Questionnaire in English

Consent form

This questionnaire is part of research that aims to investigate the relationship between personality and decision-making in Software Engineering. The total time required to complete it is four hours. Because of the long period required to complete the questionnaire, the answer it will be taken in four sections, each one of about one hour. This study is anonymous, which means that we will publish any information about your identity. The answer to this questionnaire indicates that you have decided to volunteer as a research participant in this study. Any doubt related to the research and to this survey can be sent to fabiana.freitas.mendes@gmail.com.

Part I - Personal Information

1. What is your gender?
() Male
() Female
() I prefer do not declare
2. Wilest in account of 2.
2. What is your age?
() Under 25 years old
() 26 – 35 years old
() 36 – 45 years old
() 46 – 55 years old
() Over 55 years old
3. What is your highest level of education?
() High School Diploma
() Bachelor's Degree
() Master's Degree
() Doctorate Degree
() Other
 4. How many years of experience you have in working with Software Engineering do you have? () Under 2 () 2 - 5 () 6 - 10 () 11 - 15 () Over 15
5. How many software development projects have you participated in?
() Less than 5
() 5 - 10
() 11 - 15
() Over 15
6. Which role did you executed in the most of projects?
() Business-related role (know about the business and contribute to the project as a source of requirements
or any other business knowledge that is required to perform the software development)
() Management-related role (perform any task related to software development management)

() Technical-related role (perform any task necessary to develop the software directly, such as requirement
e	ngineer, software architect, software coder, and testers)
() Mixed
7	. How often do you participate in the project decisions?
(
() Never
() Rarely
() Sometimes
() Very Often
() Always
8	. How often do you lead the project decisions?
() Never
() Rarely
() Sometimes
() Very Often
() Always
9	. How often do you volunteer to lead a decision?
() Never
() Rarely
() Sometimes
() Very Often
() Always

Part II - Personality¹

The following items contain phrases describing people's behaviors. Please use the rating scale to describe how accurately each statement describes you. For each item, mark with X the option of your choice Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, concerning other people you know of the same sex as you are, and roughly your same age. So that you can honestly describe yourself, your responses will be kept in absolute confidence.

	Rating Scale					
Item	Very Inaccurate	Moderately Inaccurate	Neither Accurate nor Inaccurate	Moderately Accurate	Very Accurate	
1. Worry about things.						
2. Make friends easily.						
3. Have a vivid imagination.						
4. Trust others.						
5. Complete tasks successfully.						
6. Get angry easily.						
7. Love large parties.						
8. Believe in the importance of art.						
9. Use others for my own ends.						
10. Like to tidy up.						
11. Often feel blue.						

¹ Source: http://www.personal.psu.edu/~j5j/IPIP/ipipneo120.htm

12 Teles change			
12. Take charge.			
13. Experience my emotions intensely			
14. Love to help others			
15. Keep my promises.			
16. Find it difficult to approach others.			
17. Am always busy.			
18. Prefer variety to routine.			
19. Love a good fight.			
20. Work hard.			
21. Go on binges.			
22. Love excitement.			
23. Love to read challenging material.			
24. Believe that I am better than others.			
25. Am always prepared.			
26. Panic easily.			
27. Radiate joy.			
28. Tend to vote for liberal political candidates.			
29 Sympathize with the homeless.			
30 Jump into things without thinking.			
31 Fear for the worst.			
32 Feel comfortable around people.			
33 Enjoy wild flights of fantasy.			
34 Believe that others have good intentions.			
35 Excel in what I do.			
36 Get irritated easily.			
37 Talk to a lot of different people at parties.			
38 See beauty in things that others might not notice			
39 Cheat to get ahead.			
40 Often forget to put things back in their proper place			
41 Dislike myself.			
42 Try to lead others.			
43 Feel others' emotions.			
44 Am concerned about others.			
45 Tell the truth.			
46 Am afraid to draw attention to myself.			
47 Am always on the go.			
48 Prefer to stick with things that I know.			
49 Yell at people.			
50 Do more than what's expected of me.			
51 Rarely overindulge.			
52 Seek adventure.			
53 Avoid philosophical discussions.			
54 Think highly of myself.			
55 Carry out my plans.			
56 Become overwhelmed by events.			
57 Have a lot of fun.			
58 Believe that there is no absolute right or wrong.			
59 Feel sympathy for those who are worse off than myself	<u> </u>		

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60 Make rash decisions.			
61 Am afraid of many things			
62 Avoid contacts with others.			
63 Love to daydream.			
64 Trust what people say.			
65 Handle tasks smoothly.			
66 Lose my temper.			
67 Prefer to be alone.			
68 Do not like poetry.			
69 Take advantage of others.			
70 Leave a mess in my room.			
71 Am often down in the dumps.			
72 Take control of things.			
73 Rarely notice my emotional reactions.			
74 Am indifferent to the feelings of others.			
75 Break rules.			
76 Only feel comfortable with friends.			
77 Do a lot in my spare time.			
78 Dislike changes.			
79 Insult people.			
80 Do just enough work to get by.			
81 Easily resist temptations.			
82 Enjoy being reckless.			
83 Have difficulty understanding abstract ideas.			
84 Have a high opinion of myself.			
85 Waste my time.			
86 Feel that I'm unable to deal with things.			
87 Love life.			
88 Tend to vote for conservative political candidates.			
89 Am not interested in other people's problems.			
90 Rush into things.			
91 Get stressed out easily.			
92 Keep others at a distance.			
93 Like to get lost in thought.			
94 Distrust people.			
95 Know how to get things done.			
96 Am not easily annoyed.			
97 Avoid crowds.			
98 Do not enjoy going to art museums.			
99 Obstruct others' plans.			
-			
100 Leave my belongings around.			
101 Feel comfortable with myself.			
102 Wait for others to lead the way.			
103 Don't understand people who get emotional.			
104 Take no time for others.			
105 Break my promises.			
106 Am not bothered by difficult social situations.			
107 Like to take it easy.			

