

# LINKING TEAM COVENANTS TO PEER ASSESSMENT OF SIMULATION AND EXPERIENTIAL PERFORMANCE

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## ABSTRACT

*ABSEL members have a long tradition of seeking to improve the quality of students' learning experiences using business simulations. Recognizing that not all students share the same level of enthusiasm for team learning, and that students prefer to have a clean demarcation for responsibility for assessed work, ABSEL researchers, over the past three decades, have explored a variety of individual and team characteristics that can affect team performance. This paper focuses on two important characteristics: potency, a shared belief that the team can succeed against its competition, and consensus, shared beliefs about the simulation and how to perform it. Because these variables are so closely linked to performance, it is important to help student groups develop these shared beliefs. However, students by themselves do not naturally develop constructive interaction patterns. The authors propose the use of team covenants as a means establishing and maintaining these patterns. The covenanting process channels the ability and motivation of team members toward their personal development, understanding of science and technology, analytical skills gains and openness to diversity. Covenants enhance the motivation of the team as a whole, provide beneficial resolutions to conflict between team members, and contribute to team performance during the simulation.*

## INTRODUCTION

ABSEL members have a long tradition of seeking to improve the quality of students' learning experiences using business simulations. Over the past three decades, ABSEL researchers have explored a variety of individual and group characteristics that can affect team performance. These include group size, method used to form groups, time pressure, and grading system. One important factor that has received much attention from ABSEL members is team building. Recognizing that not all students share the same level of enthusiasm for team learning, and that students prefer to have a clean demarcation for responsibility for assessed work, team members need specific training in helping their less competent peers (Wentzel & Watkins, 2002). Otherwise, team efforts result in lectures and

demonstration, rather than elaborative explanations, and less competent partners are denied the opportunity to apply new information on their own and are largely ignored. Consequently, helping students understand how teams function and how to improve team performance can have future benefits beyond the classroom. Two particularly important dimensions of team performance are goal-setting and conflict resolution. Enhancing the motivation of the team as a whole and finding beneficial resolutions to conflict between team members can contribute to a team's performance during a simulation. The authors propose the use of team covenants as a means of improving team goal-setting and conflict resolution.

The next sections will describe ways of optimizing team performance through developing team potency and cohesion. The concepts of potency and cohesion will be presented, including a review of literature relevant to this discussion. The authors propose that through a process of developing and making team covenants, both potency and cohesion will be enhanced.

## TEAM POTENCY

Team "potency" has been defined as "the collective belief of group members that the group can be effective" (Shea & Guzzo, 1987, p. 26). Shea and Guzzo posited that highly potent teams become highly effective teams. Research has shown that high-potency teams had better performance than low-potency teams (Guzzo, Yost, Campbell, & Shea, 1993). Belief about the capabilities of the team is generalized and hold no matter what the task. Individual beliefs about the team's potency can be increased through persuasion from other team members and by a shared commitment to the same vision (Lester, Meglino, & Korsgaard, 2002). Further, team potency is likely to influence individual motivation and performance because team members must act together (Gully, Incalcaterra, & Joshi, 2002). Research suggests that individuals derive their motivation to work toward common goals from the relationship between the individual and the group (Lembke & Wilson, 1998; Ellemers, de Gilder, & Haslam, 2004). Thus, it is important to help groups to enhance team potency.

Fekula and Ritchie (2006) investigated the hypothesis that the way in which teams were formed could affect potency. They argued that teams who begin a simulation with a low probability of success, low potency, will not respond appropriately to game feedback, become discouraged, and ultimately ruin the effectiveness of the simulation as pedagogy. The key question, then, is, "How should teams be selected?" In an early ABSEL paper, Butler (1977) selected teams that were matched based on grade point average, academic major, gender, and work experience of team members, but had exaggerated differences in achievement motivation scores, measured using an instrument developed by Hermans (1970). Butler found differences in initial motivation levels of members were not related to team performance in the simulation called INTOP, developed by Thorelli and Graves (1964). One major limitation of this study was that motivation was measured only at the outset of the simulation. It was unclear whether differences in motivation during the simulation affected team performance.

