

Reflection and growth in teaching:
Designing and implementing a high school
Biology and society course in the context of
action research

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CCT 694 Synthesis
Spring 2018

Saber Tooth Curriculum

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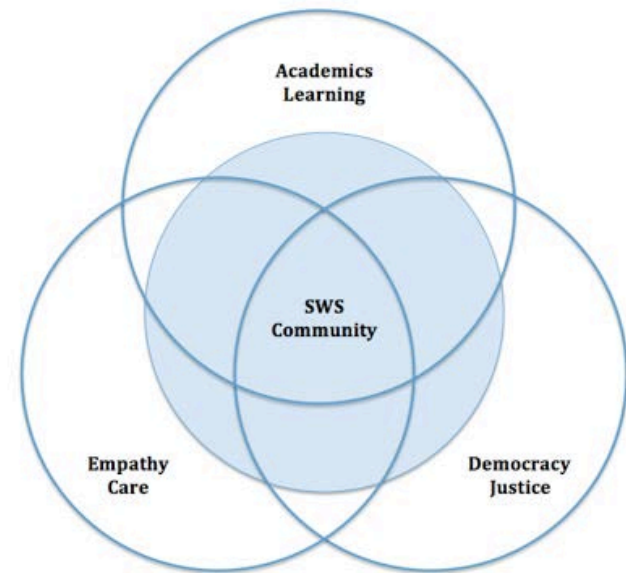
Why this lesson? For these students? At this time?

(Peddiwell, 1939)

My Setting

Brookline High School

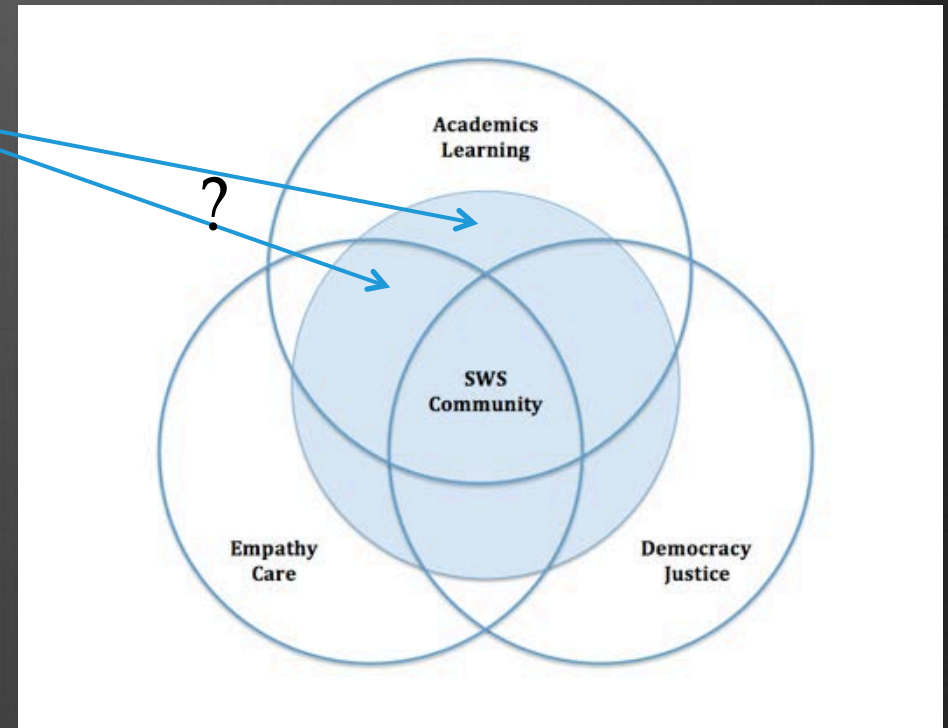
School within a School



My Saber Tooth Moment

Where am I?
Where is my
curriculum?

Critical and Creative Thinking
and Science in a Changing World



What will I do to shape
my school, myself and
my students?

