

## **Experiential Exercises for Teaching Strategic Management**

The following are some tried and true experiential exercises for use in strategic management courses. Please use them freely.

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# The Blue Chip Game

**Teaching objective:** To introduce the concepts of game theory, cooperation, collusion, opportunism, and to reinforce learning about framing and boundaries.

**Time:** approximately 15 minutes

**Materials:** 8 index cards (4 blue, and 4 of another color—e.g., yellow ones), and 4 envelopes (preferably thick enough to conceal the content of the cards). If you prefer, you can use poker chips...

**Overview:** Each team submits one card each round (I like four rounds, but it isn't a sacred number); and earns/(loses) points depending on what the other teams do. If everyone submits a yellow card, then everyone wins. But if only one group "defects", then it does best of all. But if everyone defects, everyone loses points.

**Prior to class:** There are four teams in class: each team gets an envelope, and one card of each color. I number the cards and envelopes, so I can keep track of the game more easily. You'll also want to make up a viewgraph (or a class handout), that shows how the game is scored.

<u>Cards turned in</u>	<u>Blue is worth</u>	<u>Yellow is worth</u>
0 Blue & 4 Yellow	0	25
1 Blue & 3 Yellow	75	-25
2 Blue & 2 Yellow	50	-50
3 Blue & 1 Yellow	25	-75
4 Blue & 0 Yellow	-75	0

## In Class:

Divide class into four teams, have people set with their groups. Announce the following

"This game has four rounds. In each round you'll have 60 seconds to turn in one card, either a blue card, or a yellow card. Your score is determined partially by what you choose, and partially by what the other teams choose. Your objective is to score as many points as possible. There is one rule: You must turn in, using the envelopes provided, 1 card each round. (Note: this rule is optional) Turning in two or turning in zero will cost you 100 points. Good luck."

After each round, I post the current scores, as well as the cumulative scores for each team. I like to remind students of the rules and the objective, and will banter jokes with teams. After each round I announce there is a secret for winning. Roughly half the time the groups will figure out they can collude with other groups. For the times when they don't, I ask students what the rules are; after some prodding, they acknowledge that collusion is not illegal in this game. About half of the time the groups collude successfully, and half the time they don't.

## Sample discussion questions :

1. How do you win at this game?
2. At what point did you realize you could cooperate with other teams?
3. What rules did you assume existed that didn't?
4. For the "industry" which scenario is most lucrative? How about for individual teams?
5. What steps could you have taken to ensure cooperation occurred?
6. What made cooperation more difficult?
7. Are any teams "untrustworthy", or are they rational?
8. How might you address "defections".
9. What were the more interesting strategies?
10. Can you think of any situations where this situation exists (e.g. cartels like OPEC).
11. Can cartels succeed?
12. How would you play the game differently now? (Sometimes I repeat this game a week or so later).

When I announce a "trick exists to win", I get some really creative efforts. Here are 2 interesting ones:

1. I had a football player in class, polite, but intimidating. The teams wouldn't cooperate and he got frustrated. In the 4<sup>th</sup> round he went to the other groups, and told them to submit the #\$\$^\$\* yellow card. Each group, feeling coerced, did so. Later, they complained of being pressured. I gave them one of my favorite quips; "Coercion is just cooperation by other means" (okay, I guess you had to be there).
2. I had a group cut its cards in half, and taped the mismatched pairs together--that way they could claim it was yellow (provided everyone else was yellow), or blue (in case it was a split decision)

## Putting Together The Strategy Puzzle

### PUTTING TOGETHER THE STRATEGY PUZZLE Objectives:

- 1) The importance of being explicit about and challenging existing operating assumptions.
- 2) The importance of understanding what resources are available
- 3) The importance of recognizing & utilizing commonly overlooked resources/expertise within the firm.
- 4) The value of big picture vs. in the trenches perspectives.

