## **INSIDE THE BOX**

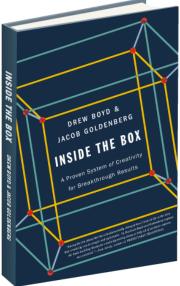
# A Proven System of Creativity for Breakthrough Results

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#### DISCUSSION GUIDE FOR INNOVATION PRACTITIONERS

## **Discussing the Cases**

- 1. What is the Closed World principle? Why do you think it is essential to effectively using the five innovation techniques? Similarly, what is the principle of Function Follows Form? What makes it essential to effectively using the five innovation techniques?
- 2. In Chapter 2, a team reluctantly used SIT methods to innovate a novel anesthesia machine by removing the product's most essential components. What caused the reluctance? Has your team or your organization ever been in this situation? What was the outcome? How might using innovation tools help your team or organization overcome hurdles to creativity?
- 3. In Chapter 2, what component was removed from the traditional DVD player? What "functional fixedness" was overcome? What role did this innovation play in the electronics industry? Can you think of other products that may have been the outcome of subtracting a component?
- 4. In Chapter 3, how did the Houston Cellular Telephone Company use Division to innovate a new service? How did GE do the same to innovate a new product? Identify other services or products that are the result of Division?
- 5. What is the difference between "functional fixedness" and "structural fixedness"? Name examples of each.
- 6. What are some of the common pitfalls of using Subtraction and how can you overcome them? What about Division?
- 7. In Chapter 4, what barriers to innovation did architect Bruce Graham overcome when he designed Sears Tower? How might Graham have used the Multiplication method formally to design Sears Tower? What components would he have listed? Which ones did he multiply? How did he change each multiplied component to make it unique? How did Graham's design influence architecture?
- 8. In Chapter 4, a multidisciplinary team at Kapro Industries used Multiplication to reinvent the level. A marketing team at P&G also used it to develop a new product in the Febreze line. In Chapter 5, a multidisciplinary team at Johnson & Johnson used Task Unification to innovate a sales training program. How does a multidisciplined approach to innovation add value? How does a marketing team do the same? What are the benefits of and barriers to each team's approach to innovation?
- 9. In Chapter 5, Task Unification is described as an innovation method that involves assigning an additional task (or function) to an existing component (or resource) in a process, product or service. What are the three ways to apply Task Unification? Provide and explain examples from the book for each approach.
- 10. How did Dr. Luis von Ahn use existing resources to further leverage the benefits of his invention of Captcha, a response test used for security purposes on the Web?
- 11. In Chapter 5, which component in the Closed World was given an additional task in the case of the PlayPump Water System?
- 12. Citing examples in Chapter 6, what is one common variable that works well when using Attribute Dependency? Why is this the case?



- 13. How does fixedness inhibit innovation? In Chapter 6, how did the Nestea brand overcome fixedness and use Attribute Dependency to create a new product line?
- 14. How is Attribute Dependency different from the other four innovation methods? What additional steps should be taken to identify potential dependencies?
- 15. How do you distinguish a true contradiction from a false one?
- 16. In Chapter 7, what ideas did you have for solving the conundrum facing the defense contractor when designing an antenna that was both strong and lightweight? How did the engineering team address these critical but competing design requirements? What was the implicit assumption? How did Attribute Dependency help them overcome their challenge?

# **Applying the Methods**

- 1. What products or services would be good examples of the Subtraction template? In your organization?
- 2. What products or services would be good examples of the Division template? In your organization?
- 3. Describe the Division tool. What are two outcomes that can be achieved when using Division? How is a multitrack music recording an example of Division? What makes Division such a versatile tool? Hint: It can be applied in three different ways.
- 4. Choose a product you use daily. List all of its components. How would you use Subtraction to innovate it? How would you use Division?
- 5. What products or services would be good examples of the Multiplication template? In your organization?
- 6. What products or services would be good examples of the Task Unification template? In your organization?
- 7. Choose a common household product. How would you use Multiplication to innovate it? How would you use Task Unification?
- 8. What are some of the pitfalls of using Task Unification? How can you avoid them?
- 9. How would you distinguish a product derived from an innovation template from one that is simply a marketing gimmick? Does it matter?
- 10. What products or services would be good examples of the Attribute Dependency template? In your organization?
- 11. Choose a popular food item. How would you use Attribute Dependency to innovate it?
- 12. What are some of the pitfalls of using Attribute Dependency? How can you avoid them?
- 13. What is the value of overcoming assumptions and understanding contradictions? How can finding contradictions lead to unexpected opportunities?
- 14. Do you agree or disagree with the following statement: Creativity is the act of generating a novel idea and connecting that idea to something useful? How does Systematic Inventive Thinking enable you to achieve creativity?

#### **Looking Ahead**

- 1. What will we do now to prepare for an Innovation Application Workshop?
- 2. What is success? How will we achieve it? How will we measure it?
- 3. What action can we take to create a culture of innovation in our team? In our organization?