Hornaday (2001) investigated the possibility of using gender as a basis of team assignment. Hornaday found no difference, based on differences in the gender composition of teams in the degree to which team members felt their team could accomplish its goals compared to other teams. Another basis for team selection is to carefully spread the "good" students across all teams. Sauaia (2004) observed that scores on objective exams were not correlated to group performance in a business simulation. Sauaia and Umeda (2005) conducted an expanded study of the relationship between difference group compositions, based on academic marks in prior business courses, and group performance using the business simulation. Based on the results from three different samples using two different simulations, the researchers found that group performance did not correlate with the individual's performance in previous course work. Based on research results, Sauaia and Umeda posited that organizational learning occurred during the simulation and produced tangible value not correlated to previous knowledge. In contrast, Wellington, Faria, and Hutchinson (2007) found only a moderate to weak relationship between rank order performances in one simulation game versus a second, more complex, simulation game.

Potosky and Duck (2007) propose an alternative method for the self-selection of student teams. The process begins with having all students work together to generate a list of the critical skills, characteristics, and roles needed for teams to be successful in the simulation. Next, students identify their own skills, characteristics, and willingness to assume certain roles during the simulation. Finally, students self-select into teams whose members, taken as a whole; cover all the desired skills, characteristics, and roles. In addition to "leveling the playing field" for teams, this process can help students to understand how teams can work together effectively during the simulation. Hergeth (2007) found that integrating team building activities into a business simulation had potential for improving student teams' performances.

One important outcome of the process proposed by Potosky and Duck (2007) is the designation of a set of goals and beliefs about task requirements that can become the basis for a shared vision for team members. If team members are committed to task goals and believe that the group has the skills needed to make the team highly potent, team members should perform well (Hecht, Allen, & Klammer, 2002). However, this may not be the case – serious conflicts between team members may have developed. There needs to be a mechanism in place before the simulation begins to provide means of resolving conflicts before it can become seriously damaging. This paper proposes the use of team covenants to define processes for conflict resolution. In order to understand how covenants should be constructed, it is important to understand the potential sources of conflict between team members. The next section will present a discussion of group conflict and describe how conflict can affect team performance.

## GROUP CONFLICT

At the start of the simulation, student groups typically lack an historical background. The groups may never have met together, individuals may be only remotely familiar with each other, and the group may be too newly-formed for its members to have established patterns of interaction. As the simulation progresses, participation patterns will emerge that will contribute to cohesion within the group (Knowles & Knowles, 1972). Cohesion refers to the bonds between the individuals that unify the group as a whole. Cohesion is based on attraction between group members, a high level of interest displayed by members, and the inclusion of all individuals without the emergence of cliques or factions (Jaques, 1991).

Group cohesion is enhanced by an atmosphere that is warm, friendly, relaxed, and informal. Research has shown that individuals have a need to belong to groups where they can form positive social relationships (Baumeister & Leary, 1995). Researchers have also found a strong link between group cohesion and performance (Dion, 2000). In contrast, when the atmosphere is tense due to hostility, group members may withhold their participation. Individuals must understand the group's norms and related values that operate within the group in order to feel a sense of belonging, which is fundamental to group cohesion (Bollen & Hoyle, 1990). However, some level of conflict between team members inevitably develops due to differences in previous experience and expertise (Ellis, Hollenbeck, & Ilgen, 2003). When negative or dysfunctional conflict occurs, members may find it difficult to identify with and support each other as the group moves towards its goals, increasing perceived task difficulty. In contrast, teams may experience less team conflict and team members may derive greater satisfaction when the group's task is easier to master (Kickul, 2001).

