BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Group Activity 0.1 – Problem Solving Processes**

Overview

This activity will give you and your group an opportunity to think about problem solving in a general way. You will review an important problem you have solved in the past and the process you used to solve it. Reflecting on how you and other students have approached problems will give you a baseline for beginning to think about problem-solving processes.

**Objectives**

* To review your own problem-solving process.
* To examine how problem-solving processes differ across individuals and situations.
* To practice identifying and defining some common problems.

**Materials**

None

Activity Instructions – Part 1 (Individual)

1. Working on your own, think about an important problem you have solved in the past. On a sheet of paper, outline in as much detail as you can, the steps you took to solve the problem (e.g. what information did you use, what alternatives did you consider, how did you select the solution).
2. Keep this sheet of paper, and be prepared to discuss this with your group at a later time.

Activity Instructions – Part 2 (Group)

1. Referring to the individual problem solving processes developed at the end of Part 1, spend a few minutes reviewing the process used by each group member. Discuss, contrast and compare the different approaches taken by your classmates. ***(Scribe: keep notes on this discussion)***
2. Working as a group, develop a comprehensive list of problems faced by PSU students in day-to-day university life. Use brainstorming techniques. I’m sure you can think of quite a few, such as overcrowded classrooms! Make sure they are stated as problems, not just symptoms. If you have time, try to put them into categories. ***(Scribe: Write this list on a single sheet of paper and keep it with your group materials.***)
3. Also working as a group, develop a comprehensive list of problems faced by the PSU administration. Think about problems from their perspective, not yours. Use brainstorming techniques. If you have time, try to put them into categories. ***(Scribe: Write this list on a single sheet of paper and keep it with your group materials.***)
4. As a group, choose the top three problems from each list and make sure that they are highlighted in your notes.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase - P**osition

**Group Activity 1.1 – Mission and Vision Statements**

Overview

During Step 1 of the PSU SBA process/framework - P for Position - it is important to thoroughly understand the context of the problem-solving situation. This activity will give you an opportunity to compare and contrast the mission/vision statements of two well known organizations.

Objectives

* To better understand the differences between mission and vision statements.
* To explore the relationship between mission and statements and decision making.

Materials

Mission statement handouts from Coco-Cola, PSU and PSU SBA.

Group Activity Instructions

1. Each person in the group should thoroughly read all three mission/vision statement handouts. Discuss these as a group and develop a group consensus as to their quality. Do they accurately reflect the organizations as you know them? Do the statements meet the criteria presented during the class lecture? Do the statements affect your opinions and feelings about the organizations? Would they motivate you as an employee? ***(Scribe: keep notes on this discussion)***
2. Specifically for the PSU statements – do you care? Does they matter to you? Do you think they serves a purpose? For which stakeholders? Are the SBA statements consistent with the general PSU statements? Should they be? ***(Scribe: write down the answers.)***
3. Think of a recent PSU decision, for example, the rec center construction. Is the decision consistent with the mission/vision statements? Why or why not? ***(Scribe: write down the answers.))***
4. Take some time to write a “mission” statement for your group for the term.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase - P**osition

**Group Activity 1.2 – Mission and Stakeholders**

Overview

During Step 1 of the PSU SBA process - P for Position - it is important to thoroughly understand the context of the problem-solving situation. In this activity, you will look at how mission statements and stakeholder priorities influence the objectives, solutions, and outcomes in a problem solving situation.

Objectives

* To gain exposure to the problem-solving framework.
* To examine how differences in missions and stakeholders can influence problem-solving outcomes.

Materials

Registration Time Scenario and Mission Descriptions

Group Activity Instructions

1. Each person in the group should read the **Registration Time Scenario**. Do not read Mission A and do not read Mission B. Discuss the three different registration options. What are the pros and cons? What types of things would you consider in trying to decide amongst the three options?
2. Each person in the group should now read **Mission A**. Again, do not read Mission B. List Kiley’s stakeholders. How would you prioritize them? Which registration option do you think Kiley would choose and why?
3. Each person in the group should now read **Mission B**. Revisit Kiley’s list of stakeholders. Would you add any? Would you prioritize them any differently? Which choice do you think Kiley would make under this mission and why?
4. In general, discuss how mission and stakeholders can affect your decisions.

