

Berk, R. A., & Trieber, R. H. (2009). Whose classroom is it, anyway? Improvisation as a teaching tool. *Journal on Excellence in College Teaching*, 20 (3), 29-60.

Whose Classroom Is It, Anyway? Improvisation as a Teaching Tool

Ronald A. Berk
The Johns Hopkins University

Rosalind H. Trieber
Towson University

Improvisational techniques derived from the experiences in improvisational theatre can be adapted for the college classroom to leverage the characteristics of the Net Generation, their multiple intelligences and learning styles, and the variety of collaborative learning activities already in place in a learner-centered environment. When improvisation is reformatted as small-group collaborative learning exercises, it can be a powerful teaching tool to promote deep learning. The authors describe the key features of improvisation along with four generic, easy to execute exercises applied to real course content: "One Word at a Time/ One Sentence at a Time," "Speech Tag," "Freeze Tag," and "Gibberish Expert Interview." An evaluation scale to measure the effectiveness of classroom applications is also included.

Introduction

"Are you kidding me?" you ask. "I'm no Wayne Brady! I can't do improvisation." Want to bet? Yes, you can! You improvise all of the time; you may just not be aware of it. And your students can do improvisation with your guidance and learn a lot from the activities you plan. But that's not the point. This article is not about you. Let's not lose sight of what's most important: *Effective teaching is not about us; it's all about the students.*

Traditional theatre uses a script to guide everything, from the sets,

props, and costumes to the choice of actors for the various roles. The director controls the entire production with no input from the audience. This is strikingly similar to traditional instructor-centered college teaching, which is driven by the scripted lecture or PowerPoint® presentation and completely controlled by the instructor with little or no discussion involving the whole class. This model of teaching focuses primarily on the instructor.

In contrast, improvisational theatre has no script, sets, or costumes, possibly a few props, the actors play a variety of roles, and the audience participates by deciding the topic or story line. When improvisation is reformatted into small-group collaborative learning activities in a learner-centered environment, it can be a powerful teaching tool. Research evidence demonstrates that it can promote spontaneity, intuition, interactivity, inductive discovery, attentive listening, nonverbal communication, ad-libbing, role-playing, risk-taking, team building, creativity, and critical thinking (Crossan, 1998; Moshavi, 2001; Sawyer, 2004; Spolin, 1999). These features are all about the students.

Improvisation has been defined as intuition guiding action in a spontaneous way (Crossan & Sorrenti, 1997). It is “. . . making the most of what you have and getting the most out of what you make” (Keefe, 2002, p. 6), a conversational skill that, like other social and interactive skills, can be taught. When improvisation is used in teaching, students provide different responses throughout the class session, and the instructor does not evaluate any given response but instead facilitates the improvisation process among the students, with the goal of guiding them toward discovery of their own knowledge (Sawyer, 2003). All students get to express themselves creatively, to play together, to have their ideas honored, and to have their mistakes forgiven (Koppett, 2001). Improvisational techniques, sometimes referred to as activities, exercises, or games, are tools that can be added to any existing set of teaching strategies. They can increase students’ awareness of problems and ideas fundamental to their intellectual development. Disciplined improvisation provides instructors with a way to conceptualize creative teaching within curricular structures (Sawyer, 2004).

“Is this for real?” you ask. Absolutely! Improvisation has already penetrated academe. It has been used to teach communication skills for physician-patient interaction with first-year medical students (Hoffman, Utley, & Ciccarone, 2008). Perhaps its best-known use in academe is in The Fuqua School of Business at Duke University, which has been offering a course and intensive workshops on business / managerial improvisation for MBA students for several years. The course and workshops were de-

veloped in 1999 by adjunct professor Robert Kulhan and Craig Fox (the latter now at UCLA). The course is designed for students to

- build trust,
- foster teamwork and better brainstorming,
- improve communication and presentation skills,
- promote creative problem solving,
- respond quickly and decisively to unanticipated challenges,
- think on their feet and recognize opportunities as they arise,
- increase their comfort level with change and willingness to take risks, and
- manage change and promote a supportive, improvisational corporate culture.

In the world of business, the metaphor of “swimming with the sharks” represents the need to learn how to adapt, adjust, listen, observe, agree, support, trust, and think fast. All of these skills are essential to manage a profitable business. The inclusion of improvisation as a teaching strategy provides an excellent opportunity to teach students these necessary skills, as they increase in their abilities to achieve academic and professional success. Instructors in any discipline who are willing to use an innovative teaching strategy such as improvisation will stimulate emotions, attract attention, encourage meaning making, and create lasting memories of lessons learned (Wildorf, 2000).

We begin the article by offering a brief explanation of the basic principles of improvisation followed by a list of four reasons why you should consider improvisation as a teaching strategy in your classroom, how improvisation can be applied to teaching, and step-by-step descriptions of four improvisational techniques used in a mental health and stress management course.

Principles of Improvisation

There are seven principles of improvisation:

- 1. Trust.** In order for a group to be successful and productive, the members of the group, referred to as “players,”

must be able to trust one another.

2. **Acceptance.** This is the “Golden Rule” of improvisation (Gesell, 1997). Players must be willing to accept a new idea in order to explore its possibilities—not just say “yes,” but have an attitude of “yes, and . . .,” meaning, “I accept the offer to improvise (using ideas, words, or movement) and must build on it.” In other words, players must say yes, accept the offer, build on it, contribute, and discover new ideas. It is this process that harnesses the power of collaboration. Each team member is responsible for contributing to and supporting the group’s activity. The brainstorming that occurs can lead to innovative solutions (Koppett, 2001).
3. **Attentive listening.** Players must be aware of the partners with whom they are co-creating in order to increase their understanding of each other and to be able to communicate effectively.
4. **Spontaneity.** Players co-create *in the moment*, without the opportunity to revise. Each player is motivated by a positive purpose and desire to delight. Spontaneity allows players to initiate words and actions, building trust with the other players (Keefe, 2002). Players must suspend any critical judgment or spirit about what others say.
5. **Storytelling.** Players develop the ability to create a collaborative narrative that connects their dialogue through a story. This process often results in memorable content.
6. **Nonverbal communication.** Players use facial expressions and body language to help communicate attitude, character, and trustworthiness.
7. **Warm-ups.** Warm-ups are structures that provide an opportunity to develop trust and safe environments, where the players can feel free to explore through “contentless” games and structures. It is similar to bantering with students to develop rapport. Warm-up activities focus on transitioning individuals into an improvisational mode to allow them to improvise verbally and physically; be

spontaneous; “listen” carefully to one another; and use a sense of humor (adapted from Koppett, 2001, p. 32)

Why Use Improvisation in the Classroom?

Improvisational performance is typically viewed as an alternative to scripted theatre, but over time it has also taken on a variety of creative genres, including storytelling, pantomime, music, poetry, and comedy (Atkins, 1993; Book, 2002; Diggles, 2004; Gwinn & Halpern, 2003; Lynn, 2004; Polsky, 1997; Spolin, 1999). However, the application of the numerous improvisational exercises and games developed over the past 30 years has extended far beyond the formal theatre setting to management and business training (Bergren, Cox, & Detmar, 2002; Crossan, 1998; Crossan & Sorrenti, 1997; Keefe, 2002; Koppett, 2001; Leigh, 2004; Lowe, 2000; Moshavi, 2001) and to everyday, real-life challenges (Madson, 2005). A wide range of theatrical techniques, including, most recently, improvisation, are also not new to teaching and have been shown to be extremely effective in the live classroom (Baerhaim & Alraek, 2005; Berk, 2001, 2002, 2003, 2005, 2008a, 2008b; Diamond & Christensen, 2005; Jackson, 1993; Jacobsen, Baerheim, Lepp, & Schei, 2006; James & Williams, 1981; Millbower, 2003; Newton, 1998; Patterson, McKenna-Cook, & Swick, 2006; Shapiro & Hunt, 2003; Spolin, 1986; Timpson, Burgoyne, Jones, & Jones, 1997).

