Problem of Practice Final Report

Jessica Wells

College of Education, Michigan State University

CEP 817: Learning Technology Through Design

5/1/2022

The problem of practice I decided to dedicate my work to is the lack of a work/life balance for teachers in our public school system. This issue is very close to my heart as I am a former teacher who experienced this very issue and switched careers because of it. To find out more about this issue, I reflected on my own classroom experience and also spoke to a few close friends who are currently working in our public school system. This helped me not only validate my own experiences in the classroom, but also further understand this problem in different classroom contexts. While this issue was rampant in my high needs, elementary level classroom, I also learned it is present in affluent elementary classrooms, affluent special education classrooms, and high needs adult special education classrooms. With an addition to my own experience with this issue, now I can empathize with teachers in other contexts and understand this issue better.

After gathering information about various teaching contexts observing this problem, I needed to define why this problem exists to ultimately figure out how to solve it. I accomplished this through completing three different defining tasks from Stanford's "Design Thinking Bootleg": a 5 why's root cause analysis, a Why-How Ladder, and a Point of View Framework. Various themes emerged from this defining process including teachers not being as respected as they should be, needing less responsibility, as well as many loving their jobs but cannot keep living with the lack of work/life balance. One common theme that showed up during this process was that teachers just do not have enough time during the day to complete their tasks, resulting in bringing work home or staying late to finish. This was an issue that I could tackle.

My next step was a large brainstorming session where I, as well as a few colleagues, could spitball ideas to help solve this narrowed-down issue. First I had to decide whether I wanted to make a dent in a larger, systemic problem, or create a tool that would solve a smaller problem. I really liked the idea of trying to make the classroom into more of a self-sufficient

system for students. This way, teachers can have more time throughout the day to complete their tasks. I cannot add time to the day, nor can I hire more teachers/staff to complete these extra tasks, so I decided to focus on restructuring the current school day so teachers can get all (or most) of their work done during the hours they are actually paid for. Next I needed to brainstorm ways to help this happen. I ended up categorizing these ideas into two different ideas: a student-centered classroom behavior management system and tools specifically for teachers. Figure 1 shows the result of my brainstorming session after narrowing down my focus.
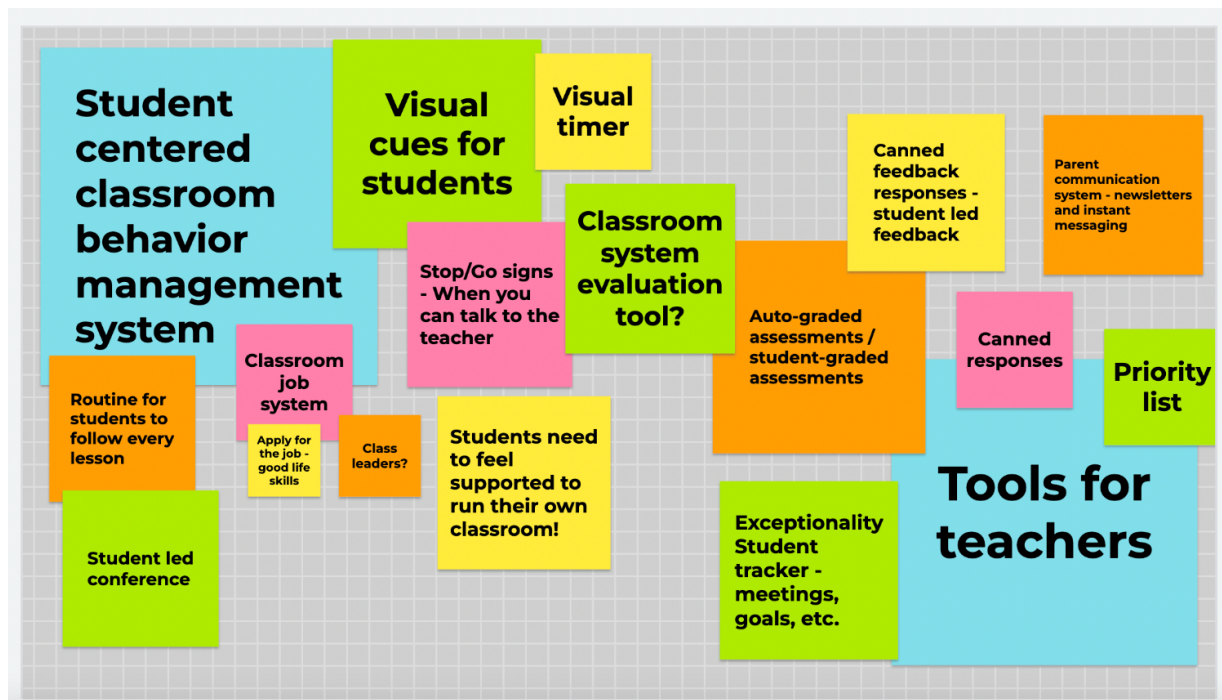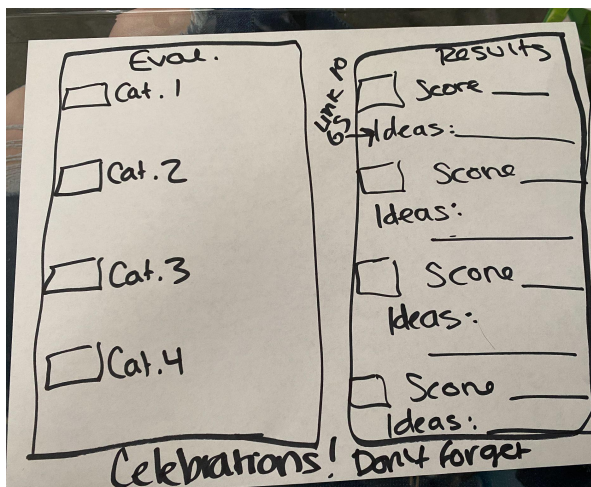

