

# Developments In Business Simulation & Experiential Exercises, Volume 19, 1992

## EFFECTIVE LEADERSHIP BEHAVIOR IN THE DESERT STORM ARENA: AN APPLICATION OF THE VROOM-YETTON-JAGO MODEL

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### ABSTRACT

This experiential exercise asks participants to utilize the Vroom-Yetton-Jago (VYJ) model to select the leadership style that would be most appropriate for two hypothetical "Desert Storm" scenarios. Participants are then asked to compare the VYJ leadership model to others with which they are familiar and to determine the perceived utility of the VYJ framework in a current or future job setting.

### EXPERIENTIAL EXERCISE

#### Background

For a number of years, the styles or typical behaviors of leaders have been characterized as autocratic, democratic, or something in between the two. Autocratic leaders make decisions by themselves while democratic leaders involve subordinates in the decision-making process.

Historically, leadership behavior in military settings has been generally autocratic, especially under battle conditions. Recently, however, through the months of intense media coverage of the Desert Storm Operation, we have had the rare opportunity to observe a relatively large number of military leaders displaying a wide range of leadership styles in a variety of unique settings. From these observations, it would appear that the modern military has moved toward adopting more of a situational approach to providing effective leadership. Military leaders now seem to be more flexible, allowing their style behavior to be molded by the unique situation with which they are faced.

Hypothetical Desert Storm scenarios can provide an effective vehicle to illustrate the utility of the Vroom-Yetton-Jago (VYJ) Model<sup>1</sup> in analyzing and selecting appropriate leader behavior. The VYJ Model is a situational leadership approach with increasingly popular appeal. The model has practical value in helping one decide how much subordinate participation in problem solving and decision making is appropriate in a given situation. The VYJ approach emphasizes the following:

- a. Five possible style choices for leaders ranging from highly autocratic to highly democratic (see Figure 1).
- b. Eight questions that can be used to define most situations calling for leadership. Generally, the questions can be divided into those which affect the quality of the decision (Quality Requirement--QR, Leader's Information--LI, Problem Structure--ST, and Subordinate Information--SI) and those that affect the acceptability of and commitment to the decision

FIGURE 1

### FIVE DECISION STYLES AVAILABLE TO A LEADER<sup>1</sup>

Decision Style	Definition
AI	Manager makes the decision alone.
All	Manager asks for information from subordinates but makes the decision alone. Subordinates may or may not be informed about what the situation is.
CI	Manager shares the situation with individual subordinates and asks for information and evaluation. Subordinates do not meet as a group, and the manager alone makes the decision.
CII	Manager and subordinates meet as a group to discuss the situation, but the manager makes the decision.
GII	Manager and subordinates meet as a group to discuss the situation, and the group makes the decision.

A=autocratic; C=consultative; G=group

(Commitment Requirement--CR, Commitment Probability--CP, Goal Congruence--GC, and Subordinate Conflict--CO). Figure 2 summarizes these eight important situational characteristics.

- c. A "decision tree"<sup>2</sup> which identifies the step-by-step sequence of questions to follow to ultimately select the most appropriate leadership style behavior for that situation (again see Figure 2).

Overall, the VYJ Model takes a situational approach--the leadership style which works best depends upon the characteristics of the situation. The VYJ approach provides a practical method for assessing the situation facing the leader and selecting the most effective leadership style for that situation.

