

Exploring and Developing Effective Team Behaviors: An Analysis of Emerging Business Professionals

GRACA proposal submission by Nicole Landowski

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Project Description

The Current Study

Across the globe, we have seen a transformational shift of organizational structures; while economic, technological, and strategic changes may have guided this transformation, an additional contribution has been the transition from work organized around the *individual* to work organized around the *team* (Kozlowski & Bell, 2003; Lawler, Mohrman, & Ledford, 1995). Team-based work is employed in most, if not all, organizations today (Kozlowski & Bell, 2003). In a poll conducted on behalf of the Association of American Colleges and Universities (AACU), 71% of employers reported that colleges should place a greater emphasis (than they currently do) on “teamwork skills and the ability to collaborate with others in diverse group settings” (Hart, 2010, p. 9). Therefore, it is essential that higher education institutions, such as the University of Nebraska at Omaha (UNO), provide a strong curriculum that prepares students for academic success, careers, and professional responsibilities given the complex demands of the workforce.

Identified through employer focus groups, UNO’s College of Business (CBA) has recognized the importance of teamwork and has integrated this standard into the Association to Advance Collegiate Schools of Business (AACSB) assessment process (K. Henebry, personal communication, November 9, 2017). The CBA has chosen to assess this learning goal through team-based collaboration recordings of students solving multifaceted financial problems in small-group settings. A problem with terms such as “teamwork” and “collaboration” is that these terms are conceptually vague and may vary depending on the context. To date, researchers disagree upon what constitutes effective teamwork, methods of assessing team outcomes, and approaches to develop team behaviors (e.g., Barrick, Stewart, Neubert, & Mount, 1998; Landowski Kulas, & Hinnenkamp, 2015). The purpose of this proposed study is to identify effective teamwork, particularly for undergraduate business students who are expected to effectively function within a work-related team (i.e., Goal 5, Objective 1 for AACSB accreditation; Assessment Report, 2014). Through qualitative and quantitative approaches, Kath Henebry and I plan to identify effective team behaviors through the input-process-output (IPO) model (McGrath, 1964). We hope to use these study findings to distribute practical behavioral training aids, such as tip sheets or video demonstrations, to further facilitate long-term student learning.

Input-Process-Output Model of Student Team Effectiveness

The organizational literature theorizes several models of team effectiveness applicable to student teams (e.g., Gladstein, 1984; Hackman, 1983); one of which, the input-process-output (IPO) model pervades theory and research on team performance (McGrath, 1964). IPO models have “input factors”, for instance, student-level characteristics which lead to an “output” in the form of group performance or effectiveness (Hackman & Morris, 1975; see Figure 1). A major assumption of this model is that the input factors affect performance outcomes through the group interaction process. Thus, if teams were equally cohesive (input at time 1) and groups vary in performance (output at time 2), it could be possible to explain the differences due to the group’s interaction processes. *Inputs* could be described as things students bring to the group (e.g., personality characteristics, attitudes; Conway, 1967; McGrath, 1964; Sample & Wilson, 1965); *processes* as the interactions amongst team members (e.g., conversation, conflict; Cohen & Bailey, 1997; Gladstein, 1984; McGrath, 1964); and *outputs* as the products yielded by the group (e.g., course paper grade, attitudinal outcomes; Cohen & Bailey, 1997).