Registration Time Scenario

Kiley, an operations major in a modern urban business school, has a problem. It’s time for registration, and she needs to decide what to do. There are three basic options she can pursue.

1. **The completely on-line option.** Under this experimental program, students take all courses on-line. The on-line courses involve some collaborative group work and some end-of-term projects, but for the most part they are very streamlined courses that are based primarily on textbook readings and on-line multiple choice exams. Students who register for this option receive a 5% discount on tuition to reflect the lower demands of on-line courses on university resources.

2. **The semester abroad option.** This program offers students the options to study in one of three different locations in Europe. Students pursuing this option are required to take a foreign language/culture course while abroad. In addition, these programs offer only core business courses. Therefore, students often take extra courses upon their return or delay graduation by one term. In addition to tuition and books, students pay airfare, housing and meal costs.

3. **Traditional option.** Students take courses on campus. Courses require a combination of discussions, written and in-class assignments, individual and group projects, readings, and exams of varying formats.

**Mission A Description**

Kiley has worked for her church’s regional headquarters as an operations manager. She greatly enjoys this job and has no plans to leave. Changes in the church hierarchy have placed a high value on university degrees for administrative positions such as hers, so she has decided to return to school to complete her degree. Although her job is full time, she is generally able to complete her duties and complete extra projects that arise from time-to-time within 30 hours. This gives her time to pursue her other great interests – training with her championship rowing team and pursuing spiritual goals through church-sponsored activities. Her mission is to complete all job duties as efficiently as possible, advance in her spirituality, and to be the strong lead rower in her champion rowing team.

**Mission B Description**

Kiley is a full-time student. She and her family believe that the college years are a time for intense study and intellectual exploration. The family owns an import-export business, and Kiley will re-join the business as operations manager when she completes college. This will be a demanding job requiring a large commitment of time and effort to deal with the new challenges that face the business each day. While she is still a student, Kiley wants to have a rich variety of experiences, and she seeks out interesting new people and activities. She carefully manages the costs of these activities, as it is a big financial stretch for her parents to send her to college, and she is the first of five children to attend. Her mission is to gain the depth and breadth of knowledge necessary to run predictable operations, to deal with unexpected changes as they arise, and to live a fulfilling intellectual and social life.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase - P**osition

**Group Activity 1.3 – Cognitive Biases**

Overview

Cognitive biases are common in managerial problem solving. This activity will help you see how you and your classmates can be affected by cognitive biases.

Objectives

* To show how managerial decisions can be subject to bias.
* To gain exposure to some of the most common cognitive biases.

Materials

Cognitive Bias Questionnaire and Probability Game Worksheet

**Group Activity Instructions**

1. Each student should complete the Cognitive Bias Questionnaire as directed by the instructor. Hold onto the completed questionnaires for use during the class discussion. Please place all completed questionnaires in the Group Notebook.
2. Each student should make guesses about outcomes in the probability game. Write your answers on the Probability game Worksheet.
3. After both exercises are complete, spend a few minutes discussing the outcomes as a group. What other cognitive biases have you experienced in your day-to-day personal and professional decision making and problem solving. Write these down and keep them in your group notebook.

Probability Game

The professor has a large stack of cards that have either the word “BLACK” or the word “ORANGE” written on the front. On the back are pictures of black spiders and orange pumpkins. The “BLACK” cards have a 60% chance of having a spider on the back and a 40% chance of having a pumpkin on the back. The “ORANGE” cards have a 60% chance of having a pumpkin on the back and a 40% chance of having a spider on the back. As each card is shown, you will see the color on the front of the card. You will guess whether the card has a spider or pumpkin on the back. Record your guesses and the results below. Use the worksheet to record your answers.

**Probability Game Worksheet**

**B**= Black; **O**=Orange; **S**=Spider; **P**=Pumpkin

Card Color Was: My Guess Was: Actual Picture Was: Correct Guess(Y,N):

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Number of correct answers: \_\_\_\_\_\_\_\_

Percentage correct: \_\_\_\_\_\_\_\_

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase - S**ense

**Group Activity 2.1 – Problem Finding & Prioritization**

Overview

Every organization is constantly facing a range of problems. These problems can’t all be solved effectively without thorough definition and prioritization. You will be tasked with reading and analyzing a small business scenario in order to practice “problem finding”.