#### Exercise 1

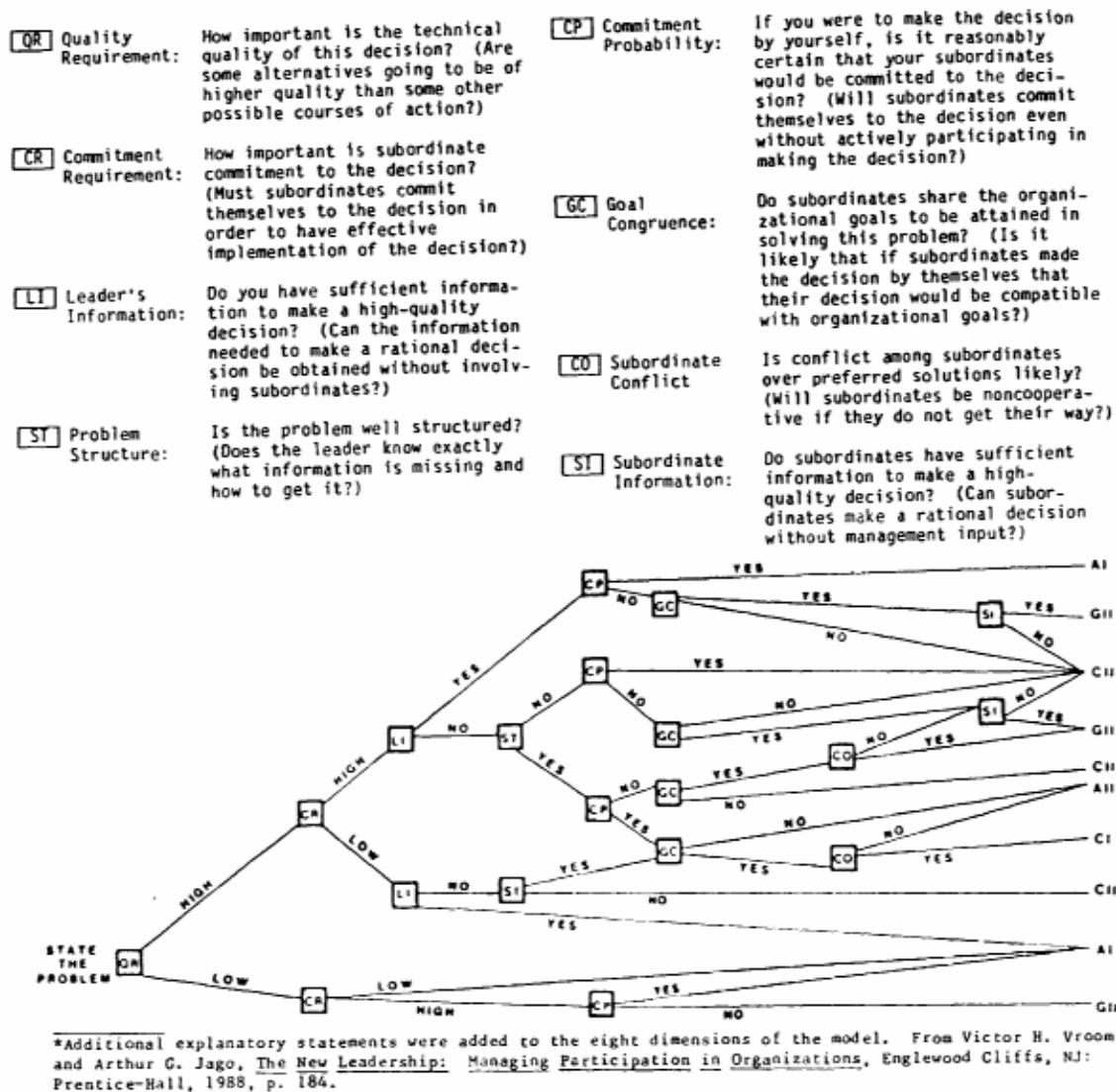
Now that you have extended your background regarding the Vroom-Yetton-Jago Model, use the VYJ framework provided in Figure 2 to select the

<sup>1</sup> Victor H. Vroom and Arthur G. Jago, The New Leadership: Managing Participation in Organizations, Englewood Cliffs, N.J.: Prentice-Hall, 1988.

<sup>2</sup> "decision tree appearing in this paper is time-driven rather than development-driven and is appropriate for situations involving a group rather than individuals. See Victor H. Vroom and Arthur G. Jago, The New Leadership: Managing Participation in Organizations, Englewood Cliffs, N.J.: Prentice-Hall, 1988, p. 184.

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FIGURE 2  
THE VROOM-YETTON-JAGO MODEL\*



leadership style/behavior that would be most appropriate for each of the following two "Desert Storms" situations. Use the space provided<sup>3</sup> to explain the logic used to move through the decision tree provided in Figure 2 to the ideal leadership style for each particular situation.<sup>4</sup>

**Situation A--You** are in charge of a large crew laying land mines through a remote northern region of Saudi Arabia. While having many different hats to wear as the project unfolds, the one presently carrying the greatest urgency involves estimating the rate of progress the team will make so that timely delivery of material (mines, food, etc.) can be made to the next field site. You have flown over the tract of land in question and know the nature of the terrain. You also have the standards book that covers burying mines in a variety of terrains that will permit you to calculate the mean and variance in the rate of speed (progress) you should be able to make. Given this information, it is a relatively simple

matter to calculate the earliest and latest times at which materials will be needed at the next field site. It is important the estimate made be accurate because over-estimating the time results in materials simply sitting there waiting to go into production (very vulnerable to sabotage--the mines, and spoilage --the food) and underestimating results in idle personnel (both officers and enlisted, who are susceptible to attack and/or sniper fire). Progress on the project up to this time has been very good and both officers and enlisted men stand to receive a substantial leave (R & R in southern Greece) if the project is completed ahead of schedule.