108 Am attached to conventional ways.			
109 Get back at others.			
110 Put little time and effort into my work.			
111 Am able to control my cravings.			
112 Act wild and crazy.			
113 Am not interested in theoretical discussions.			
114 Boast about my virtues.			
115 Have difficulty starting tasks.			
116 Remain calm under pressure.			
117 Look at the bright side of life.			
118 Believe that we should be tough on crime.			
119 Try not to think about the needy.			
120 Act without thinking.			

Part III - Decision-Making Self-Efficacy²

Please rate in each of the blanks in the column how certain you are that you can get yourself to perform in these activities regularly. Rate your degree of confidence by recording a number from 0 to 100, where 0 is interpreted as "you can not see yourself doing it at all", 50 is interpreted as "you can see yourself moderately doing it", and 100 is interpreted as "I can certainly see myself doing it."

Item	Rating (fill with a number from 0 to 100)
01. Think clearly and keep all relevant factors in mind	(jiii miii a namoer from o to 100)
02. Control my level of attention and concentration when time pressure mounts	
03. Limit negative thoughts entering my mind	
04. Refrain from worry about my decision choices and consequences	
05. Contain my self-doubts about my ability to deal with adverse consequences	
06. Remain confident to make sound judgments and the right choices	
07. Know what to do next in decision-making	
08. Fell that I am making the right decision	
09. Make difficult decisions under time pressure	
10. Use a methodical thinking process in my decisions	
11. Analyse and interpret numerical or quantitative data accurately	
12. Discover a range of alternatives or several solutions	
13. Weigh negative and positive consequences of each alternative option	
14. Refrain from changing my mind to the least objectionable alternative	
15. Trust my own judgment and express my opinions firmly	
16. Influence decisions with certainty that they will work	
17. Readily commit to my decisions	
18. Appraise a business decision problem situation quickly	
19. Search for new information and alternatives	
20. Obtain information by seeing what needs to be known	
21. Narrow down a list of alternatives that appear as effective options	
22. Manipulate quantitative data to identify trends, problems, and their causes	

² Source: Myburgh W, Watson MB, Foxcroft CD. Development and validation of a managerial decision making self-efficacy questionnaire. SA Journal of Industrial Psychology. 2015;41(1):01-15.

23. Choose the best alternative given the situation	
24. Persevere in my persuasive attempts to convince others of my decision choice	
25. Make decisions that contain risks and potentially unfavorable consequences	
26. Make a decision and persevere with actions to make them pay off	
27. Secure resources to implement my decisions	
28. Convince others of my decision choice even when opposition mounts	
29. Influence decisions regardless of the amount of control I have over	
organizational constraints	
30. Refrain from putting off difficult decisions	

Part IV – Decision-Making Style³

Following, you can find 30 cases. Each case depicts a manager in a decision-making situation in which some action on his part is required. Furthermore, the course of action decided upon is going to have effects on someone other than himself - typically subordinates who will have to execute the decision. For each of these problems, there are a set of decision processes available to you. These represent alternative ways in which you could go about making the decision and they vary in the extent to which your subordinates can participate in the decision.

Your task is to assume the role of the manager in each case and to select from the appropriate set of decision processes the one that you would use in dealing with that situation. In some instances, there may be a discrepancy between what you think you should do and what you believe you would do in a particular case. If that discrepancy occurs, it is what you would do that is of interest. In effect, your task is to **predict your behavior**. You should indicate your approach to each case by choosing one of the five alternatives.

It is important that you not regard this as a test in which your objective is to get the right answer. Rather, you should look at this exercise as an opportunity to learn about your reactions to managerial situations.

Alternatives					
AI	You solve the problem or make the decision yourself using the information available to you at the present time.				
AII	You obtain any necessary information from subordinates, then decide on a solution to the problem yourself. You may or may not tell subordinates the purpose of your questions or give information about the problem or decision you are working on. The input provided by them is clearly in response to your request for specific information. They do not play a role in the definition of the problem or in generating or evaluating alternative solutions.				
You share the problem with the relevant subordinates individually, getting a suggestions without bringing them together as a group. Then you make the decision may or may not reflect your subordinates' influence.					
CII	You share the problem with your subordinates in a group meeting. In this meeting, you obtain their ideas and suggestions. Then you make the decision that may or may not reflect your subordinates' influence.				
GII	You share the problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach an agreement (consensus) on a solution. Your role is much like that of a chairman, coordinating the discussion keeping it focused on the problem, and making sure that the critical issues are discussed. You can provide the group with information or ideas that you have but you do not try to press them to adopt your solution and are willing to accept and implement any solution which has the support of the entire group.				

³ Source: Glube RH. Leadership decision making: an empirical test of the vroom and yetton model. PhD Thesis. Appendix B.

List of Cases:

CASE 1:

As a result of your area of responsibility being extended, you are now absent from the office for about 12 hours a week. These 12 hours are composed of four hours sessions on three separate mornings. At the moment, you have complete freedom to choose the mornings you prefer, but you have been asked to make a firm commitment to particular days for the next month.

Little useful consultation can take place between you and your subordinates during those mornings spent out of the office. Planning in advance to be in the office when your subordinates are most likely to need you seems impossible as their demands on your time are unpredictable.

CASE2 :

As a buyer for a chain of department stores responsible for women's dresses, suits, and coats, you have seen the new lines and the marketing department has provided you with the latest sales forecasts. You must now make the final decisions on the next quarter's purchases. You need the cooperation of the department managers, as their control over the display is a critical element in the selling process. It is possible for buyers' efforts to come to nothing as a result of their managers' antagonism, and a manager can ruin a period of sales performance by hiding new stock or just giving the buyer's main items poor display positions.