New senior year elective: **SWS** **Biology and Society**

Critical thinking,
Information
Technology, PBL

Biology
and
Society
Topics

SWS
Biology
& society

Democratic
Classroom
practices

Why this class?

- Students/teachers are **asking questions that can be addressed** by this class
- Focus on **relationship building** in the classroom through learning

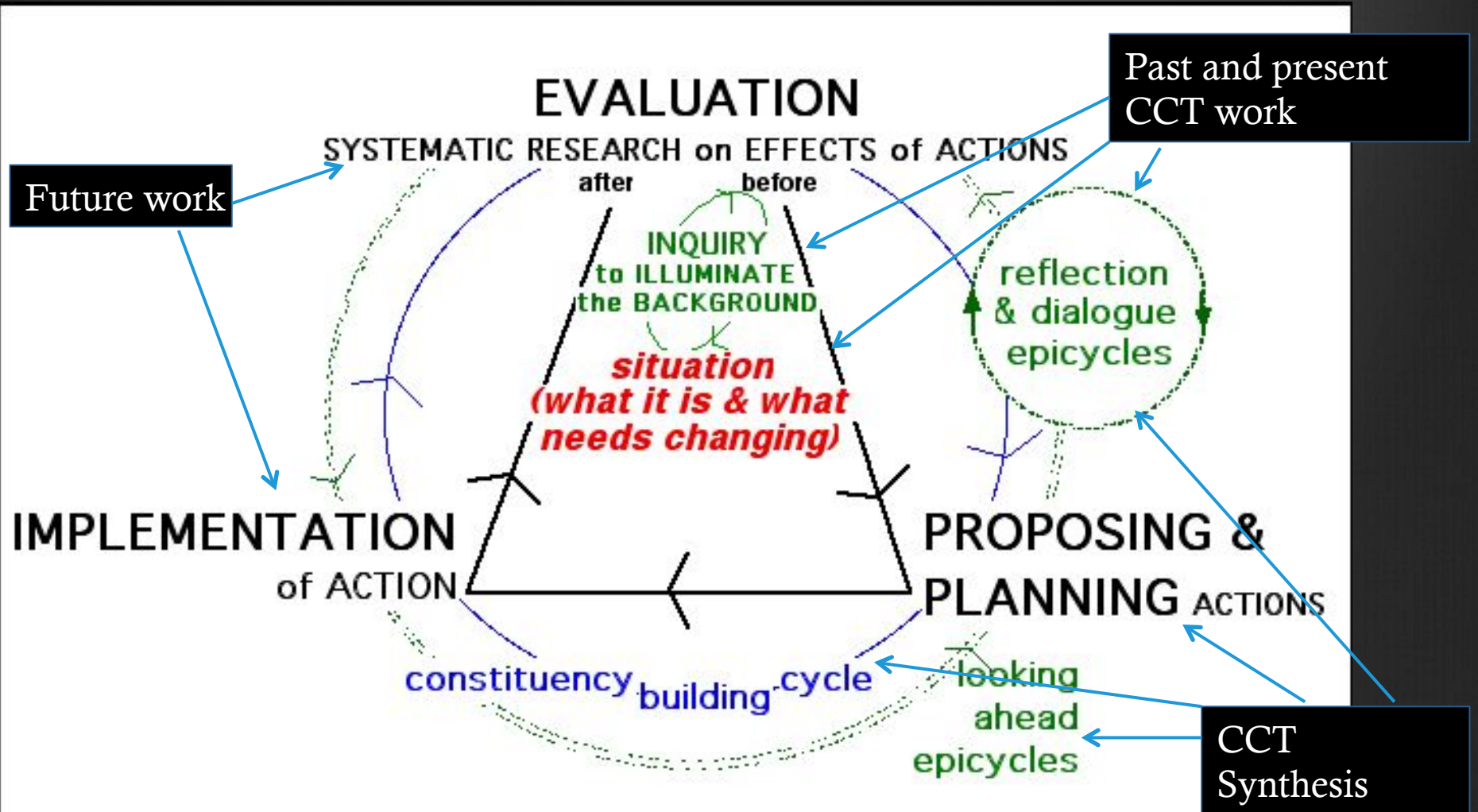
...for this population?