Objectives

* To recognize existing problems and identify potential threats and opportunities.
* To consider the importance of organizational mission and stakeholders in prioritizing problems.

Materials

O’Donnell’s Odyssey Video Store case.

**Group Activity Instructions**

1. Each student should read the case independently.
2. As a group, discuss the case. Does Max have a mission or vision? If not, does he have a business strategy? Who are his stakeholders and how would you prioritize them? What problems does Max currently face in his business? What are some of the changes in his operational and external environments that may have precipitated these problems?
3. Engage in a scenario planning exercise in which you explore the video industry’s political, economic, social, and technological environments and anticipate the potential opportunities and threats they present to the video store.
4. Prioritize the problems and opportunities you have identified by considering their importance relative to the mission and stakeholders. Keep in mind the distinction between ‘urgent’ and ‘mission-critical’ problems. Place the problems in the “urgency grid” reviewed in class. Answer this question – what is Max’s highest priority problem, in your group’s opinion?

Urgent Not Urgent

|  |  |
| --- | --- |
| Mission Critical |  |
| Not Mission Critical |  |

**O’Donnell’s Odyssey Video Store**

O’Donnell’s Odyssey is a video store operating in Missoula, Montana. The store specializes in independent and hard-to-find movies attuned to the eclectic and progressive tastes of the Missoula community. Owner Max O’Donnell has no prior business experience, and has spent much of his life working on movie sets and attending film schools in Chicago and Los Angeles. He opened the store at the age of 39 when he felt the urge to ‘settle down and make a commitment’ to providing exceptional films to underserved movie viewing markets. The store is located in a transitional neighborhood. A gym and convenience store have recently opened in a lot adjacent to the store. Although Max is a workout fanatic and loves having the gym nearby, he is concerned that gym customers are parking in the video store’s lot.

The store has not yet developed formal mission, vision, and value statements. When asked about his vision, Max says “I want to expand peoples’ minds and expose them to really great movies—stuff that can make them think, and change their ideas and perspectives. When they walk up to the counter with a movie that they want, I tell them ‘OK watch that, you want it…but here’s a movie you need—watch it too.’ Max’ customers are loyal and they appreciate recommendations made by the clerks. They are technologically savvy and could get this information on the web, but say they prefer to discuss films with the clerks. Many claim they wouldn’t consider renting a movie anywhere else.

Recently, the store has faced a dip in sales and the store’s employees have been trying to figure out why. One clerk has investigated competing video store chains. She found that competitors highlight top 20 movies, so O’Donnell’s Odyssey had recently replaced a case filled with clerks’ movie picks with a flashy display of top-20 movies. Max has been negotiating with a new supplier to make more copies of top commercial movies available.

To gain some additional insights into the industry, Max recently attended the annual video store conference in San Francisco. Between late nights enjoying highlights of the city, Max spent his days attending professional meetings. The primary topics in the meetings were the financial benefits of candy and other in-store sales, and the importance of having unlimited copies of recently-released movies. By the end of the meeting, Max felt frustrated and exhausted. He had difficulty focusing as suppliers presented offers for candy, movie packages, video games, display equipment, and other video store supplies. Suppliers offered special one- to five-year contracts for these items. These contracts were available only to conference participants and had to be signed within one week of the end of the conference. Max left the conference without signing any of these contracts, but needs to make some decisions right away.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Research and Data Analysis – Part 1**

**Activity A – Group Research**

Overview

Good information is required for any problem-solving or decision-making process, whether it is customer reviews when choosing a new cell phone, or historical sales data when trying to solve a marketing product mix problem. In class, we talked about the range of resources available to you for data collection. This activity gives you a chance to practice.

Objectives

* To gain experience using some of the online research sources.
* To understand the difference between Google and the “Deep Web”.

Materials

Research questions from the instructor in class.