### Set-up

Requires two 25-piece puzzles. Prior to the exercise, two pieces from each puzzle should be blacked-out with an indelible marker. Additionally, one of the fifty pieces should be placed in the trainer's pocket prior to the training. *Note: I like using the puzzles that have three concentric circles depicting people or animals. The inner circle is the face, the mid section is the body, and the outer circle is the legs and feet. The circles can be rotated to place a dog's head on an elephant's body etc. once the puzzle is constructed.*

When participants enter, there should be a few pieces at each of their places.

### Group Instructions:

Instructor says: "Your task is to put all of the puzzle pieces together using all of the resources available to you in the room. You will have 3 minutes. OK, go."

### What happens:

The group eventually figures out there are two puzzles. They often leave the black pieces aside as "not belonging to the puzzle" or figure out their place in the puzzles at the last moment after initially declaring "we're done." They also declare one piece to be missing.

### Discussion Questions:

1. What was this experience like for you?
2. What did you assume initially about the number of puzzles? What made you think the black pieces did not belong? Remind them that their task was to put all of the puzzle pieces together"
3. What assumptions did you make about what the puzzle should look like? Why?
4. What resources did you use?
5. What resources did you not use? Who in the room did you not ask for input?
6. Some of you worked hands-on during the task of puzzle building. What was this like? What was unique about your perspective?
7. Others stood back and gave directions from a distance. What was this like? What was unique about your perspective?
8. (ask only if you have circular puzzle) If we rotate the sections of the puzzles do the pieces still fit? Yes... So why did you not construct the puzzle to show a dog's head on an elephant's body? It certainly would have met the goal I set for you...

### Key Lecture Points

1. Preconceived ideas hurt process. We often have preconceived ideas that may in fact, be irrelevant to the true business goal. Similarly, putting together all of the pieces is more important than your preconceived notion of aesthetics. It's important to get these mental maps on the table during planning.
2. Ignoring key expertise. Often people in organizations who can make a contribution of expertise or experience get overlooked because they have not traditionally played a role in strategy development. They may hold the missing piece to a winning strategy.
3. Time horizons. Inevitably, people on the front lines (e.g., operations) have a very different view than the long-view people (eg. managers and strategists). Firms need both perspectives in strategic management.
4. More than one way. There is often more than one way to achieve a goal. Firms get caught up in picking the perfect strategy when, less elegant strategies are quite effective (e.g., dog head on elephant's body).

## The Paper Chase

The paper fight is an exercise that simulates hypercompetition. Strategies emerge but are perfectly imitable. As a result, a strategy will not create an advantage beyond one period. Each round might also be used to simulate different stages of the industry life cycle.

### Preparation:

1. Place two uneven piles of paper on each side of the room (uneven allows you to talk about different resource endowments).
2. Invite two groups to the front (on each side)
3. With no warning or explanation, say “We are going to have a paper fight. Ready, go!”
4. Let them go for a short period of time (until you see a strategy of any kind)
5. Have a discussion about what happened.
6. Invite two other groups (or another group to challenge the winner) to do it again. Possibly repeat a third time.

**What happens the first round:** The first time, the groups will hesitate. There are no rules – this is an undefined landscape (embryonic industry). Sometimes, it will not even be clear that they should “organize” as two “firms” and they will fight amongst themselves. Generally, they will attack the other team after a short hesitation. However, they will often hold their position more than chase the other team around the room (no flanking maneuvers, or more complex strategies). The organization will either have the same people crumpling and throwing or people will specialize in crumpling or throwing.

### Discussion questions :

- Why did you fight? Why did you hesitate?
- Who won? Why do you say so? (criteria for success/org performance -- # of paper wads on the other side vs. # of hits scored)
- What were the internal structures of the “firms”?
- Resources – were the teams on equal footing? What resources mattered (not the amount of paper)?
- What strategies emerged? Did it matter? How did the other side respond?

**What happens the second round:** The second time we tend to see more complex strategies and organizations. The landscape is changed and they can now throw back the crumpled wads from the last bout. Strategies include: 1) have everyone throw back wads and no one crumples, 2) flanking maneuvers, 3) steal the other team’s paper, 4) movement around the room.

