Testing Creative Lines of Inquiry in the Art Classroom

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Abstract

This article examines how Lois Hetland's *Habits of Mind* can be distilled as *creative lines of inquiry* in the elementary art classroom to better guide and inform creative process instruction. Through the implementation of guiding questions, based on Hetland's habits, K-6 grade students were tested in the field. Participants were divided into test and control groups and asked to create two-dimensional tree images from their imaginations with access to an array of materials to further develop their work. Participants in the test group were given additional guiding questions during their creative work time, while the control group was not. This article seeks to break down results from this research to conceptualize creative development and better inform contemporary teaching practices in art education; specifically, those which explicitly relate to creative skill development and creative autonomy. Results were centered on data collection (photographs of resulting artworks) from test and control groups as well as blind review, with correlation trends emerging unexpectedly according with developmental levels. **Keywords:** *Habits of the Mind*, divergent, creativity, self-direction, craft, engage, persist, envision, express, observe, and reflect.

Introduction

This research began as course-embedded research in art education methods course, ART 403*: Methods in Art: Early Adolescence-Adolescence* at the University of Wisconsin – La Crosse. Through a preliminary lesson-study activity in which we traveled to Northside Elementary School in La Crosse, WI during their school intersession period to instruct K-2nd grade students on various types of collage and collage-making techniques, we discovered the need for a simple instructional construct aimed toward pushing students further in their creative process. This preliminary lesson-study and in-the-field teaching and observation of that lesson allowed us to discover learning gaps; most noticeably that we had to continually ask the young learners to further their collage work beyond what they had initially displayed as "finished" work. This "stopping short" and completing the "bare minimum" appeared to be a recurring theme with our learners and we thought there must be a structured way to address this in the classroom without hindering or limiting one's creativity or creative process development.

Habits of the Mind

The resource we found to be applicable to begin our research was the text Studio Thinking 2 [i] which is one of two contemporary yet seminal texts written by Lois Hetland and her team on the eight *Studio Habits of the Mind* and the real benefits of visual arts education. We concluded that the concrete structure of these habits would benefit our students if directly applied to the way we teach. We distilled the eight habits into three which we felt best built upon each other for the sake of nurturing creativity as a skill set during art-making; specifically, the habits of *develop craft*, *envision*, and *stretch and explore*. The following guiding questions were devised, based on the three distilled habits: "What else can you do? How will you do that? What else do you need to know [to do that]?"

Balancing a Fear of Stiffling with the Need for Creative Skill Instruction

Many teachers are familiar with Hetland's ground-breaking work but haven't intentionally integrated the habits into their classroom environment or curriculum due to a lack of exemplars demonstrating potential methods of doing so. Many educators are hesitant to prescribe models for curricular use in 'teaching creativity' for fear of stifling or unintentionally enforcing limitations on their students however without targeted efforts to nurture students' skillsets in creative practices, students may not be experiencing art-making as an iterative and translatable process. Instead, their understanding of creativity may be more by happenstance; which could promote inequity within the classroom as some students may experience creativity break-throughs while others may not.

Distilling Toward a Generative Approach

Although Hetland and her team identify eight studio *Habits of the Mind*, there is a redundancy factor when distilling them into distinct lines of inquiry for targeting creativity as measurable skill development. Hetland defines the eight habits as: *develop craft*; *engage and persist*; *envision*; *express*; *observe*; *reflect*; *stretch and explore*; and *understanding the art world*. For the sake of our research project, we distilled Hetland's habits from eight to three (honing them down to: *develop craft*, *envision*, and *stretch and explore*). Stretch and Explore calls for the use of generative "what if" questions and encourages students to embrace mistakes as opportunities for innovation wherein they are taught how to implement self-directed exploration and problem-solving. Much like the use of "what if" questions, by using the structure of guiding questions to develop creativity as a mindset skill capable of being learned we could easily incorporate them into any art-making lesson at any developmental level, regardless of the media or techniques being utilized.

Literature Review

Develop Craft

Develop Craft refers to learning techniques and studio practice. Technique, is the ability to skillfully use materials in a variety of ways and know when such materials are necessary to achieve a desired outcome (Hetland, L., Winner, E., Veenema, S., & Sheridan, K. M., 2013, pp. 41-51). This implies that the teacher needs to demonstrate how to use new materials and tools, and the students need to practice through trial and error. During this process the teacher has to be observant to individual students to correct and re-demonstrate if needed. This is a scientific process on the students' part to achieve mastery of the tools. Sometimes materials do not work the way learners expect them to, so rather than correcting their work, they can be encouraged to refine and develop it as a new iteration or version. In other words, mistakes will be made in art, so changing the plan to match the challenge is key.