Your past and present performance has been of a very high level, and it is recognized in your chain and in the industry that you have established all the right contacts at the production end of the industry and a real flair for predicting the fashion trends. You have earned from your department managers the reputation as an expert in your field. Both you and your department managers will be primarily evaluated on your sales volume for the quarter. They are counting on you to repeat last year's success.

The company for which you work has recently moved into a new 30 floors building located in a large metropolitan area. The company had previously rented space in several other buildings and the new structure, designed by a famous architectural firm, is part of the president's attempt to change the image of the firm to that of a progressive and innovative organization.

To add the right touch to the physical structure, the president arranged the purchase of a large art collection at a cost of half a million dollars to decorate the hallways of the building. As vice president in charge of marketing, you have been instructed to select from that collection, a painting which would be suitable for a wall in your conference room. You have examined the available alternatives and consulted with an interior decorator hired by the firm who provided you with ideas as to what to look for in a painting that would blend in with the decor.

You use the conference room primarily for weekly meetings with your marketing managers, each in charge of coordinating marketing activities for a different line of the company's products. You know from visiting their homes that their personal tastes in art differ widely.

You are the captain of a coast guard cutter with a crew of six. Your mission is to patrol the coast of Newport, Rhode Island, and to participate in search and rescue missions. At 8 a.m. this morning you were informed that a small plane was reported down while en route from Boston to New Haven, Connecticut. You obtained all the available information concerning the location of the crash, informed your crew about the mission, and set out from Newport to search for survivors.

You have now been searching for six hours with no results. Your search operation has been increasingly impaired by rough seas and there is evidence of a severe storm gathering in the southwest. A decision must be made shortly about whether to abandon the search and return to port (thereby protecting the vessel and its crew but relegating any possible survivors to almost certain death from exposure) or continuing a potentially futile search and the risks it would entail.

You have contacted the weather bureau for up-to-date information concerning the severity and duration of the storm. While your crew is extremely conscientious about the responsibility, you believe that they would be divided on the decision of leaving or staying.

You are the head of a staff unit reporting to the vice-president of finance. He has asked you to provide a report on the firm's current portfolio to include recommendations for changes in the selection criteria currently employed. Doubts have been raised about the efficiency of the existing system in the current market conditions, and there is considerable dissatisfaction with prevailing rates of return.

You plan to write the report, but at the moment you are quite perplexed about the approach to take. Your own specialty is the bond market and it is clear to you that a detailed knowledge of the equity market, which you lack, would greatly enhance the value of the report. Fortunately, four members of your staff are specialists in different segments of the equity market. Together, they possess a vast amount of knowledge about the intricacies of investment. While they are obviously conscientious as well as knowledgeable, they have major differences when it comes to investment philosophy and strategy.

You have six weeks before the report is due. You have already begun to familiarize yourself with the firm's current portfolio. Your next problem is to come up with some alternatives to the firm's present practices and select the most promising for detailed analysis in your report.

Seven product lines involving four of your eight foremen will have to be disrupted to satisfy an emergency request from an important client. You are the general foreman and you naturally wish to disrupt these lines as little as possible. No additional personnel is available, and time limits to complete the new project are restrictive.

The plant is new and is the only industrial plant in an economically depressed area that is dominated by farming. You can count on everyone pulling his weight. The wages in the plant are substantially above farm wages, and their jobs depend on the profitability of this plant the first new industrial development in the area in the last 15 years.

Your subordinates are relatively inexperienced, and you have been supervising them more closely than you might if the plant had been in a well-established industrial area and your subordinates more experienced. The changes involve only standard procedures and are routine to someone of your experience. Effective supervision poses no problems. Your problem is how to reschedule the work to meet this emergency within the time limit with minimum disruption of the existing product lines. Your experience in such matters should enable you to figure out a way of meeting the request in a way that would minimize the disruption of existing product lines.

When reviewing your department's computer utilization, you have found that your programmers are using a wide variety of printout formats. The outside computer facility you employ makes an additional charge for multiple formats. There are no technical reasons to prefer any one format over any other or to prevent standardizing formats to a single alternative. Furthermore, there are substantial cost reductions to be made if use is restricted to any one particular format.

The setup of the computer facility makes it impossible to either monitor who is using which format or to restrict access to only one format for a particular client firm. Monitoring the process by close supervision of your own programmers is totally unacceptable. Most of your better programmers would just quit and work for one of your competitors.

In your discussions with the programmers about printout formats you have learned that they are not at all concerned about the question. They profess that the format they use is largely a matter of habit and no one has yet produced any arguments in favor of the particular format he uses. Certainly, no question of professional judgment or skill on their part is being raised here, and no retraining would be necessary whichever format is selected as standard. The cost savings are sufficiently high that it is likely that you would have no difficulty in selling a standardized format.

You are the general foreman in charge of a large gang laying an oil pipeline. It is now necessary to estimate your expected rate of progress in order to schedule material deliveries to the next field site.

You know the nature of the terrain you will be traveling and have all the data you need to compute your likely rate of speed over that type of terrain. Since there is always some uncertainty connected with such estimates, stemming from factors such as weather which cannot be forecast with complete accuracy, you have calculated the earliest and latest times at which materials and support facilities will be needed at the next site. A decision must now be made between these estimates or on some intermediate value. It is important that your estimate be as accurate as possible. Underestimates result in idle foremen and workers, and an overestimate results in tying up materials for a period of time before they are to be used.

Progress has been good and your five foremen and other members of the gang stand to receive substantial bonuses if the project is completed ahead of schedule. You know from bitter experience that your foremen always grossly exaggerate requirements to eliminate any possibility that they would ever be held up by a possible lack of materials. Moreover, they are always boasting and exaggerating their speed and ability to lay pipe.