Researchers have long differentiated between task-oriented cognitive conflict and the more disruptive relationship or affective conflict (Jehn, 1994; Amason &

Sapienza, 1997; Jehn and Mannix, 2001). Task conflict results from differences in perceptions of the nature of the task and in opinions about how the task should be performed. In contrast, relationship conflict is a more affective awareness of incompatibilities that arise from personal disagreements and dissatisfaction (Jehn, 1994). A moderate amount of task conflict can help performance by stimulating beneficial discussion between team members (Simons & Peterson, 2000; Jehn & Mannix, 2001; DeDreu, 2006). In contrast, relationship conflict has consistently been shown to impede group activities (DeDreu & Weingart, 2003). Low relationship conflict, a prerequisite of useful task conflict resolution is needed to create dialogue between team members (Amason & Sapienza, 1997). Yet, research clearly shows an inverse link between task conflict and relationship conflict. For example, if one member of a team uses harsh language to support their position during the resolution of task conflict; a team-member with an opposing view may feel disrespected, resulting in a sharp increase in relationship conflict (Simons & Peterson, 2000). In contrast, if a collaborating or accommodating style is used in resolving task conflict, perceived levels of relationship conflict may be far lower (Dechurch, Hamilton, & Haas, 2007). Thus, one goal when using teamwork in the classroom should be to help teams establish a group dynamic that encourages collaboration and accommodation.

Communication may also be poorly defined in the beginning when the team is first formed. Members must learn to use both verbal and nonverbal communication effectively. Individuals must feel free to ask for clarification and must be willing to contribute their own ideas. Jaques (1991) proposed a three-step process for achieving meaningful communication. First, the team must develop a basis for mutual trust and openness. Second, teams need to find ways to detect distortions in communication between group members. Distortion occurs when the receiver of that communication wants or expects to hear something other than what the communicator believes they have said. Decisions based on distorted communications would be unreliable (Athanasias, 1973). Third, team members must work to correct such distortions in communication through constructive feedback. Edman (2006) cautions that groups can experience “group-think” - a commitment to prior decisions regardless of past outcomes. Edman observed the group-think phenomenon while studying student teams playing a business game. These students stated that they would continue to make similar decisions in the future regardless of the outcome of feedback from the previous game. Feedback is more effective when it is invited rather than imposed (Jaques, 1991).

Effective feedback takes into account the receiver's needs. Once feedback is received by a team member, that member should give the feedback serious consideration before communicating his or her decision. Decision making improves through understanding the alternative choices that can be made and adequately evaluating the negative aspects of those choices (Hirokawa, 1985). To accomplish this, team members must communicate with each other not only

about the task, but about the process of communication. In this way, teams can improve the way in which members interact with each other (Jaques, 1991). Teams that make high quality decisions communicate effectively and facilitate rather than inhibit discussion (Hirokawa & Rost, 1992). As teams work to communicate more effectively, they will make better decisions and the quality of their learning from the simulation experience should improve.

Students, by themselves, do not naturally develop constructive interaction patterns. They need specific training in helping their less competent peers (Wentzel & Watkins, 2002). Otherwise, collaborative efforts result in lectures and demonstration, rather than elaborative explanations, and less competent partners are denied the opportunity to apply new information on their own and largely ignored. The authors proposed the use of team covenants to define processes for potency and consensus. The covenant development is a process useful toward building potency and consensus and provides a framework for linking peer assessment of simulation and experiential performance. In order to understand how team covenants should be constructed, it is important to understand the important elements, behaviors, and attitudes associated with team covenant development. The next section will present a discussion of the various elements required to create an effective team covenant.

## TEAM COVENANTS

Cudworth, Cudworth, and Cudworth (2005) observe that social learning is an integral part of a team-based experiential pedagogy. They describe the process of social learning as a development model with four axes: action, reflection, communication, and negotiation. Focusing on team reflections, Cudworth et al. observe that groups tend to be too focused on their assignment's requirements and pay too little attention to their group's structure. As a result, groups are unable to change unaffected strategies and to control processes that lead to failure. However, through negotiation and personal contributions, individuals within the group can find creative ways to succeed. Forming covenants between group members is a way to start the process of social learning within the team before the simulation begins.

