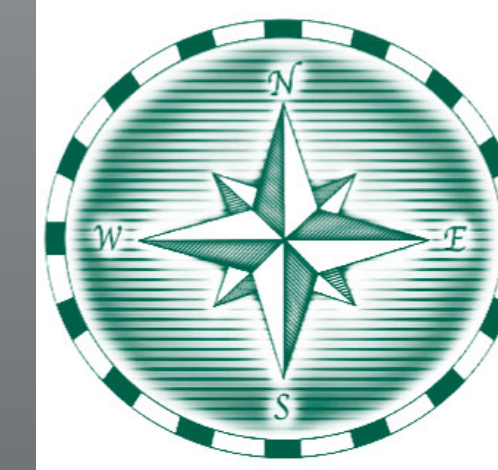




Using Student Generated Blogs to Guide and Assess Maker Learning Experiences

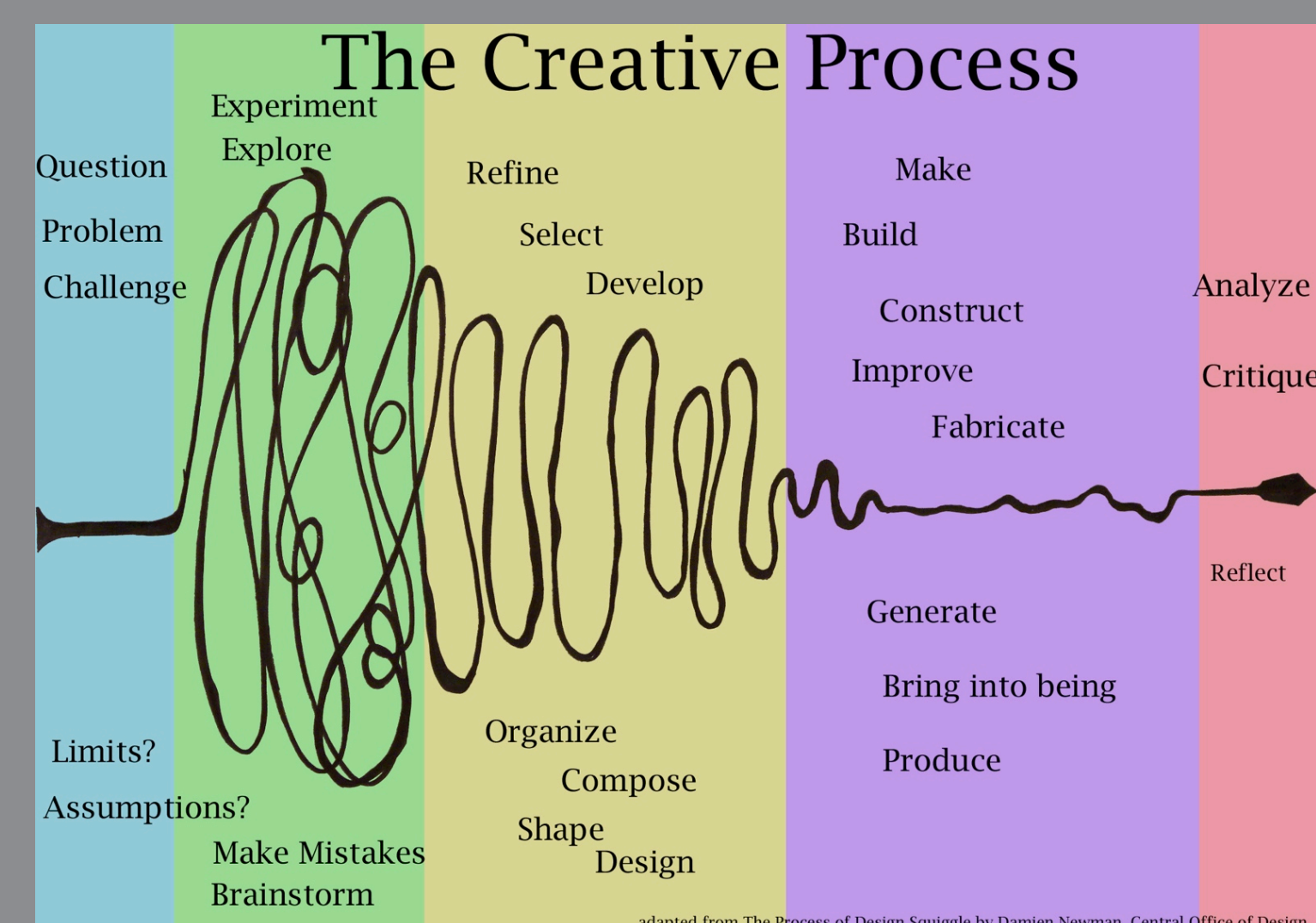
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IBSC

