Heterogeneous vs. Homogeneous Groups:
Methodology for Class Instruction for Post-Secondary Business Education Courses

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ABSTRACT

The primary purpose of this study is to investigate the influence of racial and gender diversity on group process and problem solving in an academic setting. The importance of this dynamic is its value in preparing students for the workplace. The supposition is if a group is homogeneous, commitment and performance is improved. Data for the study was collected from upper-level undergraduate male and female students, registered in two sixteen week business courses taught by one instructor, at a large university in a metropolitan city in the northeastern United States. There were five racially mixed groups of seven members in each of the four sections of the two courses. During this period, group members met frequently for class projects, including a series of case analyses. Only balanced heterogeneous groups significantly enhanced their groups' performance on complicated problem-solving tasks over time. They exceeded the performance of all homogeneous groups, except that of the black American female homogeneous groups. Ultimately, the academic grades of the balanced heterogeneous groups as well as their individual members were in the upper half of all grades issued.

Keywords: Gender, Heterogeneous, Homogeneous, Problem Solving, Racial Diversity

INTRODUCTION

It is imperative to have job applicants possessing superior levels of teamwork knowledge, skills, and abilities (KSAs) (Chen, Donahue, & Klimoski, 2004). In addition, it is vital to have university courses projected to cultivate these teamwork KSAs (Chen, Donahue, & Klimoski, 2004) especially to enable students to be productive employees in a diverse workplace. Numerous studies have investigated the effects of diversity on group problem solving; however, they have provided conflicting outcomes. Fenelon and Megargee (1971) concluded that racial diversity repressed group performance, and Ruhe and Eatman (1977) found no performance distinction between racially diverse and homogeneous groups. Yet, there is ample data available that indicates their peers persuade young people. There are researchers who support the concept of peer effects in education, particularly at the elementary and secondary school levels (e.g., Coleman, 1966). Current studies also corroborate peer effects among

college students (Sacerdote, 2001; Stinebrickner & Stinebrickner, 2006).

The primary purpose of this study was to investigate the influence of racial and gender diversity on group process (the effect of group actions/interactions over time on individual group members) and problem solving by:

1. Analyzing group performance on a series of difficult problem-solving tasks of significant importance to group members.
2. Utilizing a longitudinal design in which the communication within, and performance of homogeneous and heterogeneous groups were contrasted.

It seems that if the group is homogeneous, commitment and performance is improved. The group members should engage more successfully in the task of discussing and then writing about the assigned projects than the members in a heterogeneous group. Diverse groups are those having gender, ethnic, and national differences among members; therefore, being called heterogeneous groups, whereas homogenous groups contain members from one gender, ethnic, or national group.

This research attempts to answer the question: Over time, what consequence do a high level of racial and/or gender diversity have on group communication and group problem solving?

REVIEW OF RELATED LITERATURE

Graen, Hui, and Taylor (2006) contend that effective work relationships can be differentiated from ineffective ones. "Effective work relationships are referred to as having high-quality leadership-member exchanges, whereby, ineffective work relationships are referred to as having low-quality leader-member exchanges" (Graen, Hui, & Taylor, 2006, p. 450). In addition, "leader-member exchange (LMX) is the quality of relationship that emerges between leaders and their direct reports" (Graen, Hui,

& Taylor, 2006, p. 450) however, this theory stands for only one of a number of forms of relationships in teams.

Relationships in teams can also be formed outside of work. These are generally recognized as dyadic friendships. There exist several studies in the social network literature exalting the need for friendships at the team level (e.g., Krackhardt & Stern, 1988; Nelson, 1989; White, 1961). Moreover, dyadic friendship networks can be correlated to team communications and conflict (Krackhardt & Kilduff, 1990; Labianca, Brass, & Gray, 1998). In fact, there are studies indicating that friendship, predominantly of one's leader, may be significant to organizational achievement (Moore, 1996). Fraternization among workers may also aid morale and provide individuals a motive for going to work. The fundamental belief is that friendship affords connection and interdependence, and that this friendship transforms the relationship between leader and follower from that of supervisor and subordinate to one of friend and friend (Parraault, 1991).

Meanwhile, Festinger's theory of social comparison has offered a useful social psychological framework for understanding peer effects (Festinger, 1954; Suls & Wheeler, 2000). Festinger argued that people assess their beliefs and skills through a comparison with other people and that they can make a much more viable assessment by comparing themselves with *similar* people. Many studies have shown that people compare themselves to their peers using other personal characteristics, such as income, appearance, and fitness, but the theory's original emphasis on beliefs and skills is very important to a consideration of peer influences among college students (Suls & Miller, 1977; Suls & Wills, 1991; Wood, 1996).

The common view is that American culture is diverse; however, sometimes this is at the same time at conflict with the actions and ideology regarding the American culture, which is one of homogeneity. This homogeneity was created from American European beginnings, which implies an attitude that Eurocentric culture is dominate over non-Eurocentric culture.

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