### Discussion questions :

- What was different this time? How did the rules change?
- What does it take to win now? Would the same strategy work again?
- What were the internal structures of the “firms”?
- What would happen if we ran it again? And after that? How long is a strategy useful? (note for each strategy, there is a response that neutralizes it)

# Razing the Ivory Tower: Builderific Exercise

**Purpose:** Use sound planning skills to design and build the tallest possible free-standing structure with one Builderific construction set in 3 minutes.

**Instructions:** This exercise is divided up into two periods: a planning period and a building period. The instructions for each are as follows:

## Planning

15 minutes

You will have 15 minutes to plan how your team will reach its objective of building the tallest structure during the building period.

During this time you may remove the pieces from the box but you cannot assemble **any** pieces. You may lay out the pieces, take an inventory, draw diagrams or any other planning tool that does not require assembling the pieces.

Your team should set a goal of how high they intend the structure to be (from the base to the top). You should be realistic in what you expect to accomplish -- most employees are evaluated based on the extent to which they accomplish the goals they have planned.

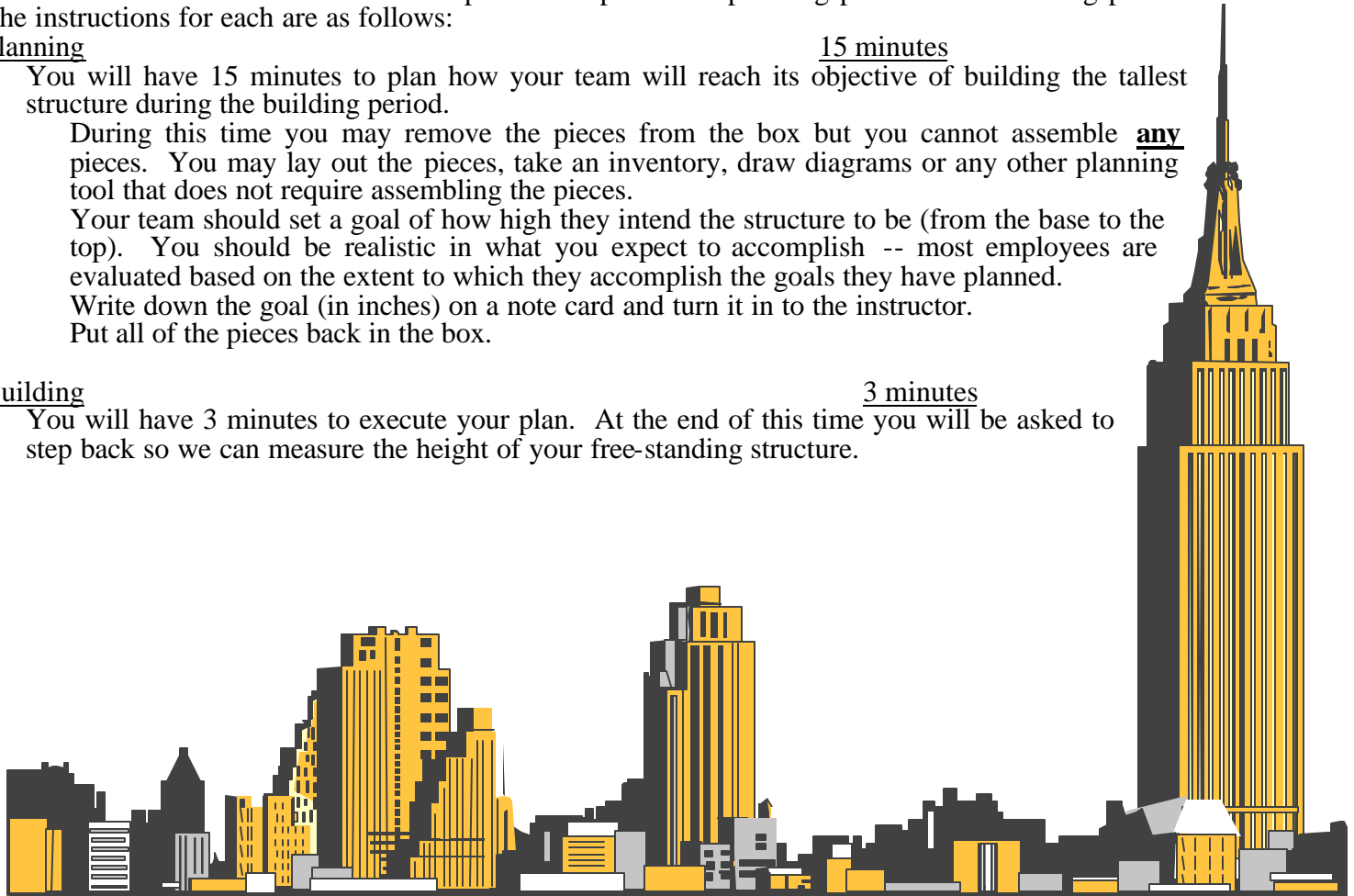
Write down the goal (in inches) on a note card and turn it in to the instructor.