Introduction

My research focused on developing a repeatable and transferrable Maker Learning practice that could be used by teachers and students to guide and assess their creative work. I intuitively understood the practice of “learning through Making” but felt that there could be a more informed and intentional approach that could help my students gain more self awareness and self management through their Maker Learning experiences. I worked to experiment with and develop through this year’s sequence of classroom Maker projects, a pattern and practice of work and reflection with my students in hopes that it could lead to greater self-management and deeper learning experiences.



The Research Question

How might a shared student review process during a Maker Project enhance self-management and creativity in Grade 11 boys?



Research Context

The Haverford School, a nonsectarian college preparatory day school for junior kindergarten through grade 12, with about 1,000 students, located in suburban Philadelphia, Pennsylvania.



“I never imagined I’d be using robotics equipment to make art.”

Participants

My action research project initiative was conducted with two sections of an 11th grade visual arts class with a total of 21 students. I chose to focus my research on these experienced and dedicated boys as I could rely on them to make the extra effort required to participate in this research project.

The Research Action

As a visual art instructor, the vast majority of the work I do with my students is already Maker Learning in its broadest definition. I undertook the implementation of a classroom practice focusing on the specific stages of the Maker process with each project in my curriculum. A diagram was used to help students visualize these identified stages. Throughout the school year each student maintained an online blog and made posts describing, documenting and reflecting on their work at each stage of their Maker projects. Assessment for each project was based solely on the individual blog posts. In this way it was both the work and a student’s reflection on their work that was valued.

Cam's Art Portfolio

Monday, February 23, 2015

2 1/2 Dimensions?

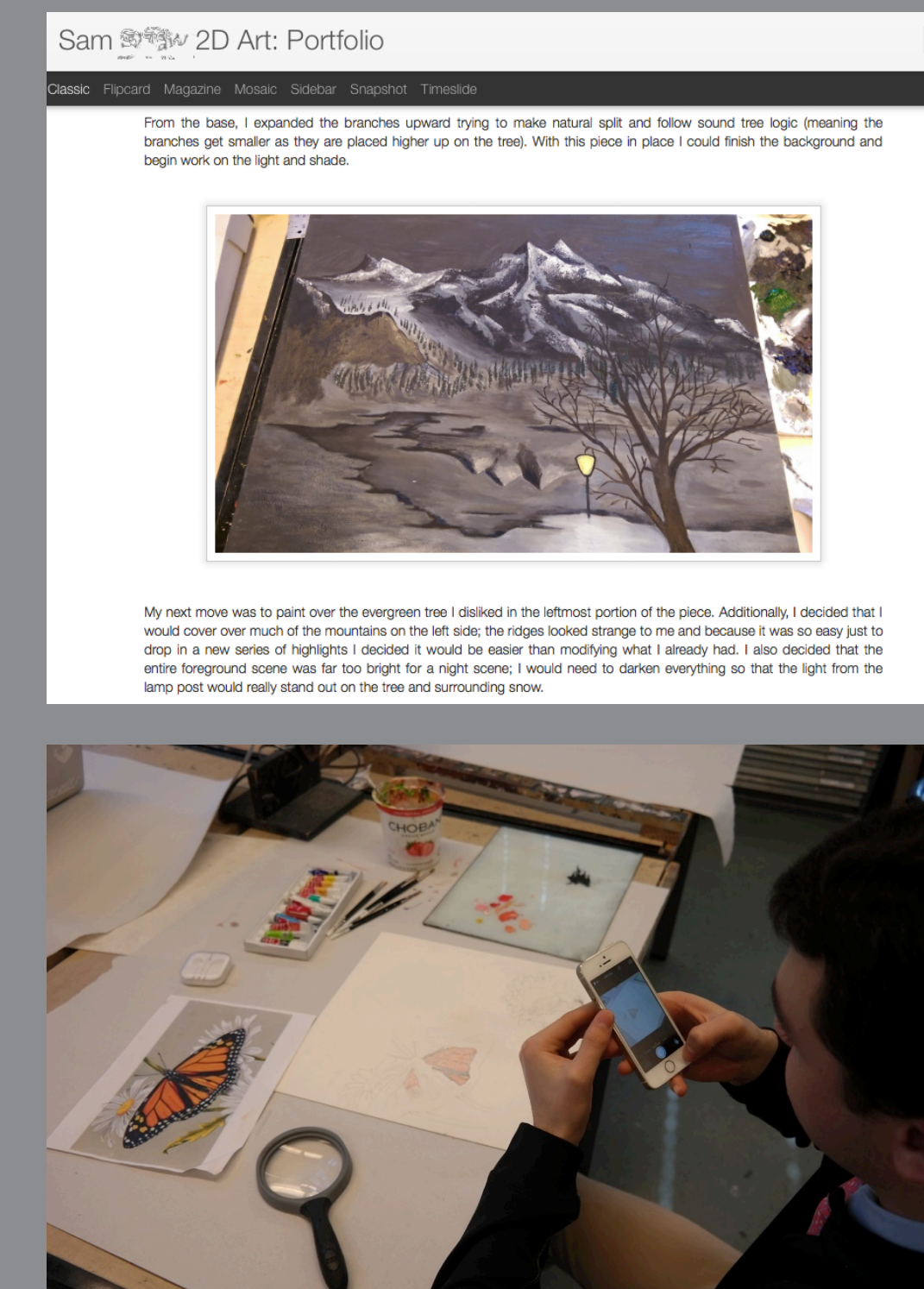
My idea is that I would like to create a scene using multiple monitors or television sets that would tell a story. The idea of a half dimension is the time aspect as the image will change over time. The idea is to either take reality, and create a scene based on this story, or to use digitalization to create a story. This is the beginning research. I looked at David Hockney's video installation. He had me to turn down side.

