

# *Design & Education*

LOUISA CAMPBELL

## LEGEND

-  : Assignments & Homework
-  : Storyboarding / Brainstorming
-  : Artist / Designer to look up
-  : Events & prospects to explore

23 Jan 2019

## § About Louisa Campbell

- ↳ 15 yrs experience at Parsons
- ↳ Background: Media (Worked in companies - Disney, Nick)
- ↳ Written Books
- ↳ Worked with P. Comp & Electronics
- ↳ Worked in education (6-12 grades)
- ↳ Collaborating partner in the school VA Maker Academy  
Curriculum modelled on DT ←
- ↳ Interested in changing educ<sup>n</sup> practices



## § About the class

- ↳ A lot of "experiment" in education & working with schools
- ↳ Beginning of semester - reading, talking, writing
- ↳ Mid-semester - working with teachers
- ↳ End-semester - testing on students

o Pro Amp tools: Professional Amateur tools

↳ Arduino, Digital media tools, etc.

\* STEAM : Science, Technology, Engineering, Art & Design,  
Management  
↳ Adding creative practices to STEM

◦ SPC (School of Poetic Computation)  
↳ Started by Zach Lieberman.

— ∞ —  
◦ Think about what's better for learning?  
↳ Trial & error      ↳ Concept based creation

◦ First week : RRT (Reading Roundtable)  
Do readings & give present<sup>n</sup> on them  
↳ Done in a group

◦ Week 1 : Introduction of design for learning  
↳ Read about education & do research

◦ Objective : Finally, create a project about educ<sup>n</sup>  
Create 5 curriculum project ideas, discuss with teachers &  
implement it with students.

- Write education autobiography (3-5 pages)
  - ↳ How your experience influenced your approach towards education?
  - ↳ See syllabus for more details

◦ Brainstorming : Educational Autobiography

Delight in learning <sup>(3)</sup>  
 (BITS - Digital Design & Comm. Sys)

Sharing Knowledge <sup>(5)</sup>  
 (Akshansh.net/notes)

Teaching my friends on my room mirror <sup>(4)</sup>  
 (Electromagnetic Theory)

Not cheating in class <sup>(2)</sup>  
 (Physics lab final: Rajeev Sir)

Class IV Science <sup>(1)</sup>  
 Test : Very Honest  
 (Smriti Ma'am & Ankit)

Innovative Teaching Style & correction method <sup>(6)</sup>  
 (MSI - Mohini Dutta)

Grammar learning & writing skills  
 (Mom, Nana, Nani Ji)

Library book reading (Listening)  
 ↳ Not a reader  
 (Tanya)

★ RRT Assignment - Do a reading. Then ◦  
1 page of your most valuable findings.  
Come up with 6-7 questions for discussion

↳ My group: Janze, Anny

} Present<sup>n</sup> on the  
reading +  
summary of  
your findings  
+  
6-7 questions

◦ Idea:

Signifier & signifying things are diff<sup>t</sup> but are taught  
be the same - René François Ghislain Magritte's

(This is not a pipe).

↳ So, think about updating the educational sys. like  
that.

30 Jan 2019

- Discussion on the reading assignment
  - ↳ Think about the diff. of the terms:  
Constructivism & Constructionism
- Learning is not equivalent to understanding.
- Students come to a class with preconceived notions of how the world works. If we don't engage them based on their understanding, they may fail to grasp new concepts & info.

#### [ IN-CLASS QUESTIONS ]

- What has inspired you to push yourself this far in education?
  - Reference : Montessori Education Style
  - Froebel Gifts



- What framework do you view learned concepts through?
  - How we learned the first 20 elements of the periodic table
  - Unlimited memory by Kevin Horsley
- What do you think is diff<sup>t</sup> b/w the ways that human & rat brains function?

- A lot of neuroscience is about studying other mammals.
- If you are an educator how can you teach your students based on previous experience? How would you help them manage their failure?
  - Concept: "Fail Forward" — The more you fail, the more you learn.
- If you could change how the book (How People Learn) teaches about the brain, how would you?
- Have you ever learned something without having "learning" as the main point?
  - I learned Russian as a compulsion while I was in Russia

— x —

06 Feb. 2019

§ Discussion on reading assignment

↳ **Constructivism** vs **Constructionism**

Theory of knowledge { (≡ be constructive) (≡ construction) } More practical form of learning

↳ ⇒ Learn by exploring the world [PIAGET]

↳ ⇒ Learn by making [PAPERT]

o ∆ learning through design [CONSTRUCTION KIT Reading]

↳ Construct sth diff from the lego bricks — not what is shown in the box.

↳ when children design a world from scratch, building that makes them learn about real-world problems.

eg, build a world & learn about water systems.

o Mindstorm ∴ Kits designed by Seymour for kids. It was (by lego) actually sold to hackers & adults.

— x —

\* Group Discussion

① Reflect on your school educ<sup>n</sup> → constructionism or instructionism. Which one is better?

② Relating to educ<sup>n</sup>, share your personal experience of constructionism & constructivism.

## \* Mid-term

↳ Develop 4 ideas for a curriculum project & present as a PechaKucha.

↳ For the rest of the sem, you will work on a Curriculum project. Teaching would be for 90 mins (so, do 2 projects for 45 mins or 1 for 90 mins.)

## \* STICKY NOTE EXERCISE

- ↳ what kind of projects you want to create?
- ↳ which tools?
- ↳ Design challenge which can be done in 90 mins.
- ↳ What is the project outcome?

o Maker Academy (Age 14-18, Grade XI, XII): *Testing Group*

CS  
(Python)  
(P.Comp)

Digital Media  
(Photoshop, Adobe CC)

13 Feb. 2019

- **FINALS**: Do 6 Curriculum project designs
  - ↳ Includes creating 6 projects, discussing with teachers & testing with students — 45 mins each

↳ **Mid Term**: March 6, 2019

◦ Class discussion on Weekly reading

◦ **Intrinsic motivation**: Interest that is native to you  
◦ **Extrinsic motivation**: eg. learning for grades.

## QUESTIONS

- Can you think of experiences you have had as a student that utilize example- or principle-based reasoning to accomplish a task?
- Which manner of reasoning do you think is the most effective?
- When planning curriculum, lessons, what will you do differently taking into account design thinking and connected learning?

10 Apr. 2019

§ Deliverables for the upcoming weeks :

- ① Availability for 3 hrs (last wk of Apr. / First wk of May)
  - Fill the Google Sheet
    - ↳ Tue - any time
    - ↳ wed - 8 to 11 am
    - ↳ Thu - 8 to 11 am
  - to teach at Maker Academy
- ② Document feedback from teachers (Maker & others)
- ③ Document Dorkshop experience you had conducted
- ④ Create 2 more projects in UbD template
  - ↳ Understand what can be assessed - tasks connect with the City curriculum
  - ↳ Try to compare it with NYC educ<sup>n</sup> documents for creating curriculums
- ⑤ Create the final Pecha Kucha - reviews from teachers + other ideas.

PERIOD	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1-2	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
3-4	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
5-6	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
7-8	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
9-10	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
11-12	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
13-14	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
15-16	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
17-18	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
19-20	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
21-22	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
23-24	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
25-26	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
27-28	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
29-30	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics

©DM section 8: Monitor progress of 3 students working independently

↳ Lev's time table at Maker

end of course