Figure 1
*The results of our brainstorming session using Google Jamboard.*

After this brainstorming session, I noticed the ideas that fell in between these two categories. One in particular stuck out and that was the idea of a classroom system evaluation tool. The classroom system evaluation tool takes the classroom systems that are already in-place, and evaluates it in a way that only helps the teacher. If a classroom receives a "low

score", it gives that teacher ways in which to increase the score, thus giving less work to the teacher down the road. The higher the score, the more student-centered the classroom is, therefore allowing the teacher more time throughout the day to complete their tasks.

Now that my tool is narrowed down, and excited me a lot, it was time to start prototyping! I needed to take this idea in my head and make it an actual concrete reality. I started rather simply with a sketch on a piece of paper (Figures 2 & 3) just to get my thoughts out there. Then I transitioned to technology and created a rough outline of this tool using Google Forms (Figure 4). After trying and failing about a dozen times, I learned that Google Forms would not be the best tool for my prototype. I then moved on to Qualtrics because it looks more professional, it has scoring features that Google Forms does not, and the layout is much cleaner and simpler (Figure 5). The suggestions layout was best with Google Slides, therefore in the results page I included a link so teachers can easily access resources that will help their classrooms become more student-centered.

Figure 2
The first prototype of my evaluation tool
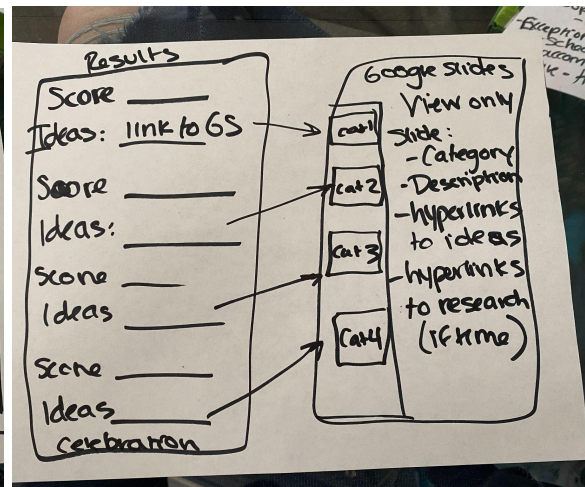
Figure 3
The first prototype of the Google Slides suggestions

Student-led Classroom Evaluation

Please note that this is for personal use only. Your score is only to give you insight into how student-centered your classroom is. This is not a formal evaluation, nor are your scores shared with anyone. Your email is collected to send you your score and give you a few resources.

1.) Classroom Structure: Do students know what is expected when...