There are four major instructional reasons for using improvisation in the classroom: (1) It is *consistent with the characteristics of the current generation of students*, also known as the *Net Generation* (Carlson, 2005; Junco & Mastrodicasa, 2007; Oblinger & Oblinger, 2006a; Palfrey & Gasser, 2008; Tapscott, 1999, 2009) (aka Millennials [Howe & Strauss, 2000], born between 1982 and 2003), which has grown up with the technology—especially their desire to learn by inductive discovery, experientially, their need for social interaction and collaboration, their emotional openness, and their limited attention span; (2) it *taps into students’ multiple and emotional intelligences*, particularly verbal/linguistic, visual/spatial, bodily/kinesthetic, interpersonal, and intrapersonal; (3) it *fosters collaborative learning* by helping to build trust, respect, and team spirit as well as listening, verbal and nonverbal communication, ad-libbing, role-playing, risk-taking, and storytelling skills; and (4) it *promotes deep learning* through the active engagement with new ideas, concepts, or problems; linking the activities or tasks to prior learning; applying the content to real-life applications; and evaluating the logic and evidence presented. A further explanation of each of these reasons follows.

Improvisation's Consistency With the Net Generation's Characteristics

The Net Generation has been branded as “digital natives” (Prensky, 2006). They are “native speakers” of the language of computers, video games, and the Internet. As you observe these students, you will notice wires coming out of every part of their bodies. Attached to those wires are MP3 players, iPods, iPhones or smart phones, PCs, and all the other tools of the digital age (Berk, 2008a, 2008c; Junco & Mastrodicasa, 2007). Their experience with the technology has enabled them to master complex tasks and make decisions rapidly (Junco & Mastrodicasa, 2007; Prensky, 2006). Classroom exercises need to extend these capabilities that our students already possess.

In contrast to these digital natives, most instructors are *digital immigrants*. Many of us still have one foot in the past, and “digital” is our second language; we continue to learn and sometimes struggle with it on the fly. For example, digital immigrants may still print out an e-mail, print a document to edit it, or phone someone to see if he or she received their e-mail. Do you know any colleagues like that?

The Net Geners have certain characteristics that are consistent with the use of improvisation as a teaching tool:

- *They learn by inductive discovery*—that is, by doing rather than being told what to do. They are experiential, hands-on, engaged, constantly connected with first-person learning, games, simulations, and role playing (Junco & Mastrodicasa, 2007; Oblinger & Oblinger, 2006b; Tapscott, 1999). They are what Jenkins (2006) calls a *participatory culture*; they are not spectators;
- *They are intuitive visual communicators*. They are visually literate, comfortable in an image-rich rather than a text-only environment, and able to weave together images, text, and sound easily and to move between the real and the virtual instantaneously (Frاند, 2000; Manuel, 2002);
- *They crave social face-to-face interaction*. They gravitate toward activities that promote and reinforce conversation, collaboration, and teamwork (Howe & Strauss, 2000; Junco & Mastrodicasa, 2007; Manuel, 2002; Ramaley & Zia, 2006; Windham, 2005);
- *They are emotionally open*. They like to express their

feelings, meet new people, and experience different cultures; they are open to diversity, differences, and sharing personal information with others, whether online in Facebook, MySpace, Twitter, Del.icio.us, blogs, or other social media, or in class (Junco & Mastrodicasa, 2007; Lenhart, Rainie, & Lewis, 2001; Oblinger & Oblinger, 2006b);

- *They respond quickly and expect rapid responses in return.* They multitask, moving quickly from one activity or medium to another, such as using instant messaging (IM), the cell or smart phone or iPhone, and e-mail all at once, while surfing the Web and watching TV (Junco & Mastrodicasa, 2007; Prensky, 2006; Roberts, 2006); and
- *They shift attention rapidly from one task to another.* They have extremely short attention spans, thrive on immediate gratification, and are accustomed to the rapid, multitasking, random access, graphics-first, active, connected, fun, fantasy, quick pay-off world of video games, MTV, and the Internet (Foreman, 2003; Prensky, 2006).

In summary, the most up-to-date surveys of the Net Geners indicate they are technology savvy and function at “twitch” speed. Whereas they can play video games for hours because of their strong interest in these games, in school, if not kept engaged, they can have the attention span of goat cheese. They want interactivity in the classroom with their peers, the instructor, tools, and concepts. Team experiences such as improvisation provide these students with the active, participatory, visual, collaborative, fast moving, quick thinking, rapid responding, emotionally freeing, spontaneous, combustible vehicle they so badly desire. As a teaching tool, improvisation is a natural fit for these students. The learning environment must be active, collaborative, social, and learner-centered for these students. If anything less, they will consider it *borrrrrring*.

Improvisation’s Ability to Tap Into Students’ Multiple and Emotional Intelligences

Students possess multiple types of intelligences, and each student has a unique intelligence profile (Gardner, 1983, 1993, 1999, 2005; Gardner & Hatch, 1989; Marks-Tarlow, 1995; White, 1998; Williams et al., 1996). Traditionally, the content faculty teach has been verbal or quantitative in form. Most often, for example, instructors teach English literature verbally

and statistics, quantitatively. This seems natural and, perhaps, is easiest for the instructor. However, learning course content isn't this simple. Every student has strengths and weaknesses. For example, if Jerome isn't strong in quantitative ability, he will struggle in his statistics courses.

Fortunately, according to the latest research in cognitive psychology, Jerome has other abilities or intelligences—up to 10 of them. In addition to the aforementioned verbal/linguistic and quantitative/analytical intelligences, he also possesses visual/spatial, bodily/kinesthetic, musical/rhythmic, interpersonal, and intrapersonal (equivalent to Goleman's [1998] emotional intelligences), naturalistic, and environmental intelligences. Jerome's strengths may lie in the visual/spatial and musical/rhythmic. Just imagine: If we could teach by drawing on these intelligences *and* Jerome's quantitative ability, how much more effectively could he learn? In fact, if instructors could adopt this "pluralistic view of the mind" and teach so that four to six of students' intelligences are tapped instead of just one or two, probably every student could learn the material on most topics without struggling. Such strategies build on students' strengths rather than their weaknesses. These strengths are translated into their learning styles (Conner & Hodgins, 2000; Felder & Soloman, 2000; Honey & Mumford, 1992; Kolb, 2005; Rose, 1985; Schroeder, 1997) with nearly a dozen different models suggested for higher education (Robotham, 1999).

Learning through improvisation can accomplish this goal. It requires active discovery, analysis, interpretation, problem-solving, memory, musical creation, physical activity, and the emotions of the self and others (Spolin, 1986). This covers six intelligences. Students learn best when they are engaged, thinking critically, solving problems, have choices to consider, and are making decisions (Matthews, 1996). Designing activities that systematically consider students' multiple intelligences and their different learning styles is essential for teaching *all* students effectively.