Put all of the pieces back in the box.

## Building

3 minutes

You will have 3 minutes to execute your plan. At the end of this time you will be asked to step back so we can measure the height of your free-standing structure.



## **DEBRIEF**

- Type of task: non-programmable, uncertain resources, time constraint, teams
- Why did the winner win? Why did the loser lose?
- How did the team resources differ? Did it matter?
- What was the business definition?
- What was the mission? Did you achieve it?
- What factors prevented you from achieving it?
- What were the key success factors? Objectives?
- Were people responsible for the KSFs? What roles emerged?

## **DEBRIEF II: if you run it again**

- Differentiate between learning by imitating/observing and learning by doing
- Compare builderific to the paper chase exercise
- What resources did you have the second time that you didn't have the first?

## **VARIATION: 1<sup>st</sup> mover advantage**

- Have the groups execute in 2 waves.
- **Debrief:** Do the 1<sup>st</sup> movers have an advantage? What can 2<sup>nd</sup> movers learn from observation (as opposed to hands on experience)?

# **CONSULTING FOR HUMAN ASSET INTENSIVE, INC //**

<b>Business</b>	<b>Human Asset Attributes</b>	<b>Organizational Control Dilemma</b>
Biotechnology Firm	Causal Ambiguity: The process of developing successful new drugs is not well understood and difficult to copy.	Motivation: What leads to a successful product? How can we prevent scientists from funding their own unprofitable pet research projects? How can we promote applied creativity?
Insurance Sales & Underwriting	External Social Complexity: Independent agents have valuable external networks of clients but are beyond the firm's boundaries.	Turnover: External networks are transferable to competitors. How can they achieve profits if agents have limited loyalty? Will agents support firm-specific products.
Fine Wine and Champaign	Causal Ambiguity: While it is not difficult to make wine, the factors that differentiate fine wine from swill are hard to codify.	Hiring/Motivation: What leads to a successful product? How can the firm hire, motivate and retain key people when the "fruits" of their efforts cannot be evaluated for years?
Temp Service (differentiation strategy)	General Human Capital: The temporary worker's skills are valuable in almost any industry.	Turnover: How can you differentiate the firm as having the best temps? You must keep the highest skilled workers and realize profit from their deployment (can't overpay).
Car Product Design Team	Internal Social Complexity/Firm Specificity: The cross functional team must work closely as a unit. An effective team is hard to copy.	Motivation: How can you get people from different disciplines to cooperate (eng., manufacturing, sales, marketing, etc.)? How can you get them to adopt a firm-wide view?
Business School (Goal: BW top 20)	Industry-Specific Human Capital: The teaching and research skills are valuable to other "firms" (like general skills)	Turnover: How can you promote the behaviors that will achieve the school's goal (e.g., quality teaching)? How can you do it so faculty will accept it?
NASA Shuttle Team v. Control	Internal Social Complexity/Firm Specificity: The team must work closely as a unit but must also coordinate with control.	Motivation: How can you balance the "optimal" schedule on the ground (packed) with the autonomy teams need in space? One Skylab team went on <i>strike</i> because they were over-scheduled.

