

STEMLIMS Interview Coding Sheet with Definitions and Examples  
6/15/14

Activity

Code	Definition	Example
IDE-Ideating	Inspiration, thinking, writing notes	Yeah, [laughs] um but originally, I was like, "I want to fish. I want to be able to kayak or I want to be able to be on the water." Um and so I was like okay, I'll keep my ears open, and I'll start looking up videos of ways of how to build a boat –Um cheaply and so I was Googling like different types of boats and you can do them with plywood also and like carbon fiber or glass fiber, um but a week after I decided to make some sort of floating vessel for the Charles River, someone said that they were throwing away a kayak, right? So that was also a really big part. I was already sort of wanting to do that project.
DES-Designing or Planning	"The iterative selection and arrangement of elements to form a whole by which people create artifacts, systems and tools intended to solve a range of problems, large and small." Designing is goal-oriented problem solving driven by personal interest and the investigation of meaningful questions.	Um, alot of times taking something that someone else has done and modifying it, that's both with software and with circuit design that's how I got started. I found somebody else had designed a keyboard and it didn't look anything like the keyboard I wanted but the basics circuits were right, and so I could, I think first started by trying to just change their design and then I just copied their, I mean this is really, there isn't alot of intellectual property there, its key switches and diodes and rows and columns those people have been doing for 40 years or 50 years, but I could see the insides of how somebody else had built it. Um and its much much easier to get started on a project when all you have to do is do one little part of it to get to the next step rather than start from a

		blank canvas or at least for me.
MAK-Making	To build or adapt objects by hand, for pleasure, economy, or as a way of understanding the world. Finding new lives and uses for old materials, creating new objects, or rearranging recognizable structures into new entities altogether.	Actually recently, I ended up, I just built an instrument a little before and I had a picture of it in my mind so I drew out a bunch of pieces on plywood and then I cut them all apart and that plan ended up being like a physical plan that I then assembled and then the sort of improvisatory process happened and then the sketching, building..kind of conversation with the materials I had at hand sort of played out and then the instrument got finished a few days later.
TNK-Tinkering, Experimenting, Playing	It includes the patience/courage to change the process in small or large ways and low-stakes testing of those ideas. It includes a goal of understanding the processes more than necessarily producing a product. Iterative design.	I experimented a lot. I tinker. Right, so. Um, you know if, you have the materials it doesn't matter if you mess up a pizza box or two, there's another one right there...learning through iteration, get to the, you know, get something front of you and test it, stretch one of the parameters.
SHR-Sharing	Making one's work public after a finished project. Selling (Websites. Etsy. Festivals). Blogging,	Um yea, so like these basically went- obviously these went in the mail right..to um, friends all over. So-yeah, so I feel like I actually make physical-like I actually make and share physical things, as opposed to I make things and then share them electronically.
TCH-Teaching		Um, and I found that I have made some sheets with the weaving laid out and I brought it back to one of the women that was in the group who had a particularly hard time and had - she started to color in, like just trace - color in where each - that ribbon shows. And then she is like oh, now I can see this part you are talking about like her brain still knew what the words were but now her eyes could follow it -and I'm like okay, this is it. I have to give everybody 10 minutes of coloring time before I even start to give them words because I

		am trying to use words for visual and they don't have the visual yet –and I am finding that you have to give people the developmental visual stuff first.
MNG-Managing	Recycling	Um and even just talking to people, we were talking to a bunch of people about like how do we design the linkages. How, like how are we going to communicate. Cause we had to make hundreds and hundreds and hundreds of pieces, uh, for it. And we were coordinating a group of people who had never done a lot of this type of stuff before.
PRV-Previous		Uh, so I actually wanted to be a doctor for most of my life. I didn't know that engineering existed as a field, um, but my father who is a chemist was also handyman around the house and so he was always getting me to help him like fix the sink, fix the car, refurbish a pool table with him...

### Literacy Practice (must be used with activity code)

Code	Definition	Example
PSP- Posing and solving problems in the world and in the design process:	<p><i>Designing</i>: brainstorming conversations; design documents (e.g., sketches, CAD or 3D models) where specifications may be articulated, and through moments where new design decisions reveal new problems to be solved, among others.</p> <p><i>Making</i>: identifying emergent and/or unanticipated problems (of smaller scale than design problem at large), collaborative discussions around moment-to-moment adjustments in the process of fabrication,</p> <p><i>Tinkering, playing, and experimenting</i>: the emergence of new problems when exploring</p>	There was a lot of trial and error with the CNC stuff where I realized that it was cutting in the wrong place, or basically my errors that I needed to figure out how the software works and I had to figure out how to calculate things more accurately.

	new technologies, identifying new possibilities given new tools or practices, and refining of design criteria/specifications in response to exploring new tools and practices, among others.	
IOI-Identifying, organizing, integrating across sources	Use of reference guides, material specification sheets, and product manuals, searching for information on the Web in response to emergent problems, and use of design documents.	Yeah, and so that was a process of like, idea I have and material I want to use, you know, some reading of stuff on the internet, but no one really knows what's going on, trying things, can't get it to dissolve in water, like, um - bug a biochemist friend who suggests something else, and then I can get it to dissolve, but it's never going to be a dye, um, adapt project. So maybe like it's some mixture of finding resources and trying things, and then the resources span from like, textbook to, you know, random people on the internet and then talking to people, observing things.
REP- Traversing representational systems and materials, interpreting and producing representational forms	Transitioning between talk, gesture, and sketches in conversation, reading oscilloscopes and other diagnostic equipment, and working from chip diagrams to wire circuits. Measurements, notes to self, producing symbolic representation of any aspect of the project as an aid to making.	So then the next time I needed something I got materials and spend a little time and made it and over time it just became part of my practice when it comes to sketching things and developing ideas. Half the time I use a pencil and half the time I use pieces of wood and scraps and paper and whatever else. It's just a way of working out ideas in the physical world.
COM-Communicating—sharing works and knowledge with others	Sharing works and knowledge with others, communicating ideas and information in new ways to different audiences. Markers may include demonstrations of made artifacts, producing Web pages or the use of social media to promote work, and novel attempts at peer-to-peer teaching.	Um so blogging about it, we post um, I'm not as active on the keyboard forums as I mean to be. Uh we have a regular mailing list that we send to our users, to our potential customers, people who've signed up for it..um I talk to other people, you know friends of mine who do simiar things or different, things in the same vague space.
--HLP-help		..because my sewing knowledge is much less than the other areas, I really have to rely on the people there to basically refresh my memory and teach me things. So pretty much every time I do there I'm always asking different questions or

		making sure that I'm doing things correctly.
--FBK-feedback		..Sometimes I'll talk it over with friends and family, whoever is around, just kind of just type what I'm thinking and see if they have any input to the problems, the roadblocks I'm running into or the general idea.
--FND-fundraising		Here's another example, I, so once, after the first year, I had been selling some art. And the second year I needed to kind of be contributing financially to my family..If I was going to continue doing this. And so the second year was like well how do I do that while still um valuing how, the how of making..Over the "what" I was making..Um or the, the money that I was creating from the making.
DOC-Documenting Process		Documenting and then just uploading it on to like a facebook and adding a description, and that sort of to me like encapsulates that process.

ALSO:

LRN – Learning (almost everything is learning--this is if the person is singularly focused on learning)

VAL – Values (either personal or more broadly ideological)

TOOL – Tools used

MAT – Materials used