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Encouraging Creativity and Intellectual Stimulation: An Exercise that Forces Students to Think Outside the Box

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ABSTRACT

This exercise involves a hands-on approach to generating innovation and creativity in the workplace. It is feasible as a follow-up, special-topic activity in intellectual stimulation in full-range or transformational leadership training. Participants are presented with the seemingly impossible task of integrating diverse products or services into a single business plan, forcing them to think outside the box. This exercise features lateral and innovative thinking in a highly interactive session, producing innovative and creative solutions from participants. After successfully completing this exercise, participants will be more confident in their ability to creatively solve many challenges that at first glance seem impossible. The paper provides theoretical background, objectives, complete instructions, processing information, and some suggestions for advancing the concepts.

Content for the Exercise

Social scientists and practitioners have focused extensively on innovation in organizations when discussing the long-term viability and survival of top firms (Ancona & Caldwell, 1987; Peters & Waterman, 1982). In the past, innovating thinking (or intellectual stimulation, as it is termed in the full range leadership construct) was considered “extra role” behavior (Katz & Kahn, 1978), or behavior beyond job expectations (Bass, 1985). Today, modern organizations encourage creative and innovative thinking from all employees, and this behavior is becoming expected in our complex and changing global society (Manz & Sims, 1984; Plsek, 1997; Walton, 1985). Future leaders need to embrace the creative and innovative processes that are practiced in the exercise developed and presented in this paper.

This exercise was developed as an experiential learning opportunity for students to practice innovation and creativity in thought while they develop an understanding of intellectual



stimulation in the Full Range Leadership Model (Avolio, 1999; Bass, 1996). The full range leadership construct is a practical extension of transformational leadership, originally articulated by Burns (1978) as transforming leadership, but later refined and measured by Bass (1985). The full range of leadership behaviors consists of laissez-faire, management by exception (passive and active), contingent reward, individualized consideration, idealized influence, inspirational motivation, and intellectual stimulation. A plethora of subsequent research studies have examined transformational leadership and its effect on organizational effectiveness, worker effort, worker performance, and employee satisfaction (See Bass, 1990). Generally, the latter four behaviors (commonly referred to as the 4 I's of transformational leadership) were shown to be most effective and essential for leaders to learn and practice to achieve desired outcomes. Practical applications of the transformational leadership construct have followed (Avolio, 1999; Bass & Avolio, 1994).

Of the 4 I's of transformational leadership, one of the most challenging to learn and develop is intellectual stimulation. Intellectual stimulation is the process of challenging workers and colleagues to solve old problems in new ways and to think outside the box when developing strategic and operational plans (Bass, 1985). Participants in an organization or group practicing intellectual stimulation will be strongly encouraged to use creativity and innovative thinking [\[kk1\]](#) to optimize options and strategic scope. Creativity (to create something new) in strategic planning maximizes idea generation and creates thoughtful energy (Avolio, 1999), thus extending the old adage that "two heads are better than one," by suggesting that the collection of ideas will be more valuable than a select few. Intellectual stimulation creates the expectation that everyone will be involved and heard from in the strategic planning process and that all creative thoughts, even those that seem "off the wall," will be entertained. When an organization is practicing intellectual stimulation, brainstorming and boundary-less discussions become the norm. It is during this time of intellectual stimulation that an organization most realizes its creative potential (Avolio, 1999).

This exercise was developed to address the difficulty students encounter when learning about intellectual stimulation. It allows participants to practice the creative process of applying intellectual stimulation in a team or group. Participants must combine seemingly incompatible products and services into one business plan, an activity that forces them to think outside the box and examine creative ways to integrate these products and services. This exercise is a practical application of intellectual stimulation.