Improvisation's Ability to Foster Collaborative Learning

With all that we know about *collaborative* learning (Barkley, Cross, & Major, 2005; Dillenbourg, 1999a; Kaplan, 2002) and its super-structured counterpart, *cooperative* learning (Johnson, Johnson, & Smith, 1991; Kagan, 1992; Millis & Cottell, 1998), where does improvisation fit? Both collaborative and cooperative learning are instructional approaches in which groups of learners work together to solve a problem, complete a task, or create a product. They share the same philosophical framework with the following underpinnings: (1) Learning is a naturally occurring social act and active and constructive process; (2) there must be respect for all

students and their diversity of backgrounds, intelligences, learning styles, experiences, and aspirations; and (3) the potential exists for all students to achieve academic success.

Johnson et al.'s (1991) five elements of cooperative learning are as follows: (1) *positive interdependence*; (2) *individual accountability*; (3) *face-to-face interaction*; (4) *appropriate use of collaborative skills*; and (5) *group processing*. These elements intersect with most of the basic principles of improvisation listed previously. The benefits of the numerous cooperative learning exercises have been well documented (Felder & Brent, 2001; Goodsell, Maher, Tinto, Smith, & McGregor, 1992; Johnson et al., 1991; Kagan, 1992; Millis, 2002; Millis & Cottell, 1998; Springer, Stanne, & Donovan, 1999).

Instructionally then, how do collaborative, cooperative, and improvisation learning differ? An analysis of the activities and exercises that fall into these three categories of learning strongly suggest that the differentiating factors are *structure* and *control*. If you could visualize a continuum with cooperative learning at one extreme and improvisation at the other, that continuum would represent the potential range of structure and control in a myriad of combinations in collaborative learning activities. Cooperative learning has the most structure and improvisation the least.

On one end of the continuum lie fundamentally all possible and potential forms of collaborative learning. Cooperative activities are structured and controlled by the instructor to accomplish specific outcomes. Collaborative activities vary in structure and control by degree from a highly structured, cooperative system designed to create a product (Dillenbourg, 1999b; Panitz, 1996; Smith & McGregor, 1992) to a less-structured, consensus building, sharing of responsibility by the group's members. The selection, size, composition, task, and interaction of the group may vary considerably in any given application (Dillenbourg, 1999b; Roschelle & Teasley, 1995).

Improvisation, at the opposite end of the continuum, involves unscripted, spontaneous, intuitive, interactive small-group exercises. The less-structured spontaneity of improvisational activities may be more palatable introductory collaborative learning exercises for Net Geners than more structured, formal cooperative learning methods. They actually can serve as the warm-up or segue to cooperative learning exercises. In contrast to a cooperative learning exercise, when an improvisational approach is used in the classroom, the class facilitates the discussion and synthesizes the information. It is a process for exploring collaboration and cooperation at its most fundamental level, the co-creation of ideas, rather than an instructor-directed or scripted group activity. There is no concept of "right" or "wrong" answers, and actions and solutions are left

to the students' judgments (Moshavi, 2001).

Barkley et al. (2005) describe many collaborative learning techniques that incorporate principles of improvisation, such as the *Three-Step Interview*, in which student pairs take turns interviewing each other and then report to another pair. The topic can be in the form of questions, attitudes, values, or comprehension of course content. The interviewers must listen very carefully and pay attention to the interviewee's responses, and they are not to impose their opinions or objections. The interviewee is the center of attention and is encouraged to elaborate on his or her thoughts regarding the topic. This exchange is not a discussion and, therefore, requires a personal level of commitment from interviewer and interviewee. The interviewers must understand and incorporate the information gathered from their interviewees' responses at a level deep enough to be able to summarize and synthesize the responses intuitively and effectively for other students. Partners then reverse roles and continue the process. This activity follows the basic principles of improvisation described previously. It is a technique for improving specific communication skills as well as "thinking on your feet," with or without criteria.

Improvisation's Ability to Promote Deep Learning

All of the characteristics and outcomes of improvisational activities previously described and their relationships to collaborative and cooperative learning techniques strongly indicate that improvisation can promote deep learning (Campbell, 1998; Entwistle, 2004). More than 30 years of experience and previous research with improvisational exercises, particularly in the business and management training domain (Crossan, Cunha, Vera, & Cunha, 2005; Cunha, Cunha, & Kamoche, 1999, 2001; Kamoche, Cunha, & Cunha, 2002; Minor, Bassoff, & Moorman, 2001; Moorman & Minor, 1998; Vera & Crossan, 2004), demonstrate how they satisfy Rhem's (1995) four criteria for deep learning: (1) *motivational context*, the intrinsic desire to know, make choices, and take ownership and responsibility for seeking a solution or making the right decision quickly; (2) *learner activity*, the experiential, inductive discovery in collaboration with other team members to synthesize, problem solve, or create knowledge; (3) *interaction with others*, with the spontaneity, intuition, quick thinking, brainstorming, trust-building, risk-taking, role-playing, and rapid decision making of improvisational dynamics; and (4) a *well-structured knowledge base*, where content is reshaped, synthesized, critiqued, and even created to demonstrate understanding and comprehension as well as analytical and evaluative skills.

Not only does the actual interactive process of improvisational performance produce deep learning, but the *debriefing questions* that follow every exercise penetrate even deeper. The series of questions and discussion involving the small group with the rest of the class can reach the highest levels of learning in the analysis and evaluation of the content and experience observed by all. Applications of the content to real-world situations can occur during this Q&A session. In this context, research suggests that the types and levels of questions asked are the keys to eliciting deep learning from students (Harrison, 2004).

Applications of Improvisation to the College Classroom

Improvisation involves students creating a physical reality through individual action and emotion while, at the same time, developing a shared vision with the other students. Spolin (1999) stated that the goal of improvisation is to “solve a problem.” The power of improvisation lies in being *in the moment* at all times. A major concept is that the point of concentration requires close attention to the problem rather than to the individuals who are addressing the problem (Spolin, 1999). For example, in a volleyball game, all players concentrate on the ball; each individual player, as a member of the team, must focus on the ball and act in collaboration with their teammates.

There are more than 200 improvisational games or activities described in the theatre literature (Spolin, 1999). Some are more appropriate than others as instructional strategies in the college classroom. This section provides a sample of four generic improvisation activities that are easily adaptable to most subject matter content: “One Word at a Time/One Sentence at a Time,” “Speech Tag,” “Freeze Tag,” and “Gibberish Expert Interview.” These activities are based on classical improvisational exercises (Gesell, 1997; Koppett, 2001; Spolin, 1986, 1999).

The purposes of the four activities are described first. Then each activity is demonstrated as it was applied to different content topics taught in an advanced undergraduate course, “Mental Health and Stress Management,” with an average of 35 students per course over two years (2005-2007) at Towson University.

Purposes of Improvisational Activities

Any one of the activities may be used as a warm-up or energy builder. More important, however, as a teaching tool, the activities can be used to review, apply, synthesize, or evaluate any content to facilitate learn-

ing. They are particularly effective with problem-based material, as in problem-based learning (PBL). Students experience team identity by creating a unique story and/or unique answers, as each successive student volunteer contributes without hesitation. Students learn to listen to one another at all times and let go of the need to figure out the ending or direct the outcome. Each exercise can serve as a warm-up for students so they may begin to trust one another and practice the acceptance of unexpected ideas and information without objection, ridicule, and intimidation. It can also increase listening awareness as well as enhance creative and critical thinking through the debriefing Q&A at the end. The examples that follow indicate the types of questions that can be used to tap deep learning of the content.