- **Seniors** have foundational knowledge
- Fits well with other SWS class approaches

...at this time?

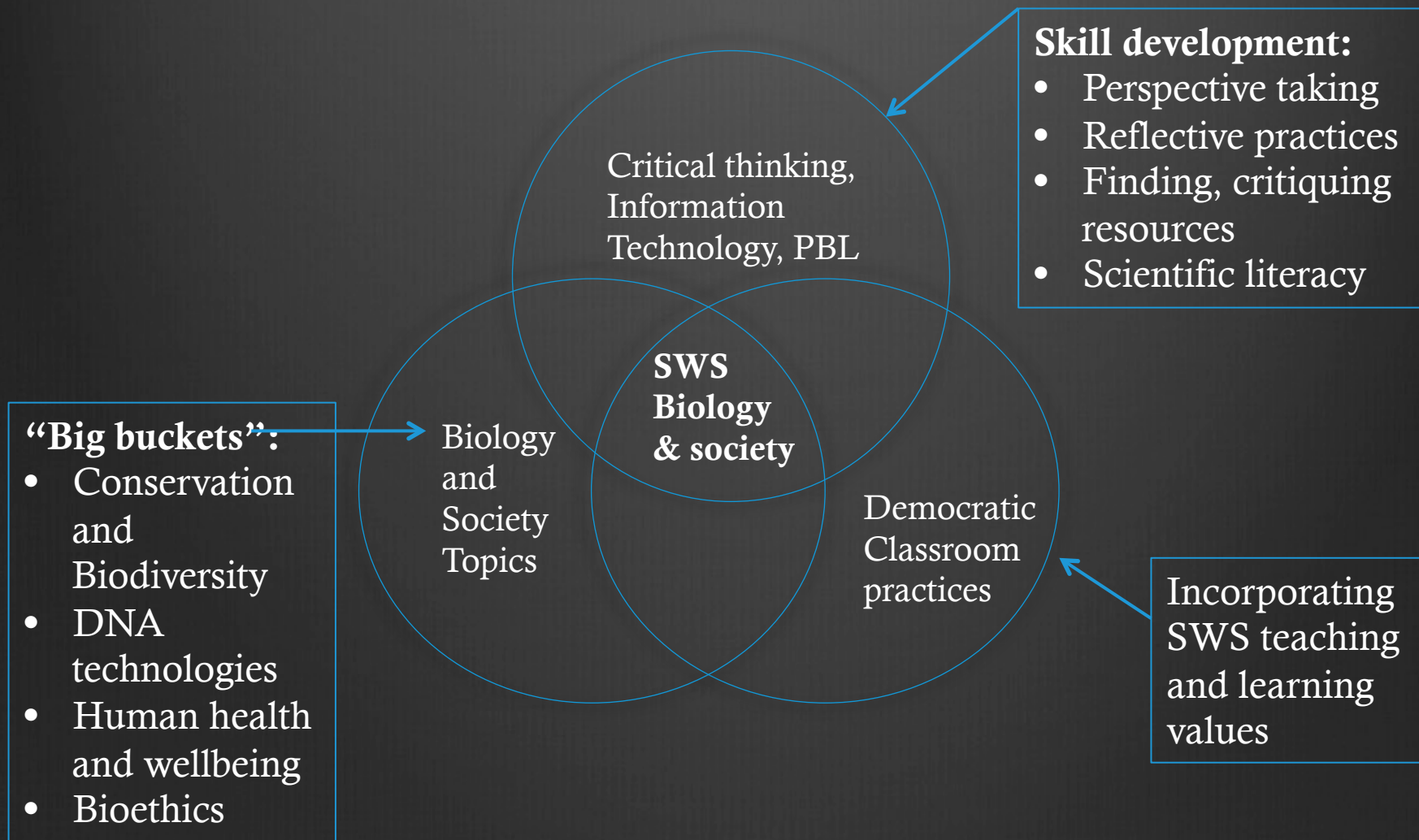
- **Dire biological issues** in our world
- Start to a longer process
- Establishing my voice in SWS