Once goals have been developed, the group must also make logistical decisions. For example, how often will the team meet? How resources will be used? How will individuals participate in the simulation? How the group will evaluate its own efforts? Teams will benefit from making these logistical decisions early in the simulation. This may be difficult because student groups typically have invisible organization structures (Knowles & Knowles 1972). Both personal and task conflict can arise as teams struggle to assign roles to each member and to decide on a course of action. In order to reduce personal conflict, a perception of fairness in the decision-making is important to the maintaining positive interrelationships within the team (Cornelis, Van Hiel, & De Cremer, 2006). Establishing a team covenant may be a way to create a fairness and openness in team processes.

Daniel J. Elazar (1934-1999), a leading political scientist and specialist in the study of political culture, defined a covenant as "... a morally informed compact based upon voluntary consent, established by mutual promises between parties having an independent but not necessarily equal status, that provides for joint action or obligation to achieve defined aims under conditions of mutual respect in such a way as to preserve the individual integrity of all parties" (Elazar, 1998, p. 8). They are upheld through "loyalty, fidelity, kinship, sense of identity, obligation, duty, responsibility, and reciprocity" (Sergiovanni, 1998, p. 44). Covenants are solemn promises that create a bond between individuals (Cross & Livingstone, 1997). For that reason, covenants are different from contracts. Contracts emphasize the content of the agreement and are intended to be enforceable while covenants focus on the relationship between the individual (Wickett, 2000). Covenants can include agreements about honesty, confidentiality, preparedness, contributions, and respect (Pippin, 1998). But, similarly to contracts covenants can also establishing goals, assign tasks, set deadlines, and define peer assessment criteria (Wickett, 2000). Because covenants help define interpersonal relationships between team members, covenants can include prescriptions for conflict resolution and peer assessment.

Using covenants can serve as a means of facilitating virtual teams as well as those created in the classroom. Increasingly higher education is expanding its distance-learning offering in the Business School. The challenges of successfully offering team experiences using virtual methods of course delivery have been noted among ABSEL members. Two such challenges are developing high performance team dynamics in a virtual environment and creating trust between individuals who have never met in person (Duck, 2006). The use of a team covenant can help in overcoming these challenges by providing a means of facilitating team building, communication, and conflict resolution. Trust between virtual team members will be enhanced through the process of deriving the covenant and actively making the promises contained in it. Trust is an important basis for peer assessment. The next section will describe the process for covenanting.

## CONVENANTING

Wentzel and Watkins (2002) purported peers have the potential to provide contexts for learning that can have a profound impact on the development of students' academic enablers. As team members, students share a common purpose, goal, and approach to which they are equally committed and held mutually accountable. However, before the team can decide how to manage and control its efforts, its members must determine the purpose for creating the team and set clear, direction-oriented goals short-term goals in order to achieve the desired outcome. The long-term goal in a simulation is largely predetermined. In addition, members must clearly understand these goals, be committed to them, and have a realistic expectation for achieving them (Locke & Latham, 1990). "Chartering is the process by

which the team is formed, its mission or task described, its resources allocated, its goals sets, its membership committed, and its plans made (Thompson, Aranda, & Robbins, 2002, p. 69). Thus, chartering or covenanting is elemental to creating an effective team covenant. The amount of time and effort spent on covenanting is directly proportionate to the likelihood of team success. The first step in covenanting is to determine the purpose for creating the team. The more completely the purpose of the team can be identified, the more likely the team members will support the team's objectives (Thompson et al., 2002). The more completely the goals can be identified, the more likely team member potency, consensus, and task performance will occur.