## WORKSHEET

<b>Dimension</b>	<b>Key Steps/Changes</b>	<b>Rationale</b>
Retention Strategies <i>(focus on non-financial aspects of job satisfaction &amp; increase the use of firm-specific skills)</i>		
Rent Sharing Strategies <i>(individual, group, &amp; org level financial incentives)</i>		
Organizational Design Strategies <i>(design the structure and culture to align goals and promote retention)</i>		
Information Strategies <i>(Gain info about employees and applicants from novel internal &amp; external sources)</i>		

## It's a Dog's Life

Students are presented with abbreviated information from Sears in the 1980s. Each group uses the information to analyze their line of business and plot it on the McKinsey matrix. You can simulate politics in the process by urging them to identify with their business unit (rewards, etc.).

Inevitably, they conclude that the retail division is a cash cow (borderline dog) and they should sell several of the other divisions. When they hear its Sears several things come to light:

1. The analysis ignored that retail is the corporate identity and what they know.
2. The analysis ignored ties between businesses or strategies that cut across businesses.

### LINE OF BUSINESS INFORMATION


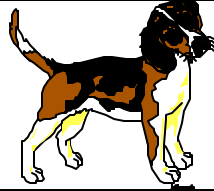
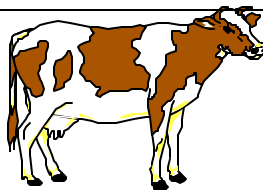
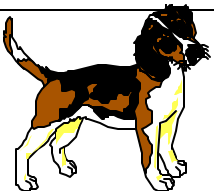
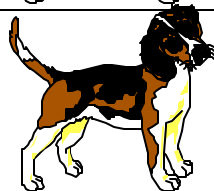
	Retail	Credit	Insurance	Brokerage	Real Estate
<b>Industry Attractiveness</b>					
Industry growth rate	4.01%	4.34%	12.09%	13.90%	4.15%
Competitive rivalry (rank)	5 (high rivalry)	4	3	2	1 (low rivalry)
<b>Competitive Position</b>					
Market share (rank)	1 (big share)	2	4	5 (small share)	3
Profitability (ROS)	1.2%	11.7%	4.9%	4.3%	8.8%
<b>Portion of business</b>					
Share of revenue	52.0	5.1	35.0	4.9	3.0
Share of profit	18.0	17.8	50.2	6.2	7.8

### ANALYZING THE PORTFOLIO

ANALYZING THE PORTFOLIO							
COMPETITIVE POSITION				INDUSTRY ATTRACTIVENESS			
Key Success Factors	Weight	Rating	Score	Criteria	Weight	Rating	Score
Market share	0.50			Industry growth rate	0.60		
Profitability (ROS)	0.50			Competitive rivalry	0.40		
Totals	1.00				1.00		

Rating: 4="Best", 3="Near the top", 2="Average", 1="Poor"

### MCKINSEY MATRIX PORTFOLIO ANALYSIS WORKSHEET

		Competitive Position							
		4	High	3	3	Medium	2	2	Low
Attractiveness	High	4							?
		3							
	Medium	3				Average			
		2							
	Low	2							
		1							

## Portfolio Management Jeopardy

Effective portfolio management is at the center of corporate-level strategy. Because of their "tidiness" and clever terminology, various analytical tools such as the BCG and McKinsey matrices have achieved popularity in teaching corporate portfolio management. These matrices, though, have some inherently concerning qualities that can be easily overlooked. The Portfolio Management Test is designed to bring these issues to the forefront.

