ABSTRACT

“YES, AND…!” ASSESSING THE IMPACT OF THEATRE-BASED IMPROVISATIONAL TRAINING AND A SIMULATION ON WORK GROUP BEHAVIOR

by Jillian Rene Anderson

Theatre-based improvisational training for executives is becoming a trend with improv-based theatres such as Chicago’s Second City catering their skills to the corporate world. Unfortunately, effectiveness of such training has relied primarily on assumptions and anecdotal testimony, with little supporting empirical data. This study seeks to take the first step toward quantifiably assessing the effectiveness of workplace improvisational training and the use of a supplementary simulation activity. Malcolm Knowles’ assumptions of adult learning guide the research. The Group Behavioral Inventory (GBI), used for assessing impact of organizational interventions, allows for the testing of changes in dimensions of group behavior across time. Results indicate no significant increases in dimensions of group behavior following training and a simulation; however, analysis of trends points to the potential for improv-training to temporarily encourage positive group bonds and reinforce existing group goals. Trends also reveal the value of simulation activities for creating increased self-awareness.
“YES, AND…!” ASSESSING THE IMPACT OF THEATRE-BASED IMPROVISATIONAL TRAINING AND A SIMULATION ON WORK GROUP BEHAVIOR

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Chapter 1: Introduction

What I hear, I forget.
What I see, I remember.
What I do, I understand.

This saying by Confucius is just as applicable today, if not more so, than when he first penned the words. In fact, Silberman’s (2006) report of the average learning retention rates from various instructional modes reflects this ancient saying: lecture (5%), reading (10%), audiovisuals (20%), demonstration (30%), discussion (50%), practice by doing (75%), and teaching others (90%). The highest levels of learning occur when the learner actively is engaged in the educational process and when there is opportunity to practically apply what is being taught. This type of hands-on learning experience is at the heart of theatre-based improvisational training that Vera and Crossan (2004) report is becoming a growing trend for corporate executives with improv-based theatres such as Chicago’s Second City catering their skills to the corporate world (Weinstein, 2006). Currently, effectiveness of such training relies primarily on assumptions and anecdotal testimony, with little supporting empirical data (Vera & Crossan, 2005). In order for businesses and trainers alike to adopt improvisational training as more than a trend, it is imperative to develop a body of research assessing the effectiveness of corporate improvisational training. This study seeks to take a step in that direction by examining the transferability of theatre-based improvisational techniques to real world work groups. Malcolm Knowles’ assumptions of adult learning, found in his theory of andragogy, guide the research. Three major research groups are examined within the context of their weekly employee meetings: a comparison group receiving no form of training, a group receiving improvisational training, and a group receiving improvisational training along with an applied simulation experience. The Group Behavioral Inventory (GBI), used for assessing impact of organizational interventions in groups, allows for the testing of changes in Group Effectiveness (perceptions of effective problem solving through a creative, realistic team effort), Approach to versus Withdrawal from Leader (the degree to which group members can establish an unconstrained and comfortable relationship with the leader), Mutual Influence (how much members see themselves as having influence with one another), Personal Involvement and Participation (the degree to which members want, expect and achieve active participation), Trust versus Competitiveness (the degree to which members collaborate to put the group above individuals
and have confidence in the group), and General Evaluation of Meetings (the general perception regarding whether meetings are bad/good, weak/strong, worthwhile/worthless).

The Problem

Despite being recognized as a strategic competence that supports 21st-century corporations’ requirements for change, adaptability, responsiveness to the environment, loose boundaries, and minimal hierarchy, theatre-based improvisational training still lacks sufficient attention within academic literature (Crossan, 1998; Crossan, Henry, White & Klus, 1996; Hatch, 1998). Vera and Crossan (2005) report that their study, testing the relationship between improvisation and innovative performance in teams, is one of the few studies that attempts to measure improvisation and in addition, it is the first empirical study to test arguments based on the improvisational theatre metaphor. If corporations expect to succeed in adapting to the requirements of this century, it is imperative for research to validate the ability of improvisational techniques to serve as a catalyst for reaching this goal.

With the popularity of theatre-based consulting increasing (Ma, 2007; Weinstein, 2006) there must be more empirical proof that the training is truly living up to its “hype”. Without such support, this global phenomenon risks becoming just another trend in corporate training that fades away and leaves businesses still searching for tools to adapt to the changing demands of the 21st-century workplace.

Significance of Study

In a world where business is driven by the bottomline and training is dependent on satisfying that drive, simply reporting testimonial or anecdotal support for improvisational training will not sustain the industry. This study seeks to address the need for research-driven practice in the area of theatre-based improvisational corporate training and provide a quantitative analysis of the improvisational training trend.

In addition, this study seeks to add to the body of research that brings validity to the work of those in human resource development and adult education. Chalofsky (1996) accuses the field of human resource development and adult education of practicing based on guesswork rather than theories tested by research and based on what the client wants rather than what
actually works. To evade such criticism, it is necessary to generate research that seeks to test current practices and serves to guide future practices.

Purpose of Study

The purpose of this study is three-fold: 1) to quantify the impact of improvisational training on dimensions of group behavior, 2) to assess the role of an applied simulation in enhancing transferability of improvisational techniques to real world work groups, 3) to test the retention of dimensional group behavior changes (attributed to improvisation training or improvisational training plus an applied simulation experience). Six hypotheses and seven research questions are proposed:

**H1:** Participants within the Training + Simulation condition will perceive Group Effectiveness significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Group Effectiveness significantly higher than those in the No Training condition.

**RQ1:** If significant changes for Group Effectiveness are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

**H2:** Participants within the Training + Simulation condition will perceive Approach to (versus Withdrawal from) the Leader significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Approach to (versus Withdrawal from) the Leader significantly lower than those in the No Training condition.

**RQ2:** If significant changes for Approach to (versus Withdrawal from) the Leader are found, do these changes increase, decrease or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

**H3:** Participants within the Training + Simulation condition will perceive Mutual Influence significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Mutual Influence significantly higher than those in the No Training condition.
**RQ3:** If significant changes for Mutual Influence are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

**H4:** Participants within the Training + Simulation condition will perceive Personal Involvement and Participation significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Personal Involvement and Participation significantly higher than those in the No Training condition.

**RQ4:** If significant changes for Personal Involvement and Participation are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

**H5:** Participants within the Training + Simulation condition will perceive Trust (versus Competitiveness) significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Trust (versus Competitiveness) significantly higher than those in the No Training condition.

**RQ5:** If significant changes for Trust (versus Competitiveness) are found, do these changes increase, decrease or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

**H6:** Participants within the Training + Simulation condition will perceive General Evaluation of Meetings significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive General Evaluation of Meetings significantly higher than those in the No Training condition.

**RQ6:** If significant changes for General Evaluation of Meetings are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

**RQ7:** For each of the six dimensions, what group changes took place within conditions and across conditions (Training + Simulation, Training, and No Training) at and between each pre-test, immediate post-test, and 10-week post-test?
Chapter 2: Review of the Literature

Theatre-based improvisational training is a relatively new phenomenon in the Training and Development field. As such, research done in the area of improvisation is still primarily foundational in nature. This literature review will attempt to examine significant research that provides a framework for the effectiveness of improvisational principles applied to a business setting, so as to setup an examination of improvisational training’s impact on real world work groups. This will be accomplished by first examining the nature of improvisation: its definitions, dimensions, methodology, and transferability to business. Next, a review of Malcolm Knowles’ theory of adult learning is merited as a foundation for the application of improvisational training. Third, a case is made for improvisational training’s role within adult learning. Following this, the technique of simulation is presented as a tool for enhancing the effectiveness of improvisational training. Finally, group behavioral dimensions impacted by organizational interventions are presented in order to predict the impact improvisational training, or improvisational training with a simulation experience, will have on group interactions.

**Improvisation**

Jackson (1995) defines improvisation as “freedom within structure” (p. 26). He explains that just as in improvisational Jazz music, the structure must be securely in place before the freedom aspect of improvisation may begin. Without structure, there is simply chaos. Without freedom, there is suffocation. There must be a balance between the two for effective improvisation. Vera and Crossan (2005) attempt to define improvisation descriptively, referring to it as “the creative and spontaneous process of trying to achieve an objective in a new way” (p. 205). This builds off the Vera and Crossan (2004) article that explains the two dimensions of improvisation are spontaneity and creativity. Spontaneity (“letting go”) incorporates a time orientation to the improvisation construct while creativity (“making do”) incorporates a search for novelty and usefulness in improvisational actions.

*Dimensions of improvisation.*

In order to clear up common misconceptions about improvisation, Vera and Crossan (2005) further develop the improvisational construct by identifying its key dimensions. The first dimension of improvisation they identified was expertise; this assumed the greater an
improvising team’s level of domain- and task-relevant expertise, the more positive the relationship between collective improvisation and innovation. The second dimension was teamwork quality (e.g., trust and cooperation). A context of an experimental culture was the third dimension. Fourth was the team’s level of realtime information (information about a firm’s operations/environment for which there is little or no time lag between occurrence and reporting) and realtime communication (interaction within and between teams based on timely information). The fifth dimension highlights the team’s level of organizational memory (e.g., procedure and systems). It must be noted that these dimensions are based upon Vera and Crossan’s belief that effective improvisation in teams leads to innovation.

**Methodology.**

Weinstein (2006) explains that Second City’s improvisational methodology focuses on a “Yes, and…” approach; participants are required to answer “Yes, and…” instead of “but” or “no” to whatever contribution a colleague makes to an improvised story. This philosophy is fleshed out further in Lobman’s (2005) study of the use of improvisation for early childhood professional development, which advances several principles of any effective theatre improvisation. The first principle is “accepting offers” (p. 309). In other words, in order to develop an improvisation situation, one accepts and builds upon what other individuals offer as part of a storyline. This keeps the improvisation from dead-ending. The second principle is that of “staying with the group” (p. 310). New offers to the storyline must be made expounding on previous offers. A third principle is the prohibition of “negating,” or denying what someone else has offered (p. 310). The fourth principle is “taking responsibility for the group” (p. 312). This recognizes that it is important to be listening for what is needed in the story as a whole; the focus is collective as opposed to individualistic.

**Transferability to business.**

Lessons from theatre improvisation are transferable in general because the raw materials used in theatre improvisation are words, posture, facial expressions, and tone of voice (in contrast to the musical notes of jazz improvisation). Therefore, anyone possesses a certain capability to experience and learn from theatre improvisation (Vera & Crossan, 2005). Second City president, Tom Yorton, explains that “the same skills that our actors need to be successful in
an improv theatre context are the skills that you need to be successful in business” (Weinstein, 2006, p. 33). The company uses its improvisational methodology to train executives in such areas as communication and listening skills, the power to engender trust, the ability to present ideas with conviction, and managing change and transformation.