These four improv activities involve total engagement, visual-spatial skills, physical interaction, verbal exchange, and buckets of fun. They draw especially on the students' verbal/linguistic, visual/spatial, bodily/kinesthetic, and interpersonal intelligences.

Improvisation Activities: Four Examples

What follows are actual examples of what students said and did when these four exercises were used in the course "Mental Health and Stress Management" at Towson University. Depending on the subject taught, the students, and other variables, results will vary. The first two activities, "One Word at a Time/One Sentence at a Time" and "Speech Tag," seem the least risky to students on first exposure, and the last two, "Freeze Tag" and "Gibberish Expert Interview," require slightly more risk.

One Word at a Time/One Sentence at a Time

Topic: "Five Components of Wellness"

Purpose: The purpose is to review material for a quiz. The instructor's objective is to see how well the class identifies the specific details associated with each component of wellness and how students will apply behavior change concepts to negative and positive wellness situations by telling a spontaneous story one word at a time.

Time: Allow 5-10 minutes for this activity and 10 minutes for debriefing questions and discussion.

Procedure:

1. The instructor directs students to create 5 columns on a piece of paper identifying the five components of wellness (physical health, social health, mental health, emotional health, and spiritual health). Students do this individually.
2. The instructor tells students to list, under the appropriate column, as many words as possible that they can associate with each component. For example, for physical health, these students wrote, *fitness, nutrition, risk factors for disease, diet, body image*, and the like. For emotional health, they wrote, *anger control, self-esteem, self-confidence, trust, love, adjusts to change, sad, happy, laughs*, and so on.
3. The instructor asks for volunteers (in this case, five), who stand in line (or in a circle) at the front of the class. The role of the volunteers is to create a story with a beginning, middle, and end that focuses on the theme picked by the class using one word at a time and possibly acting them out as well. The instructor directs these students to create a story aloud focusing on the five components of wellness by collaboratively creating sentences, with *each student contributing one word at a time*, that emphasize the key words students associated with each component.
4. Speed and eye contact should be encouraged by the instructor. The instructor tells the volunteers that small words, including articles such as “a” and “the,” are acceptable and necessary to the sense of the sentence. Students should use complete sentences. Most important is that making mistakes should not be viewed as a sign of failure.
5. The class selects the theme of the story, in this example, “Stressed College Students.”
6. The story begins with a self-selecting student, who starts the story’s first sentence with *My*. The students continue in turn:

A second student says, *roommate*.

A third student says, *complains*.

A fourth student says, *constantly*.

The fifth student begins a new sentence with *She*.

The students continue the next sentence by offering their spontaneous responses in turn: *says—she—had—too—much—work—and—drinks—beer—and—eats—pizza—every—day*.

The story could possibly end by the team coming up with solutions, again one word at a time. For example, these students concluded the story as follows: *Your—roommate—needs—a—support—group—exercise—and—diet—program. Talk—to—your—roommate—and—offer—her—your—help. No—no—she—needs—to—stop—blaming—everyone—else—for—her—problems. She—has—to—take—responsibility—for—changing—her—diet—and—getting—help. She—needs—to—make—an—appointment—with—a—counselor—and—focus—on—her—strengths*.

All of this is said rapidly one word at a time or one sentence at a time, with each member of the team focusing on the context of the story and pushing the team to succeed in telling all that can be told. This exercise tends to begin slowly, as students are a little hesitant at first. They are not sure what's going to happen. After the first few sentences are completed and students get the hang of it, however, they become more relaxed, spontaneous, intuitive, and funny.

Suggested Debriefing Questions:

1. What new information did you learn from this activity?
2. What insights did you learn about letting go of the result?
3. How did you handle information that seemed questionable?
4. Why are you encouraged to respond quickly?
5. How is this like teamwork on a job or in class?
6. Do you have any clarification questions that you would like to ask in order to understand the behaviors that contribute to wellness?

The student volunteers answer the debriefing questions while the rest of the class listens intently, observing the correctness of the answers and

noting how the group has worked together to make the story successful by spontaneously incorporating the content from the categories of wellness. A lively discussion usually ensues. It is during this debriefing Q&A that the instructor and students become aware of the benefits of the improvisational activity as well as their abilities to synthesize the content at hand.

Small-Group Format Variation:

This variation can be played with two or three students facing each other, each one offering a sentence, one word or two words at a time. This is an effective strategy to use with large classes where the room and space configuration doesn't permit a lot of movement. It's an improvisational spin on *Think-Pair-Share*. Let's call it *One Word at a Time/Don't Think-Pair-Share*. Each pair or triad can have the same title and/or questions or make up their own based on content. New ideas can then be shared from each group about their content.

Speech Tag

Topic: "Preventing Coronary Heart Disease"

Purpose: The purpose is to assess student knowledge, attitude, and skills needed to prevent coronary heart disease following a reading assignment.

Time: Allow 10-15 minutes for this activity and 10 minutes for debrief questions and discussion.

Procedure:

1. The instructor picks the topic, in this case, "Preventing Coronary Heart Disease."
2. Three to five student volunteers are identified to come to the front of the class. One student stands in front with the others behind him or her in a horseshoe shape.
3. The instructor directs the students to tell a story collaboratively out loud based on the chosen topic, with the first student in front beginning. When the student who is speaking makes a point that another student wishes to respond to, that student may tag him or her and con-

tinue the story. The instructor coaches students to tag in even if they do not know what they are going to say. They are also encouraged to tag in if they see that their partner needs relief. Students are to respond intuitively and “cover each other’s backs” so that everyone will be successful. It is during the spontaneous responses that humor usually emerges. For example:

Student 1 (the one in the front) begins the story: *Physical exercise needs to be part of a healthy lifestyle. People who are sedentary are at high risk for developing coronary vascular disease. When a person participates in 30-60 minutes per day of a combination of aerobic exercise and resistance training, blood pressure and cholesterol are usually lowered. Physical exercise also reduces the risk of heart attack and heart diseases. You need to get medical approval before you start any kind of exercise program. Weight reduction. . . .*

Student 2 tags student 1 on the shoulder, moves to the front, and continues the story, picking up where the first student stopped: *Yes, and it is enhanced when exercise is part of the daily plan. Obesity is a major risk factor for heart disease. But it’s so much fun to supersize with Big Macs® and milkshakes.*

Student 3 tags student 2 on the shoulder and says, *Yes, and forget about supersizing, pass the McDonalds® and head for the shrink! You’ve got to know the difference between good nutrition and emotional eating. It might not be what you are eating; it might be what’s eating you! Nutrition plays an important role in reducing the risk of heart disease.*

Student 2 tags student 3 on the shoulder and says, *Yes, and smoking doesn’t help either. When life is full of stress, there’s another reason coronary vascular disease has a chance to develop. Here’s a plan that. . . .*

Student 1 tags student 2 on the shoulder and begins with *Yes, and any student could follow even living on campus . . . eat fruits, vegetables, whole grains, lean sources of protein and move into the gym!!*

The story may continue, with students tagging each other and responding, for as long as the instructor feels is appropriate to gain the desired

learning benefits.