A flu epidemic has reduced the labor force by 20%, and you are behind schedule in meeting the production required to fill some critical orders. If these orders are to be filed on time, it is clear that a substantial reallocation of work will be needed. You are one of the six first-line supervisors, and you have been appointed acting manufacturing manager as the manufacturing manager is one of the flu victims. You will need the active support of the other supervisors if the orders are to be met on schedule. They should have some information on the number and type of workers absent among their own men, and you know which of your own men are on the job today.

Any decision about the new schedule involves not only a choice of lines to be kept running but also the transfer of workers between first-line supervisors. Even though this is a temporary move, you know that these transfers will need to be handled very delicately. Each supervisor has been accustomed to a considerable amount of autonomy and the practices of the manufacturing manager have not encouraged them to regard themselves as part of a team, but rather to consider their own operation.

The reallocation of work is most critical with respect to skilled rather than semi-skilled or unskilled workers. Past experience suggests that the supervisors are likely to keep the best troops at home rather than analyze the skill characteristics required for the job to be done.

You have recently received an assignment as an engineering supervisor in one of the largest plants in the company. You did not relish this assignment since this plant is widely recognized as being the trouble spot in the organization. Antagonism between management and workers abounds. There have been several costly strikes and even the engineers, including those you supervise, are union members and evidence antagonism toward management and identify with the workers. The feelings of distrust between management and workers have become more acute within the last year as a result of management's unsuccessful efforts to decertify the union.

This is your first supervisory assignment and you are anxious to do well. However, during your first month on the new job, you have not had much success in gaining the acceptance of the eight engineers who report to you. They seem friendly in their relations with one another but noticeably cool and suspicious toward you.

Today, you received a visit from your own supervisor. One of the projects on which your group is working in six months overdue and unless it is completed soon, the entire contract may be in jeopardy. You were previously unaware that this problem was quite so severe and assured your boss that it would receive your immediate attention. You must first identify the causes of the delay and then determine the necessary steps to take to complete the project as soon as possible even if it means dropping all other projects on which your group is presently working.

As systems-engineering manager, you have received a request from a manager in the marketing department for advice concerning a computer program to analyze some data on advertising. You told him you knew of several programs which would do the job but that you would like to give it a little more thought before making a final recommendation. The problem is a relatively simple one, although the amount of data raised some interesting questions about information storage and retrieval. It was apparent that marketing was particularly concerned about the cost of the necessary computer time because of the very large quantity of data to be processed. As soon as you have a spare hour to work on it, you feel sure that you can determine the program which would best suit their particular requirements.

You have two systems analysts working for you, both of whom recently joined the company after graduation from a university. While they are technically very qualified, you are happy that he brought the problem to you rather than to one of them since they have a tendency, common to many recent graduates, to recommend more complex and sophisticated approaches than are really required to do the job. You believe that this may be because it reinforces their position as high priests of some advanced science. Your two subordinates' desire to prove themselves is reflected in competitiveness, particularly in their relations with one another. On the few occasions in which they have had to work together, each seemed to you to be trying to show the other one up.

As a result of declining profits, all departments in the company have been asked to trim non-essential expenditures. As office manager, you have decided to investigate the office's need for its present large, fast and highly flexible copier. If it could be replaced with one of several cheaper machines on the market, a substantial cost saving could be effected. You have the specifications for both the present and smaller machines, and the salesmen have advised you of various factors governing the choice of machine, including utilization rates, number of copies required, and fidelity of reproduction necessary. The office girls can easily provide you with this data.

The girls would like to retain the present machine. They are much less concerned than you about costs and are very cognizant of the many advantages the larger machine offers in ease of operation. If you installed the smaller machine, the girls might need to improvise on some jobs or take the work over to another department which would waste a lot of time. The girls could make life difficult for you by using any excuse to go over to the other department. The potential waste of time involved would mean that you would have to rule on each individual case, as no general set of regulations could be established to cover all contingencies.

Even though they will obviously be affected, all the girls know what a substantial amount of money is involved and believe that making these decisions is what you are paid for. It is an office joke that none of them would want your job and its responsibilities.

Recently a new division has been established made up of three plants recently bought from three other companies. You are the chief purchasing agent for that division, and as such have coordinating responsibility for the three purchasing agents. The job specifications and organization chart for the new division give you no formal authority over the agents, who report directly to their own plant managers.

Two weeks ago, at a meeting which you attended, concern was expressed by the plant purchasing agents about the problems which have been occurring in inter-plant purchases. The different coding procedures and formats used by the different companies prior to the acquisition are still in use and are causing, as a result of a misunderstanding, errors in shipments between plants. At the meeting, feelings were running high, and each agent was attributing blame for the errors to the other agents. The outcome of the meeting, however, was a view that the problem could be solved by a universal format for implementation in all of the plants. Naturally, each agent would prefer the system to which he has been accustomed and, in recognition of their likely inability to resolve this issue without further disagreement; they asked you to resolve the issue by selecting a universal format for use in all plants.

You have examined each of the formats in use and can see no advantage in retaining any particular system either for technical reasons or because any plant handles substantially more inter-plant purchases than any other. The next meeting of this group is on Friday. It would be highly desirable if the issue could be resolved at that time.

Dontex is an electronics firm making miniature circuits. Your firm has recently received an urgent request from one of its most important customers for 200 custom-designed circuits. The manufacturing manager has asked you to put the order out in the next week, and you have assured him that this can be done.

Your problem is to select the workers to carry out this special assignment. You estimate that the task can be accomplished by as few as three people provided that those chosen have previously worked on this kind of circuit before. After consulting the records, you determined that 5 of the 12 women in your section have had that kind of experience.

To meet the target date, you will need the complete cooperation of the women chosen. Your own workload for the next week is such that you will not have time to supervise them closely and whether or not the order gets out in time will depend largely on the effort they put into it.