Yorton (2003) attempts to pull out the primary lessons from improvisation as they apply to a business setting. First, the philosophy of “Yes, and…” implies that individuals are working toward seeking agreement. This is not to say that people can’t disagree in business, but the improvisational approach requires the manner in which ideas are offered and received to demonstrate respect, build trust and create new possibilities out of potential dead-ends. This philosophy of “Yes, and…” also recognizes that improvisation utilizes the concept of retrospective sense-making; when an individual is building off of another’s ideas, they are recognizing what has come before them. Barrett (1998) and Weick (1998) both reference the improvisational jazz metaphor in reiterating this idea that improvisation is not the creation of something out of nothing, but rather reflects the reworking of precomposed material. The second parallel lesson between a “Yes, and…” philosophy and business is the importance of even the smallest contribution. An improvised story could not occur without words such as “is” or “and,” demonstrating that even the smallest tasks within a business are necessary components of creating a greater whole. The third lesson is to make accidents work. Improvisation has no accidents, just unexpected events. Such events in a business context can be turned into learning opportunities when approached with openness and flexibility; this is the same way an improv story would still move forward with the unexpected, going with the changing flow. The final application highlighted is that focus should be on discovery rather than invention. Invention implies specific intent which often locks people into decisions and stifles creativity. Discovery allows for adaptation to the unanticipated.

Despite a lack of empirical support for the transferability of improv principles to business, there is an apparent wide-held belief in its transferability, evidenced by the sheer demand for corporate improvisational training. For example, Weinstein (2006) reports that Second City’s training division, called Second City Communications, boasts training between 12,000 to 14,000 corporate employees each year. The business has expanded three-fold in the last three years, reflecting the growing interest in improvisational-based training for the corporate world. Daniels (2000) reports Second City’s clients include well-known companies
such as AT&T, PricewaterhouseCoopers, Motorola, and Kraft Foods to name a few. Other theatre-based companies in the United States that have offered corporate training include Theatre Techniques for Business People (Atlanta, GA), Ariel Group (Cambridge, MA), Actors Institute (New York, NY), Gotham City Improv (New York, NY), and Performance of a Lifetime (New York, NY) to name a few of the ones receiving larger publicity (Krattenmaker, 1999; Bernstein, 1989; Cleary, 2007). Theatre-based training is not limited to the United States. Ma (2007) reports that applying theatre to the workplace is a global phenomenon. For example, Norton Associates, the training firm highlighted in the article, is based in Hong Kong, China. Taib (2000) also spotlights the company Language Works, which applies theatre-based experimental learning to businesses in Malaysia. England’s well-known Royal Academy of Dramatic Art is no exception either, as Campbell (2000) points out. Clearly, there is a world-wide interest in applying theatre techniques such as improvisation to the business workplace. With the field growing, it is safe to assume there is an assumption of the benefits gained from the juxtaposition between the seemingly disparate worlds of improvisational theatre and business.

Theoretical Grounding: Andragogy

Since training is in essence adult education, a study of adult learning is merited as a framework with which to apply and test specific instructional techniques. The core theory being studied and applied is the theory of andragogy developed by Malcolm Knowles.

There has been debate over the exact origins of the term ‘andragogy.’ However, Ozuah (2005) reports that it is known the term was used in 1833 by a German grammar school teacher named Alexander Kapp in reference to describing the educational paradigm used by the Greek philosopher Plato. Cullen (1999) adds that the social scientist Rosenstock used the term in a report to the Academy of Labour in Frankfort in 1921, while suggesting that a teacher of adults should cooperate with his learners and be considered an ‘andragogue’ as opposed to a ‘pedagogue.’ In 1926, Eduard C. Lindeman first wrote extensively about andragogy, asserting that adult learning should center around problem solving, not the accumulation of knowledge in specific subjects (Ozuah, 2005). In 1959 Malcolm Knowles expanded on Lindeman’s work and has since become the core theorist associated with the modern concept of andragogy, which Knowles (1980) defines as “the art and science of helping adults learn” (p. 43).
Knowles’ theory asserts six main assumptions about adult learners. The first addresses adults’ need to know the value and practical use of material they are learning. The implication is that the first task of a trainer is to help the learner become aware of their need to know the material (Ozuah, 2005). The second assumption is that an adult has an independent self-concept and can direct his/her own learning (Merriam, 2001). A need for self-direction and autonomy should be nurtured. Third, Knowles’ considers the role of experience, assuming that the adult learner has accumulated a reservoir of life experiences that are a rich resource for learning. Therefore, experiential-based techniques are effective in the learning process. Fourth, is the assumption that adults’ readiness to learn is dependent on the relevancy they see in the topic. Adults show more readiness to learn things they see as relevant to real life situations and problems (Ozuah, 2005). Fifth, Knowles’ considers adults orientation to learning; he assumes adults learn best when learning is problem-centered and provides immediate application of knowledge (Merriam, 2001). The implication is that adults learn best when new knowledge, skills, and attitudes are presented in the context of real-life situations. Sixth, is the assumption that adults are motivated by both external and internal factors, as opposed to pedagogy’s assumption that children are influenced primarily by external factors. Therefore, adults are most driven by internal pressure, motivation and the desire for self-esteem and goal attainment (Ozuah, 2005).

The term andragogy often is used in contrast with the term pedagogy. Pedagogy literally means “the art and science of teaching children” (Knowles, 1980, p. 43). It is a teacher-centered approach to learning which is commonly found in the current educational model. This practice assumes the learner is dependent on the teacher, learning needs to be subject-centered, extrinsic motivation is the most important driving force for learning, and prior experience of the learner is irrelevant. Andragogy appears to be a direct contrast. However, throughout revisions of his work Knowles has come to represent andragogy and pedagogy as two ends of a continuum as opposed to two mutually exclusive learning theories.

It is worth noting that the main criticism of andragogy stems from the debate over whether it is indeed a theory. Researchers assert that there is little evidence supporting the area of adult education as being different and distinct from education in general. However, many are willing to accept the concept as a useful set of assumptions which serve educators of adults well in practice (Cullen, 1999).
Merriam (2001) reports that andragogy has been adopted by legions of adult educators around the world and will continue to be the lens through which adult learning is viewed. As pointed out by Galbo (1998), this has implications for the field of training and development, administrators, and staff developers. Trends are moving away from “expert” based workplace training to reflect a facilitated experiential learning where the learner plays the central role.

Companies are recognizing that they need to turn from traditional styles of learning to more innovative approaches that reflect the basic tenets of andragogy. One such company that has made drastic alterations to their training and development approach is the Microsoft Corporation. According to the article entitled “Results-Oriented Learning” published in the October 2006, Training & Development, Microsoft’s new philosophy involves adopting a “coaching” mentality versus the traditional more authoritative approach toward learning in organizations. “In a traditional training model someone owns the knowledge,” states Microsoft’s general manager for engineering excellence Cedric Coco. But he goes on to explain that “learning professionals generate only 10 percent of the knowledge. It’s all about community and collaboration, and we must act like hockey goalies, moving the knowledge puck around” (p. 49).

Knowles explains that this perspective is the fundamental difference between a pedagogue and an andragog: “the pedagog is concerned with transmitting the content and the andragog is concerned with facilitating the acquisition of the content by the learners” (1987, p. 173).

Knowles argues that six elements of training must be considered in order to develop a process design focus for training that fits within the tenets of andragogy. First, a trainer must consider the climate setting. Characteristics of a climate conducive to adult learning include an environment of mutual respect, collaborativeness rather than competitiveness, supportiveness rather than judgmentalness, mutual trust, fun, and overall catering to individuals needs as humans (Knowles, 1987, p. 174). The second consideration for trainers is how they can create a mechanism for mutual planning. This hinges upon the idea that humans are more committed to a decision or activity if they feel they have some sort of ownership in creating it. The third consideration is the diagnosing of the participant’s learning needs. Knowles argues that learners must become aware of their own needs before they can be expected to address them. This leads to the fourth consideration which is translating learning needs into objectives, implying the learners set forth positive statements of directions of growth. The fifth consideration in designing a training program is designing and managing a pattern of learning experiences that can address
the specific needs and learning objectives of the individual. Finally, the evaluation step must be included to determine to what extent the objectives have been achieved. All of these considerations should be focused on the learner as an active participant in developing and carrying out their own plan for growth.

**Andragogically-Based Improv Training**

*A case for improv within the most effective modes of instruction.*

Corporate training is essentially instruction for a classroom of adults. The principles of andragogy guide in choosing a mode of instruction that is most conducive to adult learning. Broadwell (1987) identified three main classifications for classroom teaching-learning systems. The first is a *direct teacher input system*, where the teacher is in charge of imparting knowledge without an expectation of feedback. This is most recognizable in a lecture-format. The second classification is the *teacher modification system*, where the teacher provides original inputs of information, but solicits feedback from the learners. This might be recognized in a discussion or quiz of information that has been presented. The final classification is the *learner-discovery system*, where the learner is expected to supply some of the learning activity under teacher guidance. This may be seen in an activity such as a case study. Broadwell highlights that the key to this final system is that the teacher does not turn the activity into an opportunity for lecturing how it should be done, but rather the learners truly discover appropriate conclusions on their own (p. 394). This style of teaching recognizes that adult learners learn best when education has the opportunity for self-direction (supporting the adult learner’s self concept of autonomy) and when the learning provides immediate application of knowledge (supporting the adult learner’s orientation to learning). If the principles of improvisation are applied appropriately, then it should fulfill the role of a learner-discovery system that reflects these basic tenets of andragogy.

Classification of teaching-learning systems is useful for identifying modes of instruction, however there must be a way to compare the effectiveness of the styles. Hillocks (1984) conducted a meta-analysis of 500 experimental studies looking at the effectiveness of teaching methods in a writing course. In the study, he identified three main teaching methods that seem to parallel Broadwell’s systems: *Presentational* (traditional lecture-format), *Natural Process* (greater instructor-student interaction and student-student interaction), and *Environmental* (objective-driven interactive activity-based learning). His study found that from pre-test to post-
test measures, *Environmental* mode was over four times more effective than *Presentational* mode and three times more effective than the *Natural Process* mode. Lewis, Woodward, and Bell (1988) conducted a follow-up to this study to determine the role class size played in teaching method effectiveness. They found that method of instruction, not class size, was the major ingredient contributing to learning. This indicates that the utilization of group improvisational techniques can be beneficial even in large-group settings. It also reveals that improvisation, as a tool within the successful Environmental instruction mode, should serve as a highly effective tool for learning among adults.