The exercise is also well suited for examining parallel constructs, such as applied creativity and lateral thinking (Amabile, et al., 1996; Jung, 2000; Weisberg, 1993), the crossing of mental boundaries (Hartmann, 1991), creation of mental models (Senge, 1990), and the art of conceptualizing. Applied creativity often is used as a proactive and highly deliberate exercise to foster creative expression and innovative thought. Lateral thinking involves critical reasoning in ways that take individuals out of their normal train of thought and analysis. When employing lateral thinking strategies, individuals must change their cognitive schema and approach a problem or issue in a whole new way in order to find resolve (Weisberg, 1993). Hartmann (1991) describes mental boundaries as being "thin" or "thick," an indication of individual flexibility and disposition toward seeing the "connectedness" of things, rather than their separateness. Senge (1990) discusses mental models and the art of conceptualization as key



analytical activities for learning organizations. The activity described here provides a forum for students to discover the connectedness of generally unlike products and/or services, challenging them to develop thinner mental boundaries. They are asked to conceptualize a whole new way of thinking about a set of products and/or services.

In each of these similar constructs is the notion of stretching oneself beyond normal patterns of thinking to explore possibilities and relationships that otherwise would be overlooked. This activity brings this notion to the forefront, in a lively format. The next sections provide a description of the exercise, its objectives, and its intended audience; complete instructions and processing information to use while facilitating the exercise; and additional opportunities for applying the concepts, as well as some participant reactions and experiences using this exercise.

Purpose and Audience for this Exercise

This exercise challenges students and professionals to practice and experience innovative thinking in a group setting. Based on prior use and feedback from participants, participants will:

- 1) Develop an understanding of intellectual stimulation, lateral thinking, and creativity in practice.
- 2) Enhance their conceptual skills by integrating diverse products into a single business plan.

A version of this exercise is used by LeaderShape[®], Inc. to prepare participants for visualization. LeaderShape[®] emphasizes the ability to imagine and visualize, and that such an ability is not mystical or magical. Just as we all have the capacity to visualize, so, too, do we have creative capacity. The exercise was later modified for use in an upper-level undergraduate leadership course. It has been used primarily in undergraduate organizational behavior and leadership courses at several universities, with class sizes ranging from 10 to 48. The exercise has been used in full or in part during each of the past five semesters. Larger groups can use this exercise; however, it may be difficult to facilitate for groups of more than 60 participants due to the ensuing large number of commercials that are performed.

While the exercise was developed initially for college age participants (18-22 years old), it may also be used for educational and consulting efforts with clients of many ages, experiences, and backgrounds. It has been used in adult full range leadership training programs approximately ten times and has been well received in each instance. Participants have reported both enjoyment and benefit from taking part in the activity. Even a group of seniors, participating in the activity at a retirement dinner, were getting excited and tapping into their creativity. Comments from participants have ranged from, "I never realized that so much is possible if you believe that it may be..." to "I can't wait to take this activity and try it with my staff!"

Instructions

- Distribute one page from a yellow pages phone book to each participant.
- Instruct participants to read the yellow page (either side) and to privately select (and circle) one product line/company from the page.



- Once each participant has independently chosen one item, divide the class into groups with two to four participants per group. Instruct the groups to meet and share their products.
- Instruct groups to develop a business with a marketing/promotion plan, complete with either a radio or television advertisement (which will be performed) that creatively packages/markets all of their selected products together. (Groups will usually be very confused or challenged, believing the items chosen – for example: plumbing services, tattoos, restaurant, and a car wash – are too incompatible to integrate. This exercise forces participants to be creative and to think outside the box.)
- Visit each group during the next 10 to 20 minutes to answer any questions regarding the material or exercise and to make sure participants remain on task. It is helpful to remind participants to explore multiple options for integrating the products and services before selecting a final business/marketing plan. Some groups may be quick to accept preliminary suggestions without exploring other possibilities.
- Allow approximately 60 minutes for groups to create a business/marketing plan and to develop the radio or television advertisement. Groups may choose to use some of this time to practice performing their advertisement.
- Once the groups have developed a business/marketing strategy and produced and practiced their advertisement, you can begin the “mini-commercials.”
- Each group should start by announcing the products they selected (and had to integrate into one plan), then perform the advertisement they have developed to creatively market them.
- After all of the groups have presented their business plans, use the processing information provided next to discuss the activity.