Such cooperation on their part has not been a problem in the past. You feel that you have earned the respect of the women reporting to you and they seem anxious to please and willing to defer to your judgment.

If you were to let the women decide who should work on the special assignment, you fear that they would use seniority rather than skill as the basis for their choice. You suspect that deferring to those who have been with the company a long time reflects not only their inexperience in making decisions such as this but also is a means of preserving the status relationships in the group.

You will leave on Sunday night to attend a four-week course at one of the leading business schools. One of your subordinates must be selected to act for you in your absence. You can arrange to phone the office two or three times a week, but whoever acts for you may need to make a number of important decisions.

The principal responsibilities of your replacement are to coordinate the work of your other subordinates. In this area, he will need to rely on persuasion rather than formal authority. If the group lacked confidence in the person chosen, productivity would definitely suffer.

You have two people in mind who could handle the assignment. The one thing about which you are uncertain is the nature of their workloads for the next month. The nature of the work does not permit redistribution among members of the group and the person chosen cannot be one who already has a heavy volume of work to be carried out during this period.

The person who assumes your position during your absence would acquire some status within the group and for this reason, each person would want the job. On the other hand, each of your subordinates realizes that it is critical for the job to be done well, and they all want to prove to you that the operation can continue to be effective during your absence.

On the two previous occasions when you have had to be absent for significant periods, the people you selected were accepted by everybody and performed the job conscientiously and well. It appears that once you have decided who should do the job, your judgment is accepted without question.

You have recently been appointed manager of a new plant which is presently under construction. Your team of five department heads has been selected and they are now working with you in selecting their own staff, purchasing equipment and generally anticipating the problems that are likely to arise when you move in to the plant in three months.

Yesterday you received from the architect a final set of plans for the building, and for the first time, you examined the parking facilities that are available. There is a large lot across the road from the plant intended primarily for hourly workers and lower-level supervisory personnel. In addition, there are seven spaces immediately adjacent to the administrative offices, intended for visitors and reserved parking. Company policy requires that a minimum of three spaces be made available for visitor parking, leaving you only four spaces to allocate among yourself and your five department heads. There is no way of increasing the total number of such spaces without changing the structure of the building.

Up to now, there have been no obvious status differences among your team who have worked together very well in the planning phase of the operation. To be sure, there are salary differences, with your Administrative, Manufacturing and Engineering Managers receiving slightly more than the Quality Control and Industrial Relations Managers. Each has recently been promoted to his new position and expects reserved parking privileges as a consequence of his new status. From past experience, you know that people feel strongly about things which would be indicative of their status. So far you and your subordinates have been working together as a team and you are reluctant to do anything which might jeopardize these relationships.

As plant manager in a small factory manufacturing toothpaste tubes, you are facing your first major catastrophe since assuming your present position sixteen months ago. Last week, three of the production lines making lead tubes for fluoride toothpaste went down due to a major failure in the paint dryer which the three lines share. A new dryer was ordered but it will be a month before it can be delivered and installed. You were beginning to worry about your ability to meet a large shipment of lead tubes from one of your most important customers. Fortunately, when you last checked, there was a reasonable stock of finished tubes available in inventory which when combined with expected output from the remaining lines, would probably meet the requirement.

Then, this morning, two of the remaining three lead lines went down due to minor faults in each of the presses. A decision will have to be made shortly about whether to convert one, two, or three lines from producing aluminum toothpaste tubes to producing lead tubes. The conversion is a costly one and has only been done once before in the history of the company. It exceeds the capabilities of your small engineering staff and requires the services of an outside firm, both to make the conversion to the production from aluminum to lead and the reconversion back to aluminum.

Before the decision is made, accurate estimates of the present stock levels and the repair time for the presses are needed. Your shipping and your maintenance managers, both of whom know about and are concerned about the problem, should be able to provide you with these estimates. You must balance the substantial costs associated with conversion against any possible damage to your business reputation if you miss the shipment.

You are manufacturing manager in a large electronics plant. The company's management has always been searching for ways of increasing efficiency. They have recently installed new machines and put in a new simplified work system, but to the surprise of everyone, including yourself, the expected increase in productivity was not realized. In fact, production has begun to drop, quality has fallen off, and the number of employee separations has risen.

You do not believe that there is anything wrong with the machines. You have had reports from other companies who are using them, and they confirm this opinion. You have also had representatives from the firm that built the machines go over them and they report that they are operating at peak efficiency

You suspect that some parts of the new work system may be responsible for the change, but this view is not widely shared among your immediate subordinates who are four first-line supervisors, each in charge of a section, and your supply manager. The drop-in production has been variously attributed to poor training of the operators, lack of an adequate system of financial incentives, and poor morale. Clearly, this is an issue about which there is a considerable depth of feeling within individuals and potential disagreement between your subordinates.

This morning you received a phone call from your division manager. He had just received your production figures for the last six months and was calling to express his concern. He indicated that the problem was yours to solve in any way that you think best but that he would like to know within a week what steps you plan to take. You share the division manager's concern with the falling production and know that your men are also concerned. The problem is to decide what steps to take to rectify the situation.

A defect in the seating surface of a steam generator hand hole has been discovered during the removal of the cover. The defect is serious and will require repair when you can gain access to it in about five days. The repair will be made difficult by high radiation levels in the area and the inaccessibility of the fault. It will be necessary to send in a team of two men to affect the repair. Time will be critical since any delay will prevent the restoration of the nuclear plant and significantly increase startup costs. As for maintenance supervisory, your problem is to select the team members for the assignment. You have six maintenance men reporting to you. They vary both in experience and in qualifications for this particular job. You know all your men well and selecting two who have the capacity to do the job is possible.