*A case for improv within the most effective organizational training tools.*

Cooke (1987) places a number of major training interventions along a continuum from didactic to experiential. Didactic is emphasized as placing meaning external to the learner and the role of the learner is seen as reactive; experiential assumes internalized learning where the learner is more proactive. From most didactic to most experiential, the chart displays the following order: reading, lecture, experiential lecture, discussion, participation training, case study, role playing, instrumentation, structured experience, intensive growth group (p. 431). The learning is assumed to be more effective the more it is internalized. This would suggest that intensive growth groups are the highest form of learning. Data for learning in these groups comes from life experiences and here-and-now reactions of group members that help them to develop their own self-concept. Such a group typically exists as counseling, T-groups, encounter and therapy. Since the purpose of most organizational training is more focused on skills that can be applied to the workplace as opposed to forming individual self-concepts, it is worthwhile looking at the next highest level-of-learning training tool of structured experience. Cooke defines this as activities that “stress high participation and “processing” of data generated during interactive activities” (p. 432). The use of improvisational-based activities would certainly meet these criteria. Categorized as one of the best learning tools for training in an organizational setting, it merits further study to determine whether or not it truly lives up to its claim. If so, it promises to be a revolutionizing tool in the training and development field.
**Simulation**

Improvisation training clearly reflects some of the basic tenets of andragogy; however, there are still several principles left unaddressed, such as the adult learner’s need to see the practical use of what is being taught, a view of the learning as relevant, and an opportunity to learn in a real-life situation. For this reason, this study is proposing adding a real-life simulation activity as a complement to improvisational training to provide a necessary bridge for adults to recognize the connection of improvisational principles being taught to their everyday work group experiences. A simulation is defined by Keiser and Seeler (1987) as “a model of a mechanism, process, or system” (p. 460). They explain that there are three kinds of simulations: all-machine, people-machine, and all-people. The all-people simulation lends itself as the best complementary choice to human-skill based improvisational techniques. All-people simulations are defined as simulations that “involved no model-containing machines; the model is described by rules by which the participants abide, and which define their roles, environment, resources, and constraints” (p. 461). Since improvisation applied in the workplace is not driven by a competitive component, it is fitting for the simulation to be a “pure” simulation – or a simulation with no game component. In attempting to define the components of this study, it is helpful to differentiate between the often overlapping concepts of improvisation, role-plays and simulations. Simulations, as mentioned, hold control over even environmental factors of an activity while role-plays only control the actions of individuals. Moshavi (2001) explains that traditional role-plays generally have predetermined actions and solutions; improvisation exercises do not hold any specific outcome. According to Huffaker and West (2005), improvisation becomes the facilitating factor in both role-plays and simulations. For this study, improvisational skills will be applied within the context of a simulation, since this most closely mirrors real-life context.

**Group Behavioral Dimensions**

In order to examine the impact of improvisational training and improvisational training with an applied simulation on work group interactions, it is necessary to identify the dimensions of group behavior that may be affected. Greenbaum (1994) presents a Group Behavior Inventory (GBI) that was originally developed to evaluate interaction processes within work groups and was subsequently used to measure the impact of organizational interventions on work groups.
(Friedlander, 1966). Improvisational training and improvisational training with an applied simulation are both organizational interventions intended to impact work groups. Within the GBI, six reliable dimensions of work groups affected by such interventions are identified: group effectiveness, approach to vs. withdrawal from the leader, mutual influence, personal involvement and participation, trust vs. competitiveness, and a general evaluation of meetings (since it is used in the context of work group meetings). These six dimensions provide a framework for assessing the impact on work groups across conditions of this study.

**Hypotheses and Research Questions**

This literature review supports the idea that improvisational training teaches principles of positive group interactions (Lobman, 2005; Vera and Crossan) that are applicable to real world work groups in the business setting (Weinstein, 2006; Yorton, 2003). Improvisational training that is based upon the assumptions of adult learning supports a learner-discovery system of learning that uses the highly effective Environmental mode of instruction and is categorized as one of the best learning tools for training in an organizational setting (Broadwell, 1987; Cook, 1987; Hillocks, 1984). It is logical to assume that any group participating in such highly participatory training, should exhibit being impacted by the inherent positive group interaction skills being taught through the principles of improvisation. This is the conclusion that supports all of the hypotheses presented in this study.

Since the guiding theory of andragogy pointed to assumptions about adult-learners still left unaddressed by improvisational training alone, the impact of an applied simulation of a real world work experience that addresses the remaining andragogical assumptions must be a factor in the hypotheses of this study as well. Because a simulation attempts to bridge a gap between knowledge and practice, it should further enhance the transferability of improvisational principles to the real work environment. Thus, it is appropriate to conclude that improvisational training including an applied simulation component will prove more effective at enhancing positive group dimensions than improvisational training alone. This conclusion is reflected in the hypotheses presented.

To assess the impact that improvisational training and improvisational training with an applied simulation will have in comparison to individuals receiving no improvisational training
or simulation experience, it is worth proposing hypotheses and research questions that examine the impact of each condition on dimensions of group interactions.

Group effectiveness.

Vera and Crossan (2004) presented the idea that improvisation is not inherently good or bad; however, their later study supported the fact that positive group dimensions serve as moderators that lead to effective improvisation (Vera & Crossan, 2005). If these moderators can be enhanced, then the group should experience more effective improvisational outcomes. The very nature of improvisational training seeks to enhance these moderators. Two identified moderators applicable to perceiving group effectiveness are those of teamwork quality (e.g. trust and cooperation) and experimental culture. Within improvisational methodology, Lobman (2005) presented the principle of prohibiting the denial of ideas offered by others. When this concept is conveyed through training it fosters an environment that is open to others’ ideas; this creates an experimental culture free from judgment and endorsing of collaboration. Group behavior that stems from such an environment will be perceived as effective. Thus, the following hypothesis and research question are proposed:

H1: Participants within the Training + Simulation condition will perceive Group Effectiveness significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Group Effectiveness significantly higher than those in the No Training condition.

RQ1: If significant changes for Group Effectiveness are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

Approach to versus withdrawal from the leader.

Within this study, the leaders of groups will be receiving the same treatment condition as the individuals within their group. Because of this, they are expected to practice the same principles of improv as other group members. Lobman’s (2005) recognition of the improvisational methodology principles of both staying with a group and taking responsibility for the group place emphasis on group members approaching the group with a collective mindset
rather than individualistic. This mindset from both group members and the group leader will impact the overall teamwork quality moderating factor presented by Vera and Crossan (2005) and create a greater sense of team. This idea is supported by Yorton’s (2003) claim that an improvisational philosophy implies that individuals are working toward agreement, demonstrating trust and respect for one another’s input. When a leader both displays and facilitates such an attitude within a group, it will result in less withdrawal from the leader. In light of this, the following hypothesis and research question are proposed:

**H2:** Participants within the Training + Simulation condition will perceive Approach to (versus Withdrawal from) the Leader significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Approach to (versus Withdrawal from) the Leader significantly higher than those in the No Training condition.

**RQ2:** If significant changes for Approach to (versus Withdrawal) from the Leader are found, do these changes increase, decrease or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

*Mutual influence.*

Yorton (2003) presented that an improvisational philosophy promotes the importance of even the smallest contribution in a group. An improv methodology supports this idea by teaching the principle of “accepting offers,” where group members build off of each others’ ideas; each member must also follow the principle of taking responsibility for overall goals of the group (Lobman, 2005). These principles promote mutual influence within the group and thus, the following hypothesis and research question are proposed:

**H3:** Participants within the Training + Simulation condition will perceive Mutual Influence significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Mutual Influence significantly higher than those in the No Training condition.
RQ3: If significant changes for Mutual Influence are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

*Personal involvement and participation.*

The same arguments supporting the dimension of Mutual Influence also support the dimension of Personal Involvement and Participation. Mutual influence implies not only letting others' share, but also contributing to the good of the group personally. This is supported by the second principle within an improvisational methodology: staying with the group (Lobman, 2005). This implies that an individual expounds on the contributions of others, an idea that is inherent in the concept of “Yes, and….!” Personal involvement and participation are required in order to follow these principles, thus, the following hypothesis and research question are proposed:

**H4:** Participants within the Training + Simulation condition will perceive Personal Involvement and Participation significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Personal Involvement and Participation significantly higher than those in the No Training condition.

RQ4: If significant changes for Personal Involvement and Participation are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

*Trust versus competitiveness.*

Trust is a component of Vera and Crossan’s (2005) teamwork quality moderating factor that leads to effective improvisation in groups; in addition, their experimental culture factor supports an environment free from judgment, which implies less competitive spirit between group members. Yorton’s (2003) improvisational principles of seeking agreement and making accidents work show that team members must work together in a noncompetitive way that reflects an open and flexible attitude. Thus, the following hypothesis and research question are proposed:
**H5:** Participants within the Training + Simulation condition will perceive Trust (versus Competitiveness) significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Trust (versus Competitiveness) significantly lower than those in the No Training condition.

**RQ5:** If significant changes for Trust (versus Competitiveness) are found, do these changes increase, decrease or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

*General evaluation of meetings.*

With support for each of the preceding hypotheses that reflect positive dimensions of group behavior, it is logical to conclude that a group member’s overall evaluation of a meeting conducted by such an effective group would be equally as positive. Yorton’s (2003) fourth improvisational principle that transfers to business, is that of promoting discovery over invention. This means that groups allow for adaptation to the unanticipated. This creates an experimental culture that promotes teamwork quality, all of which lead to greater positive outcomes when applying improvisational principles (Vera & Crossan, 2005). In light of this, the following hypothesis and research question are proposed:

**H6:** Participants within the Training + Simulation condition will perceive General Evaluation of Meetings significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive General Evaluation of Meetings significantly higher than those in the No Training condition.

**RQ6:** If significant changes for General Evaluation of Meetings are found, do these changes increase, decrease, or remain the same for each condition (Training + Simulation, Training, and No Training) over time?