Envision

The studio habit of the mind, *envision*, encourages students to use visuals to help themselves think, re-conceptualize work, and imagine the steps that would be needed to reach that solution. This is done every time an artist thinks of the next steps their art requires it when they take a step back from their work to think about how the work would look if any kind of alteration was made. In the classroom, students typically create plans in advance that would then be utilized (and typically altered) throughout the creative process. The goal of envisioning is to provide opportunities for student artists to innovate to reach solutions in their developed work. The use of envisioning can benefit the students outside of the art room and help them create visuals in their mind for any potential problem that may arise during other classes or while in the workforce (Hetland, L., Winner, E., Veenema, S., & Sheridan, K. M., 2013, pp. 41-51).

Stretch and Explore

The *studio habit of the mind*, stretch and explore, involves guiding students towards exploration and play within their art practice to foster confident, creative autonomy and innovative thinking. Although the method can be applied cross-disciplinary, art classrooms benefit from it in unique ways that provide the art discipline and the artist with depth and sophistication. When students are taught to stretch and explore, they are ultimately encouraged to learn more on their own lines of thinking and problem-solving capacity. Students become attuned to new possibilities as their ability to think divergently is fostered (Hetland, L., Winner, E., Veenema, S., & Sheridan, K. M., 2013, pp. 41-51).

Methods

Research methods for this project included site visits and in-the-field teaching of a multi-media drawing lesson (developed from preliminary lesson study and observation) embedded with guiding questions for the test group, informed by Hetland's work. This also included quantitative data collection through a cross-over study (half the class with the measure of the embedded guiding questions and half without) with blind review for analysis. Additionally, qualitative data was gathered in the form of reflective responses (verbal and written). Blind reviews were determined through online survey based on perceived recognition of test group samples within pair test and control group data sample sets; one survey for elementary and one for middle level. No names were necessary for this research as the outcome work was relevant only according to grade levels and if in test or control group.

Participants

Participants were selected based on school/ classroom availability within the local school district, the timeline of the academic calendar year, and scope of the research project. Two sites were determined; one elementary (Northside Elementary) and one middle school (Onalaska Middle). At Northside Elementary there were 57 participants ranging in grades K-2. At Onalaska Middle School there were 26 participants from one 6th grade art class. Both site visits were fifty-five minutes and participants were divided as equally as possible into singular test and control groups; separated by approximately ten feet in distance. Both groups were provided access to a variety of two-dimensional materials and broadly instructed to create a tree image on 12 x 18" white paper based on their imagination while only the test group received the additional embedded guiding questions during the work period. At the end of each site visit, after the data was collected (artwork photographed), participants were given the option to keep their work. Several participants at the middle school elected to keep their resultant artwork to take it home, while only about half at the elementary school kept their work.

Data Collection and Analysis

Data was collected by photographing participant's artwork at the end of the dedicated 35-minute work time. Test group photographed data was labeled without participants' names or pseudonyms as *NStest group01*, *NStest group 02*, etc. while control group photographed data was labeled as *NScontrol group01*, etc. to ensure proper grouping and categorization for the blind review. Additionally, at Onalaska Middle School, written responses to the guiding questions for the test group were also photographed but not analyzed for this project. After all field testing there were also verbal debriefing sessions related to observations and behaviors of both groups as well as initial impressions related to research goals and limitations.

Data was collected for analysis and blind review using a Google site and Google surveys. The data from the research project, testing, and blind review was analyzed using a Google site, https://sites.google.com/view/urc-grant-art-403-fa-2019/home?authuser=0[ii] to reveal a high congruency in reviewers accurately selecting the test group works from the K-2 test group (see Figure 1). There was less congruency by reviewers in the grade 6 test group leading to findings revealing the guiding questions may be more effective in promoting more developed artworks/outcomes when used with younger learners (see Figure 2).