Processing Information

As you process the exercise, it is important to focus the discussion on the processes groups used to bring divergent ideas together to integrate the products into one cohesive plan. Creating and visioning a new product (or use) and its marketing strategy in a team format provides an opportunity to practice intellectual stimulation.

The use of probing follow-up questions will be important to focus the discussion toward the creative process and to bring out the learning objectives of the exercise.

Follow-Up Questions for Group Processing

- What was your initial response when you found you had to combine two or more products/businesses?
- Describe the process your group engaged in to develop your product and marketing plan.
- What barriers did you or your group encounter in attempting to accomplish the task?
- In what ways did this experience help you see creative possibilities?



- How did group members stimulate each other's creative thinking?
- What were some of the different ways that groups approached the marketing plans?
- If you were asked to repeat the activity (with different yellow pages and services), how would you approach the task differently?
- Consider having the participants discuss concepts directly related to the course materials. For example, in a marketing or business class: "Identify the principles of marketing and advertising that were employed in your group work."

Follow-Up Questions for Individual Processing

- What have you learned about your own ability to think and act creatively?
- How might you apply this to your own experience?
- Describe how a healthy disregard for the impossible can affect innovation and creativity (visioning, lateral thinking, etc.).

Advancing the Applications of the Concepts

After students have completed the exercise and processed the mini-commercials, there is an opportunity to use directed creativity to foster intellectual stimulation in transformational leadership. Directed creativity is the purposeful production of creative ideas in a topic area, followed up by deliberate effort to implement some of those ideas (Plsek, 1997). Our minds are conditioned to think in existing patterns, hampering our ability to think in new patterns. Through our past experiences, we link new information and attempt to make some sense of the new creative inputs (Plsek, 1997). While this ability of the mind to think in patterns is great for repetitive tasks, it tends to prevent us from fostering creative ideas.

While it might be considered enough to encourage participants to think outside the box – or to think harder and suspend judgment (ala brainstorming), or to merely be playful – to do so falls short of directing the creative process and fails to provide new patterns for thinking. Most of the tools for creative thinking in the literature are based on three simple principles: attention, escape, and movement (Plsek, 1997). The exercise previously described aptly applies each of these components of the creative process.

The exercise requires participants first to focus their ATTENTION on the yellow page they were given. Typically people use the yellow pages only to find a very specific piece of information. In this exercise participants are asked to focus on the yellow pages for a different purpose – to select any product or service provider on either side of the yellow page they have been given – thus providing the opportunity to focus direction, thought and attention.

Having focused attention on the chosen item, the second principle requires participants to ESCAPE their current pattern of thinking by combining their product or service with those



selected by other members of their group. In combining the three to four items that on their faces have no relevant connection to each other, the group is invited to ESCAPE and imagine a very different world. They break the barriers or rules and begin to look for novel connections. ESCAPE is achieved because the task participants are given is seemingly impossible. The products selected by group members will rarely be compatible, so students are forced to think outside of their comfort zone and imagine the unimaginable.

But because simply paying attention to something and escaping the restraints of current thinking is not enough to generate ideas, the exercise asks participants to create marketing strategies and commercials for presentation. An enhancement to this exercise would include the use of markers and flip chart paper to draw the new product or service. Enlisting the participants in this part of the exercise elicits MOVEMENT in thought, making the new product or service come alive and enlivening the creativity process. This step allows the participants to dwell on the new idea long enough to create the commercial, jingle, and sketch. During that time, the mind – never idle – creates new connections and ideas to expand on the basic concept of the product or service.