During the class discussion on corporate portfolio management, I tell my students that they are going to take a test on the material. The test, though, will be a group effort. I instruct the students to form into four groups and to sit together in the classroom. While the students are organizing, I create a scoreboard on the chalkboard. On this scoreboard, I write names (of my own choosing) for each group. I use names such as "The A Team," "Fast Trackers," "Lost Souls," and "Dead Enders." (These names respectively correspond to Cash Cow, Star, Problem Child, and Dog. Of course, I don't explicitly communicate this to my students.)

The reason for the scoreboard is that I conduct the test with a twist; the test is designed like a television game show. I begin by reading a question to group #1 (could be any of the four groups). Group #1 gives an answer that is either correct or incorrect. Then, I read a question to group #2, and so on. When a correct answer is given, the group receives the number of points which that question is worth. When an incorrect answer is given, the group loses the number of points the question is worth. However, the "game" isn't exactly "on the level."

Each group's performance is predestined. For example, the Dead Enders (Dogs) will continue to answer questions incorrectly, getting deeper into negative numbers. The Lost Souls (Problem Children) also continually answer questions incorrectly; however, I persistently take points away from The A Team (Cash Cows) which continually answers questions correctly. The Fast Trackers (Stars) answer some questions correctly and some incorrectly, producing a net effect of breakeven.

I do three things to ensure this distribution of points. First, prior to class, I "stack the deck" of questions. Questions for the Dead Enders and the Lost Souls are very high in level of difficulty. Questions for The A Team are very low in level of difficulty. Questions for the Fast Trackers are mixed in level of difficulty. Second, I am strict in my acceptance of correct answers from the Dead Enders and the Lost Souls. I am lenient in acceptance of correct answers from The A Team. And I am sometimes strict and sometimes lenient in accepting correct answers from the Fast Trackers. Third, if my above efforts don't ensure the desired balance of points, I will just move points from one group to another for whatever reason.

By the end of the "test," students have a broad mixture of feelings and issues that they want to discuss (usually in a good natured way). The most obvious issue is "fairness." Why should some teams receive points when they weren't answering questions correctly? Why are the needs of one group for a good grade more important than the needs of other groups that were able to correctly answer questions? These issues lead to a discussion about "synergy" and the need to forsake personal gain for the greater good of the whole. Further, the exercise raises issues about "rights." Who has the right to make decisions that move resources from one division of an organization to another? To what extent does this form of resource re-allocation affect motivation? Finally, I raise the issue of the affect of labels. How did you feel about the group name with which you were labeled? To what extent did this label impact your perceived self efficacy?

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## Alphabet Soup

Alphabet soup is an exercise which focuses students to think about the managerial decision process, and the limits to how we analyze complex problems. The key points are that managers deal with complex problems, and often use cognitive frameworks to help constrain the problems. These frameworks tell the managers what information is needed; however, unless the managers understand that all frameworks have limitations, these frameworks can fall trap to cognitive biases.

### Preparation:

1. Write on the board: “Please do not speak unless called upon”
2. Write on the board: “\_any”
3. Ask the class to raise their hands when they have thought of a single letter which makes “\_any” into a word.
4. Call on a student which raised their hand early. Ask him or her to say the word. Usually, most will say “m” for “many”, although “z” for “zany” is in some dictionaries.
5. Now, repeat the “Please do not speak unless called upon” request.
6. Write on the board: “\_eny”
7. Again, ask the students to raise their hands when they have thought of a single letter which makes “\_eny” into a word.
8. Wait a while then look at a student which has not raised their hand. Ask if the student has a letter, but don’t tell you what the letter is. If the student does not have a letter, then ask how they are trying to solve this “complex” problem. The student may either be trying letters at random (an unstructured solution) or using the alphabet.
9. Suggest the alphabet as a way of framing this problem. Go through the alphabet with the student, having the student say the word after you say the alphabet (a, any, b, beny ...). Make sure you go to at least “m”, and that you do “d” rather quickly.
10. After going trying the alphabet, ask a student which raised his/her hand what letter they came up with. After they say “d” for “deny”, look at the student which said “Denny”. Ask the student why she/he said “Denny” rather than “deny”—is it possible she/he likes the food at this restaurant?
11. Make the point of the exercise.

