism in *The Jungle*. After she developed the basic concept of contrasting two fish, one of bones and the other fat and healthy, she went on to create a T-chart to brainstorm other props she might add to the surroundings of each fish to show its status.

To ensure her satisfaction with her design, she first created a scaled-down version of her drawing, and then transferred it to the larger painting using a lightly sketched grid. Both the conceptual challenges and the technical challenges in her process created...
problem-solving opportunities that demanded higher level thinking processes to solve.

When students face problem-solving opportunities over and over again, they develop a kind of thinking stamina (Heath & Wolf, 2005) that is necessary for critical thinking scenarios in the adult world. As one student put it, staring at the clay in front of him, “I just gotta think what I’m doing here.”

Student comments imply that critical thinking occurred during the process of creating a work of art that successfully demonstrated reading comprehension...for better or for worse. When students had an in-depth understanding of the text, their art reflected higher level connections, sometimes despite a lack of artistic ability or training. When students struggled to comprehend the text, their artwork tended to be largely illustrative, and they floundered when attempting to explain their choices in their work.

Students themselves agreed that they had to “read between the lines” and read more for “meaning” than fact in order to achieve success in this project. The use of art projects as reading assessments may indeed be an appropriate alternative for those who have kinetic or visual learning styles, but it does not provide an “easy” grade for any student.

Several observations merit exploration when art is considered as an assessment option for reading comprehension.

The Role of the Rubric

Researcher: “To what extent did you look at the rubric?”

Ivy: “Not at all...it’s art; you can’t do it to a rubric.”

Yet the rubric worked, in the sense that students with a clear understanding of the text scored better than those who either did not understand what they read or did not read their text at all. The rubric incorporated both process and product, as it scored students on their work ethic, choices of detail, use of materials to communicate, and their metaphoric and personal connections to the text (see Figure 4). Because of this multifaceted approach to assessment of a visual arts project, the evaluator was able to differentiate between authentic connections/understanding of the text and artful pontification.

If a rigorous assessment is the goal, then merely illustrative pieces should not bring the highest scores, even though a student’s work ethic and inclusion of detail may help to offset other point losses. To elicit higher level thinking, a teacher should discourage “mimicry” (Marshall, 2008) and indeed, that is exactly how students who did not comprehend the book proceeded, as if with blinders on. The researcher repeatedly encouraged all students with questions to elicit interpretation above illustration, yet some simply could not move past their literal view of the text.

For example, Kaitlyn wanted to focus her piece on setting in The Jungle. She sketched two buildings along a street on the canvas and then painted them in. The researcher approached at this point and commented that this was a good painting of the town, but she was very interested in seeing what Kaitlyn felt about the town in her painting. Kaitlyn replied that the town seemed very dirty and trashy and wasn’t a nice place to live.

The researcher asked how Kaitlyn could show this in her painting—with color, or with brush strokes, and she referred to some of the examples from the slide show that the researcher had shared with students. Kaitlyn replied, “Well, I could put some trash on the street.” Virtually this same conversation unfolded with another very literal reader, who was also doing a drawing on setting in The Jungle and could not be persuaded to think of other ways to express her ideas about the setting.

Some students expressed frustration that the rubric wasn’t more like “a checklist” that could be used to ensure a good grade. However, this type of rubric would eliminate a student’s own determination of the outcome of the project, a facet that most students liked because they could have “fun with it” and do their “own thing.”

In a previous study, Gordon (2004) explored the value of the “wow” factor in student work, and the value of building a rubric that encourages risk taking. While the rubric used in this study emphasized higher level thinking skills and the communication of ideas through art, it did not specifically address risk taking.
Figure 4  Literature Circle Art Project Rubric

<table>
<thead>
<tr>
<th>Student Name:</th>
<th>Period:</th>
</tr>
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<tbody>
<tr>
<td></td>
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**LITERATURE CIRCLE ART PROJECT RUBRIC**

