

THE GROUP ASSIGNMENT SOCIAL NETWORK: AN UNINTENDED CONSEQUENCE OF GROUP ASSIGNMENTS

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A group assignment can be thought of as a pedagogical strategy placed in students' environments to influence their cognition, affect, and behavior (Thorndike, 1906). The first behavior students typically engage in when given a group assignment is group formation. When students are asked to self-select their group members the behavior is one of approaching some classmates and avoiding others.

Published research on group formation focuses primarily on whether students should be given autonomy to self-select their groups and the problems that arise when allowed to do so. For example, students tend to minimize group member heterogeneity by teaming with friends or classmates thought to be "good" group members (Postoky & Duck, 2007), and some students find themselves as the "leftovers" after the first round of group formation (Bacon, Stewart & Anderson, 2001). At the same time, limited attention has been directed at formally understanding the behaviors that business students actually engage in when self-selecting group members and the consequences of those behaviors.

The purpose of this study was to advance our understanding of the ways in which group assignments shape students' behaviors. More specifically, we first set out to understand how important it is to students to categorize their classmates as those to approach or avoid when asked to self-select their group members, and how much effort they actually put forth to approach some classmates and avoid others. Then we focused on understanding the extent to which undergraduate business students form a group assignment social network, the degree to which students in the network are tied by trust and beliefs about trustworthiness, and the extent to which students do or would form groups with members of their group assignment network.

A convenience sample of 145 undergraduate business students was selected from four business classes taught at a university in the Southwestern US. The sample consisted of students

from a variety of majors and 40% were juniors, 44 % were seniors, and 16% identified their class standing as “other.” Data collection then progressed through three stages. Subjects were first asked to list all of the current students in the College of Business whom they would consider members in their group assignment network (referred to as direct ties). Second, a survey was administered to measure the subject’s trust in, and beliefs about the trustworthiness of, three of his or her network members—the first, the second, and the last student listed. Trust was measured with four items selected and adapted from Mayer and Gavin (2005), and the three dimensions of trustworthiness were measured with 11 items selected and adapted from Mayer and Davis (1999). A third survey measured the subject’s trust in, and beliefs about the trustworthiness of, three classmates not listed among his or her network members—a classmate the subject would tend to approach and ask to be part of a group, a classmate whom they would tend to avoid during group formation, and a classmate toward whom they are completely indifferent about approaching and asking to be part of an assignment group. This survey also included items to measure class standing, importance of categorizing classmates as those to approach or avoid during group formation and the effort put forth to do so, and the extent to which students do or would team up with network members.

Results indicate that, in the context of a business school in which group assignments are an integral aspect of curriculum, undergraduate students place a high level of importance on cognitively categorizing classmates as those to approach and those to avoid, and they put forth a high degree of effort to actually approach or avoid classmates during group formation. We also found that most students do form a group assignment social network. Overall, 133 (92%) of the participants listed one or more members (direct ties) in their network. The average network size is 4.9 and participants listed up to 15 members. Importantly, 11 participants indicated that they have no group assignment network and six students with zero network members were second semester juniors and seniors. Analysis of variance results show significant group differences in network size based upon class standing. The average network size for college seniors (6.5 for first semester and 6.9 for second semester) were

about double the size of the average network for juniors (2.6 for first semester and 3.4 for second semester).

Results also indicate that the social ties that connect students in a group assignment network are trust and all three dimensions of trustworthiness—ability, benevolence, and integrity. A repeated measures ANOVA was used to test for differences among six groups. Three groups were network members—the first, second, and last person each participant listed in his or her network, and three groups were non-network members—one classmate toward whom the subject was indifferent about approaching during group formation, a classmate they would tend to avoid, and a classmate they would tend to approach. As shown in Figure 1, there were no significant differences in trust and beliefs about trustworthiness of the first two members of the group network, but both were significantly higher than the last person listed in the network and all three non-network members. Interestingly, there was no significant difference in trust and trustworthiness between the last member listed in the group network and the non-network classmate who students would approach.

We also found that most students *definitely would* form a group with members of their network. In one senior-level class, participants were given a group assignment so we were able to ascertain the number of network members in the class and whether students formed groups with those members. Fifteen of 20 respondents reported having one or more network members in the class and 10 of the 15 filled their group with the maximum number of available network members.

Our findings indicate that students have a very strong behavioral tendency to approach and form groups with members of their group assignment network. The strong tendency to approach some classmates also means that students have a strong behavioral tendency to *avoid* others. This approach/avoidance behavior then begs the question: When students do not have previously stored beliefs about the trustworthiness of classmates, what information is used to make decisions about who to approach and who to avoid during group formation? After all, students commonly find themselves in situations when they are asked to self-select group members but are unable to fill a

group with trustworthy network members, or non-network classmates who are believed to be at the threshold level of trustworthiness.

Recent research suggests that, in the absence of these pre-formed beliefs about trustworthiness, business students use stereotypes in the group formation process (Neu 2012). The extent to which and the ways in which students use stereotypes provides an interesting and very important avenue for future research.

Another important implication of this study stems from social network theory which suggests that students will accrue social capital by virtue of membership in a group assignment network (Van den Bulte & Wuyts, 2007). For example, if a student's network is comprised of classmates who are relatively high in academic abilities and the student is able to form a group with those classmates, the student likely accrues social capital in the form of higher performance on the final product and thus a higher (inflated) grade. A key point is that while social capital likely accrues to most students in a group assignment network, students will differ in the nature of their network—number and nature of students, the consequence of which is that some students will realize greater social capital than others. Future research should be directed at formally understanding the extent to which students realize social capital by virtue of membership in group assignment networks and for whom the most social capital accrues.

Figure 1: Trust and Trustworthiness of Network and Non-Network Members

(bars indicate insignificant differences at 95% level of confidence)