CCT Synthesis - SWS Biology and Society in the Context of Action Research

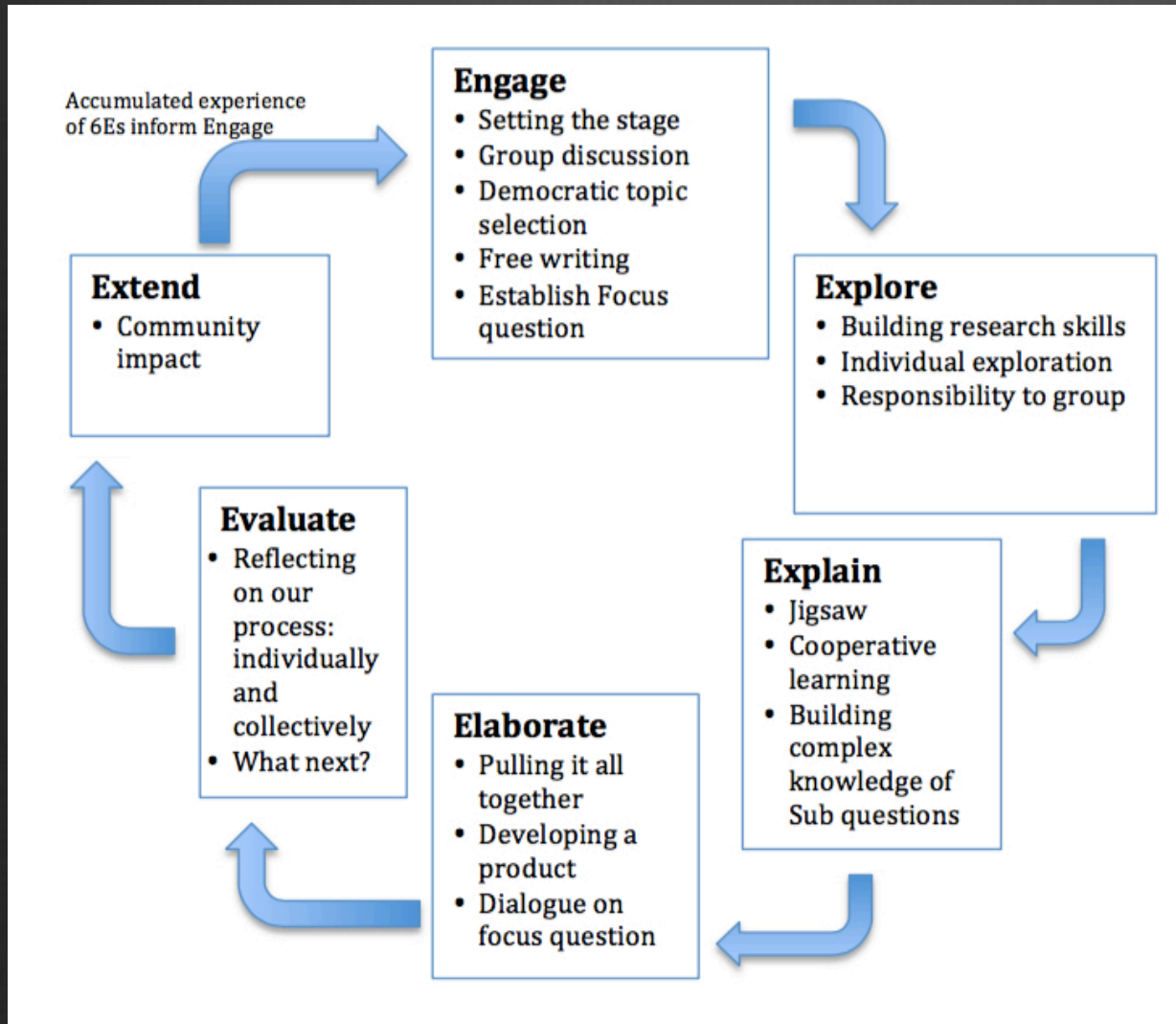


(Taylor and Szteiter, 2012)