**Group Activity Instructions**

1. The instructor will provide you with a set of questions in class. Find the specific answers to those questions using the resources discussed during the class session. I would prefer that you do this as a group, such that you can discuss the research process. Write these answers up and include them in your notebook. Also, email them to the instructor by the date indicated in class.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Research and Data Analysis – Part 2**

**Activity B – Statistical Analysis**

Overview

While working through any problem-solving process, you will probably gather a great deal of data and information in order to help you in making informed decisions. Some of that data will be quantitative in nature and may require a range of statistical tools for analysis. This activity will be a refresher in some of the concepts and tools covered in past Statistics classes.

Objectives

* To practice extracting information from data using actual data gathered from the class.
* Recognize the influence of perspective in driving research questions.
* To use a variety of simple descriptive statistical analysis tools.

Materials

The BA 301 Class Survey Excel data file from the instructor website.

A laptop computer running Excel, with the Data Analysis package installed.

**Group Activity Instructions**

1. Download the Class Survey data file from the instructor website.
2. Load the file into Microsoft Excel, analyze the data, answer the following questions and include the answers in your group notes:
   1. What is the mean student age across all of the sections of BA 301, to one significant digit past the decimal point? What is the standard deviation for all of the sections? Create a histogram of the age distribution for your section, **only**? Based on this information, do you think the mean is a best “average” to use for describing each section?
   2. Sort the data for your section by male and female students. Find the mean age and standard deviation for each gender group.
   3. What percentage of male students in your section own Apple music players? What about the female students in your section?
3. Uncover one additional interesting statistic about your BA 301 section. Print out this data and include it in your notebook.
4. If you were teaching BA 301, what information from this survey might be useful in planning the class and why?

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Research and Data Analysis – Part 3**

**Activity C – Presenting Numerical Data**

Overview

Tables, charts and graphs are often used to analyze quantitative data, and they are readily available with most personal computers. Viewing data in an organized, graphical format helps with interpretation and information extraction. Unfortunately, there are almost unlimited ways to do this, and some are good and some are not so good. This activity will provide some practice in these techniques.

Objectives

* Recognize common problems with data presentation.
* Understand some common rules for good data presentation.
* Practice creating charts and graphs with known constraints.

Materials

Poorly-formatted data table.

Ehrenberg’s six guidelines for table creation.

Computer running Microsoft PowerPoint and Excel

**Group Activity Instructions – Part 1**

1. As a group, review the data presented in the “poorly-formatted data table”. Consider this scenario – you are responsible for the photocopy budget for the business and science departments of the school. You have received this data summarizing photocopy spending for the previous school year. What are some weaknesses in the way this tabular data is presented? Use the Ehrenberg guidelines for assistance, although I will expect you to come up with other weaknesses.
2. Create a new table, improving on these weaknesses. You can do this by hand, and include it in your Group Notebook.
3. Lastly, imagine that you are responsible for presenting photocopy spending data to the University Budget Director as part of budget planning for the next school year. You have only a few minutes to present, since data from other departments will also be presenting their data. Answer these questions:
   1. What do you think the Budget Director cares about?
   2. What information do you think this person will want to see in the presentation?
4. Create ONE PowerPoint slide incorporating the information (tables, graphs, charts) your group would like to present in the meeting. Email this to the instructor by the date indicated in the class session.

**Group Activity Instructions – Part 2**

1. Each student should share their research paper problem statement with the group. In the notes for the day, the scribe should write down each student’s problem statement, along with comments and feedback from other students. This critique, along with instructor feedback from the homework, should help you focus your research paper analysis.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

**Ehrenberg’s Guidelines for Table Creation**

* Round the numbers to two significant digits after the decimal point—it is hard for readers to do mental arithmetic with more than two digits.
* Use row or column averages as appropriate—this will provide the reader a basis with which to compare the numbers.
* Arrange figures that are likely to be compared in columns—it is easier to perform mathematical functions on data in columns than in rows.
* Order rows and/or columns in a table by their size—it is easier to pay attention to significant numbers and to compare numbers.
* Use an appropriate amount of space between numbers in a table—too much space makes it hard for the reader to compare the numbers.

A.S.C.Ehrenberg,“Rudiments of Numeracy”,Journal of the Royal Statistical Society, 1977, 140, Part 3, pp. 277-297.