In the past, when a problem involving significant risks due to high radiation levels has come up, you have brought the men together as a group and shared the problem with them, and let them make the decision as to who should carry out the assignment. This procedure has not been entirely satisfactory since the group has tended to choose the more junior members on the grounds that they needed experience. You believe that such poor decisions have increased the amount of time to effect repairs such as this OHB.

However, it is apparent to you that the group members have been accustomed to having a part in decisions such as this one and since might resent it if you were to choose the two men yourself. Since the location and nature of the job and high radiation levels make any close supervision impossible, the time that it will take to perform the repairs could be seriously affected by the willingness of the men selected to carry out the assignment.

Your company contracted with a die-manufacturer for the supply of a special die at a price of \$25,000. In December, the supplier was five months late in delivery, had encountered several problems, and had notified you that it would be months before it could deliver the completed die.

Your company agreed to take the unfinished die in its present state and to withhold \$10,000 from the payment, it was agreed that the difference between the cost of finishing and the \$10,000 would be returned to the die manufacturer.

The cost of putting the die in working condition has turned out to be \$40,000. You have been asked to proceed with a legal investigation to determine the advisability of going ahead with legal action to recover the \$30,000 excess costs. If legal action is undertaken it will be turned over to a private law firm for prosecution.

Three of your brightest young lawyers have been working on this, and two of them are keen to go ahead while the other is steadfastly opposed. The enthusiasm may stem from the fact that the two are actively involved in local peace groups and in the past have expressed antagonism toward the supplier whose president is an officer in, and a vociferous spokesman for, a prominent right-wing group.

You know that there are only two factors that determine the wisdom of proceeding with legal action. One of these is the cost of going to court which you have estimated from past experience at \$10,000. The second is the probability of winning the case which you cannot estimate since you have not been involved personally in researching it. The research, carried out by your three subordinates, has involved studying a large number of legal briefs. Apparently, the question is covered by existing decisions. No complex legal questions are involved, and the case will not set any legal precedents.

You are the head of a research and development laboratory in the nuclear reactor division of a large corporation. Often it is not clear whether a particular piece of research is potentially of commercial interest or merely of academic interest to the researchers. In your judgment, one major area of research has advanced well beyond the level at which operating divisions pertinent to the area could possibly assimilate or make use of the data being generated.

Recently, two new areas with potentially high returns for commercial development have been proposed by one of the operating divisions. The team working in the area referred to in the previous paragraph is ideally qualified to research these new areas. Unfortunately, both the new areas are relatively devoid of scientific interest, while the project on which the team is currently engaged is of great scientific interest to all members.

At the moment this is, or is close to being, your best research team. The team is very cohesive, has a high level of morale, and has been very productive. You are convinced not only that they would not want to switch their efforts to these new areas, but also that forcing them to concentrate on these two new projects could adversely affect their morale, their good intra-group working relations, and their future productivity both as individuals and as a team.

You have to respond to the operating division within the next two weeks indicating what resources, if any, can be devoted to working on these projects. It would be possible for the team to work on more than one project, but each project would need the combined skills of all the members of the team, so no fragmentation of the team is technically feasible. This fact coupled with the fact that the team is very cohesive means that a solution that satisfies any team member would very probably go a long way to satisfying everyone on the team.

The company for which you work has been taken over and the new parent company has replaced your boss. The parent company has moved in a manager to whom you now report, a man with little management experience and for whom you have little respect.

He has sent you, as head of the applied research department, a directive to the effect that some changes must be made in general work habits - primarily in the area of dress and office etiquette: long hair and no ties are only a few of his complaints. You have argued in defense of the present practices and have informed him that the nature of the changes he is requesting is likely to cause a lot of resentment, a fall in morale, and may even result in some of your best junior staff leaving.

He is willing to concede the fact that your department has an excellent performance record and that changes are not likely to result in improved performance, but he is unwilling to reconsider his position. He did state that he didn't really care exactly what rules were adopted as long as a business-like appearance resulted. He has given you a month, after which he expects to see some results. In the event you do not introduce the necessary changes, he will issue a detailed set of rules and regulations to cover all personnel in your department. The problem you have to resolve is to see what rules to adopt to bring behavior into line with his general directives.

Nearly all the personnel in your department are under thirty and have graduate degrees in mathematics or the physical sciences. These common factors of age and training, plus the department's success, have resulted in a highly cohesive group with some strongly held group norms. These norms sanction the dress and office etiquette behavior that is now under review. For instance, your personnel believes that the length of a person's hair and sideburns, or whether he wears a tie is a question of the individual's personal taste.

Due to a number of factors, one of your major clients has run its stock of your product so low that it might have to shut down production. You have just heard about this one Thursday at 3:00. p.m. when marketing requested an immediate increase in production to meet an emergency order from this firm.

It should not be too difficult to meet the quotas requested, but this will require working overtime this Saturday. The machines have very different characteristics in terms of set-up costs and optimal run lengths and need very specialized skills on the part of the supervisor. Your problem is to decide which machine should be scheduled for production on Saturday. This decision on scheduling is, in fact, a decision on which supervisors will work overtime this Saturday.

You do have sufficient data on which to make decisions about overtime requirements, notification of vendors, material requirements, and retooling on machines. The possibility of using different configurations of machines to produce the necessary output combined with the different setup costs and optimal run lengths for these systems means that a technically poor solution to the scheduling problem would result in substantial cost overruns.

This rescheduling will affect 40 percent of the lines under your control and four or five supervisors will need to work overtime. Some similar problem occurs about every three months, and none of your subordinates has ever refused a request from you to work overtime.

While the union contract makes overtime compulsory at management's request and outlines a strict procedure for the allocation of overtime among workers, compulsory overtime is not written into the contracts of the supervisors. Eleven-line supervisors report directly to you. It would obviously be a disaster if the supervisors did not show up or did not do a good job. An important football game is being played this Saturday, and even though the supervisors are keen football fans, and no one would want to be one of those selected for overtime, you are pretty certain that they would all put the job first if asked.