SWS Biology and Society: Course Snapshot



SWS Biology and Society: Instructional Framework



- 6Es instructional framework
- PBL
- Combines group and individual inquiry
- Incorporates Critical and creative thinking practices.
- Incorporates reflective practice

(Baybee, n. d.)

SWS Biology and Society: Example Problem Bases Learning (PBL) Engage

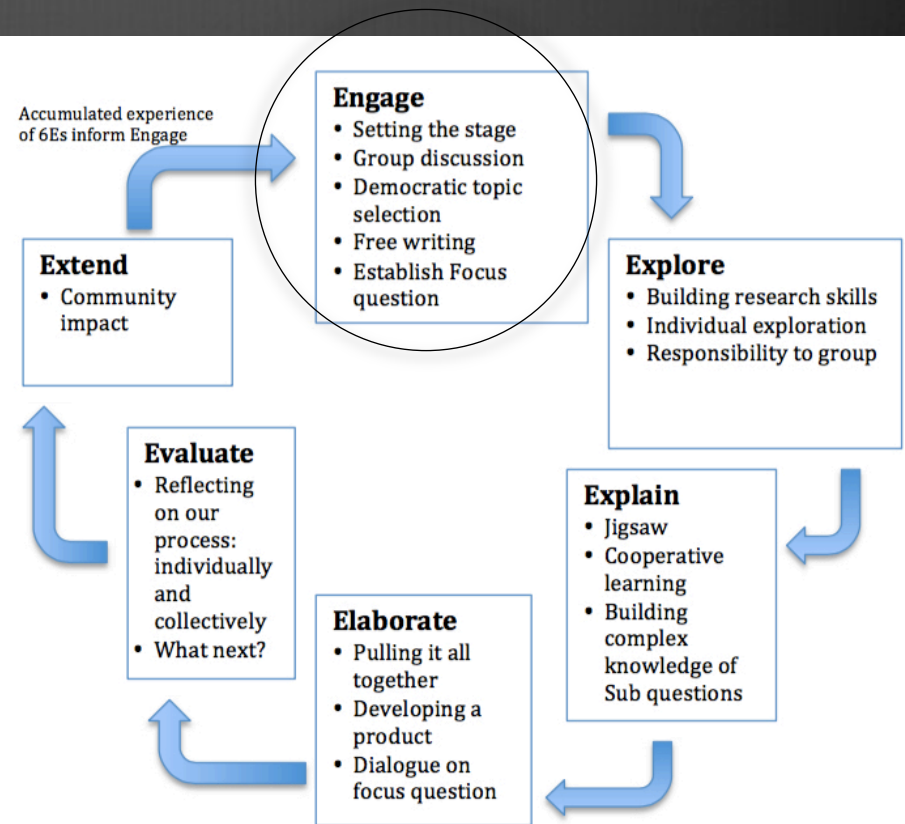
🎬 Possible Unit on Cloning

🎬 <http://variety.com/2018/film/news/barbra-streisand-clone-dogs-samantha-1202711047/>

🎬 Free writing:

🎬 What Biological questions arise for you from seeing this clip?

🎬 What societal questions arise for you from seeing this clip?