Participant Reactions

With this exercise, participants are challenged to look past the conceptual and perceptual blocks that often stifle creativity. As a result, they discover that, they do indeed have the ability to think creatively, strengthening their belief in themselves and in their ability to be creative. They learn that what may initially seem ridiculous or impossible often leads to practical and creative ideas. Because of these insights, participants are more likely to encourage creativity in others, which often results in transformational leadership. Participants can transfer learning from this activity to real-life experiences and situations, making the connections necessary in applying the exercise to their own lives. This transference is evident in student journals, where reflection upon classroom activities and applications to their lives are expected. After experiencing this exercise, student journals offered more applications of creativity and intellectual stimulation theory than they had in past iterations before the use of this exercise began. “Transformational leaders intellectually stimulate their followers to rethink problems and take risks.” (Pillai, Schriesheim, & Williams, 1999). For example, one student wrote, “When we studied thin and thick mental boundaries, I remember thinking, ‘what good is this theory going to be?’, but then when I started writing this journal entry I realized that this exercise has forced me to use thin boundaries, as having to find compatibilities between these five different products was nearly impossible if I kept thick boundaries.” Another student approached this exercise by linking it to intellectual stimulation (full range leadership, offering, “This activity demonstrated how to foster intellectual stimulation. It got us all to think creatively and forced us to brainstorm and work together to create something that could actually integrate ridiculously different products/services.”

Examples of the Participant Experience:

One group had to integrate a dentist’s office, agricultural equipment dealership, funeral home, and insurance and real estate company. The marketing plan began with a tornado destroying the community where the dentist, agricultural equipment dealership, and funeral



home were located. Each of the three businesses presented a narrative explaining how the insurance company saved them from debt and hardship with quality customer service and commitment to customers.

Another group had to integrate a fence company, fertilizer service, and cemetery. The marketing plan created a new business, which provides a product and service called “Fert-a-Fence,” defined as a fence that is biodegradable and fertilizes lawns as it breaks down, suggested for use in cemeteries.

A different group was pushed to integrate an adoption agency, indoor speed raceway, air conditioning and heating service, and 24-hour towing and lockout service. Their advertisement began at an adoption agency during an interview to receive a child. The “parents” had questions and concerns about bonding with their new child, allergies their new child might have, and accidents their new child might experience. As a side benefit, the adoption agency offered discounts to an indoor speed raceway (to bond), to an air conditioning and heating service (to protect against allergies), and to a 24-hour towing and lockout service (if children accidentally get locked in a vehicle).

An additional group was faced with integrating a hair salon, fish store, and deli sandwich shop. With these three items, they invented the somewhat controversial “Fishie in a Bag.” The advertisement started with the questions: “Are you tired of ugly fish? Are you tired of your fish being depressed? And is all this talk of fish making you hungry?” “Fishie in a Bag” offered fish care, including fin and gill treatment. While customers waited, they could order from a menu of assorted seafood, cooked to order. And, if customers were not happy with their fish when the fish care was complete, “Fishie in a Bag” would fry it up for customers to take it home for dinner.

The next group had to integrate a counseling center, bookstore, fitness center, and travel agency. A married couple started attending a counseling center. One of the recommendations of the therapist was to start participating in activities that the other spouse enjoyed. The husband enjoyed exercising and the wife enjoyed reading, so the wife was encouraged to visit the fitness center, and the husband was encouraged to visit the bookstore. After 10 counseling sessions, the couple received a travel voucher from the travel agency for two free round-trip tickets to any destination because of their commitment to counseling.

A final group was presented with the challenge of integrating a church, dentist’s office, computer shop, and office solutions store. They created “RSBE: Religious Services in a Business Environment with a Healthy Smile.” A priest heard confessions from three individuals. The first individual confessed bad computer habits, so the priest absolved the sins and gave a discount to a computer shop that could help him. The second individual confessed a candy addiction, so the priest absolved the sins and gave a discount to the dentist’s office. The third individual confessed of having problems in the company office, so the priest absolved the sins and gave a discount to an office solutions store. Their motto was, “We’re working together to be your savior...in more ways than one.”