Spontaneity increases as the students randomly self-select and tag each other, adding information about stress management. (*Warning:* Make sure students are told to tag the shoulder only. Tagging other parts of the anatomy is illegal.) Students accept the ideas of the previous player (not necessarily agreeing) and continue to add more information and bring out their most significant understanding and comprehension about preventing coronary heart disease. The students listen intently to each other as the entire class listens to them. All are listening for accuracy and the ability to be spontaneously creative.

Suggested Debriefing Questions:

1. Did the information presented fit the content on coronary heart disease previously taught?
2. How could this information be used to create a coronary heart disease prevention program for your family or in your place of work?
3. When and why did you choose to jump in?
4. When and why did you hesitate?
5. What is the value of creating the story collaboratively?
6. What values or beliefs underpin the behaviors captured in this activity?

Discussion follows to assess the ability of the group to work as a team and to help each other to be successful in creating a cohesive story, building upon each student's contribution, adding new information, and having the confidence to "jump in" spontaneously.

This type of exercise was originally used in introductory drama classes (Spolin, 1999) as an extension of *One Word at a Time*. Instead of speaking one word at a time, students speak in sentences, giving them an opportunity to loosen up and feel safe. This experience gives them the ability to improvise verbally and physically, to be spontaneous, to listen to themselves and to others, and to exhibit a natural sense of humor.

Freeze Tag

Topic: "Fight or Flight Stress Management Theory"

Purpose: To assess students' knowledge of the multiple physiological and psychological effects of perceived stressful situations following a lecture and reading assignment on the topic.

Time: Allow 3-5 minutes for this activity and 10 minutes for debrief questions and discussion.

Procedure:

1. The instructor explains to the class that they are going to explore the physiological and psychological effects of the "Fight or Flight" stress response theory as they create reality using information from their body and emotions rather than from their mind. Students will focus on intuition rather than fact.
2. The instructor asks the class for a place where a stressful situation may occur. Someone in this particular class said, *health clinic*. (Other answers might include "restaurants," "offices," "stores," "hospital," "doctors' and dentists' offices," and "school.")
3. The instructor asks the class, "What would be a relationship between two people in this stressful situation?"
4. Another student responded with *irate patient* and *receptionist*. (Other responses in other venues could include "server-customer," "salesperson-client," "supervisor-employee," "doctor-patient," "siblings," and "school work/social life.")
5. The instructor informs students that they are going to play a "cryogenic" version of Speech Tag, in which they will create a storyline based on a situation. One student begins with a statement, and another student must begin with "yes . . . and" to accept the offer to continue. At any given point, a student may jump in and "freeze" the action in order to take it in another direction. When a student pops up and shouts "FREEZE!," he or she may tag the freezee on the shoulder. This student becomes the replacement freezee and assumes the exact physical position of the tagged freezee. The position and the

emotion of the tagged freeze may trigger ideas for the replacement freeze. The replacement picks up on the last words said by that tagged freeze. Then the replacement can assume different physical positions, such as hands in the air, hands on their hips, bent over, legs crossed, or jumping up and down. His or her facial expressions can convey emotions, such as anger, fear, or joy.

The improvisation unfolded like this:

Student 1 (irate patient) has her hands on her hips and is yelling at the receptionist: *I can't believe you can treat a patient like this!*

Student 2 (receptionist): *Yes, and Miss Jones, you are being treated with respect and calmness even though your appointment was at 1:00 p.m. today and it's now 3:00 p.m.*

Student 1: *Yes, and my stomach hurts, my head hurts, and my insurance has lapsed!*

Student 2: *Yes, and this is a Bummer!*

Student 3: *FREEZE!* Student 3 taps Student 1 on the shoulder and replaces her. Putting her hand around the patient's shoulder, Student 3 says, *I'd feel the same way if I were in your situation. Sit down here and let's talk.*

Student 2: *Thank goodness you are here; my blood pressure is now sky high!*

Student 3: *Yes, and my company has got just the thing to help patients coming in here with a lot of anger.*

Student 2: Hands waving all around, she says, *Are you kidding?*

Student 3: *I've got an automatic massage bed; it calms the mind and body!*

Student 4: *FREEZE!* (Student 4 taps Student 2 on the shoulder and replaces her.)

Student 4: *What we need is some music to listen to and a comedy video to watch.*

The scene may be allowed to continue for as long as the instructor thinks is desirable.

Suggested Debriefing Questions:

1. What were the key points of the stress response theory presented in this activity?
2. What were your biggest fears?
3. At any point did you feel the need to censor yourself?
4. How can this experience change the way you relate to others in different life situations?
5. How did it feel to have your ideas or offers accepted?

The instructor then reviews the key points of the stress response theory presented in the exercise and leads a brief discussion of its application to health improvement in daily living situations. He or she asks the students to compare and contrast how the theory was (and could be) applied to the situation highlighted and probe the implications of the different relationships (for example, coworkers, supervisor-patient-customer, etc.) presented in the exercise. Student responses to these questions can lead to greater understanding of the various psychological and physiological effects of stress. This debriefing exercise is where deep learning occurs.

In the classroom, variations on Freeze Tag can be particularly useful for reinforcing and applying different theories in basic science and health courses and specific organizational behavior concepts, such as leadership, motivation, power, and politics. Moshavi (2001) utilized a variation of this exercise multiple times in his business management classroom at Montana State University. It resulted in enhanced class discussion and role play, teamwork, risk taking, and creativity. This approach to class discussion involves everyone in the class.

Gibberish Expert Interview

Topic: "Preventing Sexually Transmitted Diseases (STDs)"

Purpose: This activity is used to determine how many key points about preventing sexually transmitted diseases were understood by the class.

Time: Allow 3-5 minutes for this activity and 10 minutes for debriefing questions and discussion.

Procedure:

One student volunteer speaks in a nonsense language as an expert on the chosen topic. Another student volunteer translates the “gibberish” into English or English into “gibberish.” Class discussion follows with debrief questions of clarity and accuracy of the information and translations through voice and body language. Random members of the class ask the designated health expert, in this case from a hypothetical foreign country (played by a student volunteer), specific questions about preventing sexually transmitted diseases.

For example:

Student 1 (asks the expert from Chutzpahsenstein):
How does your country achieve such a low rate of sexually transmitted diseases, and how do you prevent them?

Student 2 (the interviewer / interpreter, speaking in gibberish): *Gweeb! Neeb nop nork fop fob la proo?*

Student 3 (the expert): *Mookulu ladi, or blah de blah. La gee grab nabble lip quip scrunge la quack. Zar zar far quar mar nar shellac. Frem oogle oop fing fang. Shlop looble la ling lang.* As the expert is saying these nonsense words, her arms and hands are moving in different directions, her hands put up fingers as if to identify a number of points. She stomps her feet three times and uses facial expressions that express the non-acceptance of multiple sex partners.

Student 2 (interpreting the expert’s answer): *Yes, and anyone who is sexually active can get an STD. Men and women of all ages, regions, ethnic backgrounds, and economic levels can get them. Most STDs are only spread through direct sexual contact with an infected person. The best way to prevent getting an STD is to not have sex. If you do decide to have sex, you should have sex with only one partner who only has sex with you and who has never injected drugs.*

The health expert answers in nonsense language using serious and exaggerated sounds and body movements. In this particular class, the expert spoke in such a way that other class members wanted to know where she learned “that language.” Her body language also demonstrated

her answers. The student volunteers conversed as if they were making perfect sense. Following each nonsense answer, the interpreter explained in English what the health expert had said based on her own understanding of the expert's speech inflections and gestures and her knowledge of preventing STDs. During this process, the entire class was paying attention to the players, laughing, and listening for the correct understanding of the material. This activity provides an opportunity for all members of the class to ask questions, obtain clarity, and increase communication skills without fear of intimidation.