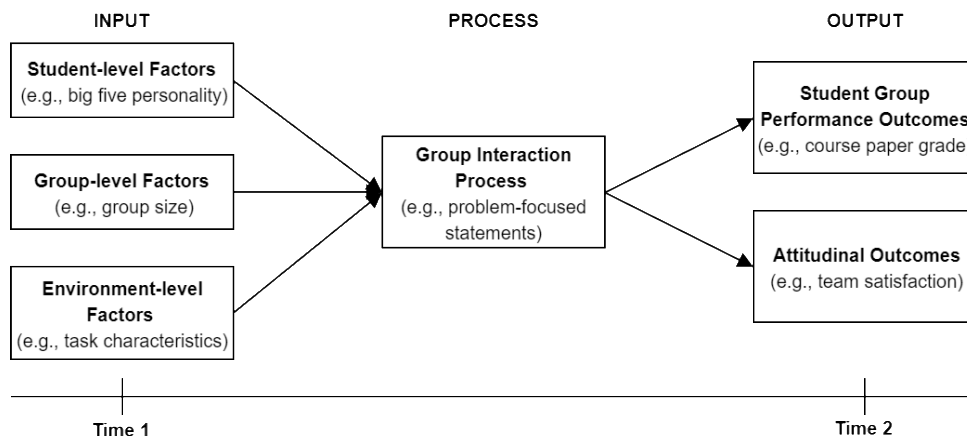


Figure 1. Traditional input-process-output model. Adapted from McGrath (1964).

Group Interaction Process: Emergence of Task- and Relationship-focused Functions

During the interaction process, each team member develops unique task- and relationship-focused functions given the nature and social aspects of the group's task (Mumford, Campion, & Morgeson, 2006). These functions emerge as socially derived patterns of behaviors that guide how an individual acts. In a particular team meeting, the student may take on a specific task- or relationship-focused role then switch between these functions given the appropriateness of the situation. While students may feel more comfortable regularly communicating task- or relationship-focused behaviors, these functions are not necessarily tied to a single student from situation to situation but emerge from interdependent interactions in the group (Morgeson, Humphrey, & Reeder, 2012). For decades, researchers have been interested in categorizing the way in which team members function and communicate with one another (e.g., Bales, 1950; Benne & Sheats, 1984); however, there has been no research examining the unique emergence of task- and relationship-focused communication behaviors on team outcomes in the context of student-based collaboration. In this proposed study, we plan to investigate how observable task- and relationship-focused communication behaviors prompt the emergence of team member functions, specifically, in the context of student team-based collaborations.

Proposed Research: Task- and Relationship-focused Behaviors

To better understand the nature of team member functions, researchers have typically categorized behaviors as either task- or relationship-focused (e.g., Benne & Sheats, 1948). *Task-focused* behaviors promote the completion of tasks and activities while *relationship-focused* behaviors promote the functioning and interpersonal relations in the team. Research suggests that these team member functions may have disproportionate impact on team outcomes, that is to say, relationship-focused behaviors may not be as closely tied to performance outcomes as task-focused behaviors (Morgeson, Humphrey, & Reeder, 2012; Humphrey, Morgeson, & Mannor, 2009). It is likely that meeting attendees will engage in both task- and relationship-focused behaviors; however, the present study seeks to explore whether the number of task- or relationship-focused statements made by students are related to two distinct types of collaboration outcomes (i.e., performance or attitude outcomes). Thus, I propose the following two research questions:

Research Question 1: Which interactions (i.e., task-focused, relationship-focused) promote greater attitudinal outcomes (i.e., team effectiveness, team satisfaction)?

Research Question 2: Which interactions (i.e., task-focused, relationship-focused) promote greater student group performance outcomes?

Act4teams is the predominant observational instrument used to measure team interactional processes; this coding scheme is based on classification systems for intragroup interactions focused on four dimensions of team interaction behavior including: problem-focused, procedural, socioemotional, and action-oriented statements (Kauffeld & Lehmann-Willenbrock, 2012). Aligned with the act4teams coding scheme, problem-focused statements may be most analogous to task-focused behaviors while socio-emotional statements may be most analogous to relationship-focused behaviors. According to this coding scheme, problem-focused statements occur when team members: (1) identify, describe, and make connections with a problem, (2) identify, describe, object, and make connections with a solution, and (3) provide information about processes, specialists, or ask questions regarding the imminent task. Whereas socio-emotional statements occur when team members: (1) encourage others to speak up, provide support to others, listen actively, voice disagreements, give feedback, make jokes, separate opinions from facts, express feelings, or offer praise and (2) criticize or run others down, interrupt, have side conversations, or promote themselves. Given that behaviors in the group interaction process may have unique impacts upon group performance and attitudinal outcomes (Humphrey et al., 2009), we expect to see opposing effects between task- and relationship-focused team functions; thus, we hypothesize the following:

Hypothesis 1a: The ratio of socio-emotional statements an individual contributes to the meeting is positively related to attitudinal perceptions (i.e., team effectiveness, team satisfaction).