Second, determine what type of team is needed (Thompson et al., 2002). As part of the simulation, will team members have to manage, improve a process, solve problems, or come up with new product ideas? Third, the team must decide who is in charge (Thompson et al.). Does the simulation require that the team be self-managed? If so, team members are expected to solve all problems, and make all decisions, including but not limited to goal-setting, task accomplishment and peer evaluations. Each team is responsible for making sure that all team tasks are submitted when due. Any conflicts that may occur will have to be resolved by the team

Four, determine the skills needed to accomplish the goal (Thompson, et al. 2002). For example, skills are needed to address the issues, theories and concepts inherent to the simulation, and to apply, analyze, synthesize and evaluate the team dynamics of business and social interactions. Unfortunately, not all team members have equal skills. Some team members will quickly grasp some concepts and be clueless about others. Each member of the team will have strengths and weaknesses. An inventory of critical skills and knowledge should be undertaken. Teams should consist of members who possess or have access to needed resources. The success of the team is dependent on the success of the individuals on the team. The expectation is that the teams are mutually supportive and will act in unison to support all members, no matter what the diversity or skill levels. This concept is vital to potency and cohesion.

Five, determine how members are selected (Thompson et al. 2002). Not all students share the same level of enthusiasm for collaborative learning, and some prefer to have a clean demarcation for responsibility for assessed work (Underwood, 2003). Factors such as sex, group size and ability mix, subject domain, task type, and organization influence the effectiveness of cooperative and collaborative learning. Faculty wishing to encourage collaborative work styles should be aware that student receptiveness to this style of learning might not always be positive (Underwood, 2003).

Six, identify the resource, boundary, and process implications that affect team success (Thompson et al 2002). Are team members willing to commit the time, human and intellectual capital necessary to achieve desired outcomes. While satisfactorily completing the simulation requirements are mandatory for team success, the attitude with which

individuals reach that goal is equally important. When, where, and how often the team will meet should be stated in the covenant.

Seven, identify the processes the team will use to get results (Thompson et al., 2002). Covenants serve as enablers for revised team processes by eliminating barriers due to limitations of time, location, or structure. Ground rules concerning how the job is done, means of communication, discussions about the importance of the goal and the role each team member plays towards goal achievement is essential. Process design will require the use of technology in order to achieve higher levels of performance (Feurer, Chaharbaghi, Weber, & Wargin, 2000). For example, what type of communication will be used (i.e. cell phone, instant messages, email, etc)? What are the expectations about team meetings, and what happens if a member cannot attend a scheduled meeting even though an assignment is due?

Eight, honest discussions about the level of commitment each member is willing to contribute toward goal achievement is critical to goal achievement and therefore should be stated in the covenant. Do all members share the same belief and value expectations as to the importance of the goal? What personal limitations exist that might hinder a member's ability to live up to the team's expectations. Steen, Kachorek, & Peterson (2003) posited when students learn their peers value certain character traits, they are likely to be influenced in their own thinking about those traits. If the students already have positive views about the trait in question, their peers' remarks serve as affirmation and reinforcement of the positive values. If some of the students involved have already rejected the trait in question, perhaps their peers' opinions could change their minds (Steen et al.). Therefore, peer influence may have a greater effect on affirming and revising opinions among youth than formal instruction could achieve. Prior research studies (Astin, 1999; Cabrera, Nora, Crissman, & Terenzini, 2002; Pascarella & Terenzini, 1991) appear to support Steen et al.'s (2003) conclusions that peer collaboration exerts positive effects on academic and cognitive development, knowledge acquisition, clarity in educational goals, interpersonal skills, and the quality of student effort spent in academic activities.

