



TOOLS

All Aspects Problem-Based Learning Activities¹

Problem-Based Situations Relating to the Aspect of **Planning**

1. You are planning to open a small business (an auto repair shop, for example). Although you have saved some of your own money for this enterprise, you need additional funds to buy up-to-date equipment (such as diagnostic machines). Prepare a business plan that will convince the bank that you are a good business risk and that it should lend you the money. (Students could use this activity for any business or career path.)
2. As the manager of your department, you are aware of the various difficulties that your department faces when 25 more computers and 10 laser printers are added to the existing laboratory of 55 computers. You are in charge of locating a new area that has the proper amount of space, utilities, electrical outlets, ventilation and comfort. Develop a plan that sets up an ideal location for this laboratory. Design a floor plan for the department using drawings or use appropriate magazines and other sources to suggest a layout. (The instructor could include an assessment of needs with this assignment.)
3. As a graduate with a major in child care (or as a member of a team interested in establishing on-site child care for the company), you plan a child care center. Develop a business plan and find the necessary funding for the facility. You would like to open the center in three months. Contact the Small Business Administration (or appropriate agency) in your area to find out more about funding sources. Include a timeline in the business plan to achieve your goal.
4. Select a local business/organization (perhaps your school business partner) and arrange to meet with the director or manager to learn the goals and objectives for hiring staff. How many employees are required to run the organization? If the business /organization has more than one shift, how many supervisors are required? Arrange to attend a staff meeting and observe interactions between staff and managers. Note what issues are discussed and how conflicts are resolved.

¹Adapted from All Aspects of the Business/Organization: Connecting the Classroom and the Workplace, Instructional Materials Laboratory, Columbia, Missouri, 1998.



TOOLS *(continued)*

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Problem-Based Situations Relating to the Aspect of **Management**

1. A large bank that is merging with a savings and loan bank has hired you. You have been asked to prepare a brochure about how the merger will affect customers' accounts. Design a pamphlet. Try to anticipate all the questions that nervous customers will pose.
2. You are the manager of a toy store. Your best-selling toy is sold out. It is near Christmas and many customers are demanding this popular item. Develop a strategy to both appease the customers and to obtain this toy.
3. You work for a chemical plant that has developed the reputation of being unresponsive to the community. You have been appointed to a team that is responsible for improving the company's public image. Develop a plan that will alleviate the community's concerns while costing the company no money. Include specific timelines and guidelines.
4. Select a local business/organization and gather information including the number of people working there, the number of hours the facility operates, the job classifications of employees, the qualifications for each job classification and the range of employee wages. (Students may revise or add to the data collected depending on the specific enterprise chosen.)

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TOOLS *(continued)*

All Aspects Problem-Based Learning Activities¹

Problem-Based Situations Relating to the Aspect of Finance

1. Many products sold in the United States are made in other parts of the world. Select 10 different items found in your home or community that were manufactured abroad. After identifying the country where each item was made, prepare a report indicating the type of government, the state of the economy and the quality of the educational system in that country. Indicate why these goods were imported rather than made in the United States. Tell how the global economy influences world trade. (This idea could be developed as a team assignment or class project.)
2. You have just graduated from high school and have found a great job. You must have a car, however, to get to work. Your friend has just purchased a foreign car and wants you to do the same. Your parents want you to buy an American car. You want to make a logical decision. Choose an American-made car and an imported car to compare. Investigate the advantages and disadvantages of the two cars including the costs of ownership (i.e., insurance, gas and registration, as well as the price of the car), safety, repair, maintenance and depreciation records, as well as gas mileage. Create a table in which you compare the two so that your friend and parents will know that you arrived at your decision logically.
3. Your class is studying finance. As an assignment, you must interview an officer in a local investment company to determine how the company gets data, the number of people in a market segment and those individuals' investment preferences. Determine the institution's overall marketing strategy. Before the interview develop at least 10 to 15 questions about how the company gathers data and how this data affects its advertising and products. (This could serve as a team assignment with various interview techniques used by students.)
4. Since you have come to the end of your three-month probationary period in the company for which you are working, you are required to make some decisions about payroll deductions. The following can be deducted from your paycheck: stock options, annuities, charitable deductions, deferred compensation, health insurance, life insurance, retirement savings, saving bonds and the typical deductions required by law. Investigate each of these deductions and decide which are important to you and why. Develop a plan to provide for your future.
5. Choose a local insurance agency and investigate how a claim is processed. Is the payment processed manually or online? How is the insured billed for a copayment or amount not covered by the policy? How many claims are processed by the insurance agency weekly, monthly or annually? How many different types of claims are processed by the agency? Process a mock insurance claim either manually or with a computer. Submit the form to the local insurance agent for feedback to make sure the form is completed correctly.

