Systems Thinking for Education Equity Partnership (STEEP): Building a Community of Practice of K-12 Educators in St. Louis, Missouri

Allison Simpson, Carmen Stayton, Sarah Tolch, Sherita Love, Ellis Ballard, Dr. Saras Chung International System Dynamics Conference July 22, 2020



Brown School





ere education der socialization on

Powered by Venture Café | ST. LOUIS



Overview

- The motivation behind STEEP
- Summary of STEEP 2019/2020
- Opportunities (& challenges) moving forward
- Recommendations for the field



The Motivation

- In St. Louis, MO, education and health outcomes often depend on a child's zip code and color of their skin (Purnell et al, 2014; City of St. Louis, 2018)
- Urgent call or regional systems change in education to close racial disparities (ACLU, 2017; Ferguson Commission, 2015; Furtado et al., 2019)
- Teachers work with kids everyday in an educational system that is widening these gaps
- There is a **community of teachers eager for tools** to engage their students in discussing social justices issues (*Educators for Social Justice, EdHubSTL*)
- System thinking and system dynamics are powerful tools for learning, dialogue, and problem-solving (Forrester, 1994; Fisher, 2011; Richmond, 1993)

We are four organizations committed to education equity in St. Louis

"We define education equity as a state in which all students have what they need to thrive in school - a state in which their academic outcomes and experiences cannot be predicted by factors like their race, gender or disability status." (Furtado, Duncan, Kocher, Nandan, 2019)



Our guiding question:

What would it take to work with teachers to apply system thinking as a tool for addressing (and engaging students in addressing) social justice issues in their classrooms, schools, and communities?

STEEP Cohort Activities: August 2019 – April 2020

Experiential learning through GMB

- Focusing around a pressing regional issue
- Co-designed and facilitated with teachers
- Follow-up sessions for model review

Creativity Platform for Experimenting in Classrooms

 Saturday meetings to fine tune plans and share results

Getting Support Along the Way

- Drop-in "Modeling Hours"
- Structure for peer feedback

Celebrating!

- Certificates
- Recognition in schools and districts

Reference Mode: Racial disparities in school discipline in St. Louis, MO













Increasing student engagement, awareness, and activism in health through a year-long systems thinking curriculum

Sarah Tolch, Middle School Science and Health Teacher Crossroads College Preparatory School

"Learning health in context meant there was a POINT to what we were doing. It wasn't just learning stuff to learn stuff. It became more applicable to my life. The systems thinking stuff helped show the connections and relationships between all the information we learned."

- 9th grade student





Understanding immigration: Using systems thinking to foster dialogue and story-telling with immigrants

Kate Touissant High School Spanish Teacher St. Louis University High School

- Use of CLDs to generate dialogue and surface mental models on immigration
- Revising CLDs during interviews with immigrants, creating a platform for students and interviewees to share their stories
- Great conversations (in Spanish!) about perceptions vs. reality of immigrating to the United States



Moving from canned food drives to policy advocacy: Understanding structural drivers of food insecurity

Emily Figley, Second Grade Teacher The College School

- In contrast to previous years, students challenge mental models of causes of food insecurity.
- Students motivated to address root causes through policy.
- Students write letters to the Senator to expand funding for the Farm Bill.



Empowering teachers to center student voice and leadership in community service-learning campaigns

Carmen Stayton, Third Grade Resource Teacher Jennings School District



- "The best part of this experience is getting to see my kids take ownership of the thought process" -JSD Teacher
- Participating teachers launch a district wide service campaign
- Integration of systems thinking tools into existing service learning framework with WE Schools



And then COVID changed everything....

Is it possible to use *virtual* systems thinking learning to engage kids in addressing social justice issues?



Jennings School District Social Justice Club

- Thirteen 6th and 7th graders
- Three STEEP
 members
- Weekly 2-hour Zoom meetings
- Resulted in studentled and communitywide "Kids Against Police Brutality March"
- 100+ Attendees, 24,000 social media views of live video



What we're excited about

- Pipeline in K-12 educators with increased leadership and ownership in STEEP design and facilitation, and in introducing systems thinking methods to their school communities
- **Repository of systems thinking curriculum**, lessons, specifically focused on social justice --developed by teachers for teachers
- Development and normalization of common language for discussing systems, within and across districts
- Opportunities to **formally recognize and highlight teachers** doing this work with school and district leadership

The questions we're still wrestling with (These aren't new...why can't we figure them out?)

- How to evaluate impact for student, teacher, and community?
- How to **ensure equity** in implementation?
- Scale-up of SD How to increase quantity (and get to simulation) without sacrificing quality?



Recommendations for the field of SD

- Listen to, learn from, and follow the lead of educators to discover where and how modeling can add value in their schools and classrooms -- especially as we move to virtual learning options
- **Formally support educators** in adapting, transforming, and scaffolding SD tools for their contexts (i.e. certifications, paid fellowships, etc.)
- Cultivate a supportive environment for peer learning, taking risks, and sharing of successes and challenges using SD
- Keep showing up for educators that want to dive deeper, and be willing to adapt coaching and ongoing support strategies to meet their needs

Thank you!

Want to chat more?

- Allison Simpson a.simpson@wustl.edu
- Carmen Stayton littlec@jenningsk12.us
- Sarah Tolch saraht@crossroadscollegeprep.org

References

ACLU of Missouri. From School to Prison: Missouri's pipeline of injustice. 2017.

Ferguson Commission. Forward through Ferguson: a path toward racial equity. 2015.

Forrester, J. W. (1994, June). Learning through system dynamics as preparation for the 21st century. In *Keynote Address for Systems Thinking and Dynamic Modeling Conference for K-12 Education* (pp. 27-29). Concord Academy Concord, MA.

Fisher, D. M. (2011). "Everybody thinking differently": K-12 is a leverage point. System Dynamics Review, 27(4), 394-411.

Furtado, K., Duncan, A., Kocher, J., Nandan, P. (2019). Falling Through the Cracks: Disparities in Out of School Suspension in St. Louis at the Intersection of Race, Disability, and Gender. Retrieved from: <u>www.forwardthroughferguson.com</u>

City of St. Louis. Equity Indicators: Baseline Report. 2018

Purnell, J., Camberos, G., & Fields, R. (2014). For the sake of all: A report on the health and well-being of African Americans in St. Louis and why it matters for everyone. *For the Sake of All*.

Richmond, B. 1993. Systems thinking: critical thinking skills for the 1990s and beyond. System Dynamics Review 9(2)113-133.