Nine, identify possible causes of conflict and come to an early agreement as to how to negative conflict can be resolved should it occur (Thompson et al., 2002). Those who work well in teams have a tendency to succeed. A good teammate will assume the best of the other teammates. Occasionally, there will be one teammate who detracts from the process. For example, social loafing, and dominating personalities are common disruptions to team potency and consensus. Talking about these issues and agreeing in advance, as to how they are to be resolved minimizes disruption and facilitates goal achievement. The covenant, in this situation, allows the team to come together to bring this non-team player into the team spirit through peer pressure.

Ten, create a plan that outlines the simulation requirements including tasks, timelines, and individual responsibilities (Thompson et al., 2002). The information-

processing perspective, developed by Galbraith (1974), suggests that as the amount of organizational uncertainty increases, coordination mechanisms must usually be supplemented by design action that either "reduces the need for information or increases information-processing activities" (Morgan, 1989, p. 68). To deal with uncertainties and non-routine problems for which the team cannot plan, covenants establish selective forms of joint decision making that pushes the decision-making process down the team to where information is available.

Eleven, identify mechanisms for evaluation of success and learning. For example, how will the team measure its progress or know when to take corrective action? Maag and Fonteyn (2005) noted the challenges associated with meeting learning objectives with innovative educational techniques. Maag and Fonteyn also noted the utility of didactic learning environments to positive student learning outcomes by reporting, "Student-centered learning environments that engage learners and encourage active participation may result in improved critical-thinking, problem-solving, and communication skills" (p. 434). Team covenants provide the mechanism by which teams plan how and reflect on current and future processes needed for improvement.

## CONCLUSION

The authors proposed the use of team covenants as a means of improving team goal setting and conflict resolution. Collectively, an analysis of the literature review made a convincing case for using team covenants to facilitate team potency and consensus. The amount of time and effort spent on covenanting is directly proportionate to the likelihood of team success. Due to its reflexive nature, covenants help teams to identify breakthrough objectives that form the basis for everything that critically influences team success. The process of covenanting will yield a highly adaptable and flexible infrastructure that is not only geared to individual needs but provide benefit to the entire team.

## REFERENCES

- Amason, A. C., & Sapienza, H. J. (1997). The Effects of Top Management Team Size and Interaction Norms on Cognitive and Affective Conflict. *Journal of Management*, 23, 495-516.
- Astin, A.W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40, 518-530.
- Athanassiades, J. C. (1973). The Sounds and Silences of Employee Communication. *Journal of Business Communication*, 10, 43-50.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Bollen, K. A., & Hoyle, R. H. (1990). Perceived Cohesion: A Conceptual and Empirical Examination. *Social Forces*, 69, 479-504.

