



Undergraduate Research Symposium May 17, 2019 Mary Gates Hall

Online Proceedings

POSTER SESSION 1

Commons East, Easel 83

11:00 AM to 1:00 PM

The Importance of Referent Power and Trust in Team Interactions

*Zhen Yang, Junior, Business Administration, UW Bothell
Shihao Ge, Senior, Business Administration (Accounting),
UW Bothell, Business Admin (Supply Chain Management)
Mentor: Deanna Kennedy, School of Business*

Nowadays teamwork is becoming more and more important in business, and we may need to work together to fulfill projects' goals. However, we still cannot find the exact reasons why some teams collapse. However, we think referent power and trust, in part, be likely culprits because it affects the way teams communicate to share knowledge about the project. Referent power is a form of reverence gained by a leader who has strong interpersonal relationship skills. Trust refers to a strong belief in the honesty and goodness of someone. Past research suggest that if the referent and trust are relatively low, it will affect the effectiveness and efficiency of communication or even no communication at all. Without communication, the team work will likely collapse. To test this contention without negatively affecting real-world teams, we used an agent-based modeling and simulation approach. Agent-based models are an impactful tool to study team phenomena because it can model the complex behaviors and probability of interactions and effects in a closed environment. So in our research, we analyzed the referent power and trust of a team by using agent-based models. We created a model for our research with two components "referent power and trust". We 1) tested a mix of referent power and compared high referent power with low member trust, versus low referent power with high member trust to see what is the best scenario and 2) the results showed the scenarios when a team had higher effectiveness and efficiency in team work. Also, we share our NetLogo agent-based model code for other researchers to leverage.

SESSION 1G

PSYCHOSOCIAL AND PHYSIOLOGICAL DYNAMICS OF RESILIENCE AND WELL-BEING

*Session Moderator: Judith A Howard, Sociology
MGH 238*

12:30 PM to 2:15 PM

* Note: Titles in order of presentation.

The Role of Team Communication in Identifying Potential Social Loafers

*Vladka Behrova, Senior, Business Admin (Supply Chain Management)
Mentor: Deanna Kennedy, School of Business*

Team leaders occasionally find themselves managing teams that have a member set on under-performing in the social group, or "social loafing." Many team leaders have difficulty managing this social loafer effectively. In our research, we focus on helping leaders identify social loafers on their team. Our goal is to create guidelines and strategies on how to work with social loafers after they have been identified. We use communication transcripts and performance data, gathered by social behavioral researchers, that conducted a hidden profile experimental simulation with rotating leadership and hidden social loafers amongst project members. This was done over time, as project requirements escalated. By applying recurrence quantification analysis, we gathered metrics on the development of communication patterns across time in terms of: being recurrent, deterministic, and chaotic. Statistical modeling was used with the intention of revealing the types of relationships between the ability to identify social loafers and project success. By providing a way to quantify the properties of dynamic systems, recurrence analysis offers group researchers a new approach for empirically studying group dynamics. Rather than presuming that such systems are linear, researchers can use recurrence analysis to assess the degree to which a system is stable, predictable, and complex. This work will provide value to researchers in demonstrating the application of the recurrence analysis method, and will help team leaders by exemplifying how they can manage tough situations where social loafers exist on a team.