My idea had changed to work with gears instead. My hope is to have the rotating gears be able to create new images by spinning using a hand crank.



Data Collection

Each student maintained a personal online blog, and made regular posts throughout the school year using their own smart phones or classroom iPads, documenting and reflecting on their work. The blogs provided a permanent record in the students’ own voice and offered valuable insights into their working methods, decision making and self-evaluations. I conducted video taped interviews with students as they were involved in their projects and at different stages, again enabling me to evaluate this practice through their own voices.



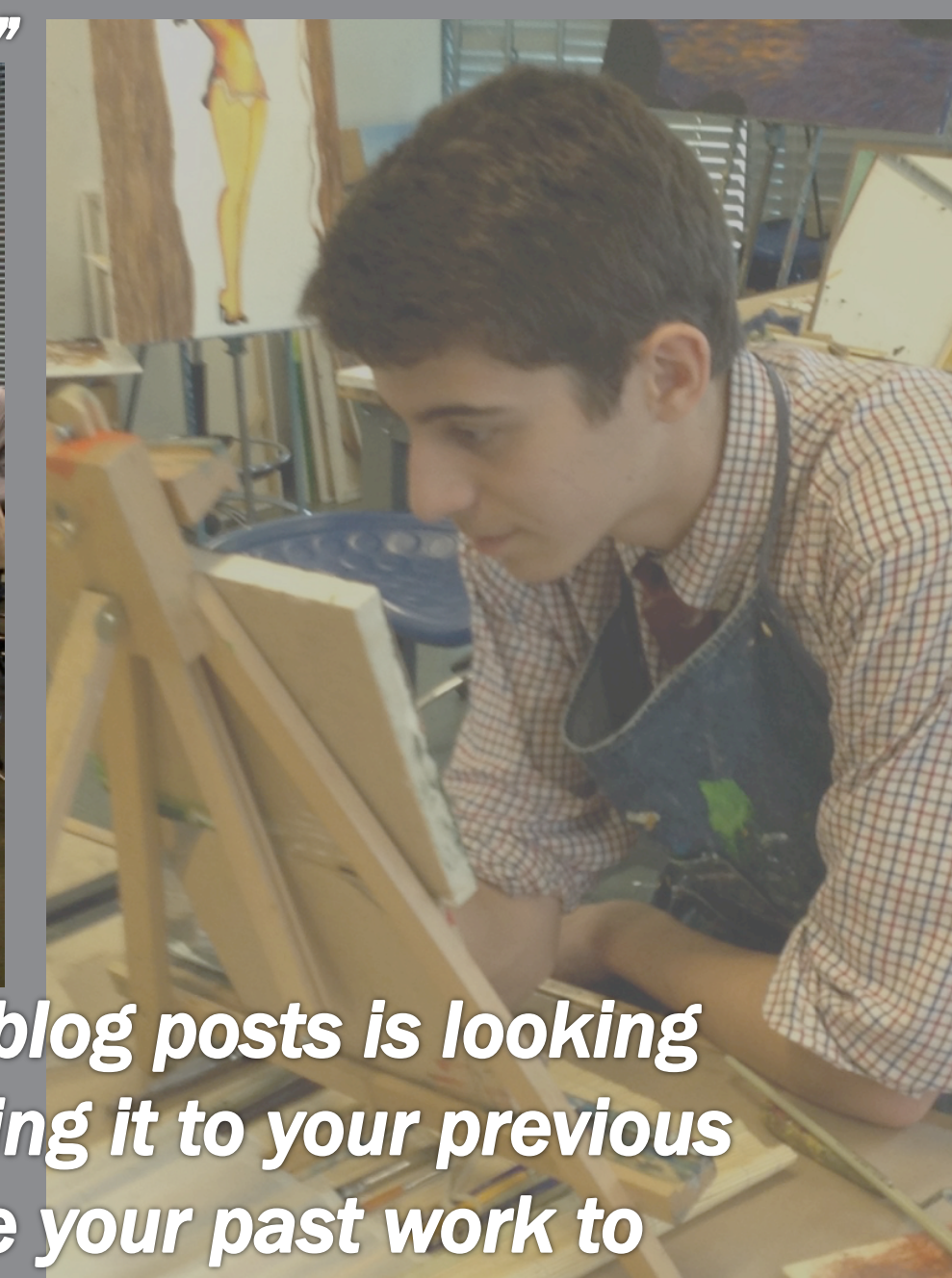
Data Analysis

My students’ blogs were re-read and analyzed in a variety of ways. Word searches revealed the increasing use of key words to describe the Maker process. The length of the written responses were tracked over time. Blogs were read and analyzed looking for writing that diverged from just addressing the prompts provided to more personal and introspective reflections. The amount of research and brainstorming work documented in the blogs for each project was analyzed over the course of the research timeframe. The divergence of final projects from examples provided was analyzed over time. Each student interview was transcribed and analyzed looking for both the use of the shared vocabulary and for their sense of the effectiveness of this classroom practice.

“Grading stages of a project has its advantages. It really encourages you to try, to experiment, and try to do something that has never been done before.”



“One of the most interesting parts of the blog posts is looking back on what you did before and comparing it to your previous process. It’s helpful to be able to compare your past work to what you are doing now.”



Key Findings and Discussion

- Maker practice, as it developed and as students became accustomed to it, did have concrete and positive effects on the depth and breadth of their creative work.
- The writing in their blogs and their classroom discussions took on a common language, more than doubling the use of key terms, describing the work and thinking involved in their Maker Learning projects.
- With each iteration of this practice students’ blogs showed more time intentionally researching a project’s guiding question, experimenting and exploring more freely, seeking out new skills from a variety of sources beyond me, and arriving at ever more divergent ideas and well developed solutions.