To compare and contrast results between the preceding six dimensions within research conditions, as well as account for any unexpected results in the study, the following research question is proposed:
RQ7: For each of the six dimensions, what group changes took place within conditions and across conditions (Training + Simulation, Training, and No Training) at and between each pre-test, immediate post-test, and 10-week post-test?
Chapter 3: Methods

Participants

The subject population for this study consisted of Resident Advisers and Resident Assistants comprising the residence hall staffs of eight different undergraduate dormitories on a midsize Midwestern university campus. Six residence hall staffs volunteered to be a part of the study and were randomly assigned to the two different test groups; three residence hall staffs comprised group one that received improvisational training (Training condition) and three residence hall staffs comprised group two that received improvisational training plus an applied simulation activity (Training + Simulation condition, or T + S). Three additional residence halls were recruited for the study to serve as a comparison group that received no improvisational training or applied simulation activity (No Training condition).

A total of 71 participants took part in the study. This overall group was comprised of 32 males (44%) and 39 females (54%) ranging from 19 to 28 years old (M = 20.89, SD = 1.95). Sixty-one of the participants were in Resident Assistant roles with residence life and 10 were in Resident Adviser roles. Years of experience with Residence Life ranged from zero to nine, (M = 1.54, SD = 1.35). Participants consisted of 22 sophomores (31%), 20 juniors (28%), 18 seniors (25%), and 9 graduate students and/or full-time advisers (13%).

Procedure

This study utilized a 64-item scale referred to as the Group Behavior Inventory (GBI) to evaluate interaction processes within work groups, particularly in relation to the impact of organizational interventions as seen in Friedlander’s (1966) study assessing the impact of training on perceived group effectiveness in work unit meetings. The first 57 items are answered on a Likert-scale, with response options ranging from strongly agree (1) to strongly disagree (5). Items 58-64 focus on meetings and are answered using a seven point semantic differential scale. The original GBI determined nine factors affecting group interaction processes; however, Greenbaum (1994) reports that three of the factors had both internal consistencies and test-retest reliabilities falling in the .50 range and were judged too low for utilization. The remaining six factors varied on internal consistency from .71 to .91 and test-retest reliability from .64 to .81. These are the factors that were retained in assessing group interaction processes: Group Effectiveness (perceptions of effective problem solving through a creative, realistic team effort),
Approach to versus Withdrawal from Leader (the degree to which group members can establish an unconstrained and comfortable relationship with the leader), Mutual Influence (how much members see themselves as having influence with one another), Personal Involvement and Participation (the degree to which members want, expect and achieve active participation), Trust versus Competitiveness (the degree to which members collaborate to put the group above individuals and have confidence in the group), and General Evaluation of Meetings (the general perception regarding whether the meetings are bad/good, weak/strong, worthwhile/worthless).

An additional brief qualitative component was added to the GBI in order to enhance the interpretation of statistical data. This component consisted of three open-ended questions (see appendix A, B, and C).

The GBI was administered to all three primary research groups as a pre-test (at a group residence hall staff meeting prior to the Training and Training + Simulation groups receiving treatment, see appendix A), a post-test (at a group residence hall staff meeting immediately following treatment, see appendix B), and a longitudinal post-test (at a group residence hall staff meeting 10 weeks following treatment, see appendix C). See Appendix E and F for an overview of the treatment that was given to the Training and Training + Simulation groups.

Reliability statistics for each dimension scale reported Cronbach alpha coefficients as follows: Group Effectiveness ($\alpha = .80$), Approach to versus Withdrawal from the Leader ($\alpha = .84$), Mutual Influence ($\alpha = .64$), Personal Involvement and Participation ($\alpha = .71$), Trust versus Competitiveness ($\alpha = .66$), and General Evaluation of Meetings ($\alpha = .24$). One item was dropped from the General Evaluation of Meetings scale to raise the Cronbach alpha coefficient to an acceptable level, $\alpha = .81$. Neither the Mutual Influence scale nor the Trust versus Competitiveness scale was capable of reporting higher alpha coefficients by removing any items from the scales (see Appendix D for Group Behavior Inventory coding).
Chapter 4: Results

For each hypothesis, a one-way repeated measures univariate analysis of variance was conducted to compare each of the three levels of the independent variable (No Training, Training, or Training + Simulation) for differences in the respective dependent variable (Group Effectiveness, Approach versus Withdrawal from the Leader, Mutual Influence, Personal Involvement and Participation, Trust versus Competitiveness, and General Evaluation of Meetings) across three the different time points. To assess differences between conditions at each time point (pre-test, post-test, and 10-week post-test), a one-way ANOVA was conducted for each hypothesis with the fixed variable being each condition (Training + Simulation, Training, and No Training) and the dependent variables representing the respective scale dimension means at each time point.

Group Effectiveness

Hypothesis one predicted that participants within the Training + Simulation condition would perceive Group Effectiveness significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition would perceive Group Effectiveness significantly higher than those in the No Training condition. The repeated measures ANOVA indicated no significant changes for any of the three conditions over time, Wilks’ $\Lambda = .78$, $F(4, 72) = 2.41$, $p = .06$, $\eta^2_p = .12$. Polynomial contrasts indicated no significant linear effect for the interaction between time and condition, but did yield a significant quadratic effect for the interaction, $F(2, 37) = 4.19$, $p = .023$, $\eta^2_p = .18$. A post hoc Bonferroni procedure indicated no overall significant differences for Group Effectiveness between each condition. To follow-up the significant quadratic interaction between time and condition, a repeated measures ANOVA was conducted for each condition separately. No statistically significant interactions between time and conditions were reported on the individual condition level. The one-way ANOVA reported no significant differences between group means at each time point. Overall, hypothesis one was found to be unsupported. Figure 1 plots the means for each condition’s measurement of Group Effectiveness across time.
Figure 1. Plot of means for Group Effectiveness across time.

**Approach to versus Withdrawal from the Leader**

Hypothesis two predicted that participants within the Training + Simulation condition would perceive Approach to (versus Withdrawal from) the Leader significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition would perceive Approach to (versus Withdrawal from) the Leader significantly higher than those in the No Training condition. The repeated measures ANOVA indicated a significant interaction between conditions across time, Wilks’ $\Lambda = .67$, $F(4, 64) = 3.58$, $p = .011$, $\eta^2_p = .18$. Polynomial contrasts indicated no significant linear effect for the interaction between time and condition, but did yield a significant quadratic effect for the interaction, $F(2, 33) = 5.52$, $p = .01$, $\eta^2_p = .25$. A post hoc Bonferroni procedure indicated no overall significant differences for Approach to (versus Withdrawal from) the Leader between each condition. To follow-up the significant quadratic interaction between time and condition, a repeated measures ANOVA was conducted for each condition separately. The No Training...
group reported quadratic significance for changes over time within the condition, \( F(1, 8) = 6.83, \ p = .03, \ \eta_p^2 = .46 \), while the other two conditions reported no linear or quadratic significance. The Training + Simulation group did, however, report overall significance for changes across time within the condition, Wilks’ \( \Lambda = .45, \ F(2, 9) = 5.52, \ p = .03, \ \eta_p^2 = .55 \). It should be noted that this significance was accompanied with a violation of Mauchly’s assumption of sphericity (\( \chi^2(2) = .40, \ p = .02 \)); when degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity (\( \varepsilon = .62 \)), significance was no longer found, \( F(1.25, 12.50) = 2.79, \ p = .12, \ \eta_p^2 = .22 \). The one-way ANOVA indicated a significant difference between group means at the 10-week post-test, \( F(2, 32) = 5.57, \ p = .01 \). A post hoc Bonferroni procedure indicated significant differences between the No Training condition (\( M = 4.37, \ SD = 0.58 \)) and the Training condition (\( M = 3.72, \ SD = 0.45 \)), \( p = .03 \); an additional significant difference was found between the No Training condition (\( M = 4.37, \ SD = 0.58 \)) and the Training + Simulation condition (\( M = 3.59, \ SD = 0.66 \)), \( p = .01 \). Overall, hypothesis two was found to be unsupported. Figure 2 plots the means for each condition’s measurement of Approach to versus Withdrawal from the Leader across time.

![Figure 2. Plot of means for Approach to versus Withdrawal from the Leader across time.](image-url)
**Mutual Influence**

Hypothesis three predicted that participants within the Training + Simulation condition would perceive Mutual Influence significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition would perceive Mutual Influence significantly higher than those in the No Training condition. The repeated measures ANOVA indicated no significant change between any of the three conditions over time, Wilks’ $\Lambda = .94, F(4, 62) = .46, p = .77, \eta^2_p = .03$. Polynomial contrasts indicated a significant linear effect for time, $F(1, 32) = 4.58, p = .04, \eta^2_p = .12$, but no significant linear or quadratic effects for the interaction between time and conditions. To follow-up the significant linear effect for time, a repeated measures ANOVA was conducted for each condition separately. No statistically significant differences were reported for time on the individual condition level. The one-way ANOVA reported no significant differences between group means at each time point. Overall, hypothesis three was found to be unsupported. Figure 3 plots the means for each condition’s measurement of Mutual Influence across time.

*Figure 3. Plot of means for Mutual Influence across time.*
**Personal Involvement and Participation**

Hypothesis four predicted that participants within the Training + Simulation condition would perceive Personal Involvement and Participation significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition will perceive Personal Involvement and Participation significantly higher than those in the No Training condition. The repeated measures ANOVA indicated no significant change between any of the three conditions over time, Wilks’ $\Lambda = .78$, $F(4, 72) = 2.38$, $p = .06$, $\eta_p^2 = .06$. Polynomial contrasts indicated a significant linear effect for the interaction between time and condition, $F(2, 37) = 5.20$, $p = .01$, $\eta_p^2 = .22$, and no significance for a quadratic effect. A post hoc Bonferroni procedure indicated no overall significant differences for Personal Involvement and Participation between each condition. To follow-up the significant linear interaction between time and condition, a repeated measures ANOVA was conducted for each condition separately. The No Training condition reported a linear effect for time, $F(1, 9) = 5.80$, $p = .04$, $\eta_p^2 = .22$; the Training condition also reported a linear effect for time, $F(1, 16) = 6.77$, $p = .01$, $\eta_p^2 = .30$. The one-way ANOVA reported no significant differences between group means at each time point. Overall, hypothesis four was found to be unsupported. Figure 4 plots the means for each condition’s measurement of Personal Involvement and Participation across time.
Trust versus Competitiveness