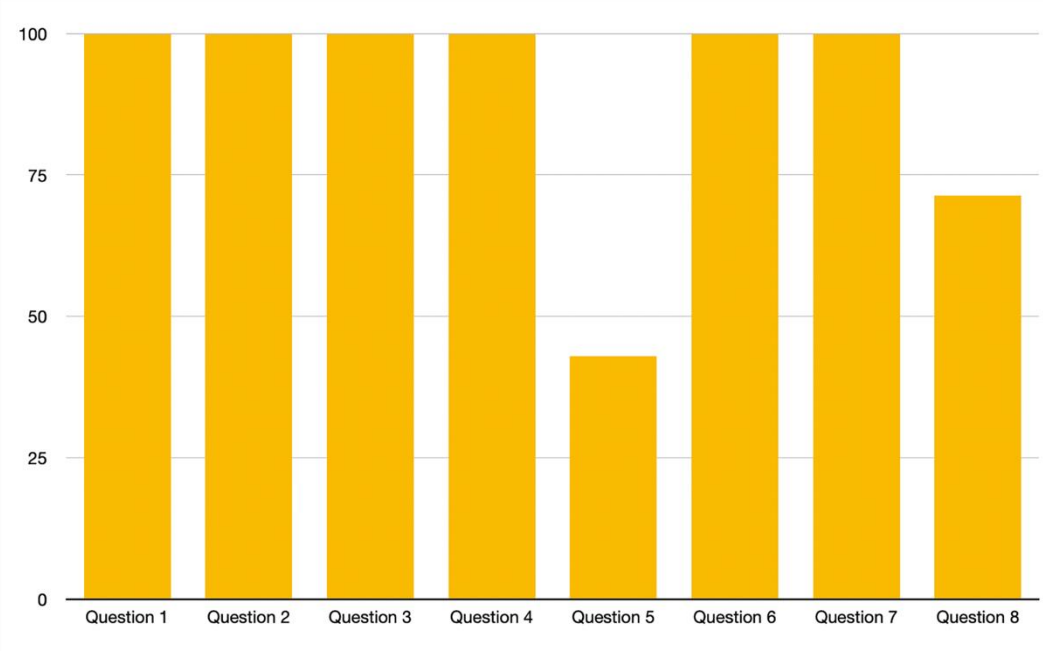

Figure 1. Congruence of reviewers accurately predicting randomly sampled artworks made in K-2 test group via blind review (shown in percentages).

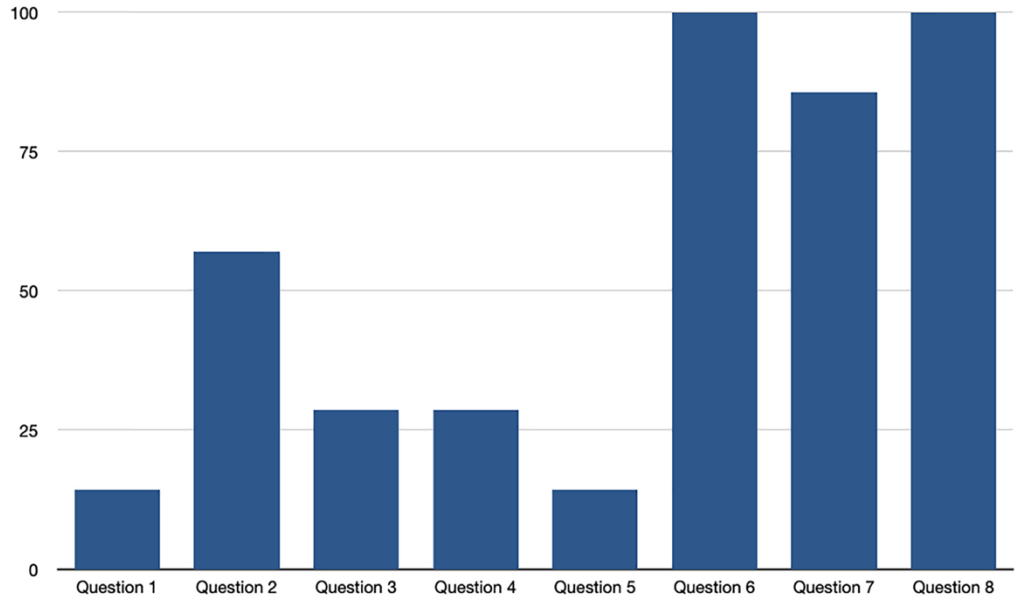

Figure 2. Congruence of reviewers accurately predicting randomly sampled artworks Made in grade 6 test group via blind review (shown in percentages).