The follow-up questions generated a variety of responses from students, most of which reflected well on the exercise and its ability to force students to stretch their minds. For example:

What was your initial response when you found you had to combine these three products/businesses into one?

Some students reported that this exercise sounded fine, until they read the products that they had to combine, and then it seemed impossible. Others reported that they thought the exercise was supposed to be impossible to complete. Many groups reported that they were excited by the challenge of having to combine the three businesses/products into one marketing plan.

Describe the process your group engaged in to develop your product and marketing plan.

Most groups described a process in which they took turns reading their products/services, remarking about the difficulty of the task at hand, then brainstorming possibilities until everyone got excited about an idea.

What barriers did you or your group encounter in attempting to accomplish the task?

It is interesting that most groups believed they were given the most difficult 3 or 4 products to combine. So the most common barrier students reported was a high degree of product incompatibility.

In what ways did this experience help participants to see creative possibilities?

Most students responded to this in a similar way, pointing to the challenge of having to integrate these diverse products. After doing this, one participant reported, “Just think of how easy it will be when we have naturally compatible products to market!”

How did members of your group stimulate each other’s creative thinking?

Groups reported a great deal of brainstorming and in many cases they were allowed to think of “off the wall” ideas. Some groups said they used laughter and jokes to finally arrive at something the group liked. By thinking of the most outrageous things, they tapped their creativity.

What accounts for the different ways groups approached the marketing plans?

Students seemed to approach things differently in each group. This is important for other groups to hear, because there is no right or wrong way to be creative. Every group was creative, but every group seemed to approach the task in a different way.

If you were asked to repeat the activity (with different yellow pages and services), how would you approach the task differently?



The most common response to this question was that students would welcome the challenge – a very different response from their reaction at the beginning of the activity. Several students asked if we actually could do it again.

Consider having the participants discuss concepts directly related to the course materials. For example, in a marketing or business class: “Identify the principles of marketing and/or advertising that were employed in your group work.”

Students were able to identify applied creativity, intellectual stimulation, and mental boundaries to this activity. In the discussion, one student was reminded of mental boundaries and said, “I’m a thick boundary person, but this exercise made me experience being a thin-boundary person, at least for a little while, and I kind of liked it.” Another student said, “This is just like intellectual stimulation from the transformational leadership model because we had to brainstorm and come up with things together as a group.” A third student said, “We’ve learned a lot about creativity in different courses, but this is the first time that we’ve had to do something that really stretched our thinking. For me this was a great application of creativity in groups.”

In each case, participants were able to find innovative and creative solutions to a seemingly impossible task. This activity was designed to be an effective tool to encourage creativity and intellectual stimulation. Participants displayed a higher disregard for the impossible, a greater tolerance for ambiguity, and a larger sense of creativity. The reactions of participants in this exercise suggest it is an enjoyable activity that effectively imparts the concepts of creativity and intellectual stimulation. We have used the exercise 12 times across diverse audiences (adults, undergraduate students, graduate students), and it has been (as assessed in reflective journal entries and case examinations) a strong learning experience for practicing intellectual stimulation and creative problem solving.

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Appendix

Creative Thinking – Intellectual Stimulation Exercise

Purpose: To practice creative problem solving when faced with a seemingly impossible task.

Group Size: 3 to 4 per group.

Time Required: Approximately 50-75 minutes.

Preparation Required: None.

Part One: Creating a business strategy for diverse products and services. (20-30 minutes)

Each of your group members has selected a product or service from a yellow page listing. Your group must work together to develop a creative way to integrate these diverse products into one business.

Part Two: Developing a marketing plan for this new business strategy. (30-45 minutes)

Once your group has integrated these products and services into one business, your next task is to develop a creative marketing campaign for this new business. Your campaign can take the form of a TV advertisement or RADIO advertisement. Your group should be prepared to perform your advertisement for the rest of the groups in class. Once all the groups have prepared their advertisements, each group will take turns performing them.