- Butler, R. J., & Parasuraman, A. (1977). Degree of Uniformity in Achievement Motivation Levels of Team Members: Its Effect on Team Performance in a Simulation Game. *New Horizons in Simulation Games and Experiential Learning*, 4, 118-123.
- Cabrera, A. F., Nora, A., Crissman, J. L., & Terenzini, P. (2002). Collaborative learning: Its impact on college students' development and diversity. *Journal of College Student Development*, 43, 20-31.
- Cornelis, I.; Van Hiel, A., & De Cremer, D. (2006). Effects of Procedural Fairness and Leader Support on Interpersonal Relationships Among Group Members. *Group Dynamics: Theory, Research, and Practice*, Volume 10, Dec. 309-328.
- Cross, F. L., & Livingstone, E. A. (1997). *The Oxford dictionary of the Christian Church*. 3rd ed. (London: Oxford University Press).
- Cudworth, A. L., Cudworth, J. R., & Cudworth, A. C. (2005). A Symbolic Model of the Simultaneous Achievement of Concrete Benefits and Learning by Participating Groups in Experiential Activities: The Sphere of Experiential Learning. *Developments in Business Simulations and Experiential Learning*, 32, 404-412.
- Dechurch, L. A., Hamilton, K. L., & Haas, C. (2007). Effects of Conflict Management Strategies on Perceptions of Intragroup Conflict. *Group Dynamics: Theory, Research, and Practice*, 11, 66-78.
- De Dreu, C. K. W. (2006). When Too Little or Too Much Hurts: Evidence for a Curvilinear Relationship Between Task Conflict and Innovation in Teams. *Journal of Management*, 32, 83-107.
- De Dreu, C. K. W., & Weingart, L. R. (2003). Task Versus Relationship Conflict, Team Performance, and Team Member Satisfaction: A Meta-analysis. *Journal of Applied Psychology*, 88, 741-749.
- Dion, K. L. (2000). Group Cohesion: From 'Field of Forces' to Multidimensional Construct. *Group Dynamics: Theory, Research, and Practice*, 4, 7-26.
- Duck, J. (2006). Making the Connection: Improving Virtual Team Performance Through Behavioral Assessment Profiling And Behavioral Cues. *Developments in Business Simulation and Experiential Learning*, 33, 358-359.
- Edman, J. (2006). Group Composition and Group-think in a Business Game. *Developments in Business Simulation and Experiential Learning*, 33, 278-283.
- Elazar, D. J. (1998). *Covenant and Civil Society: The Constitutional Matrix of Modern Democracy*. New Brunswick, N.J.: Transaction Publishers.
- Ellemers, N.; de Gilder, D., & Haslam, S. A. (2004). Motivating Individuals and Groups at Work: A Social Identity Perspective on Leadership and Group Performance. *Academy of Management Review*, 29, 459-478.
- Ellis, A. P. J., Hollenbeck, J. R., & Ilgen, D. R. (2003). Team learning: Collectively Connecting the Dots. *Journal of Applied Psychology*, 88, 821-835.
- Fekula, M. & Ritchie, C. M. (2006). Any Given Sunday: Intervention In Pursuit of Simulation Team Parity. *Developments in Business Simulation and Experiential Learning*, 33, 176-181.
- Feurer, R., Chaharbaghi, K., Weber, M., & Wargin, J. (2000). Aligning strategies, processes, and IT: a case study. *Information systems management*, 17(1), 23-31.
- Galbraith, J. R. (1974). Organization Design: An Information Processing View. *Interfaces*, 4, 28-36.
- Gully, S. M., Incalcaterra, K. A., & Joshi, A. (2002). A Meta-Analysis of Team-Efficacy, Potency, and Performance: Interdependence and Level of Analysis as Moderators of Observed Relationships. *Journal of Applied Psychology*, 87, 819-832.
- Guzzo, R.A., Yost, P.R., Campbell, R.J., & Shea, G.P. (1993) Potency in groups: Articulating a construct. *British Journal of Social Psychology*, 32, 87-106.
- Hecht, T. D., Allen, N. J., & Klammer, J. D. (2002). Group beliefs, ability, and performance: The potency of group potency. *Group Dynamics: Theory, Research, and Practice*, 6, 143-152.
- Hergeth, H. (2007). Team Behavior and Team Success: Results from a Board Game Simulation. *Developments in Business Simulation and Experiential Learning*, 34, 190-196.
- Hermans, H. (1970). A Questionnaire Measure of Achievement Motivation. *Journal of Applied Psychology*, 54, 353-363.
- Hirokawa, R. Y. (1985). Discussion procedures and decision-making performance. *Human Communication Research*, 12, 203-224.
- Hirokawa, R. Y., & Rost, K. M. (1992). Effective group decision making in organizations: Field test of the vigilant interaction theory. *Management Communication Quarterly*, 5, 267-288.
- Hornaday, R. W. (2001). Sex Composition, Cohesion, Consensus, Potency and Performance of Simulation Teams. *Developments in Business Simulation and Experiential Learning*, 28, 102-105.
- Jaques, D. (1991). *Learning in Groups*, (Houston, TX: Gulf Publishing Company).
- Jehn, K. A. (1994). Enhancing Effectiveness: An Investigation of Advantages and Disadvantages of Value-based Intragroup Conflict. *International Journal of Conflict Management*, 5, 223-238.
- Jehn, K. A. & Mannix, E. A. (2001). The Dynamic Nature of Conflict: A Longitudinal Study of Intragroup Conflict and Group Performance. *The Academy of Management Journal*, 44, 238-251.
- Kickul, G. (2001). Antecedents of Work Team Performance in a Business Simulation: Personality and Group Interaction. *Developments in Business Simulations and Experiential Learning*, 28, 128-136.
- Knowles, M. S. and Knowles, H. (1972). *An Introduction to Group Dynamics*, (New York: Cambridge Book Company).
- Lembke, S. & Wilson, M. G. (1998). Putting the "team" into teamwork: Alternative theoretical contributions for