Results

Overall there is evidence of the guiding questions having a positive impact on creative output while also raising questions about creative capability across age groups. Not only is this information useful, it also raises additional questions that could lead to research in creative skill instruction and assessment. The data illustrates the guiding questions had more of an impact on student output at the younger elementary level (grades K-2) as compared to the lower secondary level (grade 6). These findings could indicate that students at the secondary level needed less direction and can exercise their creative autonomy and self-direction in different ways. Whether the differences in creative expression among the elementary students and the secondary students is developmentally or academically founded or a combination of both, it is worth exploring more in depth.

Developmental Differences

Using the guiding questions in action proved different for both age groups. At the lower elementary level, many test group students required further encouragement or explanation even after the questions were asked. While only some test group students at the lower middle school level required further prompting as them generally seemed more independent in their creative output; needing less guidance to complete their artwork. The results point to more students at the lower middle school level already having developed a homogeneous level of creative autonomy than the lower elementary students at Northside Elementary (where there was a more pronounced impact to the data from the guiding questions in the test group).

Examining the artwork, there are some apparent differences between the control group and the test group. At the lower elementary level, many students in the control group used a realistic color palette while most students in the test group experimented with color, often using unrealistic color palettes, experimented with the various art mediums more frequently, and incorporated more patterns, lines, details and symbols into their artwork. At the lower secondary level, differences between the control group and test group were not as apparent. There was some evidence of a more diverse color palette and experimentation with mediums amongst the students in the test group, while both groups showed evidence of incorporating different details into their artwork that deviated from the original prompt, which was to draw a tree. Furthermore, subject matter was highly varied in the test group amongst the lower elementary school students, as they incorporated non-subject specific details more frequently than students at the secondary level, whose details were more in alignment with the subject or original prompt.

Benefits for Elementary Aged Learners

From this research we have learned that younger children benefit from guiding questions that require them to continue to think about the choices they are making within their art and the freedom to make their own creative choices to add to their work. As a result, their work looked less uniform and began to display individual expression. The use of the guiding, generative questions also led to the younger learners toward taking greater risks in the direction and development of their artwork; as evidenced in the K-2 test group data samples. Their work demonstrates greater iteration in relation to subject matter treatment as well as media usage. For young learners, the guiding questions create essential pauses in their 'doing' and 'making' which connect motor skill development with metacognition while also modeling a translatable "what if" iterative construct; translatable across disciplines.

Limitations

This research was conducted and tested on lower elementary and lower middle school aged participants. Ideally, a high school level group would have also provided additional developmental insights when compared to the other data sets. There were also some limitations in regard to sharing classroom space with a divided classroom. It would be advantageous to test these guiding questions with more age groups and in more classrooms.

Discussion

Lois Hetland and her team's eight studio *Habits of the Mind* have been instrumental in laying the groundwork in contemporary high impact practice in art education as well as reforms of core visual art standards, nationally. In our respective fields, devising ways to push our practice is essential, not only for impact and validity but for the sake of learner autonomy and equity. Conducting research is often the only way to accomplish this validity. From this perspective, the research conducted validates the use of a simple question-based construct while also raising more questions about potential impact to learners of differing demographics; specifically, in closing equity gaps. Additionally, the way creative skill instruction functions at the high school and higher ed-levels could provide useful insights into "what if" constructs in general. Further exploration of creative autonomy development and instruction is equally worthy of investigation and research. Educators are an integral piece to the investigation and research process. Without the support of teachers, young artists often spend very little time, or no time at all, envisioning the iterative steps their work will require, and as a result student work that does not include envisioning is often given silent permission to stop short of its potential.

Acknowledgements

We are deeply grateful for UWL's Undergraduate Research Grants Program as well as Dr. Scott Cooper, and Chandra Hawkins. Special thanks to Principal, Laura Huber at Northside Elementary School and Art Teacher, Ashley Gordon at Onalaska Middle School for providing us the opportunity to test our research in the field. Additionally, this research would not have been possible without the guidance of Lisa Lenarz (Assistant Professor, Art Ed) throughout the two-semesters of this research. We would also like to thank Lois Hetland and her team for their incredible work highlighting creativity autonomy-based, student-centered models of instruction within the discipline of art education.

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