Hypothesis five predicted that participants within the Training + Simulation condition would perceive Trust (versus Competitiveness) significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition would perceive Trust (versus Competitiveness) significantly higher than those in the No Training condition. The repeated measures ANOVA conducted for testing this hypothesis indicated a significant interaction between conditions across time, Wilks’ $\Lambda = .56$, $F(4, 72) = 6.11$, $p < .01$, $\eta_p^2 = .25$. Polynomial contrasts indicated a significant linear effect for time, $F(1, 37) = 4.91$, $p = .03$, $\eta_p^2 < .01$; there was also a significant linear effect for the interaction between time and condition, $F(2, 37) = 10.33$, $p < .01$, $\eta_p^2 = .30$, as well as a significant quadratic effect for the same interaction, $F(2, 37) = 4.14$, $p = .02$, $\eta_p^2 = .30$. A post hoc Bonferroni procedure indicated no overall significant differences for Trust between each condition. To follow-up the significant linear effect for time and both linear and quadratic effects for the interaction between time and condition, a repeated measures ANOVA was conducted for each condition separately. Each

Figure 4. Plot of means for Mutual Influence across time.
condition revealed significance for changes across time within the condition: the No Training condition, Wilks’ Λ = .33, $F(2, 8) = 8.05, p = .01, \eta_p^2 = .67$, the Training condition, Wilks’ Λ = .57, $F(2, 15) = 5.70, p = .01, \eta_p^2 = .43$, and the Training + Simulation condition, Wilks’ Λ = .52, $F(2, 11) = 5.05, p = .03, \eta_p^2 = .48$. Polynomial contrasts for each condition revealed linear significance for time in the No Training condition, $F(1, 9) = 14.35, p < .01, \eta_p^2 = .62$, linear significance for time in the Training condition, $F(1, 16) = 12.16, p < .01, \eta_p^2 = .43$, and quadratic significance for time in the Training + Simulation condition, $F(1, 12) = 8.86, p = .01, \eta_p^2 = .43$. The one-way ANOVA reported a significant difference between group means at the 10-week post-test, $F(2, 32) = 5.40, p = .01$. A post hoc Bonferroni procedure indicated significant differences between the No Training ($M = 4.36, SD = 0.53$) and Training condition ($M = 3.41, SD = 0.71$) at the 10-week post-test, $p = .01$. Overall, hypothesis five was found to be unsupported. Figure 5 plots the means for each condition’s measurement of Trust versus Competitiveness across time.

![Figure 5. Plot of means for Trust versus Competitiveness across time.](image-url)
General Evaluation of Meetings

Hypothesis six predicted that participants within the Training + Simulation condition would perceive General Evaluation of Meetings significantly higher than participants in both the Training and No Training conditions; similarly, participants in the Training condition would perceive General Evaluation of Meetings significantly higher than those in the No Training condition. The repeated measures ANOVA indicated no significant change between any of the three conditions over time, Wilks’ $\Lambda = .87, F(4, 72) = 1.23, p = .27, \eta^2_p = .07$. Polynomial contrasts indicated no significant linear or quadratic effects for time or the interaction between time and condition. A post hoc Bonferroni procedure indicated no overall significant differences for General Evaluation of Meetings between each condition. The one-way ANOVA reported no significant differences between group means at each time point. Overall, hypothesis six was found to be unsupported. Figure 6 plots the means for each condition’s measurement of General Evaluation of Meetings across time.

![Figure 6. Plot of means for General Evaluation of Meeting across time.](image-url)
**Between-Group and Within-Group Changes**

Research question seven asked, for each of the six dimensions, what group changes took place within conditions and across conditions (Training + Simulation, Training, and No Training) at and between each pre-test, immediate post-test, and 10-week post-test? Differences within and between conditions for each specific dimension were reported with the results for each of the previous hypotheses. For an overview of trends across all dimensions at each time point (pre-test, post-test, 10-week post-test), scatter plots are provided. Figure 7 plots the means for each condition’s assessment of the dimensions at the pre-test. Figure 8 plots the means for each condition’s assessment of the dimensions at the post-test. Figure 9 plots the means for each condition’s assessment of the dimensions at the 10-week post-test. It is important to remember that all dimensions were assessed on a five-point scale, with the exception of General Evaluations of Meetings which was assessed on a seven-point scale.

![Figure 7. Plot of pre-test scale means across conditions for each GBI dimension.](image-url)
Figure 8. Plot of post-test scale means across conditions for each GBI dimension.
Since each of the dimensions measured aspects of group behavior and hypotheses predicted movement in a positive direction for each dimension, it is appropriate to view the overall changes in group behavior as a composite score of the GBI subscales. In order to provide equal weight for each dimension, the General Effectiveness of Meetings dimension was multiplied by 5/7 to account for its unique seven-point scale. This composite score enables a view of overall trends in group behavior within and between each condition over time. Composite scores are out of a total of 30 points. Figure 10 plots each condition’s composite mean across time.
Figure 10. Plot of composite GBI means across time.
Chapter 5: Discussion

This study explored the impact of improvisational training and a supplementary simulation activity on group behavior in the context of a weekly meeting. Using the Group Behavior Inventory (GBI) as the instrument to assess changes in group behavior, the hypotheses were developed based on an expectation that training and the simulation component would further enhance group performance in each of the GBI dimensions. Research questions were posed to further explore significant findings as well as highlight overall trends within and between the groups receiving different levels of training treatment. Since the trends provide a foundation for understanding the results of hypotheses, this chapter will begin with an analysis of the trends found within and between each treatment condition. Next, it will examine practical implications of this study for those in business and training. Finally, limitations of the study will be presented followed by proposed directions for future research.

Analysis of Trends

It is essential to examine the overall trends occurring within and between each training condition. This discussion will begin by analyzing each condition group individually. The group that received only the improvisational training fluctuates relatively little between the pre-test and immediate post-test for each dimension, with the exception of the Personal Involvement and Participation dimension. However, between the immediate post-test and the 10-week post-test, the participants in this condition indicate a decline in their perceptions of accomplishment within every single dimension. This trend becomes highlighted when set against a backdrop trend of the No Training and Training + Simulation conditions performing positively between the same tests (with the exception of Approach to versus Withdrawal from Leader and Mutual Influence). This recognition poses the question, why does the Training condition perform against the trends of the other two conditions?

First, it appears that the improvisational training encouraged a positive bond between group members that reinforced existing group goals. This enabled the group to maintain relatively similar scores on dimensions between pre-test and post-test, despite greater differences being witnessed in the other two conditions. This idea is supported by a cursory analysis of the open-ended comments on the GBI. The following are excerpts taken from the immediate post-
test in the Training condition; these comments reflect the overall theme that emerged of viewing the training as a positive experience for the group:

It was a great activity to do together. We all had fun. It was also beneficial to talk explicitly about problems within the group. At the meeting, we were able to determine when we were doing certain negative behaviors.

[The training] helped strengthen our group – we laughed and had fun, but I don’t see any improvement or difference in the way we function.

It brought to mind a lot of little issues that produces bigger issues causing our staff to be less productive (i.e. side convos, negativity) now we are more aware.

…we are no longer as tense as before in our meetings.

The training reinforced group and team expectations that will unify our staff and make us more efficient in future meetings.

Second, despite the ability of the training to provide positive reinforcement for the group, the impact was short-lived. This makes sense when considering the fact that the participants in this condition really only received theoretical training without any practical component. It’s easy to get excited about abstract principles, which then creates a false high for the group (relative to the other group trends). However, that theoretical high cannot be sustained without a framework for long-term implementation of theoretical principles. This is reflected as a theme from within comments made in the open-ended qualitative portion of the Training condition:

I’m not sure how effective [the training] was. The staff seemed to enjoy it at the time, but I don’t think it had any long lasting effect.

I think it might be [effective] eventually, but that we need to revisit the goals and hold each other accountable for them.

It was positive in that it was a fun thing for our group to do, but beyond that [it was] not really [effective].

I think we all pretty much forgot what the training was about.
Turning attention to the Training + Simulation condition, it is apparent this group displays a negative slope between the pre-test and immediate post-test of every dimension. Then, all but one dimension (Approach to versus Withdrawal from the Leader) reverses slope direction and increases between the immediate post-test and the 10-week post-test. These results seem surprising at first, given the overall hypotheses posed at the beginning of this study. However, a closer examination of themes in the qualitative data sheds light on the implications of adding a simulation component to the training experience and informs an interpretation of the quantitative data. Note the critical spirit and presence of a self-monitoring tone that is evident in each of the following representative open-ended responses from the Training + Simulation condition:

It was a good way of internally grading my actions and thoughts and reminded me of what needs to change…

It made us more aware of how we were addressing one another.

It made me carefully consider what I said before I verbalized it.

I think people tried harder to be less negative and to some extent build off of what others were suggesting. I think there is still much room for growth. We really need to step up in certain areas.

I was more aware of trying to keep things positive and encouraging others.

I tried to pay attention to the words I used and only say things what would benefit the group. If something I felt was said, I did not repeat it; to keep the group moving forward.

The training helped me reflect on my attitude during meetings. While this will not completely change my approach and behavior or fix all concerns, it has allowed me to look at myself more critically and move toward a more positive role in group interactions. I think it will just take staff members a little longer to actually incorporate these methods.

I try harder to add onto the [Resident Assistant’s] ideas rather than throw out new ones. Building and using affirmative phrases has remained important. I’m more conscious of negating my team’s response and find other ways to influence meetings.

While this meeting did not turn out the way we wanted or one might hope after the Improv Training. However, I think some bottled-up frustrations were aired and can now be addressed. I’m not sure if it was the Improv Training or something else that brought these feelings to the surface, but at least now we can address those and move on.
It is apparent that the additional practice of applying the improvisational principles highlighted weaknesses within groups and made individuals more aware of these areas for improvement. The result was lower group behavior perceptions on the GBI. This phenomenon can perhaps be understood better through the lens of Expectancy Violation Theory, which was first presented by Burgoon and Jones in their 1976 study. Initially a theory of nonverbal communication, it has since evolved to explain behavior beyond that realm (Miller, 2005). The theory, as applicable to this situation, posits that individuals hold expectations for interactions. They are not necessarily aware of these expectations until a violation of them occurs. Like those in the Training condition, those in the Training + Simulation condition were given abstract expectations for what group interactions should look like when incorporating principles of improvisational theatre. However, only the Training + Simulation group had the opportunity to immediately evaluate their ability to perform these new expectations through the simulation experience. This likely highlighted their inability to meet the new expectations for the group, acutely drawing attention to the fact they were violating the new expectations. They may have been performing at a level similar to their pre-test, but their new group expectations actually caused them to evaluate their group as less effective.