Suggested Debriefing Questions:

1. What communication cues do we have besides words?
2. Observers, did the translation match the interpretations you made in your head?
3. Was fluency or continuity ever achieved? If so, under what conditions? If not, why not?
4. How do people understand each other if they don't speak the same language?
5. How did people contribute to the success?
6. What can this activity teach us about how we view the unfamiliar?

Team Variation:

There can be teams of four or five players where four of the participants speak different languages (all gibberish). Again, the conversation between the gibberish speakers flows through the interpreter(s). At any point the instructor can call out, "Change!" and one of the gibberish speakers becomes the interpreter. The interpreter goes back and forth between English and nonsense language. This exchange continues until everyone has had an opportunity to be the interpreter. This variation can also be conducted simultaneously with multiple teams in the class. Each team debriefs itself and then shares its insights with the entire class.

Conclusions

More than 1000 journal articles and 120 studies on the effectiveness of

learner-centered teaching and student success (Cornelius-White, 2007) suggest that college instructors need to leverage all that they know about the characteristics of the Net Generation, their multiple intelligences and learning styles, collaborative learning activities, and theatrical approaches to teaching to create learning environments where every student can succeed. The four generic, easily adaptable improvisational exercises we have described in the context of different course content applications focus on promoting deeper learning through the suggested debriefing questions.

At present the bulk of the research and college-level practice with improvisational techniques have been in the business and management training domain. Despite the documented effectiveness of the techniques in this domain, their potential for application to virtually all other disciplines has not been realized.

The next step is to conduct research on those activities in all fields to justify the contributions improvisation can make to learner-centered teaching. A scale to evaluate the effectiveness of various improvisational exercises to facilitate data-gathering in any classroom application is provided in Appendix A. We strongly encourage faculty not only to test out these activities with their students, but also to collect evidence of their instructional efficacy.

We hope that improvisation will gain popularity as a form of collaborative learning among those faculty already employing cooperative-learning exercises as well as newcomers to these activities who want to break out of their teaching mold. Improvisation is another versatile tool to put in our teaching tool belts that the Net Geners will love and Tim “The Toolman” Taylor will applaud.

The best way to close this article is to answer the question in the title. Do you remember the title? We don’t either. We got bogged down with boxes of articles on cooperative learning. Here it is: *Whose classroom is it, anyway?* Although our original intent was to parody the title of the amazing British and American improvisational television shows, *Whose Line Is It, Anyway?*, an unanticipated instructional legitimacy emerged. From the first paragraph of the introduction to this article with the teaching mantra in italics through the four arguments justifying the use of improvisation as a college teaching tool, there is only one possible response to whose classroom it is: It’s Ellen DeGeneres’s. OOPS! Wrong answer. It’s the STUDENTS’, of course! Improvisation provides an excellent way to make this transformation happen.

References

- Atkins, G. (1993). *Improv! A handbook for the actor*. Portsmouth, NH: Heinemann Drama.
- Baerheim, A., & Alraek, T. J. (2005). Utilizing theatrical tools in consultation training: A way to facilitate students' reflection on action? *Medical Teacher*, 27 (7), 652-654.
- Barkley, E. F., Cross, K. P., & Major, C. H. (2005). *Collaborative learning techniques: A handbook for college faculty*. San Francisco: Jossey-Bass.
- Bergren, M., Cox, M., & Detmar, J. (2002). *Improvise this! How to think on your feet so you don't fall on your face*. New York: Hyperion.
- Berk, R. A. (2001). Using music with demonstrations to trigger laughter and facilitate learning in multiple intelligences. *Journal on Excellence in College Teaching*, 12 (1), 97-107.
- Berk, R. A. (2002). *Humor as an instructional defibrillator: Evidence-based techniques in teaching and assessment*. Sterling, VA: Stylus.
- Berk, R. A. (2003). *Professors are from Mars®, Students are from Snickers®*. Sterling, VA: Stylus.
- Berk, R. A. (2005). Laughterpiece theatre: Humor as a systematic teaching tool. *Teaching Excellence*, 17 (2). (Available from www.ronberk.com)
- Berk, R. A. (2008a). Humor and the net generation. *Thriving in Academe*, 25 (4), 5-8.
- Berk, R. A. (2008b). Music and music technology in college teaching: Classical to hip hop across the curriculum. *International Journal of Technology in Teaching and Learning*, 4 (1), 45-67.
- Berk, R. A. (2008c). Star tech: The net generation. In C. C. Craig & L. F. Deretchin (Eds.), *Teacher education yearbook XVI: Imagining a renaissance in teacher education* (pp. 131-145). Lanham, MD: Rowman & Littlefield Education.
- Book, S. (2002). *Book on acting: Improvisation technique for the professional actor in film, theater, and television*. Los Angeles: Silman-James Press.
- Campbell, E. (1998). *Teaching strategies to foster deep versus surface learning*. Ottawa, Canada: University of Ottawa, Center for University Teaching. (Available from www.uottawa.ca/academic/cut/options/Nov_98/TeachingStrategies.)
- Carlson, S. (2005). The net generation goes to college. *The Chronicle of Higher Education*, 52 (7), p. A34.
- Conner, M., & Hodgins, W. (2000). Learning styles. Retrieved November 9, 2006, from www.learnactivity.com/learningstyles.html
- Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research*, 77,

- 113-143.
- Crossan, M. M. (1998). Improvisation in action. *Organization Science*, 9 (5), 593-599.
- Crossan, M. M., Cunha, M. P., Vera, D., & Cunha, O. (2005). Time and organizational improvisation. *The Academy of Management Review*, 30 (1), 129-145.
- Crossan, M. M., & Sorrenti, M. (1997). Making sense of improvisation. *Advances in Strategic Management*, 14, 155-180.
- Cunha, M. P., Cunha, J. V., & Kamoche, K. (1999). Organizational improvisation: What, when, how, and why. *International Journal of Management Reviews*, 1, 299-341.
- Cunha, M. P., Cunha, J. V., & Kamoche, K. (2001). **Organizational improvisation: An empirically based exploration of an innovative management concept.** Retrieved March 4, 2007, from <http://scholar.google.com/scholar?hl=en&lr=&q=cache:LOTef39xrhQJ:www.fiel dsofflow.c>
- Diamond, M. R., & Christensen, M. H. (2005). Bravo! Do acting games promote learning in the college classroom? *Journal on Excellence in College Teaching*, 16 (2), 55-67.
- Diggles, D. (2004). *Improv for actors*. New York: Allworth Press.
- Dillenbourg, P. (Ed.). (1999a). *Collaborative learning: Cognitive and computational approaches*. Oxford, UK: Elsevier Science.
- Dillenbourg, P. (1999b). What do you mean by 'collaborative learning'? In P. Dillenbourg (Ed.), *Collaborative learning: Cognitive and computational approaches* (pp. 1-19). Oxford, UK: Elsevier Science.
- Entwistle, N. (2004, June). *Teaching-learning environment to support deep learning in contrasting subject areas*. Paper presented at Staffordshire University, Stafford, UK.
- Felder, R. M., & Brent, R. (2001). Effective strategies for cooperative learning. *Journal of Cooperation & Collaboration in College Teaching*, 10 (2), 69-75.
- Felder, R. M., & Soloman, B. A. (2000). Learning styles and strategies. Retrieved July 14, 2006, from www.ncsu.edu/felder-public/ilmdir/styles.html
- Foreman, J. (2003, July / August). Next generation: Technology versus the lecture. Retrieved April 10, 2007, from www.educause.edu/ir/library/pdf/erm0340.pdf
- Frand, J. (2000). The information-age mindset: Changes in students and implications for higher education. *EDUCAUSE Review*, 35 (5), 15-24.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York:

Basic Books.

- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic Books.
- Gardner, H. (2005, May). *Multiple lenses on the mind*. Paper presented at the ExpoGestion Conference, Bogota, Columbia.
- Gardner, H., & Hatch, T. (1989). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher*, 18 (8), 4-9.
- Gesell, I. (1997). *Playing along 37 group learning activities*. Duluth, MN: Whole Person Associates.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
- Goodsell, A., Maher, M., Tinto, V., Smith, B. L., & MacGregor, J. (1992). *Collaborative learning: A sourcebook for higher education*. University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University.
- Gwinn, P., & Halpern, C. (2003). *Group improvisation: The manual of ensemble improv games*. Colorado Springs, CO: Meriwether.
- Harrison, P. (2004, September). *Unleashing deep learning through questioning*. Paper presented at the Education in a Changing Environment Conference, University of Salford, UK.
- Hay, D. B. (2007). Using concept maps to measure deep, surface, and non-learning outcomes. *Studies in Higher Education*, 32 (1), 39-57.
- Hoffman, A., Utley, B., & Ciccarone, D. (2008). Improving medical student communication skills through improvisational theatre. *Medical Education*, 35, 225-231.
- Honey, P., & Mumford, A. (1992). *The manual of learning styles* (2nd ed.). (Available from Peter Honey, Ardingly House, 10 Linden Ave., Maidenhead, Berks, SL6 6HB, UK.)
- Howe, N., & Strauss, W. (2000). *Millennials rising: The next great generation*. New York: Vintage Books.
- James, R., & Williams, P. (1981). *A guide to improvisation: A handbook for teachers*. Oxon, UK: Kemble Press.
- Jackson, T. (1993). *Learning through theatre: New perspectives on theatre in education*. London: Routledge.
- Jacobsen, T., Baerheim, A., Lepp, M. R., & Schei, E. (2006). Analysis of role-play in medical communication training using a theatrical device—the fourth wall. *BMC Medical Education*, 6 (51). (Available from www.biomedcentral.com/1472-6920/6/51)
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.

- Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). *Cooperative learning: Increasing college faculty instructional productivity* (ASHE-ERIC Higher Education Report No. 4). Washington, DC: The George Washington University School of Education and Human Development.
- Junco, R., & Mastrodicasa, J. (2007). *Connecting to the net.generation: What higher education professionals need to know about today's students*. Washington, DC: Student Affairs Administrators in Higher Education (NASPA).
- Kagan, S. (1992). *Cooperative learning*. San Juan Capistrano, CA: Resources for Teachers, Inc.
- Kamoche, K. N., Cunha, M. P., & Cunha, J. V. (2002). *Organizational improvisation: What, when, how, and why*. London: Routledge.
- Kaplan, S. (2002). Building communities—Strategies for collaborative learning. *Learning Circuits* [On-line]. Retrieved December 1, 2006, from www.learningcircuits.org/2002/aug2002/kaplan.html
- Keefe, J. A. (2002). *Improv yourself: Business spontaneity at the speed of thought*. Hoboken, NJ: Wiley.
- Kolb, D. A. (2005). *The Kolb Learning Style Inventory—version 3.1: Self-scoring and interpretation booklet*. Boston: Hay Resources Direct.
- Koppett, K. (2001). *Training to imagine: Practical improvisational theatre techniques to enhance creativity, teamwork, leadership, and learning*. Sterling, VA: Stylus.
- Leigh, A. (2004). *Dramatic success at work: Using theatre skills to improve your performance and transform your business life*. London: Nicholas Brealey.
- Lenhart, A., Rainie, L., & Lewis, O. (2001). *Teenage life online: The rise of instant-message generation and the Internet's impact on friendships and family relationships*. Washington, DC: Pew Internet and American Life Project. (Also available from www.pewinternet.org/pdfs/PIP_Teens_Report.pdf.)
- Lowe, R. (2000). *Improvisation, inc.: Harnessing spontaneity to engage people and groups*. San Francisco: Jossey-Bass.
- Lynn, B. (2004). *Improvisation for actors and writers: A guidebook for improv lessons in comedy*. Colorado Springs, CO: Meriwether.
- Madson, P. R. (2005). *Improv wisdom: Don't prepare, just show up*. New York: Harmony/Bell Tower.
- Manuel, K. (2002). *Teaching information literacy to generation Y*. New York: Haworth Press.
- Marks-Tarlow, T. (1995). *Creativity inside out: Learning through multiple intelligences*. Reading, MA: Addison-Wesley.
- Matthews, R. S. (1996). Collaborative learning: Creating knowledge with students. In R. J. Menges, M. E. Weimer, & Associates (Eds.), *Teaching*

- on solid ground: Using scholarship to improve practice* (pp. 101-124). San Francisco: Jossey-Bass.
- Millbower, L. (2003). *Show biz training*. New York: American Management Association (AMACOM).
- Millis, B. J. (2002). *Enhancing learning—and more!—Through cooperative learning* (IDEA paper # 38). Manhattan, KS: IDEA Center.
- Millis, B. J., & Cottell, P. G., Jr. (1998). *Cooperative learning for higher education faculty*. Phoenix, AZ: Oryx Press.
- Minor, A., Bassoff, P., & Moorman, C. (2001). Organizational improvisation and learning: A field study. *Administrative Science Quarterly*, 46, 304-337.
- Moorman, C., & Minor, A. (1998). Organizational improvisation and organizational memory. *Academy of Management Review*, 23 (4), 698-723.
- Moshavi, D. (2001). Yes and . . . : Introducing improvisational theatre techniques to the management classroom. *Journal of Management Education*, 25(4), 437-449.
- Newton, B. (1998). *Improvisation: Use what you know—make up what you don't!: Improvisation activities for the classroom*. Scottsdale, AZ: Gifted Psychology Press.
- Oblinger, D., & Oblinger, J. (2006a). Is it age or IT: First steps toward understanding the net generation. In D. C. Oblinger & J. L. Oblinger (Eds.), *Educating the net generation*. EDUCAUSE. Retrieved November 14, 2006, from www.educause.edu
- Oblinger, D. C., & Oblinger, J. L. (Eds.). (2006b). *Educating the net generation*. EDUCAUSE. Retrieved November 14, 2006, from www.educause.edu
- Palfrey, J., & Gasser, U. (2008). *Born digital: Understanding the first generation of digital natives*. New York: Basic Books.
- Panitz, T. (1996). A definition of collaborative vs. cooperative learning. Retrieved December 1, 2006, from www.city.londonmet.ac.uk/deliberations/collab.learning/panitz2.html
- Patterson, J., McKenna-Cook, D., & Swick, M. (2006). *Theatre in the secondary school classroom: Methods and strategies for the beginning teacher*. Portsmouth, NH: Heinemann Drama.
- Polsky, M. E. (1997). *Let's improvise: Becoming creative, expressive and spontaneous through drama* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.
- Prensky, M. (2006). "Don't bother me mom . . . I'm learning." St. Paul, MN: Paragon House.
- Ramaley, J., & Zia, L. (2006). The real versus the possible: Closing the gaps in engagement and learning. In D. C. Oblinger & J. L. Oblinger (Eds.), *Educating the net generation*. EDUCAUSE. Retrieved November