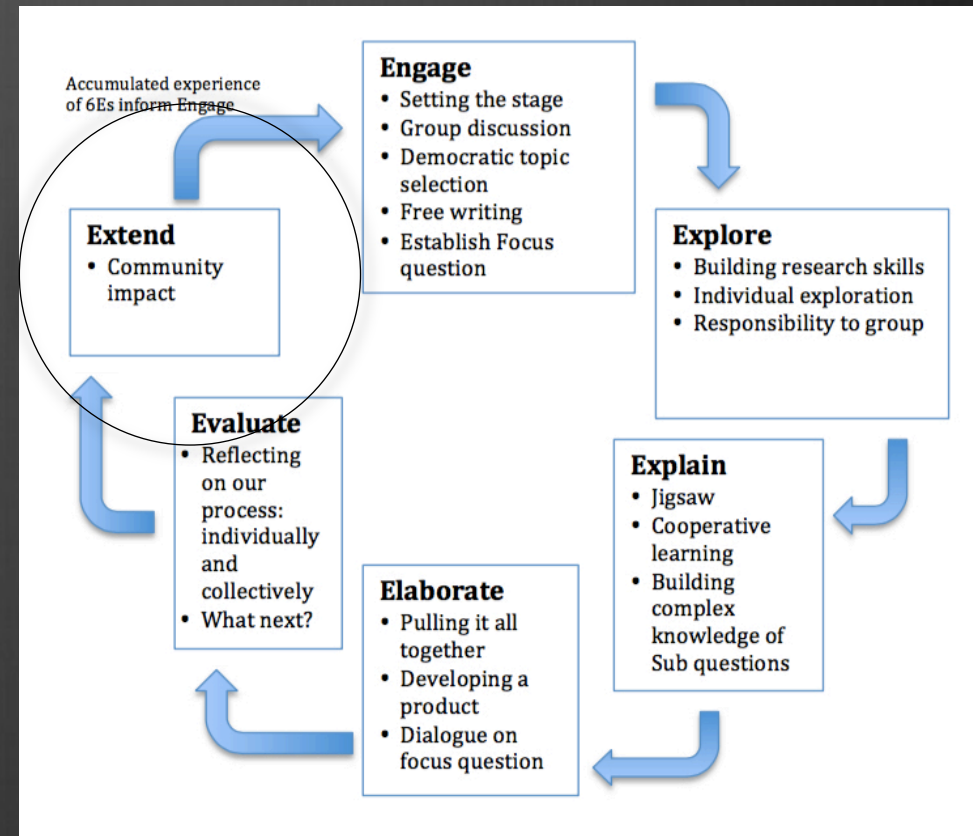
SWS Biology and Society: Democratic Practices

- ⊗ Drawing on SWS tradition
- ⊗ Class room discussion
 - ⊗ Student led discussion
 - ⊗ Teacher participates
 - ⊗ Knocking and anti-knocking
- ⊗ Voting on subjects
 - ⊗ Pitch day
 - ⊗ Cooperative learning