Although the Training + Simulation condition decreased in perceived effectiveness between the pre-test and immediate post-test, it is encouraging to see that the lower scores make a reversal between the immediate post-test and the 10-week post-test. In light of the opposite trend for the Training condition, it can be inferred that while a practical simulation experience highlights areas for growth, it also provides a framework for seeing how to grow in those areas. The end result should be a group that may have perceptions of their behavior that are similar to what they had prior to a training experience, but hopefully they have a deeper understanding of how to maintain a strong group.

Finally, attention must be given to the No Training comparison condition. Despite the expectations for this group, it appeared to perform quite well. A closer look reveals that it started out in a very advantageous position. It is worth noting that from the beginning, the pre-test indicated high performance; it was higher than the other conditions for each dimension, with the exception of Involvement and Participation and a narrow lag in Trust versus Competitiveness. The comparison group also ended higher than the other two conditions on all dimensions. An
appropriate explanation seems to be that this was a naturally high-performing group and that its lack of training actually inflated a self-perception of effectiveness.

The high performance nature of the No Training group is confirmed by lack of student complaints about the group within the condition. Unlike comments on the pre-test for the other conditions, this condition exhibited a very limited number of negative comments or ideas for group improvement. In fact, the meetings for one of the dorms in this group were described as “relaxed, yet everyone comes in with fresh new ideas, concerns and comments are brought up and in result a lot gets done in a not tense atmosphere.”

In addition to already being high performing, the group had no reason to become highly critical of itself, unlike those who underwent the training and simulation experience. Though the group appears to experience a mid-semester dip in perceptions of effective group behavior, there appears to be no long-lasting effect. In fact, the condition showed significance for a quadratic effect in Approach to versus Withdrawal from the Leader, and positive linear effects for Personal Involvement Participation and Trust versus Competitiveness. When considering the nature of the training that took place, in light of student comments, it makes sense why the comparison group showed perceptions of effectiveness in these areas. Since they were promoting a relaxed, open atmosphere, these dimensions would naturally see growth. However, those that took part in the training made frequent comments about actually limiting their own participation in the group in order to help the group be more effective as a whole. They recognized when side bar conversations or tangent ideas were not contributing to the overall good of the group. Their recognition of this would certainly affect their ability to perceive high scores for these dimensions, but not necessarily their ability to hold an effective group meeting. While the comparison group may have felt they promoted an open atmosphere, it doesn’t necessarily translate into meaning they had an effective group. Returning to Expectancy Violation Theory, if the group continued to perform such that they did not experience violations of expectations, then they would assume they were still performing well. The other two groups, however, were at least aware of new expectations for the group and could evaluate themselves accordingly.
Implications for Business and Trainers

To enhance its ability to provide practical insight for those within business, particularly the training and development divisions, it is beneficial to highlight the implications of this study for businesses and trainers.

First, this study highlights the need for quantitatively based training interventions. It is pathetic that in conversations with training professionals and in searches for quantitative-based training studies, there are such limited resources. If businesses and training professionals are investing so much time and money in various methods of training, there needs to be evidence that what is being done is actually having the desired impact. Businesses must invest in training assessment and trainers must take the time to do it.

Second, the results of these quantitative endeavors should not be limited to personal use of the organizations or trainers that utilized them. If there is a genuine concern for growing the field of training and development into a respectable, credible field of practitioners, it will take creating a pool of shared resources. There is no room for greed.

Third, this study should inspire those who work specifically in the area of improvisational training to search for more effective ways of measuring their training impact. Particularly, it points to the need for creating an instrument that closely aligns with the overall objectives of their training.

Fourth, without intention, this study sheds light on the ability of practical simulations to be used as powerful tools for personal reflection. When individuals have to implement what they are learning right away, they are forced to reflect on their ability to do so. Training, particularly for anything involving people skills, would benefit from including a simulation component.

Finally, this study highlights the importance of trainers providing a framework for continued success following any intervention. The simulation is a first step in this direction. It shows how to begin implementing strategies from the training. However, at the end of this study, groups admitted the permeation of the training and simulation was not as strong as immediately following it. There must be a framework established for continued implementation to see strong and lasting effects.
Limitations

Factors potentially affecting the outcome of this study and proving to be limitations include: number of participants, participant survey fatigue, variation of context for meetings, and the uniqueness of student participants.

The biggest limitation this study possesses is its numbers of participants. It was originally designed to have at least 25 individuals within each training condition; however, attrition of participants was not anticipated, but did occur. In addition, some participants completed one or two of the three surveys, which did not allow them to be accounted for in any repeated measures ANOVAs that needed data from all three testing times. The small participant numbers mean that the results of this study must be interpreted with caution. However, this study can serve as a useful pilot in the field of improvisational training assessment, upon which ideas for larger studies are developed.

Second, survey fatigue may have been a factor affecting the outcomes of this study. This is highlighted by the initial scale reliability scores for the final section of the GBI. It is interesting to note the dramatic difference in dropping the one reverse-coded item in this section. This points toward participants not carefully reading the questions and exhibiting fatigue, perhaps due to the number of questions included on the survey.

Third, while the GBI seemed to be the best fit available for assessing training intervention and impact on group behavior, it was not catered specifically for assessing the unique components included in improvisational training. Questions catered around the implementation of the primary principles of improvisation would seem to better measure the impact of this type of training. For example, when an individual states they implemented the improvisation principle of “Staying with the Group” by eliminating their extraneous comments in the group and monitoring their contributions to ensure they are working toward the overall good of the group, this may not read as a positive impact on the GBI. However, an instrument designed to assess effectiveness according to the improvisation principle would detect the positive change. At this point such an instrument does not exist.

Fourth, the inability to control context and content of group meetings may very well have affected the overall ability to detect significance in this study. Following are a few examples of comments indicating such:
It's important to note that tonight’s staff meeting was more informal. There was not a lot of information covered/discussed. It probably would have been cancelled if it wasn’t a member’s last night.

[The meeting] was pretty relaxed and celebratory – we recognized [our adviser’s] B-day with ice cream sundaes!

Context affects perceptions of the group. It makes sense that a group holding a celebratory meeting will be less critical of the meeting (because they have less to be critical about) than a group discussing difficult issues about residence life policies. Wide variation between contexts of meetings could contribute to overall insignificance for dimensions of the GBI.

Finally, while the individuals in this study were all employees conducting job-related meetings, their positions were unique to a student setting. Meetings in a residence life context are bound to be more relaxed and informal than meetings in a professional corporate setting. This must be taken into consideration when assessing the transferability of the findings of this study to the business world.

**Future Research**

Future research must capitalize on both the findings and limitations of this study. First, there must be a quantitative-based assessment of improvisational training done in a corporate setting. Researchers undertaking this endeavor can look to this study as a valuable guide for how to conduct the corporate study. There must be as strict of control as possible of administration of surveys. In addition, any ability the researcher has to make meeting content similar between different conditions will provide greater control for the study. Finally, this researcher recommends adding two additional aspects to the future study: a measurement of learning done at the actual training intervention (so comparison can take place between the time of training and the first meeting) and measurement done as a reflection of several meetings (to account for meeting variance).

Second, for researchers using the Group Behavior Inventory (GBI), this researcher recommends dropping all items unrelated to the six reliable dimensions of the survey. This will address any potential issues of fatigue in taking the survey. The GBI code is provided in Appendix D to assist in this task. Additionally, careful consideration should be given to the
emphasis the GBI places on the role of the leader in a group. This may be a reflection of the survey’s creation date.

Third, researchers must continue to explore what theories explain the phenomenon occurring in training interventions. As seen in this study, it would be beneficial to examine training in light of the expectations it highlights for trainees; similarly, it would be valuable to further explore the ability of simulations to highlight violations of expectations established in training interventions.

Finally, the next step in furthering research particular to improvisational training is to develop an assessment instrument specifically designed for measuring its impact. There are two ways of approaching this task. Either researchers can take currently practiced methods of improvisational training and design questions around the objectives of the training (to be tested); or researchers can conduct qualitative studies with participants in improvisational training to determine key themes that should be included and assessed in such an instrument. As stated before, such an instrument will help legitimize this type of training and will help trainers in leveraging their work when they are able to show a bottom-line difference in employee behavior.

Conclusion

This study serves as a step forward in the assessment of group training interventions, particularly those relating to improvisational theatre and the use of simulations. If anything, the somewhat surprising results of this study underscore the importance of always testing the assumptions that lie at the heart of any training initiative. Training and development will continue to be a driving factor in the growth of any organization. It is imperative that communication scholars embrace the opportunity to contribute toward the development of training initiatives that have a positive impact. True to the foundational principles of effective improvisational theatre, this study must serve as a catalyst for other researchers and practitioners to build off of the ideas presented and say “Yes, and…!”
References


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Ma, R. (2007, August 4). Get your act together; theatre-based coaching is a fresh and sometimes zany approach that gives workers the tools to be more effective in business. *South China Morning Post*, p. 30.


Ozuah, P. O. (2005). First, there was pedagogy and then came andragogy. *Einstein Journal of Biological Medicine, 21*, 83-87.


Appendix A: Pre-Test Group Behavior Inventory

Age:_______ Sex (circle one): M   F
Position with Residence Life:_____________________________________________________
Total number of years working in Residence Life: ____________
School status (if applicable, circle one):
Grad Student Senior Junior Sophomore Freshman

Instructions: Please complete this survey immediately following a weekly dorm staff meeting. The following questions apply to the meeting that just took place.

Part 1:
Directions: Please indicate the number that represents what you think in light of the meeting that just took place. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th></th>
<th>1 = strongly agree</th>
<th>2= agree</th>
<th>3=neutral</th>
<th>4=disagree</th>
<th>5=strongly disagree</th>
</tr>
</thead>
</table>
1. | _______Most material covered in the meeting was introduced by the chairman. |
2. | _______There was a destructive competitiveness among members of the group. |
3. | _______The meeting did not come to grips with the real problems at hand. |
4. | _______The chairman was oriented toward a “human relations” approach. |
5. | _______The meeting was primarily a means of information dissemination. |
6. | _______There was trust and confidence in each other among members of the group. |
7. | _______Group meetings should be discontinued. |
8. | _______Policies from higher levels hinder the effectiveness of the group. |
9. | _______The group meeting resulted in creative solutions to problems. |
10. | _______There was open examination of issues and problems at the group meeting. |
11. | _______The group was an effective problem-solving team. |
12. | _______Divergent ideas were discouraged. |
13. | _______There was no point in raising critical problems at the meeting. |
14. | _______I expect group decisions on important matters to be made at group meetings. |
15. | _______The chairman was oriented toward production and efficiency. |
16. | _______The meeting did not formulate future policy. |
17. | _______Members were more intent on satisfying the chairman than on optimizing the potential output of the group. |
18. | _______The goals of the group were clear cut. |
19. | _______Group members were willing to listen to and to understand me. |
20. | _______The group should have “expert” on hand to settle certain questions. |
21. | _______The meeting was not effective in discussing mutual problems. |
22. | _______It was important to be on friendly terms with other members. |
23. | _______There were too many personal opinions raised, as opposed to the residence life office point of view. |
24. | _______The meeting was trivial. |
25. | _______Conflict within the group was submerged, rather than used constructively. |
Directions Reminder: Please indicate the number that represents what you think in light of the meeting that just took place. Please use the following scale as your guide.