	Never	Not usually	Sometimes	Usually	Always
Entering your classroom?	○	○	○	○	○
Leaving your classroom?	○	○	○	○	○
Transitioning between tasks?	○	○	○	○	○
Finishing an assignment early?	○	○	○	○	○
They need supplies? (pencils, technology, etc.)	○	○	○	○	○

2.) Classroom Community: Do students know...

|	Never	Not usually	Sometimes	Usually	Always
expectations for group work?	○	○	○	○	○
how to respectfully agree or disagree with a classmate?	○	○	○	○	○

Figure 4

A prototype of the evaluation tool using Google Forms

Q1. Classroom Structure: Do students know what is expected when...

	Never	Sometimes	About half the time	Most of the time	Always
Entering your classroom?	○	○	○	○	○
Leaving your classroom?	○	○	○	○	○
Transitioning between tasks?	○	○	○	○	○
Finishing an assignment early?	○	○	○	○	○
They need supplies? (pencils, technology, etc.)	○	○	○	○	○

Figure 5

The revised version of the evaluation tool using Qualtrics
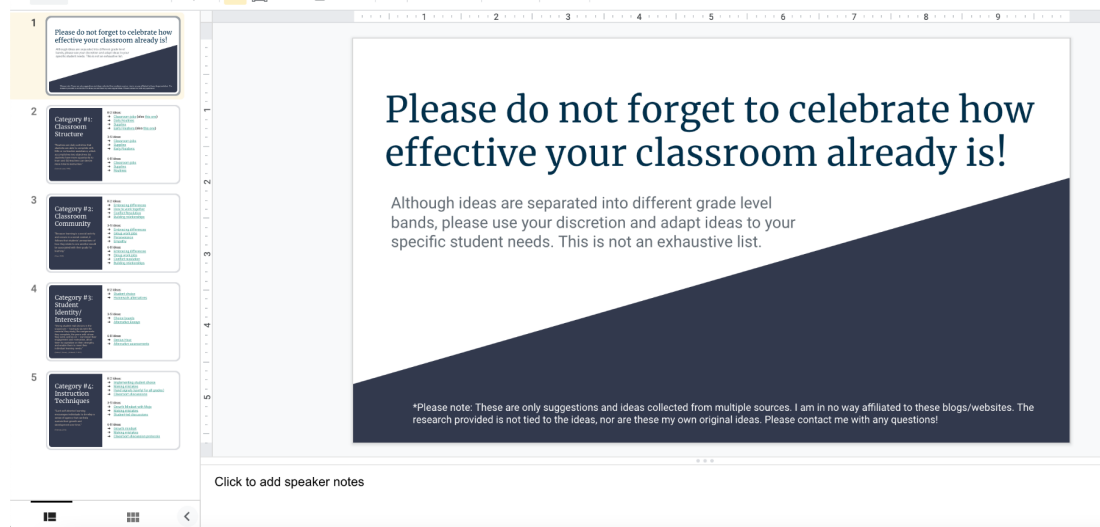
Figure 6
The final prototype of the slide deck of suggestions.

Now that my prototyping was finished, it was time to test this out with real teachers. I called upon some of my dear friends from my graduate program at the University of Michigan. The three of us discussed my prototype on a Google Meeting. One friend is a special education teacher at a K-12 school in Harlem, NY and the other teaches 3rd grade in a self-contained classroom in Birmingham, MI. Both have very different current teaching contexts but also have general education experience in a high needs school district. I got permission to record our Google Meeting, sent them links to my tool, gave them a little bit of context, without trying to give too much away, and then listened to their thoughts while I took notes.

I noticed immediately that they both took less responsibility for their classrooms than I would have. There were a few times where one of them said "my kids should take this" or "I wonder how my kids would answer this one". This made me wonder if I could create a separate evaluation tool to see what students think of how their classroom runs so far. The other main point that was talked about was what the score means and how their score made them feel about their classroom. This made me decide to be more explicit about what the score means,

and make sure to include something about how the score is not a reflection of who they are as a teacher.

This was a fantastic opportunity to explore the process of design. Not only was designing my own solution to a problem very dear to my heart so rewarding, it provided me with so much insight into how our common everyday tools are created and what possibly could come in the future. I hope there are designers out there who are trying to help make teachers' lives a little easier, in case systemic change does not come.

Stanford University d.school. (2018). Stanford design thinking model.

https://static1.squarespace.com/static/57c6b79629687fde090a0fdd/t/5b19b2f2aa4a99e9 9b26b6bb/1528410876119/dschool_bootleg_deck_2018_final_sm+%282%29.pdf