<table>
<thead>
<tr>
<th><strong>Title of Assignment:</strong></th>
<th><strong>Date Evaluated:</strong></th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th><strong>1. Assignment Objectives</strong></th>
<th><strong>COMPPELLING</strong></th>
<th><strong>SOLID</strong></th>
<th><strong>DEVELOPING</strong></th>
<th><strong>MINIMAL</strong></th>
<th><strong>POINTS</strong></th>
<th><strong>Comments:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Demonstrates consistent work ethic and meets written or oral requirement</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Makes important connections with literature</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Creates a work of art that demonstrates excellence</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th><strong>2. Skills and Techniques</strong></th>
<th><strong>COMPPELLING</strong></th>
<th><strong>SOLID</strong></th>
<th><strong>DEVELOPING</strong></th>
<th><strong>MINIMAL</strong></th>
<th><strong>POINTS</strong></th>
<th><strong>Comments:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows proficiency in use of tools, process and techniques to communicate ideas</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses care in creation of work and use of materials</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates effective use of elements and principles of design to solve art problems</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3. Creation and Communication</strong></th>
<th><strong>COMPPELLING</strong></th>
<th><strong>SOLID</strong></th>
<th><strong>DEVELOPING</strong></th>
<th><strong>MINIMAL</strong></th>
<th><strong>POINTS</strong></th>
<th><strong>Comments:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates personal interpretation of subject matter in an artistically mature fashion</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates communication of ideas through artwork</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses purposeful planning when developing project concepts</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td></td>
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<thead>
<tr>
<th><strong>4. Literary Connections and Aesthetic Analysis</strong></th>
<th><strong>COMPPELLING</strong></th>
<th><strong>SOLID</strong></th>
<th><strong>DEVELOPING</strong></th>
<th><strong>MINIMAL</strong></th>
<th><strong>POINTS</strong></th>
<th><strong>Comments:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Critically analyzes &amp; reflects upon artwork making constant connections to the literature.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td>Meets the 2 page or 5 minute requirements for oral or written explanations.</td>
</tr>
<tr>
<td>Demonstrates critical thinking, including analysis and evaluation in creative process.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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48 Possible  **SEC 1-4  TOTAL**  699

**ASSESSMENT SCALE**

- **COMPPELLING = EXCEEDS EXPECTATIONS = 4**
- **SOLID = ABOVE AVERAGE = 2**
- **DEVELOPING = AVERAGE = 2**
- **MINIMAL = UNSATISFACTORY**

*Note. Adapted with permission from Angeline Parkin-Milambiling, Sarasota County School District, Florida.*
Possibly as a result, when asked if she took any risks in her work of art, Ivy replied, “Uh, not really, 'cause it’s GRADED.”

Other students were not so absolute in their answer, and Andrew specified that he could take risks because he was using Photoshop and could instantly delete any “risk” that didn’t work as he planned. If a teacher desires artistic risk as a valuable link between the text and the complex expression of a student’s ideas about the text, then a teacher could build more explicit value for risk taking into the rubric (Gordon, 2004).

Can Inhibitors Prevent Accurate Measurement? In several cases in this study, students who successfully comprehended the text, and could think critically about it, were faced with the barrier of a lack of artistic skill in the medium of their choosing. When Dakota created his found objects piece representing the great barrier between the Joad family and happiness, he struggled with the way to represent his understanding. He had never done a mixed media piece before, and his experience in other art mediums was limited as well. Despite his lack of experience, his end result clearly communicated a complex synthesis of details.

Likewise, Carla, Ashton, and especially Pete had little-to-no painting experience, but they all created successful pieces that captured important themes in their assigned novels. These students worked with varying levels of boldness and were still successful. All three of these students also admitted to not reading all of their texts, but relied on outside sources and class discussion to fill in the gaps and master the reading material. Other students working with Photoshop experienced some technical difficulties, yet they managed to produce works with meaningful connections to their texts.

These examples might indicate that a lack of understanding of the reading left a heavier impact on students’ results than the barriers of a lack in talent, a lack of confidence, or technical difficulties. Based on the examples in this study, a teacher can effectively and rigorously measure higher level reading comprehension skills through an arts project assessment, especially when the rubric takes into account process as well as product.

Benefits of Using Art as Assessment. When the researcher used art projects to assess reading comprehension in this study, students enjoyed higher levels of engagement with the text, collaborative problem solving, and increased thinking stamina. Students with very different working styles found a medium that fit their preference and were able to adapt the creation process.