Hypothesis 1b: The relationship between socio-emotional statements and attitudinal perceptions will be stronger for individuals with certain individual differences (e.g., extraversion, collective orientation).

Hypothesis 2: The ratio of problem-focused statements that a group engages in is positively related to student group performance outcomes (i.e., course paper grade).

Methodology

Qualitative coding and analyses will be conducted on archival video-recorded group assignment data collected as a part of the CBA's AACSB accreditation process. The students in these recordings were juniors and seniors enrolled in

Principles of Financial Management (FNBK 3250), all of whom are undergraduate business majors coming from a variety of concentrations across the BSBA degree. The teams were formed randomly by their instructor, however, some effort was made to create groups of mixed gender based on student names. The purpose of this 30-minute meeting was to discuss and answer six questions regarding a firm's financial ratios (e.g., "How well does this firm manage its working capital?"). Answers to each question were compiled to produce a course paper which was graded on: completeness, accuracy, and quality. In addition to this team meeting, participants completed a pre-meeting interaction survey on individual differences (e.g., personality) and a post-meeting survey on attitude outcomes (e.g., team satisfaction).

Using the INTERACT coding software and the act4teams coding scheme (Kauffeld & Lehmann-Willenbrock, 2012; Mangold, 2010), I plan to unitize the utterances into sense units consisting of a single thought that could be coded into one of forty-four codes within four overarching act4teams dimensions: (1) problem-focused statements, (2) procedural statements, (3) socioemotional statements, and (4) action-oriented statements (Bales, 1950; Kauffeld & Lehmann-Willenbrock, 2012). This coding scheme was originally developed for team interaction analysis in organizational settings and is based on process analysis group research (Lehmann-Willenbrock, Meyers, Kauffeld, Neining, & Henschel, 2011).

Product of Funded Project/Contribution to Graduate Studies

This project will result in four major learning outcomes and deliverables. First, this project will serve as an important learning experience for me in qualitative methodology and analysis. Second, we plan to submit a poster or presentation of the results to the UNO Research and Creativity Fair and a top national conference (e.g., Interdisciplinary Network for Group Research or Society of Industrial/Organizational Psychology). Third, we will write a manuscript detailing the rationale, methodology, and results of the study then submit it to an outlet such as the *Journal of Management Education* or *Academy of Management Learning and Education*. Fourth, we will use the results to create developmental material for CBA students; in addition, this documentation will be used for the AACSB re-accreditation 2020 visit.

Role of the Student and Faculty Mentor

I will be the principle investigator responsible for the data analysis and execution. I will code and analyze the data then draft the manuscript that describes the rationale and results. My supervisor and assessment coordinator, Kath Henebry, has guided me over the last two years and will provide me with guidance and feedback, especially on the AACSB and learning goal elements of the project.

Previous Internal Funding

The Meeting Went Great! Or Did It? Identifying the Meeting Leader Blindspot – Funded GRACA 2016
 No relation; the present study focuses on qualitative coding and interaction processes, whereas the previously funded project uses a longitudinal diary study approach in a sample of working employees. Research from this funded project was presented at the UNO Research and Creativity Fair and the Interdisciplinary Network for Group Research conference.

Description of Activities and Project Timeline

Project Phase	Main Activities	Dates
Data Analysis	Cutting and coding archival video data; entering and cleaning pre-meeting and post-meeting survey data	Spring/Summer 2018
	Analyze qualitative and quantitative data	July 2018
Deliverables	Draft and revise submission paper	August 2018
	Submit results to conferences	September 2018
	Submit results to journal	November 2018
	Create CBA developmental training aids	Fall/Winter 2018
	Complete necessary revise and resubmits	Spring 2019

Budget Justification

Project Phase	Details	Budget
Video Coding	Cutting and coding archival video data; entering and cleaning pre-meeting and post-meeting survey data (225 hours)	\$2250
Data Analysis	Complete analysis of all data (100 hours)	\$1000
Manuscript	Formal drafting of introduction, literature review, methodology, results, and discussion; collaboration with mentor on specific findings and revisions (100 hours)	\$1000
Deliverables	Preparing conference and journal submissions, revisions (75 hours)	\$750
Resources	Access to SPSS and Mangold's INTERACT will be required; however, the CBA provides me access to these software packages	\$0
Total		\$5000

Student Stipend

The proposed budget reflects the time allotment at a standard graduate student pay rate of \$10 per hour.