**Poorly Formatted Data**

**All 1000s** 78521.25 51621.459 55756.088 24921.568

1035 5644.09 3543.554 2949.107 789.247

1458 7643.705 5659.059 6555.69 700.704

1294 31625.648 17916.539 23794.937 20437.934

1834 33607. 24502.307 22456.354 2993.683

**All 2000s** 7805.355 5399.641 5188.665 3678.815

2930 2192.816 1276.412 1296.259 793.598

2004 3305.197 2692.247 2481.292 1906.524

2489 2307.34 1330.982 1411.114 978.693

**Photocopy Budget**

**1**=fall term 07

**2**=winter term 08

**3**=spring term 08

**4**=summer term 08

**1000s**=business school

**1035**=marketing

**1458**=finance

**1294**=accounting

**1834**=management

**2000s**=science dept.

**2930**=biology

**2004**=chemistry

**2489**=physics

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase - U**ncover

**Group Activity 3.1 – Causes & Alternative Solutions**

Overview

In activity 2.1, your group generated and prioritized a list of problems for Max and the Odyssey Video Store. A precipitous drop in revenue is one of his most significant problems, as cash flow is typically a critical issue for small businesses. A thorough exploration of causes for a problem can help to further refine the problem and facilitate a range of creative solutions. The more possibilities you uncover, the more likely you are to find the best solution.

Objectives

* To gain experience using brainstorming and fishbone diagrams.
* To recognize the importance of generating multiple alternatives and practice brainstorming techniques to do so.

Materials

O’Donnell’s Odyssey Video Store case (from Activity 2.1.)

**Group Activity Instructions - Part 1**

1. Prepare a fishbone diagram to explore potential causes for the drop in sales. The “sales decrease” should be the spine of the fish. The bones of the fish should be categories of causes, e.g., marketing. If marketing were one of the bones of the fish (causal categories), the next level down might be something like “ineffective advertising”. Fill out the fishbone with as much detail as the group can generate. ***(Scribe: draw up the fishbone diagram along with discussion notes and keep it in the group notebook.)***
2. Now that you have the fishbone, refer to it and brainstorm potential solutions to the problem of the drop in sales at O’Donnell’s Video Store using the nominal group technique. Each participant should write down as many solutions as possible, without worrying whether the ideas are practical or feasible. Participants then take turns sharing one of their alternatives. Alternatives are written in a central location and the process continues until the group can think of no more solutions. Participants then attempt to group and narrow the range of alternatives and to determine which seem most appropriate to the mission.

**Group Activity Instructions - Part 2**

1. As mentioned in class, late in the term you will be required to give a group presentation. In this presentation, you will explore the “PSU Administration Problem” assigned to your group during the second week of class and use the steps of the PSU SBA process to recommend a solution. During today’s activity, begin discussing the assigned problem. As a group, agree on and write down a more detailed definition of the problem using some of the techniques reviewed in class. Ensure that it is a problem and not a symptom. If it is a symptom, further refine the problem. Start thinking about any data you might gather. As discussed in class, is there a gap between the “desired” and the “actual? Who are the stakeholders? ***(Scribe: remember - keep notes on this and all discussions)***
2. Now that you have a better idea of the problem, develop a fishbone diagram showing possible causes. This will help you tighten up the problem definition. Remember, you are looking at this problem from the perspective of the PSU Administration. What is the problem – for them, not you?

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Fall 2010

**Process Phase – S**olve

**Group Activity 4.1 – Decision Making Tools**

Overview

Once you’ve used the PSU SBA framework to generate a strong set of potential solutions, it can be useful to apply a range of quantitative tools to the task of choosing the best alternative. This activity allows you to practice with one of the most common approaches – a ranking matrix with weighted criteria , using work done throughout the term as the raw data.

Objectives

* Become familiar with a common approach for ranking alternatives.
* Understand the importance of organizational objectives in formulating solutions.