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TOOLS *(continued)*

All Aspects Problem-Based Learning Activities¹

Problem-Based Situations Relating to the Aspect of **Technical and Production Skills**

1. You employ 11 bakers in the bakery that you own and manage. You have just signed a contract with a major food chain to supply them with 5,000 holiday cakes over and above their regular order. These cakes will be delivered during the four weeks between Thanksgiving and Christmas. To fill this order, you need extra labor. The salary of each baker is \$8 an hour. When they work overtime, the bakers earn time-and-a-half. One person can bake 10 cakes per hour. Each cake retails at \$9.50 and uses \$4.50 worth of ingredients. Gas for the oven costs another \$8.25 per batch of 10 cakes. You need to decide whether you should hire additional employees or run overtime shifts. Make a plan for getting the labor that you need while maximizing your profits.
2. Your manufacturing company has just lost a major contract. You have more personnel and equipment than current orders require. The board of directors has mentioned downsizing and layoffs. You have been asked to find a way of saving jobs and increasing sales. Suggest a plan to save jobs.
3. Your class decides to prepare a unique cookbook, one that can be used to prepare a meal for a few people (such as a small group) or for as many as 90 people. Have each student bring a favorite recipe and create a cookbook with quarter, half, regular and double recipes. The class could select a format and collect all recipes to share with others.
4. Your team leader wants to expedite communication among all the sales personnel in your firm. He/she has given you the task of setting up a conference for the 30 national and 10 international sales representatives. Your team leader wishes to introduce all of them to new product lines. Design two conferences that are both time and cost-effective. Make a budget for each one.

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TOOLS *(continued)*

All Aspects Problem-Based Learning Activities¹

Problem-Based Situations Relating to the Aspect of **Principles of Technology**

1. The plant in which you are working is undergoing a radical change in procedure. Management is introducing progressive automation and new technology throughout the plant. You are one of the union representatives. The workers are nervous for a number of reasons. They do not know how to use the new technology, and they are afraid that machines will replace them. Create a plan to receive questions from the employees and to communicate management's answers to these questions.
2. You are the team leader for designing a communication system that will meet the needs of your growing company for the next 10 years. To do this, you must investigate the applicable state and federal laws. You must also research the current and emerging technologies. Then you must develop a recommendation along with timelines and a cost analysis to present to the board of directors.
3. You work in the public relations department of your company. A recent study indicated that your company's advertisement in the yellow pages is inadequate. Customers seldom use it because it does not clearly specify what products or services your company provides. You are in charge of designing a new advertisement that will be used in the phone book and in several trade publications. Design one that is both attractive and clear. It should specify what products or services your company offers and be readable at a glance. Your report should include a written statement and a visual exhibition so that you can present it to the board of directors. (The instructor may provide information about products or services, or students may brainstorm to develop this information. This activity could include the development of a home page for the internet.)
4. You are a member of the quality control team in a medium-sized production plant. Production has been declining on a daily basis this month. Management wants to bring up production levels to meet and exceed those of last month. Production was recently interrupted for several days while new computer equipment was installed. Several employees have expressed concerns about increasing production while adapting to the new technology. Develop a plan to address the problems and to improve the production level.

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TOOLS *(continued)*

All Aspects Problem-Based Learning Activities¹

Problem-Based Situations Relating to the Aspect of **Labor Issues**

1. You are the manager of a local small business. You are pleased with your salary and benefits. You have a flexible schedule, health insurance and investment opportunities. You would like to advance in the company; however, you see no room for growth. You begin to consider investing in your own franchise. Research the pros and cons of opening your own franchise, comparing at least three different types. Develop a plan that will allow you to select the best franchise for your needs.
2. As an employee of the regional office of the U.S. Department of Labor, one of your duties is to increase apprenticeship programs between local industries or other businesses and local schools. To do this, you decide to develop a brochure that highlights the benefits of apprenticeship programs to the student, the industry or business and to the community itself.
3. A television production team from a major news station has been filming in your school. They are doing a series called "Learning and the 21st Century." You find their work particularly interesting. Your teacher asks you to identify the job titles and duties of all of the people involved in the production company and to create a plan to pursue a career in one of these areas.
4. Research an industry in your area and determine which unions are active. Note if there are any employees not covered by a union. Investigate the benefits and drawbacks of a union. Prepare for a class discussion or presentation to include such information as whether you get what you pay for as a union member and how unions have changed working conditions and wages through the years. Cite examples of these in your report.