Associated Sources of Income

I have been the Assessment and Accreditation Graduate Assistant for the CBA (9-month academic year appointment) since August 2015 under the guidance of Kath Henebry. There are two levels of my work tasks. First, I must stay up-to-date with semester assessment data entry, analysis, and faculty feedback working with three CBA academic programs (BSBA, MBA, EMBA), leaving little time for the college's long-term goals. Second, if time permits, I can work on long-term goals, such as researching and developing training aids for CBA students, however, this has been put on hold to keep up with incoming sources of assessment data. Coding video data is an incredibly labor-intensive process. This GRACA grant would provide me with the opportunity to spend the summer to complete this research project which has been on Kath Henebry's back burner now for approximately five years. Additionally, the outcomes will benefit the next AACSB re-accreditation cycle and prepare CBA students to be effective team members in a competitive workforce.

Additional Expenses

Access to journals is available through University of Nebraska at Omaha's library at no additional cost. In addition, the CBA has invested in a variety of statistical software programs which I may use to analyze data for my study.

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GRACA Review Committee Members:

15 November, 2017

I am pleased to write this letter in support of Nicole Landowski's GRACA proposal "Exploring and Developing Effective Team Behaviors: An Analysis of Emerging Business Professionals". Based upon the success of other research projects, which have used the same recordings and software I have no doubt that it is possible to capture and differentiate the socio-emotional and the problem-focused statements upon which this proposed study relies. The methodology is soundly connected to previous research in teams and so presents me with no cause for concern. All four of the projected outcomes are feasible in the time line provided in the proposal.

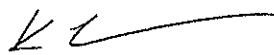
Given the standard pay scale, and the number of hours required for the necessary tasks to complete this project, the budget is valid. The largest allocation of time is to the actual coding of the videos, a process that has proven quite time consuming. Some recordings require more time as, due to camera angle or microphone placement, it can be difficult to determine which student made an utterance.

Nicole is my graduate assistant for assessment activities of three programs (plus peripheral support for a fourth) in the College of Business. As such, we meet on a regular basis to discuss data entry, analysis and report status. If this proposal is funded, some of these regular meetings, (at least one per month; more as needed) will include status updates and discussion of progress, problems and outcomes of this project. These meetings and support will continue through the summer, as I have assessment duties to attend to during the summer every year. I will continue to provide input on any part of the project related to our accreditation standards and processes, the parameters of the desired outcomes directly related to enhancing student performance in team settings and as a general sounding board for discussion and editorial commentary. The College of Business will continue to support the availability of the act4teams and statistical software needed, as well as access to the recordings to be coded.

I have hoped to be able to delve more deeply into these group recordings in order to develop teaching aids for our students since we began this assessment several years ago. However, I have not had the time, nor by myself, the skill set to do so. Nicole has studied team processes and collaboration for several years now, during which time she has been formally trained in the act4teams coding scheme and the INTERACT software as a part of her research lab. The act4teams coding scheme is rather extensive and detailed - adequate training takes about 200 hours. Afterward, trained coders need approximately 10 hours to code a 1-hour video. She also has experience presenting at conferences and preparing manuscripts for publication. As such, she brings the critical skill set mentioned above.

The long term goal of any assessment of learning must be to improve our student's ability to succeed after graduation, and this project will push that forward for CBA and for UNO. I consider this to be potentially the most far reaching of the four projected outcomes for this project.

Sincerely,



Dr. Kath Henebry
Assessment Coordinator, College of Business
Associate Professor Dept. Finance, Banking and Real Estate PH: 402-554-3153