- The blog posts students produced at each stage, became increasingly more revealing of their motivations and thinking processes than I had been aware of through normal classroom interactions.
- Of the 21 students involved, only 3 students never fully engaged in the work consistently enough to demonstrate any changes in their work.

Conclusions

My action research project became a powerful Maker Learning experience for me as a teacher. I began with a question about becoming more intentional in developing Maker Learning experiences for my students. I engaged in research to inform my work and prototyped ways in which I might make changes to classroom practices to develop a working model. As such, with each iteration of this model practice, as classes addressed different Maker projects, I what I learned to further refine the teaching methodology of my research project. I was surprised, after 34 years in the classroom, just how much I learned in the course of this work. By providing a simple framework that emphasized the work over the outcome and by asking boys to reflect on and assess their work self-reliance and motivation in my students improved thereby producing more creative, inventive and personal results. The practice seems to have produced positive results and is worth continuing. “The one who does the work does the learning” has become a mantra for me, challenging me to continue to adapt my practice to best serve the needs of my students. Although, I continue to tinker and experiment with this methodology and expect to further develop the practice, I’ve already begun to share these strategies and results with other teachers in other disciplines. Some of them have begun to adapt it to their own use. Still to be determined is just how transferable this practice might become.

“I didn’t really expect to learn something about my project by writing about it but I actually figured out why certain things I’ve been doing look good and why everything worked.”



“What’s really good about (the emphasis on the stages) is that it allows me to do something I’ve never done before and still make progress and get credit for my work even if the final design doesn’t work out.”

Key Readings

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Further Information

This poster and further information is available at <http://www.theibsc.org/>.
Researcher’s Email: cfox@haverford.org
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