### Discussion Questions

1. Is it better to use a framework or approach a problem using brain storming (random idea generation)?
2. What are the advantages of a random approach to problem solving? What are the disadvantages?
3. Why did the majority of the class pronounce “deny” as “Denny”? How did the “many” example set-up this cognitive bias?
4. Is the alphabet a flawed tool (framework)? Or is it that we forgot that a limit to the alphabet is that many letters have different sounds and pronunciations?
5. What lessons does this exercise have what lessons does this exercise have for a manager is faced with a complex problem?

### Key Lecture Points

1. This is a class which uses tools or frameworks to foster analysis of complex problems.
2. Every tool or framework is designed to solve certain types of problems, and has limits to their usefulness. These tools make certain assumptions. Similar to a road map, in order to use these tools certain details have to be omitted from the problem in order for us to comprehend (bounded rationality) the problem.
3. The manager/student must know the limits to the tools or frameworks that they use.
4. Finally, this exercise starts a discussion on typical managerial biases (e.g., using an inappropriate analogy, prior hypothesis, escalating commitment, representativeness, illusion of control, allowing framing to bias the decision, overemphasizing selected data) and ways to lessen the impact of these biases (e.g., using frameworks—but know their limits, devil’s advocate, use multiple frameworks, consider improbable or unpopular assumptions, re-evaluate your decisions and analyses over time).

# **Gourmet Adventures**

(Next page)

This exercise is designed to demonstrate the Winner's curse. Teams are clearly faced with a situation with a risk and cost of overbidding. How do they adjust their bids to avoid being cursed?

I have run this about 10 times and never had a situation in which the winner is not cursed.

# **Gourmet Adventures**

Your investment firm wants to buy a restaurant group called **Gourmet Adventures** (represented by the jar of coins you see at the front of the room). They have three business units that serve different markets that you must value. In addition, you are concerned that there are competing bidders. You want to buy **Gourmet Adventures** but only at the right price.

## About the Target

**Gourmet Adventures** consists of three restaurant chains:

- ◆ Quarters Fine Dining. Quarters is a chain of upscale steak houses in major cities across the U.S.
- ◆ Nickels Family Feast. Nickels is a chain of moderately priced sit down family restaurants
- ◆ Pennies Pizza. Pennies is a chain of take out Pizza restaurants primarily serving college campuses.

## Valuing the Target

Your first task is to develop a methodology for valuing the target. You have information about the relative profitability of the three restaurant chains and you know the revenue of the firm as a whole. You can use this information to develop a valuation model/methodology.

- ◆ The firm (jar) as a whole is 500 milliliters in size (revenue)
- ◆ Quarters: 9 milliliters of quarters generates \$2.00 of net present value
- ◆ Nickels: 14 milliliters of nickels generates 50¢ of net present value
- ◆ Pennies: 20 milliliters of pennies generates 25¢ of net present value

## Develop a Bid

Given your estimated value, what are you willing to bid for the target? Note, if you win the bidding contest and get it at a bargain, I will pay you the difference plus a prize. If you overbid, you will pay the shareholders of **Gourmet Adventures** (Professor Coff) the difference.

1. Circle your team:

- |                                   |                        |
|-----------------------------------|------------------------|
| 1. NY Life/Grp Health Divestiture | 5. Danimal Corporation |
| 2. Cooper Industries              | 6. Monsanto/Solutia    |
| 3. Cintas Corporation             | 7. Gillette/Duracell   |
| 4. McBoeing                       |                        |

2. Describe your valuation methodology:

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3. What is the estimated value of **Gourmet Adventures** according to your methodology? Note: while I need this information to run the exercise, it will have no bearing on your firm's returns -- so please be honest (*only your actual bid counts*).

Estimated Value \$ \_\_\_\_\_

4. What is your bid for **Gourmet Adventures**?

Actual Bid \$ \_\_\_\_\_