OpEd: Educational Design is critical to students, teachers

Design, as it relates to education, is absolutely critical. A well-designed curriculum is accessible by all teachers and applicable to all students. A textbook that adheres to design principles is easy and enjoyable to page through, is organized and aesthetically pleasing, and the colors and examples are engaging to students. A thoughtfully designed lesson or unit draws upon students' prior knowledge, introduces material in a meaningful way, and offers a variety of ways for students to practice and demonstrate mastery. When I think of the textbooks from thirty years ago that I have seen, I am bored to death and am lost in the sea of text. There are so many words on one page! When I look through 21st century texts, though, many are interactive and housed on a tablet of some kind. The printed books have colors, organization, and examples that don't lose me; in fact, they actually draw my attention into the material in front of me.

Incorporating principles of Universal Design into education helps bridge the divide between typical learners and learners with disabilities or extra needs. When a lesson or unit is designed with ALL learning styles and abilities in mind from the get-go, rather than having to reinvent the wheel, teachers are able to help students reach their maximum potential much more efficiently.

> *Recognizing the need is the primary condition for design.*
>
> *-- Charles Eames*

SEMESTER IN REVIEW

Learning Technology through Design was one of the most interesting and engaging online courses I have ever taken (honestly, I promise!). The lab activities coupled with the semester-long Problem of Practice assignment allowed me to take the course resources, readings, and videos to a deeper level and apply them to my own practices. I learned about the Stanford Design Model through the d.School Bootcamp Bootleg and I am applying those principles of Empathize, Define, Ideate, Prototype, and Test to other items I have created since. I have a small crafting company and throughout the semester have been coming up with new items to sell. I find myself using the skills I learned in CEP 817 when I'm trying to design a new product—I often brainstorm with both the rest of my team and others outside of my team; I let ideas incubate and evolve into new concepts; I create prototypes and test them on friends and family. I never would have been as cognizant of this process if I hadn't taken this course. I also learned, through the PoP assignment, that my goals and ideas are often loftier than I anticipate, so I need to stay within the realm of feasibility when I am creating new ideas.

CEP 817-730

Q&A Designer of the Month: Katie Wood

Katie Wood is a first year graduate student at Michigan State University. She holds previous bachelors and master's degrees from Florida State University in Special Education. She has taught high school math for seven years, but stayed home this year to pursue another degree and spend more time with her three children. She enjoys reading, swimming, and managing her small crafting business. DT sat down with Mrs. Wood to discuss what "design" means to her, as well as her experiences in CEP-817.

What inspired you to take a course on design?

I have always been interested in graphic design. I was the editor-in-chief of my high school newspaper, I almost majored in journalism in college, I worked for my university's newspaper, and I started a faculty newsletter at one of the schools I where I worked, all because I loved layouts and making things "look pretty". I also was a graduate assistant while working on my first Master's degree, and did initial research for a book my supervisor was writing on Universal Design for Learning. Everything about design- from the actual development of products to the layouts of magazines and newspapers to creating courses and resources- is fascinating to me. I flipped my math courses last year and I wanted to design an online course for my students, but wasn't sure how or where to start. CEP 817 gave me some great ideas for how to proceed with that!

What were your experiences while learning throughout this course?

I experienced a wealth of emotions while working my way through this class. At times I felt excited and powerful, like my mind was opening. Others I was frustrated, like when I tried to write my 55 Fiction stories and I wanted to use more words than I was supposed to, or when I thought I knew what I was doing when creating my prototype for the Problem of Practice assignment. I enjoyed the lab activities we did each module, as they let me show my creative side and were more involved than "Respond to this prompt…" I enjoy being challenged and then rising to that challenge through meaningful conversation and feedback.

What was one activity that stands out most in your mind about this course?

My favorite activity was creating the video of "A day in the life of…." I chose to do my video from my (then) two week old daughter's point of view. I remember being absolutely shocked at how boring I thought her point of view was! Since then, I have tried to constantly consider her views and her feelings on things. For instance, this afternoon she was laying in my lap and started to fuss. My first reaction was to look up, to see what she was looking at. When I realized that all she saw was the white ceiling, I knew she must have been bored. I moved some balloons that were floating nearby to give her something more stimulating to watch than a white ceiling, and she started laughing and cooing at them and was happy for another few minutes. I'm not sure why that particular activity stands out so much to me, but I'm so glad that I did it because it has made my daughter so much happier the past few weeks!

What is the most challenging part of thinking like a designer?

I would have to say that the most challenging part is definitely trying to think slowly and deliberately. Not so slowly that you don't get anything accomplished, but slow enough to document your ideas, think them through adequately, and then act on them. That is what is hardest for me; my brain tends to move a lot faster than the rest of me and as a result some of my ideas become underdeveloped or seem to be missing key pieces of information. When I tried to empathize and truly consider the thoughts and experiences of my target audience, I found it difficult to be objective and keep my own opinions and prior knowledge away from the situation.

What does "design" imply for your own work?

As a teacher, design means I develop lessons and materials that are appropriate for each and every one of my students; whether they are gifted, typical, or have special needs. It also means that I take into consideration the various learning styles of my students. I would never make materials or lessons that are purely auditory, for instance, because I know that many of my students are tactile or visual learners; perhaps I have a deaf student in my class; or maybe my student with ADHD needs something bright and colorful to draw her attention away from the trees blowing in the wind.