Materials

None

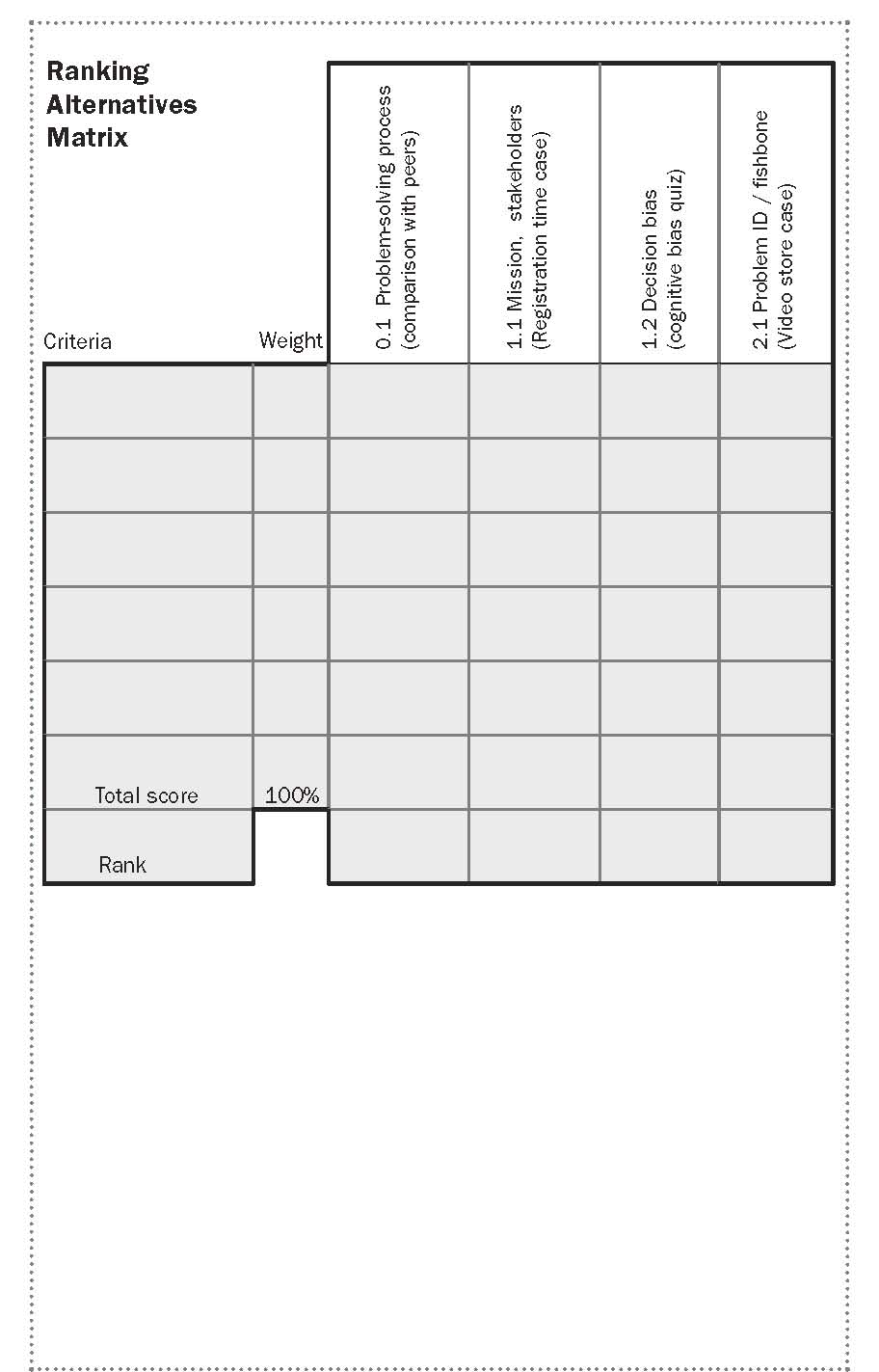
**Group Activity Instructions**

1. First, list all of the group activities that you have done so far in class. As a group, decide which is your favorite. Write that down in your notes.
2. Now, working in a group, formulate a set of criteria to evaluate the in-class group activities done so far in the BA 301 course, e.g., time required. Your group should list and agree on a set of five criteria. List your criteria in the first column of the matrix provided.
3. Weight the criteria based on their relative importance, so that they sum to a total of 1.0, or 100%. Enter the weights in the second column of the matrix provided.
4. For each of the criteria you have listed, give the in-class activities a rating between 1 to 10, with 10 indicating that the alternative fully satisfies the criteria or meets the objective. Enter the ratings in the spaces provided in the body of the matrix. Calculate the weighted average rating for each activity. To do this, first multiply its individual score on the objective by the weight for that objective. Then sum the results to get the weighted average ranking for that alternative.
5. Finally, rank the activities from best to worst based on the rankings.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

Your matrix should look something like this – with different, and more, group activities listed along the top.



BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase – B**uild

**Group Activity 5.1 – Ethical Screening**

Overview

After you’ve chosen a course of action, and before implementation, it’s important to understand any ethical issues that might be involved. This activity will give you a chance to talk over some of these issues in a hypothetical situation.

Objectives

* Recognize that all business problems are, at least in part,‘ethics problems’. Solutions to business problem affect organizational stakeholders and influence long-term behavior.

Materials

Handout in the class session.

**Group Activity Instructions**

1. Read the instructor’s handout and answer the assigned questions. Take detailed notes about your group discussion and include them in your Group Notebook.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

BA 301: Research and Analysis of Business Problems

Term: Winter 2011

**Process Phase – S**olve

**Group Activity 5.2 – Cost Benefit Analysis**

Overview

When presenting the proposed solution to decision makers who will decide whether to allocate resources to the project, the advantages and disadvantages of pursuing the solution must be demonstrated. Cost/benefit analysis is a structured approach for identifying the relative costs and benefits of one or more alternative solutions.

Objectives

* Become familiar and practice with cost/benefit analysis.
* Understand how sunk costs and opportunity costs can confound cost/benefit analysis.
* Understand the importance of organizational and stakeholder outcomes in assessing the relative merits of alternative solutions.

Materials

Cost/benefit scenario.

Brief alternative cost/benefit example

**Group Activity Instructions**

1. Working in your group, prepare a cost/benefit analysis for the attached scenario, following these steps:
   1. Determine an appropriate time frame for the decision (1 year, 2 years, 3 years).
   2. Consider the vision/mission/values relevant to the decision.
   3. Brainstorm all relevant costs and benefits affecting all key stakeholders, including both tangibles and intangibles. Estimate the dollar values where possible and consider the likelihood that the costs and benefits will be realized. You’ll have to make some assumptions here, as you clearly don’t have all the data.
   4. Organize these costs and benefits from most significant to least significant and prepare the formal cost/benefit analysis. Refer to the format shown at the end of the class lecture.
2. Consider, discuss and list what could go wrong in a cost/benefit analysis that could lead to ineffective solutions.
3. Ensure that you write the Cost Benefit Analysis neatly, and include the notes used in discussing your approach.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

**Cost Benefit Scenario**

Pat is a student at Portland State University. Pat is currently in the last term of his junior year. It is the seventh week of the term and Pat is taking four courses this term. School has been a constant struggle for Pat. Pat is a single father. He lives with his parents and works 20 hours per week maintaining the computer network in his aunt’s small business while attending school to support himself and his baby and to help his family with expenses. He currently makes $15 per hour.

Pat and his family have invested a great deal of time and energy into his education and he is on track to earn 3 Bs and one A in the classes he is currently taking. He has 4 quarters left to complete his double majors in finance and information systems. When he does, he will be the first in his family to complete a university degree and become a professional—a lifelong dream.

Pat has recently received a business proposition. One of the students with whom he has worked on several group projects and whom he respects a great deal is starting a business. She has received an offer to develop and support the web site for a start-up Indian gaming casino opening outside of Phoenix, Arizona. The casino has offered to provide in-house hotel rooms for Janice and an associate and to pay them each $50 per hour as a consulting rate. The casino anticipates using consultants full-time for two years until they move the web support in-house, and is requiring a two-year commitment from the consultants it hires. Janice has asked Pat to join her on the project.

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**Process Phase – B**uild

**Group Activity 5.3 – Argumentation**

Overview

In most cases, it isn’t over until you convince someone else of your proposal or recommendation. Effective argumentation is important in building a convincing argument to support a proposed solution. Arguments should be well-organized, supported by logic or data, and related to original objective.