1 = strongly agree  2= agree  3=neutral  4=disagree  5=strongly disagree

26. ______ I expect little from group meetings.
27. ______ The chairman offered new approaches to problems at the meeting.
28. ______ There was open examination of relationships among group members.
29. ______ Group meetings should be continued.
30. ______ The policies under which the group works were clear cut in the meeting.
31. ______ The criterion for evaluating ideas in the group was “who said it” rather than “what was said”
32. ______ The group should be achieving more than it is.
33. ______ The chairman should have given the members guidance.
34. ______ The chairman put suggestions by members into operation.

Part 2:
Directions: Mark the following statements as you would describe other members at the staff meeting. Please use the following scale as your guide.

1 = strongly agree  2= agree  3=neutral  4=disagree  5=strongly disagree

1. ______ Assumed responsibility for setting group goals.
2. ______ Submitted to the chairman when disagreements arose.
3. ______ Were reluctant to sacrifice ideas so that group might agree.
4. ______ Acted the role that was expected of them.
5. ______ Felt at ease when talking with the chairman.
6. ______ Behavior did not reflect their true feelings.
7. ______ Were reluctant in pushing their ideas.
8. ______ Could approach the chairman with ease.
9. ______ Had influence with the chairman.
10. ______ Withdrew from involvement with chairman when disagreements arose.
11. ______ Accepted influence from other group members.
Part 3:
Directions: Mark the following statements as you would describe your own role at the staff meeting. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th>1 = strongly agree</th>
<th>2 = agree</th>
<th>3 = neutral</th>
<th>4 = disagree</th>
<th>5 = strongly disagree</th>
</tr>
</thead>
</table>

1. _______ Assumed responsibility for setting group goals.
2. _______ Submitted to the chairman when disagreements arose.
3. _______ Felt at ease when talking with the chairman.
4. _______ Behavior did not reflect my true feelings.
5. _______ Rebelled against the chairman when disagreements arose.
6. _______ Was reluctant in pushing ideas.
7. _______ Wanted to actively participate in the meeting.
8. _______ Could approach the chairman with ease.
9. _______ Had influence with the chairman.
10. _______ Withdrew from involvement with chairman when disagreements arose.
11. _______ Accepted influence from other group members.
12. _______ Enjoyed the group meeting.

Part 4:
Directions: In this section, you are asked to judge the meaning of the concept Group Meeting in terms of each of the seven scales beneath it. Check ONE blank for each of the seven scales that best describes the meaning of the concept as reflected in today’s meeting.

- good:
- weak:
- active:
- pleasant:
- deep:
- relaxed:
- valuable:

Part 5:
Directions: Please respond to the following open-ended questions/statements.

1. What training have you received already that would affect group interactions at staff meetings?

2. What do you wish your group would do differently to be more effective at staff meetings?

3. Describe the typical climate of staff meetings:
Appendix B: Immediate Post-Test Group Behavior Inventory

Name:_____________________________________ Age:_______ Sex (circle one): M   F
Position with Residence Life:_____________________________________________________
Total number of years working in Residence Life: ______________
School status (if applicable, circle one):
Grad Student   Senior   Junior   Sophomore   Freshman

Instructions: Please complete this survey immediately following a weekly dorm staff meeting. The following questions apply to the meeting that just took place.

Part 1:
Directions: Please indicate the number that represents what you think in light of the meeting that just took place. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th>1 = strongly agree</th>
<th>2= agree</th>
<th>3=neutral</th>
<th>4=disagree</th>
<th>5=strongly disagree</th>
</tr>
</thead>
</table>

1. ______ Most material covered in the meeting was introduced by the chairman.
2. ______ There was a destructive competitiveness among members of the group.
3. ______ The meeting did not come to grips with the real problems at hand.
4. ______ The chairman was oriented toward a “human relations” approach.
5. ______ The meeting was primarily a means of information dissemination.
6. ______ There was trust and confidence in each other among members of the group.
7. ______ Group meetings should be discontinued.
8. ______ Policies from higher levels hinder the effectiveness of the group.
9. ______ The group meeting resulted in creative solutions to problems.
10. ______ There was open examination of issues and problems at the group meeting.
11. ______ The group was an effective problem-solving team.
12. ______ Divergent ideas were discouraged.
13. ______ There was no point in raising critical problems at the meeting.
14. ______ I expect group decisions on important matters to be made at group meetings.
15. ______ The chairman was oriented toward production and efficiency.
16. ______ The meeting did not formulate future policy.
17. ______ Members were more intent on satisfying the chairman than on optimizing the potential output of the group.
18. ______ The goals of the group were clear cut.
19. ______ Group members were willing to listen to and to understand me.
20. ______ The group should have “expert” on hand to settle certain questions.
21. ______ The meeting was not effective in discussing mutual problems.
22. ______ It was important to be on friendly terms with other members.
23. ______ There were too many personal opinions raised, as opposed to the residence life office point of view.
24. ______ The meeting was trivial.
25. ______ Conflict within the group was submerged, rather than used constructively.
Directions Reminder: Please indicate the number that represents what you think in light of the meeting that just took place. Please use the following scale as your guide.

1 = strongly agree    2 = agree    3 = neutral    4 = disagree    5 = strongly disagree

26. ______ I expect little from group meetings.
27. ______ The chairman offered new approaches to problems at the meeting.
28. ______ There was open examination of relationships among group members.
29. ______ Group meetings should be continued.
30. ______ The policies under which the group works were clear cut in the meeting.
31. ______ The criterion for evaluating ideas in the group was “who said it” rather than “what was said”
32. ______ The group should be achieving more than it is.
33. ______ The chairman should have given the members guidance.
34. ______ The chairman put suggestions by members into operation.

Part 2:
Directions: Mark the following statements as you would describe other members at the staff meeting. Please use the following scale as your guide.

1 = strongly agree    2 = agree    3 = neutral    4 = disagree    5 = strongly disagree

1. ______ Assumed responsibility for setting group goals.
2. ______ Submitted to the chairman when disagreements arose.
3. ______ Were reluctant to sacrifice ideas so that group might agree.
4. ______ Acted the role that was expected of them.
5. ______ Felt at ease when talking with the chairman.
6. ______ Behavior did not reflect their true feelings.
7. ______ Were reluctant in pushing their ideas.
8. ______ Could approach the chairman with ease.
9. ______ Had influence with the chairman.
10. ______ Withdrew from involvement with chairman when disagreements arose.
11. ______ Accepted influence from other group members.
Part 3:
Directions: Mark the following statements as you would describe your own role at the staff meeting. Please use the following scale as your guide.

1 = strongly agree  2= agree  3=neutral  4=disagree  5=strongly disagree

1. ______ Assumed responsibility for setting group goals.
2. ______ Submitted to the chairman when disagreements arose.
3. ______ Felt at ease when talking with the chairman.
4. ______ Behavior did not reflect my true feelings.
5. ______ Rebelled against the chairman when disagreements arose.
6. ______ Was reluctant in pushing ideas.
7. ______ Wanted to actively participate in the meeting.
8. ______ Could approach the chairman with ease.
9. ______ Had influence with the chairman.
10. ______ Withdrew from involvement with chairman when disagreements arose.
11. ______ Accepted influence from other group members.
12. ______ Enjoyed the group meeting.

Part 4:
Directions: In this section, you are asked to judge the meaning of the concept Group Meeting in terms of each of the seven scales beneath it. Check ONE blank for each of the seven scales that best describes the meaning of the concept as reflected in today’s meeting.

good : _________: _________: _________: _________: _________: _________: _________: bad
weak : _________: _________: _________: _________: _________: _________: _________: strong
active : _________: _________: _________: _________: _________: _________: _________: passive
pleasant : _________: _________: _________: _________: _________: _________: _________: unpleasant
deep : _________: _________: _________: _________: _________: _________: _________: shallow
relaxed : _________: _________: _________: _________: _________: _________: _________: tense
valuable : _________: _________: _________: _________: _________: _________: _________: worthless

Part :
Directions: Please respond to the following open-ended questions/statements.

1. Describe the climate of today’s meeting:

2. Do you feel the improvisational training was effective in positively impacting group interactions? How?

3. Do you feel the improvisational training was effective in positively impacting your personal role in group interactions during this meeting? How?
Appendix C: 10-week Post-Test Group Behavior Inventory

Name:_____________________________________ Age:_______ Sex (circle one): M  F

Position with Residence Life:_________________________________________________

Total number of years working in Residence Life:_____________

School status (if applicable, circle one):
Grad Student Senior Junior Sophomore Freshman

Instructions: Please complete this survey immediately following a weekly dorm staff meeting. The following questions apply to the meeting that just took place.

Part 1:

Directions: Please indicate the number that represents what you think in light of the meeting that just took place. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th>1 = strongly agree</th>
<th>2= agree</th>
<th>3=neutral</th>
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1. _____ Most material covered in the meeting was introduced by the chairman.
2. _____ There was a destructive competitiveness among members of the group.
3. _____ The meeting did not come to grips with the real problems at hand.
4. _____ The chairman was oriented toward a “human relations” approach.
5. _____ The meeting was primarily a means of information dissemination.
6. _____ There was trust and confidence in each other among members of the group.
7. _____ Group meetings should be discontinued.
8. _____ Policies from higher levels hinder the effectiveness of the group.
9. _____ The group meeting resulted in creative solutions to problems.
10. _____ There was open examination of issues and problems at the group meeting.
11. _____ The group was an effective problem-solving team.
12. _____ Divergent ideas were discouraged.
13. _____ There was no point in raising critical problems at the meeting.
14. _____ I expect group decisions on important matters to be made at group meetings.
15. _____ The chairman was oriented toward production and efficiency.
16. _____ The meeting did not formulate future policy.
17. _____ Members were more intent on satisfying the chairman than on optimizing the potential output of the group.
18. _____ The goals of the group were clear cut.
19. _____ Group members were willing to listen to and to understand me.
20. _____ The group should have “expert” on hand to settle certain questions.
21. _____ The meeting was not effective in discussing mutual problems.
22. _____ It was important to be on friendly terms with other members.
23. _____ There were too many personal opinions raised, as opposed to the residence life office point of view.
24. _____ The meeting was trivial.
25. _____ Conflict within the group was submerged, rather than used constructively.