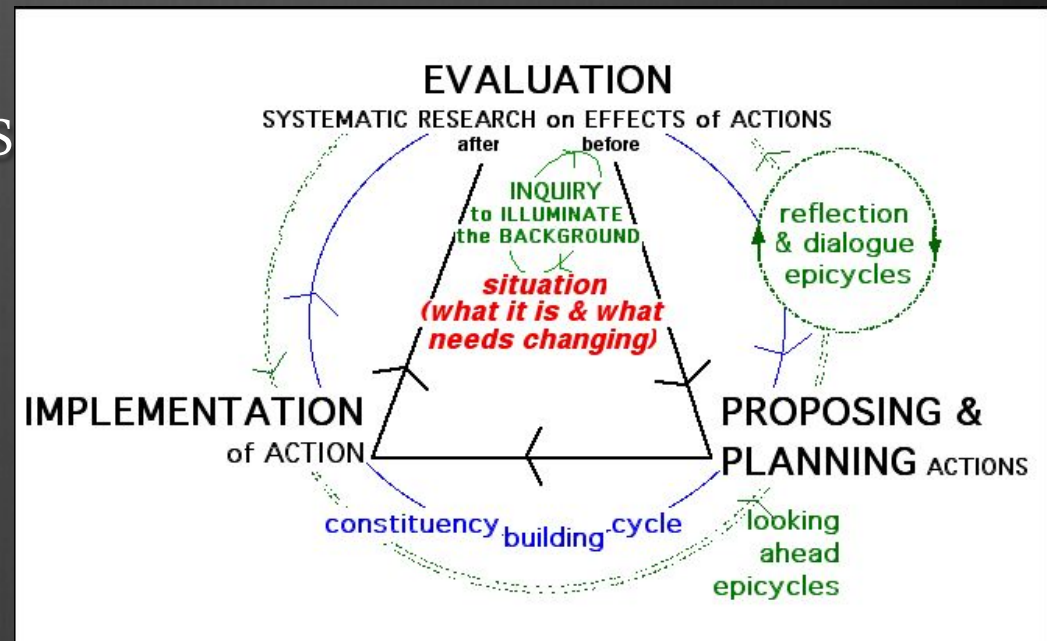
SWS Biology and Society: Extend phase

- ❁ Contribution to the learning community



Action Research: Current and Future work

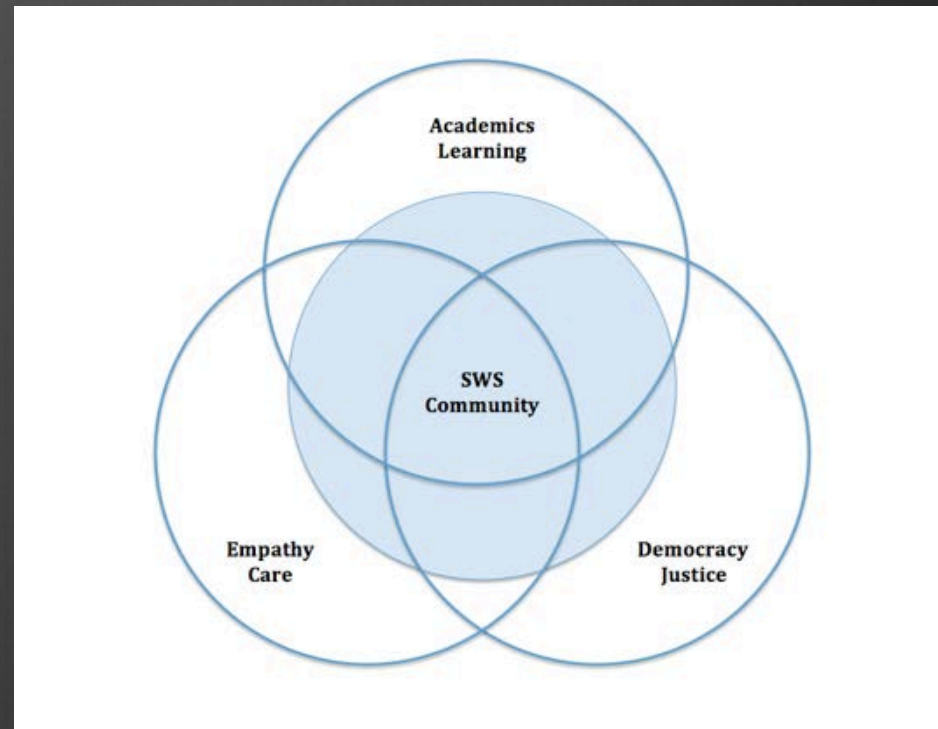
- ❁ Proposing and Planning
 - ❁ CCT 694 Synthesis
 - ❁ Constituency building in SWS and BHS
 - ❁ Generating interest among students
- ❁ Implementation
 - ❁ School year 2018-2019
- ❁ Evaluation
 - ❁ SWS staff perspectives
 - ❁ SWS student perspectives
 - ❁ Community level impact



(Taylor and Szteiter, 2012)