- contemporary management practice. *Human Relations*, 51, 927-944.
- Lester, S., Meglino, B., & Korsgaard, M.A. (2002). The Antecedents and Consequences of Group Potency: A Longitudinal Investigation of Newly Formed Work Groups. *Academy of Management Journal*, 45, 352–368.
- Locke, E. A., & Latham, G. P. (1990). *A Theory of Goal Setting and Task Performance*. Englewood Cliffs, NJ: Prentice Hall.
- Maag, M., & Fonteyn, M. (2005). Using a collaborative learning method to enhance master of pathophysiology content. *Journal of Nursing Education*, 44, 435-436.
- Morgan, G. (1989). *Creative organization theory*. Newbury Park, CA: SAGE Publications, Inc.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.
- Pippin, T. (1998). Liberatory Pedagogies in the Religious Studies Classroom. *Teaching Theology & Religion*, 1, 177-182.
- Potosky, D. & Duck, J. (2007). Forming Teams for Classroom Projects. *Developments in Business Simulation and Experiential Learning*, 34, 144-148.
- Sauaia, A. C. A. (2004). Individual Achievement versus Team Performance: An Empirical Study with Business Games. *Developments in Business Simulation and Experiential Learning*, 31, 154-159.
- Sauaia, A. C. A. & Umeda, G. M. (2005). Individual Achievement Does Not Guarantee Team Performance: An Evidence of Organizational Learning With Business Games. *Developments in Business Simulations and Experiential Learning*, 32, 266-272.
- Sergiovanni, T. (1998) Leadership as pedagogy, capital development and school effectiveness, *International Journal of Leadership in Education*, 1, 37–46.
- Shea, G. P., & Guzzo, R. A. (1987). Group Effectiveness: What Really Matters? *Sloan Management Review*, 28, 25–31.
- Simons, T. L., & Peterson, R. S. (2000). Task Conflict and Relationship Conflict in Top Management Teams: The Pivotal Role of Intragroup Trust. *Journal of Applied Psychology*, 85, 102–111.
- Steen, T. A., Kachorek, L. V., & Peterson, C. (2003). Character strengths among youth. *Journal of Youth and Adolescence*, 32, 5-17.
- Thompson, L., Aranda, E., Robbins, S. (2002). *Tools for teams: Building effective teams in the workplace*. Boston, MA: Pearson Custom Publishing.
- Thorelli, H. B. & Graves, R. L. (1964). *International Operations Simulation*, (New York: Free Press).
- Underwood, J. D. M.(2003). Student attitudes towards socially acceptable and unacceptable group working practices. *British Journal of Psychology London*, 94, 319-337.
- Wellington, W, J., Faria, A. J. & Hutchinson, D. (2007). Consistency of Participant Simulation Performance across Simulation Games of Growing Complexity. *Developments in Business Simulation and Experiential Learning*, 34, 24-31.
- Wentzel, K. R., & Watkins, D. E. (2002). Peer relationships and collaborative learning as contexts for academic enablers. *School of Psychology Review*, 31, 366-374.
- Wickett, R. E. Y. (2000). The Learning Covenant. *New Directions for Adult and Continuing Education*, 85, 39 – 47.