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TOOLS *(continued)*

All Aspects Problem-Based Learning Activities¹

Problem-Based Situations Relating to the Aspect of **Community Issues**

1. You are a member of a community committee that is responding to the mayor's suggestion that a sports complex be constructed in your neighborhood. People in this neighborhood are very concerned that this sports complex will cause a lot of additional problems, including increased traffic, crime and noise. On the other hand, many neighbors see that this facility would have a positive economic effect. You have been elected to prepare a report listing alternative suggestions to help alleviate the fears of the community. You are to present this report at a community meeting next month.
2. You are a member of a community team that has been trying to increase the number of residents in the trade unions. To enter many trades, passing a state test is required. The computerized tests are offered at a regional center. Devise a plan to help more community residents take and pass these tests. Report on the economic impact to your community if more members were earning union wages.
3. Residents in your community have been greatly upset by the presence of an obnoxious odor that emanates from a small stream that runs through an empty lot. As a community service project, your class has offered to assist the community in finding the source of this problem and in alleviating it if possible. You are in charge of developing two plans: a short-range one with which you and other classmates can help and a long-range plan that can be implemented by the community. Present your plans to the principal, superintendent and school council.
4. Make arrangements to meet with the public relations or marketing manager of a local enterprise. Find out why the business/organization has a public relations department and what community activities it supports. Investigate how the enterprise affects the local area and how the neighborhood affects the business/organization. Ask the public relations or marketing manager to cite an example of a public relations issue.

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TOOLS *(continued)*

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Problem-Based Situations Relating to the Aspect of **Health, Safety, and Environment**

1. You work the night shift at a local business. One evening when the nurse has left for the day, a member of your staff injures his/her hand. Neither a first aid kit nor emergency health instructions could be found. Upon hearing of this incident, your supervisor became very upset. He/she asks you and your coworkers to develop a set of instructions for medical emergencies. You will present this report to your department and to the company owners for final approval.
2. As an employee of your city, you are appointed to serve on the recycling promotion committee. The committee has decided to have an Earth Day Fair to promote conservation, particularly the recycling of paper, aluminum products and glass. Develop a plan for the fair that will incorporate education, fun and the importance of recycling. Include the local schools and community in your plan.
3. You work with the Environmental Protection Agency. There has been a toxic chemical spill in your area. Your supervisor asks you to find out if other hazardous spills have occurred in your state/region within the last two years. Your supervisor asks you to investigate the cause and the economic impact upon the state/region. You are to devise and present a plan that will help to avoid such incidents in the future.
4. Question the manager of a local business/organization to find out how the company handles and disposes of waste. Find out what precautions are taken to make the building and surrounding parking lots safe at night. Investigate what can happen when waste is disposed improperly: Where does it go, who handles the removal, how much does it cost? What environmental regulations exist to ensure a safe workplace?

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TOOLS *(continued)*

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Problem-Based Situations Relating to the Aspect of **Personal Work Habits**

1. Many employees report late for work each day. This is true at all levels of the organization, including salaried, managerial and hourly workers. You are an employee in the human resources section of the company, and your manager has asked you to prepare a report that addresses this problem. She/he asked you to think of several ways to reduce the tardiness of employees. You must present your findings to groups of employees. Prepare a report including three or four ideas that might encourage employees to come to work on time.
2. You work in the office of a nationwide chain store. Your supervisor spends about half of the time in the office and half on the floor directly supervising operations. You enjoy your job, but when the manager is in the office you feel uncomfortable and have difficulty getting much work done. The supervisor constantly makes comments about your age, gender and/or ethnic background. What are your options? Research and discuss the laws that prohibit such behavior, the policy and grievance procedures that many organizations have to protect workers and solutions that could include constructive feedback, a technique that enables workers to deal with sensitive situations. Develop a strategy to deal with this and similar situations.
3. Simulate an American businessperson doing business in a foreign country. Develop solutions for solving a problem at work. Demonstrate acceptable and unacceptable behaviors, gift-giving situations and discrepancies in acceptable punctuality standards.
4. Personal work habits* is a component not found in the school-to-work legislation, but employers have stressed there is a critical need for employees to understand what is expected in the workplace and how important it is to be ready to work. Being ready to work includes the following:
 - a. Reliability, critical thinking and problem-solving.
 - b. Understanding personal accountability.
 - c. Being a team player and self-starter.
 - d. Appropriate appearance and fitness for the workplace.
 - e. Producing high-quality and effective work.
 - f. Showing respect for all work.
 - g. Displaying a positive attitude.

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*Adapted from: Close-up Foundation Online Quarterly: Reflection, March 8, 2000, and Project-Based Learning: A Strategy for Teaching and Learning, prepared by the Center for Youth Development and Education, January 1999.