

Cognitive, Affective, and Politicized Trust in a Community Youth Program: A Participatory Design Research Project

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ABSTRACT

In participatory design research (PDR), all stakeholders actively engage in decision-making and outcomes in ways that are democratic, reflect stakeholder needs and interests, and promote successful design outcomes. During the participatory design process, building and maintaining trust is imperative, especially in youth-based programs where youth have little to no voice or influence over the decisions that affect the programs in which they participate. This is especially true for youth members of minoritized groups. Without trust, youth might not engage, participate, or express their own values and culture within a project [1]. Thus, it is important to create a safe learning environment that allows for the sharing and nurturing of design knowledge, skills, meaning-making, and attitudes.

The three dimensions of trust --cognitive, affective, and politicized--examined in this study have been researched within the scope of multiple disciplines, including organizational psychology, biomedical research, communication, and economics. However, little research has been done on the individual and interactional effects of inter-relational trust in the context of participatory design. In this study, we examined the initial development and inter-relationships between cognitive, affective, and politicized trust in a PDR project within an after-school community program that included 2 staff and 11 middle school youth. The goal of this ongoing project is to co-design an educational experience for youth in which they explore how computerized algorithmic processes can reinforce discrimination, racism, and prejudice in socio-technical systems. The research question in this study is: *What are the interrelationships among cognitive, affective, and politicized trust development during one initial participatory design activity with youth, staff, and researchers?* One discussion activity about Google search algorithms was analyzed using the methodology of quantitative ethnography (QE) and the tools of qualitative critical discourse analysis and Epistemic Network Analysis (ENA). We used critical discourse analysis [2] to examine talk, tone, and grammar through a political lens that focused on status, power, and relationships. In particular, this analysis focused on examining how participants engaged (or did not engage) with each other when discussing issues and inequities around race and gender in the context of internet search algorithms. The coded data was then analyzed using the ENA webtool [3], which counts the co-occurrences of codes and visualizes them in a node-link network model. This allows for the relationships between the codes to be seen in a temporal context.

In this study, there were several displays of youth trust construction and deconstruction with staff and the researcher. Cognitive trust tended to be foundational in the building of both affective and politicized trust. Affective trust was established next and began to work and interact with cognitive trust in a bidirectional manner with each dimension influencing the other. Politicized trust seemed to require the presence of both cognitive and affective trust, and breakdowns in either of these dimensions of trust caused breakdowns in politicized trust. All three dimensions of trust were complex, dynamic, and interrelated throughout the study. These findings support a three-dimensional trust framework for educational design involving youth as active participants and co-designers. These findings also suggest that shared knowledge, solidarity, and willingness to show vulnerability were crucial to the initial development process of all three forms of trust. The results further suggest that it was difficult for adults to gain politicized trust within the youth group, and an adult facilitating the direction of politicized discussions involving gender and racial representation decreased levels of vulnerability and engagement displayed by youth. These patterns of interaction require us to further probe how vulnerability, discord, and solidarity impact engagement and opportunities for learning among youth, especially in light of learning that involves more politicized issues.

REFERENCES

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