As a mom, design means products are made to make my life more efficient and easier. Products that are well-designed with a particular need in mind are life savers for busy moms like myself.

As a small-business owner and crafter, design means I am always looking for new ways to appeal to my customers and come up with innovative projects.

## HOW-TO *Use a design-based approach in your professional life*

- Consider the audience carefully. We must adjust our style and presentation when creating products and designing items for others, whether that's for students or for teachers or customers.
- Take the time to get meaningful feedback from others. Consider getting feedback from people who would use the product as well as people who would *not* typically use the product. The variety of perspectives can fuel other ideas that may make your design even better.
- As a teacher, constantly reevaluate the effectiveness of what you have designed. What works this year may flop next, and vice versa. Never be too proud to admit your lesson or material needs reinventing. Simply identify what could be done better, and do it.
- Student feedback is vital to the overall success of a design. Students are the consumers of many of the things teachers create, so including them in the design process may result in ideas that are out-of-the-ordinary and are even more meaningful since it came from them.
- Cycle through the phases of design—empathize, define, ideate, prototype, test – as often as necessary to create something that is engaging and has purpose.

the VALUE OF DESIGN

When I think about the value of design, the first thing that comes to mind is the monetary value. A good product, when designed well, can net millions.

However, it's more than that.

Design is the backbone, the cornerstone, of everything we create. Keeping design principles in mind allows us to expand our minds and explore possibilities that we may not have otherwise considered. Design has many implications in all of our lives, including in education, life, overall thinking, and problem solving.
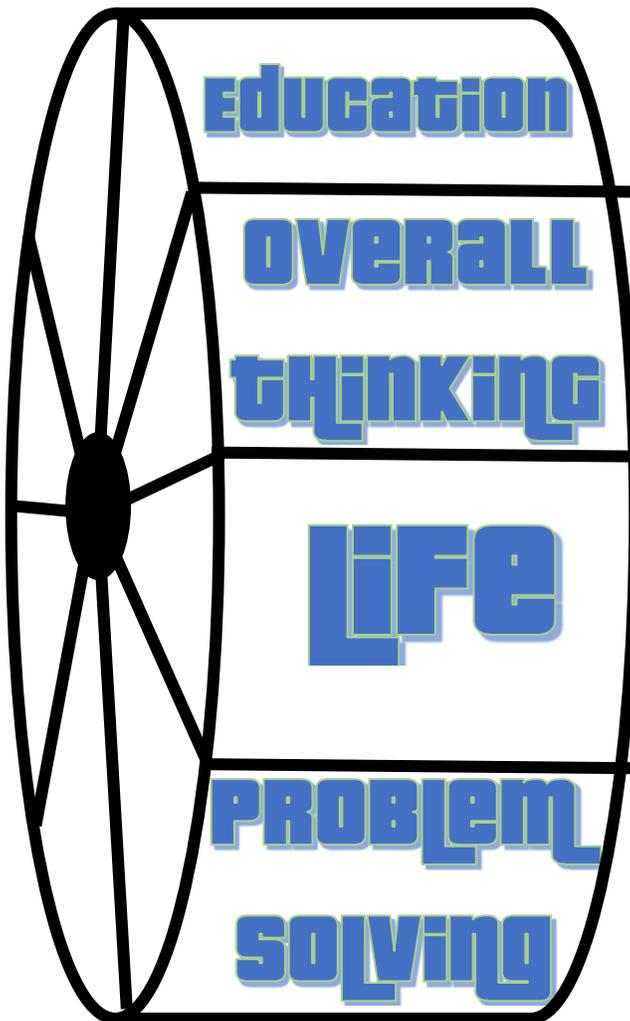
EDUCATION

Education is probably the most relevant application of design in my own personal life. I am a student, a teacher, a tutor, and a mom; I am nearly ALWAYS involved in education in one form or another! Design can make or break a lesson, assignment, or task for adults and children alike. Who enjoys being bored?!

OVERALL THINKING

I never really considered design in my overall thinking before sitting down to come up with ideas for this final reflection. Since my struggle with following through with my ideas and creativity, I have tried to put in a conscious effort to think more deliberately and in bullet points, per se, rather than a run-on sentence. This has resulted in clearer communication with others around me.

LIFE

As I've stated before, in addition to being involved in many different aspects of education, I am also involved in a small crafting business. My life is mothering, school, tutoring, and crafting (in that order). Applying design to my life in general will allow me to reach untapped potential as my ideas will be more organized and easier to follow through. I even tried to use elements of graphic design when completing this reflection- this document demonstrates how I like to manage things- with clean lines, boxes, and bright colors.

PROBLEM SOLVING

We as humans are constantly problem solving, whether we realize it or not. I enjoy solving problems; as a math teacher, that is intrinsic to my being. Using principles of good design helps me break down problems into smaller, manageable steps and goals. Whether those problems are paragraphs on a test or real-life dilemmas, the process is still the same. Brainstorm, organize, test, repeat.

"Every self-respecting designer should do something. Come up with new ideas, dust down old ideas and place them in a new context. Silence the cynics. Let the politicians know that wheeling and dealing achieves little. Prove that actions speak louder than words. Demonstrate the power of design. Designers can do more than make things pretty. Design is more than perfume, aesthetics and trends."
– Richard van der Laken, founder of What Design Can Do