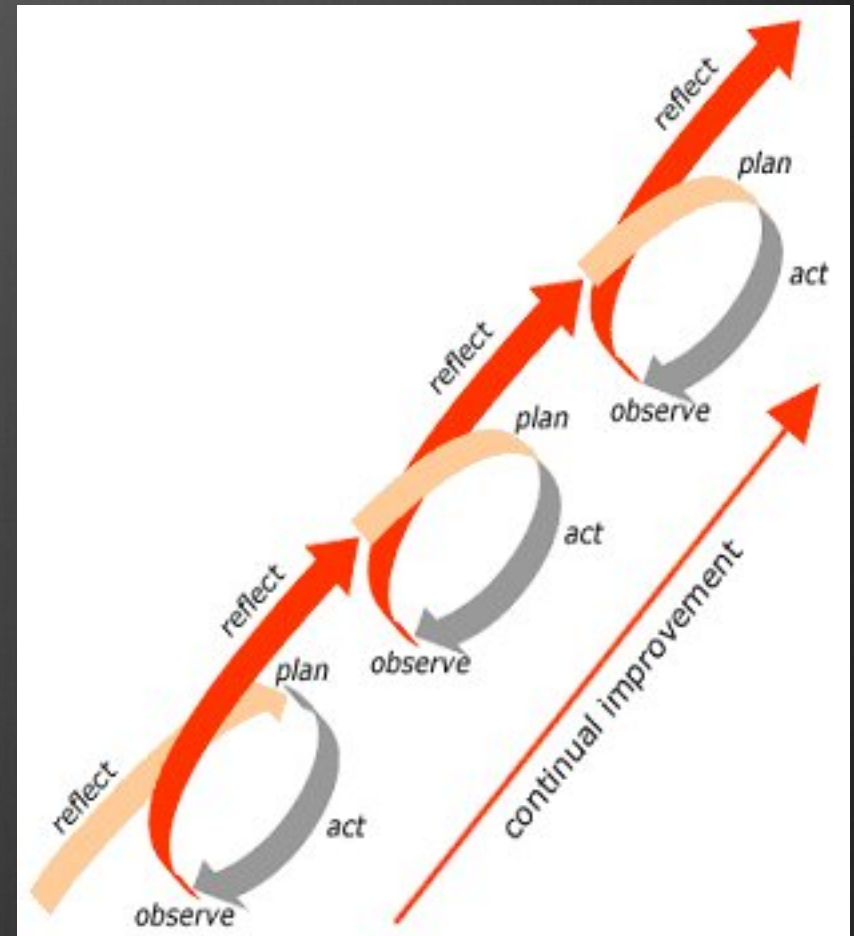
Looking Ahead

- ❁ Growth towards establishing a voice in SWS community



Looking Ahead

- Future cycles of action research...informing change to
 - SWS Biology and Society curriculum
 - 1st year Biology classes
 - Extend phase of SWS Biology and Society
 - Influencing the community on topics investigated
 - Influencing colleagues in non-traditional educational pedagogy.



References

- ⊗ Peddiwell, A. (akak Benjamin, H.) *Saber-tooth Curriculum: Including Other Lectures in the History of Paleolithic Education*. New York: McGraw-Hill Book, 1939. Online
- ⊗ Bybee, Rodger, *et. al.* "The BSCS 5E Instructional Model: Origins and Effectiveness." *Office of Science Education National Institutes of Health* (n.d.): n. pag. Web. 12 June 2006. <[http://science.education.nih.gov/houseofreps.nsf/b82d55fa138783c2852572c9004f5566/\\$FILE/Appendix%20D.pdf](http://science.education.nih.gov/houseofreps.nsf/b82d55fa138783c2852572c9004f5566/$FILE/Appendix%20D.pdf)>.
- ⊗ Taylor, P. & Szteiter, J. (2012). *Taking yourself Seriously. Processes of Research and Engagement*. The Pumping Station. Arlington, MA. Print
- ⊗ Setoodeh, R. (2018) Barbra Streisand Had Her Beloved Dog Samantha Cloned: Meet Miss Scarlett and Miss Violet. *Variety*. (online) <http://variety.com/2018/film/news/barbra-streisand-clone-dogs-samantha-1202711047/>
- ⊗ SWS staff (2016). "4 circles diagram" SWS Community framework.