52
Directions Reminder: Please indicate the number that represents what you think in light of the meeting that just took place. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th>1 = strongly agree</th>
<th>2 = agree</th>
<th>3 = neutral</th>
<th>4 = disagree</th>
<th>5 = strongly disagree</th>
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26. ______ I expect little from group meetings.
27. ______ The chairman offered new approaches to problems at the meeting.
28. ______ There was open examination of relationships among group members.
29. ______ Group meetings should be continued.
30. ______ The policies under which the group works were clear cut in the meeting.
31. ______ The criterion for evaluating ideas in the group was “who said it” rather than “what was said”
32. ______ The group should be achieving more than it is.
33. ______ The chairman should have given the members guidance.
34. ______ The chairman put suggestions by members into operation.

Part 2:
Directions: Mark the following statements as you would describe other members at the staff meeting. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th>1 = strongly agree</th>
<th>2 = agree</th>
<th>3 = neutral</th>
<th>4 = disagree</th>
<th>5 = strongly disagree</th>
</tr>
</thead>
</table>

1. ______ Assumed responsibility for setting group goals.
2. ______ Submitted to the chairman when disagreements arose.
3. ______ Were reluctant to sacrifice ideas so that group might agree.
4. ______ Acted the role that was expected of them.
5. ______ Felt at ease when talking with the chairman.
6. ______ Behavior did not reflect their true feelings.
7. ______ Were reluctant in pushing their ideas.
8. ______ Could approach the chairman with ease.
9. ______ Had influence with the chairman.
10. ______ Withdrew from involvement with chairman when disagreements arose.
11. ______ Accepted influence from other group members.
Part 3:
Directions: Mark the following statements as you would describe your own role at the staff meeting. Please use the following scale as your guide.

<table>
<thead>
<tr>
<th>1 = strongly agree</th>
<th>2 = agree</th>
<th>3 = neutral</th>
<th>4 = disagree</th>
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1. ______ Assumed responsibility for setting group goals.
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9. ______ Had influence with the chairman.
10. ______ Withdrew from involvement with chairman when disagreements arose.
11. ______ Accepted influence from other group members.
12. ______ Enjoyed the group meeting.

Part 5:
Directions: In this section, you are asked to judge the meaning of the concept Group Meeting in terms of each of the seven scales beneath it. Check ONE blank for each of the seven scales that best describes the meaning of the concept as reflected in today’s meeting.

good :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
weak :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
active :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
pleasant :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
deep :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
relaxed :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
valuable :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
bad :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
strong :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
passive :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
unpleasant :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
shallow :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
tense :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:
worthless :_______:_______:_______:_______:_______:_______:_______:_______:_______:_______:

Part 6:
Directions: Please respond to the following open-ended questions/statements.

1. Describe the climate of today’s meeting:

2. What impact from improvisational training has been retained by your group in its interactions?

3. What impact from improvisational training has been retained by your personal role in group interactions?
Appendix D: Group Behavior Inventory Code

1. Group Effectiveness
   
   Part One: 3, 9, 10, 11, 16, 21, 27, 28
   Part Two: 1

2. Approach to vs. Withdrawal from Leader
   
   Part One: 17
   Part Two: 5, 6, 7, 8, 10
   Part Three: 3, 8, 10

3. Mutual Influence
   
   Part Two: 9, 11
   Part Three: 1, 9, 11

4. Personal Involvement and Participation
   
   Part One: 7, 14, 30
   Part Three: 6, 7

5. Trust vs. Competitiveness
   
   Part One: 2, 6, 23, 25
   Part Two: 3

6. General Evaluation of Group Meetings*
   
   Part Four: 1, 3, 4, 5, 7
   
   *to enhance scale reliability, question 2 of part 4 was eliminated from this scale

Items that were reverse coded*:

Part One: 2, 3, 7, 16, 17, 21, 23, 25, 27
Part Two: 3, 6, 7, 10
Part Three: 6, 10
Part Four: 2

*note: after reverse coding these questions the researcher chose to reverse code all data so that higher numbers represented positive results
Appendix E: Improvisational Training and Training + Simulation Treatment Overview

Participant Objectives
1. Be able to articulate the four primary principles of an improvisational methodology as outlined by Lobman (2005)
2. Be able to effectively apply the four primary principles of an improvisational methodology to a group exercise
3. Be able to communicate the application of the four primary principles of an improvisational methodology to their role in their Residence Life dorm staff

Principle #1: Accept Offers
Exercise: Word at a Time Story from Huffaker and West (2005, p. 867)
Purpose: This exercise shows how embracing this principle in a group means setting aside one’s personal agenda and being flexible with what other members contribute.
Brief Description: A story topic will be asked for from the audience, then participants will break into partners; going back and forth, each will add one word to creating a story about the given topic. The activity will then be repeated with each residence hall creating a story in a circle and finally the entire training group creating a story in a big circle.
Debriefing: At the conclusion of the exercise, ask how participants felt when playing the game. Were there times they had to change their own agenda in order to accept offers? When was the story most engaging? Point out that working together effectively with a group means listening closely to what others are contributing.

Principle #2: No Negating
Purpose: The form of the exercise done for this principle shows how NOT to work in a group. It demonstrates how putting down others’ ideas keeps the group from moving forward.
Brief Description: In the dorm staff groups, participants will be asked to go around in a circle with one person making a suggesting the whole group could do (e.g., “Let’s go to the store”). The person following must then say “No” to the suggestion, give a reason why not, and then make an alternative suggestion (“No, because it’s too crowded after the holidays. Let’s go to McDonald’s instead”).
Debriefing: Ask participants if they felt any progress was being made? Have they been in a group that felt this way before? Point out that negating others’ ideas can be an obstacle to moving forward and working.

Principle #3: Take Responsibility for the Group
Purpose: The form of the exercise done for this principle shows how working effectively in a group requires building off of others ideas and taking responsibility for propelling the group forward.
Brief Description: The exercise follows the exact same format as in the previous principle exercise, EXCEPT that instead of saying “No” to the idea preceding a participant, they respond with “Yes, AND.” This means the first person makes a
suggestion to the group (e.g., “Let’s go bowling”) and the next person agrees and builds on the idea (e.g., “Yes, and we could ride to the bowling lanes in a limo”).

**Debriefing:** Ask participants what the differences were in group interactions between the last exercise (negating) and this one. Note that a group has more creative productivity when building on one another’s ideas, with each person taking responsibility for contributing to the group.

**Principle #4: Stay with the Group**

**Exercise:** Monster Talk from Gesell (1997, p. 27)

**Purpose:** This exercise shows how effective group work requires staying with the group; this means being ready to lead and follow at any moment.

**Brief Description:** Once again, ask for a story topic from the large group. In the smaller dorm staff groups, participants will be asked to develop one story spontaneously as a group, speaking the same words at the same time (this means talking slowly!). The story will conclude with “The moral of the story is…” so participants know when it is finished.

**Debriefing:** Ask participants about their personal role in the group interactions. What did staying with the group entail? How did they evidence both leading and following? Point out that effective groupwork requires being ready to do either depending on what is occurring at a specific moment in a group.

**Culmination Activity:**

**Exercise:** Ad Campaign from Gesell (1997, p. 118)

**Purpose:** This exercise gives groups an opportunity to focus on applying all the principles of the methodology toward using a creative process to develop a creative product.

**Brief Description:** Each dorm staff group will act as a product-development team for a “crazy” product. The groups must decide on the following for the product: name, target market, celebrity spokesperson, slogan, and a four-line jingle. Only five minutes are given for the entire development process; after this time, each group will present their campaign for the whole group.

**Debriefing:** Ask participants how they utilized each of the principles from improv in their groups. What was required in order to accomplish the task as a group in only five minutes? Point out that this activity mirrors real life time pressures. These times are when it is all the more important to utilize the principles of improv to work together quickly and effectively with a group in order to develop a creative final product.

**Conclusion:**

**Exercise:** Forecast what it will look like when a group uses principles of improv and what it will look like when it does NOT.

**Purpose:** This exercise gives groups a chance to reflect on the fun principles they just learned and determine how they can be practically applied to their group.

**Brief Description:** See the worksheet in Appendix F. It will be completed individually first, then discussed as a group.

**Debriefing:** Powerpoint slides summarizing group thoughts will be created during the training, then sent to Resident Advisers following the training.
**Additional Simulation Component**

**Purpose:** A life-like simulation allows participants to see what these improv principles look like when applied to a real-world group scenario.

**Brief Description:** The simulation will ask participants to run a weekly meeting. The agenda will be provided. Principles of improv are to be utilized in running the meeting. Halfway through the meeting participants will be asked to stop and report to their group how they personally are either helping or hurting the group in following the principles of effective improv. There will also be a chance to discuss how the overall group is doing at implementing what they just learned in training.

**Debriefing:** Ask participants how they utilized principles of improv as a group? How about individually? Were there times principles should have been used and weren’t? How did this affect the overall effectiveness of the meeting? What should be done differently in the next meeting together? What should be done the same? This is an opportunity to reiterate the idea that improv is not an isolated learning. The principles from it can be applied to everyday interactions and group situations in order to work together more effectively.
Appendix F: Improvisation Training Worksheet

Let’s get ANTS-Y.

**Attitude of Acceptance**

- Be AWARE of others’ contributions
- Set aside personal judgment

**Self-check:**
- Am I setting aside my own agenda?
- Am I fully present in the moment?
- Am I truly LISTENING to others?
- Am I suspending judgment of others’ ideas?

**NO Negating**

- Be OBSTACLE-FREE to keep the group moving forward!

**Self-check:**
- How do I create obstacles for the group?
- Am I using the word “no” or equivalents?
- Are my contributions allowing the group to move forward?
Take Responsibility for the Group

- Build on others’ ideas
- Do your part to keep the group moving forward!

Self-Check:
Am I contributing to the group?
Am I BUILDING off of others’ ideas?
Am I propelling the group forward?

Stay with the Group

- Have the good of the group in mind at all times!

Self-check:
Do I have the good of the group in mind through my contributions?
Am I sensitive as to when to lead and when to follow?
Am I serving the overall group goal?