During the formative moments when students struggled to identify their focus for their project, students repeatedly tossed ideas back and forth, and solicited each other’s opinions of their ideas. They helped each other locate relevant quotes and confirmed their ideas about themes, symbols, or author’s purpose.

While some collaboration was technical in nature (i.e., Lilly getting help with Photoshop), other collaboration was indeed evidence of critical thinking as students explained their choices to each other, or advised each other how to improve the metaphorical connection in the piece. For example, Kaitlyn advised her friend to add buildings to her drawing and make them bigger, and Dakota noticed that the ears on Ashton’s devil image looked like horns and questioned Ashton’s intentions.

Inspiration also spread from person to person, as one student’s discussion about moss on jungle trees instantly prompted another to include moss on his clay jungle trees. During studio work time, a fair amount of ribbing and encouragement occurred almost independently of the actual quality of the work.

Ironically however, in every instance in which the researcher observed one student criticizing her own work, another student would reinforce its quality immediately. At one point, Carla exclaimed, “This looks like crap!” Ivy assured her, “I think you’re judging your artwork too harshly...I’ll take it and put it back here and you’ll see what I see.”

Despite the positive atmosphere, not all students were verbal and interactive during the work time. A variety of working styles presented themselves, and each student found a way to work comfortably on the project.

Two students worked very quietly, without interacting with peers or seeking feedback from the teacher. For these students, the process was a very personal one, and most decisions and connections
to the text were unobservable until their written explanation at the end. In Jillian’s case, this was a six-page in-depth discussion that outlined her complete engagement in the process and careful use of detail and metaphorical connection.

On the opposite end of the spectrum, Ashton worked fearlessly and was very verbal. He covered his canvas with paint before 15 minutes had elapsed on the second day and squeezed out large amounts of paint without hesitation.

Understandably concerned about a lack of purposeful intent, the researcher questioned him often as he worked, but he always had a reason for each addition to the work. When he finally stalled and looked to help Dakota instead, the researcher asked, “Are you done?” “I don’t know yet,” he answered, “If something comes to me, I’ll add it.” Apparently, nothing came to him and the piece remained as it was.

As he helped Dakota, the contrast in working styles became apparent. When Ashton was poised and ready to glue some green felt to Dakota’s foundation, Dakota hyperventilated mildly and sputtered, “Wait, wait, wait!” He adjusted it a millimeter, placed it in a different direction, and then put it back, deciding to come back to it when he felt more sure of its position.

He soon found it was better to send Ashton on a mission and assigned him the task of getting the chemistry teacher to rust the hinges for the gate for him. With Ashton out of the way, Dakota resumed placing and replacing items on his piece. While the assessment produced two totally different pieces, created in two entirely different ways, it also clearly demonstrated each boy’s perception of the relevant qualities in his assigned text.

While accommodating different working styles and fostering collaborative problem solving, using art projects as reading comprehension assessments also increased student engagement with the text, a process that enhances comprehension (Bustle, 2004).

In Eakle’s 2009 study, students used visual cues to create an interpretation of a museum exhibit, while the students in this study created visual cues to communicate their interpretation of a text.

Each student sought that element in the text that impacted him or her personally, and then determined how to express its meaning in art. As Ivy put it, “I just liked it because we got to be ourselves,” and Carla agreed, “you didn’t have to follow guidelines; you could make it be whatever you wanted.”

For Andrew, the hard part was “trying to find something to link with it,” but once he seized upon the scene with Ellis Burden, he was fine. Carla agreed, saying, “In the cover of my book I have all these pages for quotes. I’m like, I can’t think of anything that I can do that will go along with this.”

But once the decisions were made, students invested emotionally in their work, sometimes to the point of extremes. “I’d have to pummel somebody if they touched this” said a student working on a clay project. “Oh my God, I know, I’ll freak out,” agreed Carla.

At times, the problems students faced while working incited frustration. Pete complained, “doing art is hard” and then later confessed “painting just gets me too frustrated; it just makes me want to snap every paintbrush.” One student was so invested in his work he didn’t hear the bell ring at the end of class.

Another student, usually easily distracted, kept his hands working on his clay project the entire time and was more focused than at any other prior time. As he worked on yet another clay form, the researcher commented that he must be feeling “clay happiness,” and he agreed. Students in the focus group agreed the project was more “fun” and clearly their emotional responses to their work indicated a high level of engagement with the process.