You are the site manager on a private housing development project in its final stages of completion. Your present task is to coordinate the final details which involve electrical, plumbing, plastering and painting work and the installation of carpeting, drapes and kitchen equipment. Each of these is under the direction of a separate subcontractor, an independent businessman with whom you have contracted to perform the necessary services.

At present, the whole development is ahead of schedule and if this occurs, the contract provides for you and the subcontractors to get a substantial bonus. The bonus increases the further ahead of schedule the site is put into the hands of the real estate brokers. It appears that these tasks can be completed in less than the originally contracted time, but this will necessitate the establishment of a schedule to which everyone agrees to adhere. Everyone is keen to make the bonus as large as possible. Also, the building industry is booming in the area, and all the contractors have other jobs waiting on the completion of this one. Therefore, it is in everyone's interest to get the project completed as soon as possible.

To prepare the work schedule for the conclusion of the project, it will be necessary to have estimates of the time requirements for each of the remaining jobs and a statement of any conditions which must be met before work can be started on a particular job. 'For example, the carpeting and drapes cannot be installed in a house before the interior painting has been completed. Your subcontractors will have this information by the end of the week and then this jigsaw puzzle can be put together.

You have not worked in this area or with these contractors before; however, the contractors have worked together on a number of local projects and, while independent as people, they get on well together both personally and in the work situation. Since you are a manager and not an expert in any of the trades you will need to depend heavily on your subcontractors' cooperation if the task is to be completed as quickly as possible.

You are president of a small but growing Midwest bank, with its head office in the state's capital and branches in several nearby market towns. The main banking functions are all related to agriculture. The location and type of business are factors that contribute to the emphasis on traditional and conservative banking practices at all levels.

When you bought the bank five years ago, it was in poor financial shape. Under your leadership, much progress has been made. This progress has been achieved while the economy has moved into a mild recession, and as a result, your prestige among your bank managers is very high. Your success, which you are inclined to attribute principally to good luck and a few timely decisions on your part has, in your judgment one unfortunate by-product., It has caused your subordinates to look to you for leadership and guidance in decision-making beyond what you consider necessary. You have no doubts about the fundamental capabilities of these men but wish that they were not quite so willing to accede to your judgment.

You have recently acquired funds to permit opening a new branch. Your problem is to decide on a suitable location. You believe that there is no magic formula by which it is possible to select an optimal site. The choice will be made by a combination of some simple common-sense criteria with what feels right. You have asked your managers to keep their eyes open for commercial real estate sites that might be suitable. 'Their knowledge about the communities in which they operate should be extremely useful in making a wise choice.

Their support is important because the success of the new branch will be highly dependent on your managers' willingness to supply staff and technical assistance during its early days. Your bank is small enough for everyone to feel a part of a team, and you feel that this has been and will be critical to its prosperity.

The success of this project will benefit everybody. Directly they will benefit from the increased base of operations, and indirectly they will reap the personal and business advantages of being part of a successful and expanding business.

You are the manager of industrial engineering in a large toy firm. You were hired two months ago when your predecessor was fired from the company for reasons that have never been discussed with you.

When you assumed your present position, you found the office records and procedures in a state of great disorganization. You set out to rectify this situation but have not had much help from your three Industrial Engineers who seem fiercely loyal to your predecessor and resentful of your appointment. You suspect that the department has been oriented more to Industrial Engineering for its own sake and not enough to solving company problems. You are young and ambitious and saw this position as a stepping stone to a higher position in the company. Naturally, you are concerned about their attitudes, but, despite your best efforts, have to admit that you have made little progress. They seem defensive about their former boss' methods and resist any attempts on your part to change them.

In the middle of your efforts to get the house in order, you received your first major assignment. In a phone call from the manufacturing manager, you were asked for help in solving a quality control problem on two of the major production lines. Numerous complaints have been received from dealers concerning defective items on three of your major toy products. Since you are about to go from one shift to three shifts to meet anticipated heavy demands during the Christmas season, it is critical that the problem be solved as soon as possible. The firm's image as a producer of high-quality toys could suffer a serious blow if the problem is not solved quickly.

Since you are basically unfamiliar with production and quality control procedures, you will have to depend heavily on the background and experience of your three subordinates to help you in analyzing the problem. Even though none of them will be responsible for implementing the solution, they do have a background of experience in the department in which this problem has developed.

You promised the manufacturing manager that you would come and see him within the next few days and if possible, would provide him with a diagnosis of the problem and with the procedural changes that would correct it.

On arriving in your new position in Singapore from Taiwan, you have found that each of your subordinates has the title Assistant Accountant and has no clearly defined allocation of responsibility. This was made possible by the fact that your predecessor spent a large part of his time supervising all of their work.

One of the most difficult problems is processing the accounts of the many small, often one-man businesses that supply you with carvings and other native products for export. Your predecessor had attempted to deal with these problems by mail. This has proved ineffective, and you have decided that it would be better for one of your subordinates to visit the firms concerned and sort out the various problems.

The problem is which subordinate to use. Transportation is no problem as they all ride to work on scooters and all visits would be within a 30-mile radius of Singapore. Bad business practices with respect to these small firms have been cutting heavily into profits. It is very important that whoever is chosen understands all the procedures involved in the various business transactions concerned and is also able to explain them to a wide variety of people.

The oldest man is 48, the second 44, and the youngest man is 25. All three are Chinese, but the older men are traditional in their outlook, highly deferential to you and would naturally expect the oldest to receive the assignment. You know that the younger man has been to school in England and as a result, he might show more initiative and be less dependent upon supervision. He may also be more likely than the other two to believe that the position should be assigned on the basis of merit rather than age.