- 14, 2006, from www.educause.edu
- Rhem, J. (1995). Close-up: Going deep. *The National Teaching & Learning Forum*, 5 (1), 4.
- Roberts, G. R. (2006). Technology and learning experiences of the net generation. In D. Oblinger & J. L. Oblinger (Eds.), *Educating the net generation*. EDUCAUSE. Retrieved November 14, 2006, from www.educause.edu
- Robotham, D. (1999). The application of learning style theory in higher education. Retrieved March 4, 2007, from <http://www2.glos.ac.uk/GDN/discuss/kolb2.htm>
- Roschelle, J., & Teasley, S. D. (1995). The construction of shared knowledge in collaborative problem solving. In C. E. O'Malley (Ed.), *Computer-supported collaborative learning* (pp. 69-197). Berlin, Germany: Springer-Verlag.
- Rose, C. (1985). *Accelerated learning*. New York: Dell.
- Sawyer, R. K. (2003). *Improvised dialogues: Emergence and creativity in conversation*. Westport, CT: Greenwood.
- Sawyer, R. K. (2004). Creative teaching: Collaborative discussion as disciplined improvisation. *Educational Researcher*, 33 (2), 12-20.
- Schroeder, C. C. (1997). New students—New learning styles. Retrieved October 5, 2006, from www.virtualschool.edu/mon/academia/ki-erseylearningstyles.html
- Shapiro, J., & Hunt, L. (2003). All the world's a stage: The use of theatrical performance in medical education. *Medical Education*, 37, 922-927.
- Smith, B. L., & MacGregor, J. T. (1992). What is collaborative learning? In A. Goodsell, M. Maher, V. Tinto, B. L. Smith, & J. MacGregor, *Collaborative learning: A sourcebook for higher education* (pp. 10-30). University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University.
- Spolin, V. (1986). *Theatre games for the classroom: A teacher's handbook*. Evanston, IL: Northwestern University Press.
- Spolin, V. (1999). *Improvisation for the theatre: A handbook of teaching and directing techniques* (3rd ed.). Evanston, IL: Northwestern University Press.
- Springer, L., Stanne, M. E., & Donovan, S. S. (1999). Effects of small-group learning on undergraduates in science, mathematics, engineering, and technology: A meta-analysis. *Review of Educational Research*, 69, 21-51.
- Tapscott, D. (1999). *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.
- Tapscott, D. (2009). *Growing up digital: How the net generation is changing your world*. New York: McGraw-Hill.

- Timpson, W. M., Burgoyne, S., Jones, C. S., & Jones, W. (1997). *Teaching and performing*. Madison, WI: Magna.
- Vera, D., & Crossan, M. M. (2004). Theatrical improvisation: Lessons for organizations. *Organizational Studies*, 25 (5), 727-749.
- White, J. (1998). *Do Howard Gardner's multiple intelligences add up?* London: Institute of Education, University of London.
- Willdorf, N. (2000). Masters of improvisation. *The Chronicle of Higher Education*, 46 (37), p. A12.
- Williams, W. M., Blythe, T., White, N., Li, J., Sternberg, R. J., & Gardner, H. (1996). *Practical intelligence for school*. New York: HarperCollins.
- Windham, C. (2005). Father Google and Mother IM: Confessions of a net gen learner. *EDUCAUSE Review*, 40 (5), 45-59.

Ronald A. Berk is professor emeritus, biostatistics and measurement, and former assistant dean for teaching, The Johns Hopkins University. He is the author of 140 journal articles/book chapters and 13 books, the most recent ones on humor in the classroom and faculty evaluation strategies. He has given more than 300 keynotes and workshops on using humor, music, videos, and games as teaching tools for this Net Generation of students. (For further details, see www.ronberk.com.) **Rosalind H. Trieber** is a health education specialist and was an adjunct faculty member in the department of health science at Towson University. She regularly taught *Mental Health and Stress Management*, *Wellness in a Diverse Society*, and *Humor Strategies in Health Education*. She has authored two books on the benefits of laughter as a component of stress management and presented more than 100 keynotes and workshops on using humor and improvisation as teaching and coping strategies. (For further details, see www.humorfusion.com.)

Appendix A
Improvisation Evaluation Scale

Date: _____

In which Improv Exercise did you participate? (circle one):

Freeze Tag

Speech Tag

One Word/Sentence

Gibberish Expert Interview

Directions: Please respond to each of the outcomes below to evaluate the improv exercise you just experienced. Your feedback will help me improve the quality and application of future exercises for specific course content.

Please indicate the *extent to which you experienced each outcome* below in this improv exercise. There are no right or wrong answers. Just respond truthfully by *circling* the letters of your choice from among the following: **SD** = Strongly Disagree; **D** = Disagree; **A** = Agree; **SA** = Strongly Agree (*Note: All responses are anonymous and will remain confidential*).

This exercise:

- | | | | | |
|---|-----------|----------|----------|-----------|
| 1. Built trust among students in my group. | SD | D | A | SA |
| 2. Built mutual respect among the group members. | SD | D | A | SA |
| 3. Fostered a spirit of teamwork and collaboration among the members of my group. | SD | D | A | SA |
| 4. Encouraged the acceptance of each other's ideas. | SD | D | A | SA |
| 5. Improved my brainstorming skills. | SD | D | A | SA |
| 6. Increased my willingness to take risks. | SD | D | A | SA |
| 7. Improved my verbal communication skills. | SD | D | A | SA |
| 8. Improved my nonverbal (e.g., facial, body language) skills. | SD | D | A | SA |
| 9. Improved my listening skills. | SD | D | A | SA |

Appendix A
Improvisation Evaluation Scale (*continued*)

10. Applied the content to real-life situations.	SD	D	A	SA
11. Linked activities to my prior knowledge and experiences.	SD	D	A	SA
12. Promoted my creative problem solving.	SD	D	A	SA
13. Actively engaged me with new ideas and concepts.	SD	D	A	SA
14. Increased my ability to ad-lib and think quickly on my feet.	SD	D	A	SA
15. Promoted a true hands-on learning experience.	SD	D	A	SA
16. Encouraged me to be spontaneous.	SD	D	A	SA
17. Encouraged me to be intuitive in my responses.	SD	D	A	SA
18. Encouraged me to assess the credibility of the information presented.	SD	D	A	SA
19. Increased my ability to respond quickly and decisively in different situations.	SD	D	A	SA
20. Facilitated my				
a. comprehension of the content.	SD	D	A	SA
b. reshaping of the content.	SD	D	A	SA
c. synthesizing the content.	SD	D	A	SA
d. analyzing the content.	SD	D	A	SA
e. evaluation of the content.	SD	D	A	SA

What did you like *best* about this exercise?

What did you like *least* about this exercise?

How could this exercise be *improved*?