In addition to emotional engagement with the subject matter, students also made personal connections as they worked. A more timid student, Lilly wanted to try the art project, and she wanted to use photography because she felt most comfortable with that medium. She expressed to the researcher that after reading about the working class’s struggles in The Jungle, she wanted to use photography to show “what it’s like to have poverty.”

After viewing some photos by Dorothea Lange of depression-era families, Lilly knew what she wanted...
to do. She felt that she could relate to the experience of poverty, having an insecure living arrangement and struggling to get benefits from the state. She took her own photographs to represent those connections, as well as others, and she created a collage. She added that it “takes time for something good to come out of being in poverty” and felt “thankful” that her own life seemed better than the lives of the characters in the book.

Another student created a portrait to represent Jack’s struggle to understand his identity in All the King’s Men because “many of us have trouble discovering who we are, and what path we want to be on.” Like the students in Eakle’s (2009) study, students made connections between the text or the exhibit and their own lives.

In this study, one student made this type of connection subconsciously. Lane chose to make a clay version of Kurtz from Heart of Darkness on a stretcher to illustrate the scene where the company managers bring Kurtz out from the jungle. However, he could not articulate why this scene was so important or how he planned to show his interpretation of it.

Only during later analysis, the researcher remembered that Lane spent time serving as a volunteer EMT for a local fire department, and this scene probably resonated with his own experiences with extracting victims. When confronted with this hypothesis, Lane ducked his head and smiled. He admitted that he hadn’t thought of that himself, but that he probably agreed.

A Mind-Building Assessment

Many studies support the use of art to improve reading comprehension (Bustle, 2004; Chicol & Smith, 2005; Corwin, 1977; Grant et al., 2008; Mills, 1975; Miller & Hopper, 2010; New York City Board of Education, 1981; New York University Center for Field Research and School Services, 1973). However, it is important to distinguish that in this study, art was not used to teach reading skills, but rather to assess the degree of reading comprehension.

While students with a variety of working styles seemed to adapt well to creating art as an assessment for comprehension, students who struggle with comprehension still struggled to score well on the rubric. Most students naturally began to collaborate in positive ways, and they naturally adapted the project to match their own working styles. Teachers should regard the wording and point distribution of the rubric with care if risk taking is a goal (Gordon, 2004).

Furthermore, students might find the rubric more useful if the teacher makes a more defined presentation of its subcategories to students, explaining in an explicit way how to interpret each criteria. Although the teacher must interpret what constitutes excellence in art and an effective use of elements and principles of design, the rubric criteria lend themselves to usage by teachers who may not feel they have expert knowledge in the visual arts.

As Hamblen (1993) argues, art is a “mind builder.” The cognitive processes at work in this study impressed the researcher, and teachers of all subjects who value rigor and higher level thinking might find the potential in using art assessments attractive.

Any teacher using art to assess comprehension might consider the various inhibitors observed in this study and attempt to thwart them where possible. While this study followed district curriculum guidelines, the length and intensity of reading assignments should be realistic.

Some students will never read outside of the classroom, and the length and intensity of the assignment will make no difference. However, based on this study, motivated students can achieve basic comprehension and even demonstrate higher level analysis of texts when they supplement any lack of reading by in-depth discussion with peers or by using internet study aides.

From one viewpoint, this level of comprehension may be acceptable, even though students truly did not “earn” it through completion of the assigned reading. On the other hand, the hard-boiled purist might consider success in this case to be fraudulent, desiring alterations to the rubric to ensure that only students who have truly read every word score well.

A final concern might relate to the transference of these higher level comprehension skills to standardized tests. While these tests certainly depend on the student’s ability to think critically, they also use a format that is not duplicated by art projects. For this reason, an art project would not suffice as complete
preparation when high standardized test scores are the goal.

However, the clear benefits of collaboration, problem solving, synthesis and evaluation of detail, increased emotional engagement, and differentiation of working styles suggest that using art projects to assess higher level reading comprehension skills may be both rigorous and enjoyable for students. When emotions knit with the intellect, powerful learning can occur, and connecting the art process to reading comprehension is a fruitful ground for cultivating higher level thinking skills.

References


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