Objectives

* Recognize common problems with argumentation.
* Understand basic principles for convincing arguments.

Materials

Argumentation examples.

**Group Activity Instructions**

1. There are two different argumentation examples shown below. They are written by two different students trying to convince a friend to take BA 301 – Research and Analysis of Business Problems. Read both of them and discuss, as a group, why they are effective of ineffective. Be specific. In each one, what works and what doesn’t? Keep notes on this discussion and include them in your Group Notebook.
2. Imagine that you are trying to convince a fellow student to take BA 301 from Professor Nobles. As a group, outline and then write an argument (paragraph) to make your case. Your argumentation should contain:
   1. A thesis (e.g. you should take the 301 class).
   2. Reasons in support of the thesis.
   3. Evidence to support each reason - including appeals to experts, logic, or facts/data.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.

**Argumentation Example A**

I want to tell you some things about the 301 class to help you make your decision. The lectures are short and don’t go straight from the text book. The textbook was pretty cheap, since a PSU teacher wrote all of the materials a few years ago. I also got to work with my friend John most of the time because there was a lot of group work in the class. He’s cool, you should meet him. Most of the class is spent learning about a problem-solving framework. It uses the initials PSU SBA so it will really be useful in your other courses here at the PSU School of Business. It took me a while to memorize what the initials mean, but now I really have it down. I also learned how to make a pivot table and I used Excel in the computer lab. Excel is really important to business majors, at least that’s what one of the other students in the class says, so you’ll probably get a better job if you practice Excel a lot while you’re in school. There’s a really hard project at the end of class, but I think I will probably finish all of the important parts of it by the deadline. Hope this helps in your decision.

**Argumentation Example B**

I think you should take the 301 class. First, you’ll learn a useful problem-solving framework. The entire class is based on the framework, and we apply it in a variety of ways, included addressing a real-world business problem. Second, there are 14 required in-class activities that involve key aspects of the framework. These activities develop problem-solving skills and some, like the decision matrix and cost-benefit analysis, teach tools that can be broadly applied. The in-class activities also provide a nice alternative to the traditional lecture format. Third, you can focus the research paper on a company that interests you. If you start early, there’s plenty of time to do the research and the instructor provides specific and detailed instructions for completing the project. It is true that the class is challenging, with lots of homework and a big term project. But as you have told me in the past, you don’t mind hard projects if they’re useful, and this one gives you practice in using the framework. Hope this helps in your decision.

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**Process Phase – A**chieve

**Group Activity 6.1 – Project Management**

Overview

A successful problem-solving process does not end when an effective solution is identified. To achieve the desired organizational and stakeholder outcomes, it is necessary to develop and manage a plan to implement the solution. There are some terrific tools for managing projects and communicating project status. This activity will provide an opportunity to practice with those tools and techniques.

Objectives

* Understand the benefits of developing and following an implementation plan.
* Gain practice using the Gantt chart, a commonly-used approach for project management.

Materials

A PC and one of the Project Management software packages from the course website

**Group Activity Instructions**

1. As a group, choose one of the following two sample projects:
   1. A term long research paper – such as the paper for BA 301.
   2. A wedding.
2. Identify the major activities necessary for successful completion of the project. The best way to describe activities is using active verbs that describe specific activities. For example, “search web and library databases” is preferable to “ go to library” or “literature is reviewed”.
3. Estimate the amount of time each of the activities listed in 2) will take to accomplish – in weeks.
4. Prepare a Gantt chart by hand in which the activities are listed in order, taking one row each – as shown in class. Again, use weeks for the time scale.
5. Discuss and list ways that a Gantt chart can be useful in the solution implementation phase of the problem-solving process. Keep notes on this discussion.
6. Finally, and you can do this after class, take the data from the preceding effort and enter it into one of the Project Planning software packages available on the website. Print out a Gantt chart and include it in your notebook.

Special Scribe Instructions

After the class, and before the next class, write up an analysis of the day’s activity. This should be a ***reflection*** on what you did during the group activity, not just a reiteration of the actions performed during the activity. For more information of this, see the Group Activity Instructions on the course web site.