Whoever is given the job will be given an expense account. This is considered a symbol of high status and is of financial benefit as the company will cover the costs of operating the scooter.

Finally, whoever is chosen will be dependent upon the other two subordinates for information as to which firms to call on. You could supervise this, but your other commitments at the present time rule this out.

You have given the matter careful thought and it appears clear to you that one of the candidates would be much more effective than the other two in this position.

You are a professor of economics at a large midwestern university and have taught there for the past 25 years. Next semester you will be responsible for the large introductory economics course. Roughly 600 undergraduate students will take the course, and they will be taught in 6 sections of 100 students each. You will teach two of the sections yourself and two will be taught by each of two young assistant professors just hired after completing their PhDs. at a nearby university.

It is now two months before the start of the semester. You have had one meeting with the members of your team. It was the first time that you had done more than exchange greetings in the hall and you were impressed by the outline for the course that they both advocated. In many ways, it differed from the approach you have developed over the years, but it is clear that this difference is a result of their academic training rather than their lack of teaching experience.

You were surprised by their outspoken opposition to a common textbook and a common examination for all six sections. You explained that this practice is a matter of long-standing university policy with regard to the introductory courses, and they accepted that this policy would apply to the course but gave you clearly to understand that your explanation had not affected their views on the subject.

Today you received a phone call from the campus bookstore wanting to know which textbook to order for the course. After telling them that your order will be in by the end of the week, you mentally review the alternatives. There are at least a dozen textbooks available, but of these, only three or four are worthy of any consideration. Your previous use of each has left you with a fairly strong preference for one of them.

You strongly believe that it is important for the students to have a good textbook towards which the professor is confident and committed. This is particularly true when the professor has little teaching experience. The major factor which bothers you and prevents you from making an immediate decision is the fact that university policy a common textbook, and it is possible, if not likely, that your two assistant professors in the course would prefer, and there for be more successful with, one of the other textbooks.

Two years ago, you accepted an appointment as dean of an important college located within one of our larger universities. Your appointment had the unanimous support of the five department heads who report directly to you, and you feel that you have not let them down. You have been successful in attracting substantial funds from federal and private sources, which have enlarged both the scope and the influence of your college and of each of the five department heads. In return, they have given you their active support.

Recently, the problem of administering the funds has increased substantially the burdens of your office. Furthermore, you have just accepted an assignment on an important federal committee which will require your spending one day a week in Washington. You have discussed informally with your subordinates the possibility of appointing an assistant dean who would assume many of the more routine functions of your office. All concurred that such an appointment would make a great deal of sense and felt that you should proceed with the appointment without delay.

Since this is a new position, it is not clear what the job description should be or what qualities the candidate should possess. You also believe that it is important that the person holding it has the respect of the department heads since they might otherwise bypass him and insist on seeing you.

You have given some thought to the definition and scope of the job and also to who might be interested and available to fill this position, but so far you have drawn a blank. You approached two people from your former university, only to learn that they were unavailable. You have concluded that the most likely place from which to fill the position is within your own organization. There are probably suitable candidates within your faculty, and if so, your department heads would know of them.

None of your department heads is likely to be interested since the position would pay less and offer less status than their own. However, you wish to guard against the possibility that each department head might view the opening as an opportunity for one of his junior faculty who does not meet the usual criteria for teaching and scholarship. A department head who was successful in getting the position filled in this manner by one of his people would free up a faculty position for the appointment of someone from the outside and might also feel he was acquiring some special influence in the dean's office.

You are president of a small manufacturing company which produces various parts and subassemblies for radio, television and other electronics. You have been in your present position for two years during which time the company went through a major reorganization brought about by five years of increasing losses in its operations and a steadily diminishing share of the market. While the electronics industry is growing rapidly, your company and other smaller producers have had difficulties in adapting to the rapid technological developments and strong competition from the larger companies in the field.

One of your first projects as president was to direct a larger proportion of your productive capacity to specialty orders in which the unit-profit margin is somewhat larger and in which there is less competition from the larger companies in the field. This change has been successful to the extent that it has brought the company into the black for the first time in 8 years but it is not without its problems. The shifting demands of the specialty market call for unusual flexibility of manufacturing processes and the present four-story, the thirty-year-old building lacks the flexibility needed for efficient change-overs.

You have become convinced that the next step is to expand your productive capacity by building or acquiring a new plant. It has been necessary to turn down two or three orders in the past because of insufficient capacity to meet production deadlines, and a new facility should significantly reduce unit costs.

The other members of your management team are divided on the wisdom of expansion. Since each owns a sizeable number of shares of common stock in the firm, there is no question about their interest in making the company profitable. While you may disagree with some of them on particular views, you have no doubt about their interest in getting the company back on its feet. For example, your controller is worried that, since company reserves are low, the necessary funds for expansion would have to be raised from stock sales or mortgage loans and the present financial condition of the company does not place it in an advantageous position for such financing. Furthermore, it would be some time before returns from expansion would begin to pay off and an early business slump would wreck the company. Your manufacturing vice-president is concerned that the costs of both real estate and new equipment are highly inflated, and any serious consideration of expansion should await the next buyers' market.

On the other hand, your marketing and industrial relations vice presidents seem to share your conviction that expansion is the better course, to follow. Although your conversation with each of them has been casual and informal, you have become convinced that each of them feels strongly about his position. You have proceeded slowly since you believe that ultimately their support is necessary to the success of this venture. In the past, you have tried to give them a major voice in important decisions such as this one and they have responded well to it.

Yesterday, you learned that a new plant built by an aerospace firm has been put up for sale due to cutbacks in the industry. You collected all of the necessary data on the phone and are convinced that it is ideal for your needs. Furthermore, the price is quite reasonable for a plant of this size. The sellers agreed to wait a week for your decision.