

WiP: A Qualitative Study of Service-Learning Oriented Cybersecurity Clinics' Processes and Challenges

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Motivation

Many small and non-profit organizations manage sensitive data or provide crucial services, but lack resources and expertise to effectively mitigate cybersecurity concerns

University-run cybersecurity clinics have recently been established across the US to support these organizations



<https://cybersecurityclinics.org/>

These clinics are organized as service-learning opportunities for students, which creates challenging decisions when balancing client services and student learning

Research Questions

RQ 1: How are existing university-facilitated cybersecurity clinics structured?

RQ 2: What are the technical and social challenges cyber clinics encounter while supporting their clients?

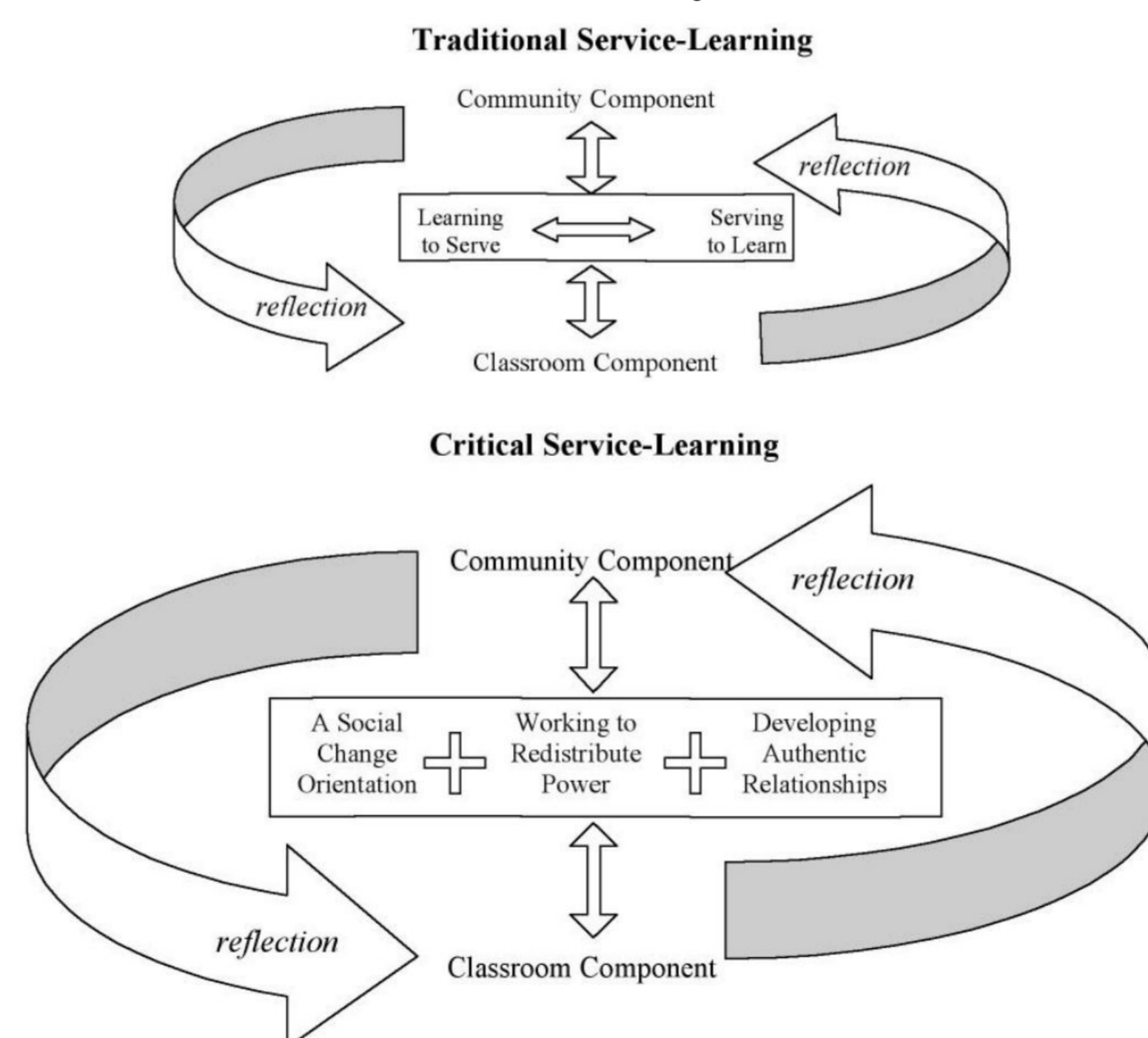
Critical Service Learning

We consider clinic operations through the lens of Critical Service Learning, which attempts to prevent paternalistic approaches which entrench existing inequities. Critical Service Learning is characterized by the following three tenants:

Social Change Orientation: Addressing root causes of social issues, not just symptoms

Building Authentic Relationships: Creating genuine, reciprocal partnerships between students and clients

Redistributing Power: Ensuring power and decision-making are shared equitably between students and the client they serve



Traditional vs. Critical Service-Learning: Engaging the Literature to Differentiate Two Models. Tania D. Mitchell. Michigan Journal of Community Service Learning. 2008

Methodology

We are conducting semi-structured interviews for three participant groups—*clinic leadership*, *clients*, and *student clinicians*—to explore different facets of the cybersecurity clinic experience, focusing on aspects such as relationship establishment, project scope, and effectiveness of collaborations.

Questions were tailored to be specific to each group. Interviews range from 45-60 minutes. Participants were paid \$30 and interviews were conducted on Zoom

Case Study: Tufts University Cybersecurity Clinic

First year running the clinic at Tufts

3 teams of 5-7 students each serve a different client. All clients are Boston-area nonprofits

Tufts has a rich culture of service learning through the Tisch College of Civic Life, the only university-wide college focused on promoting civic and political engagement.

Initial Results:

- Clients know they need cybersecurity support, but are not sure what kind
- Most challenges faced were logistical
- Critical service learning tenants are often a secondary concern