**Situation B--You** are in charge of a large supply depot and maintenance facility in a permanent structure (not a tent) in central Saudi Arabia. Among other items, you store a number of flammable liquids and dangerous chemicals. While well outside the range of SCUD missile attack, there have been several minor fires and explosions, some of which have resulted in both minor injury to personnel and minor damage to the

<sup>3</sup> <sup>4</sup>While the paper is worded as an exercise, space for recording student reactions is not provided due to proceedings page limits.

<sup>4</sup> <sup>5</sup>The instructor's materials that support this experiential exercise appear at the end of the exercise.

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facility. You are technically responsible for overall operational safety. To date none of the explosions or fires have been serious, but you are concerned that unless the basic cause(s) are identified and managed that a real disaster could occur. Informal conversations with your subordinate officers suggest that there is probably no simple solution to the problem. While all junior officers in charge of separate departments under your command share your concern regarding safety, each has his own perspective on the problem and what should be done about it. Each junior officer believes he has a workable solution, but it is your opinion that each is looking at the problem from the perspective of the most beneficial impact to his own unit. Consequently, you have yet to implement any specific suggestions. Furthermore, it is your strong belief that whatever is done must meet with full support from everyone.

Yesterday there was another minor explosion. Three enlisted men were sent to the base hospital for treatment of minor burns. If it had not been for the quick action of one NCO, far more serious injuries and significant damage to the facility could have resulted. You are now determined to initiate immediate actions to correct the situation and have the authority to expend whatever resources are necessary to solve the problem.

### Exercise 2

Now that you have had the opportunity to use the Vroom-Yetton-Jago Model to select a specific leadership style in two unique situations:

- What specific advantages do you believe this model holds over other leadership models/approaches<sup>5</sup> to which you have been exposed? Use the space provided below to record your list of advantages.
- What shortcomings/difficulties do you see with utilizing the VYJ approach to change/adjust your leadership style to fit various real-world situations? Explain in the space provided below.
- More specifically, do you feel that you will be able to utilize the VYJ model to select specific leader behaviors in a job you currently hold or one you will accept upon completing your program of study? Explain.

### Exercise 3

In the space provided below, identify what you have learned from involving yourself in this experiential exercise.

### INSTRUCTORS NOTES

#### Purpose of the Experience

This experiential exercise was designed to give students the opportunity to:

- Gain experience in using the decision-focused situational leadership approach of the Vroom-Yetton-Jago (VYJ) Model (in two hypothetical "Desert Storm" situations).

- Compare the VYJ Model to other leadership models/approaches (the Fiedler Contingency Theory and the Hersey-Blanchard Life Cycle Theory of Leadership would provide a good base for comparison) to assess the advantages and shortcomings of this framework for matching leadership styles to a situation calling for leadership.

#### How This Experience Can Be Used

While this experiential exercise has been successfully assigned on an individual basis, the greatest impact can be generated through small group involvement. Allow about 15 to 20 minutes for small group (4-6 participants) to evaluate Situations A and B and complete Exercise 1. Share the solutions to Situations A and B by placing on the overhead projector transparency masters of Figures 3 and 4 and conducting a general class discussion regarding how the logic of student groups may have differed from the instructor's manual solution, /logic that is provided below (15 minutes).

Ask participants to meet again in their small groups to compare the VYJ framework to other leadership approaches with which they are familiar (Exercise 2). The comments below concentrate on the Fiedler Contingency and the Hersey-Blanchard Life Cycle theories. The primary focus of this discussion is to not only identify the advantages and disadvantages to using the VYJ approach, but also to assess the practical utility of the VYJ framework (15 minutes). Again, conduct a general discussion with all participants regarding the observations made in small groups and, if the points mentioned below regarding advantages and shortcomings do not come up in the discussion, share them with participants (10-15 minutes). Assign Exercise 3 as an out of class individual assignment so that participants can formalize their perceptions of what was learned through involvement in this experiential exercise.

#### Sample Results

In Exercise 1 participants were asked to use the VYJ framework to select the leadership style/behavior that would be most appropriate in two different scenarios. Figure 3 shows the correct path through the VYJ decision tree for Situation A. The explanation of the logic that underlies Situation A appears below.

#### Situation A

The problem in Situation A is "to prepare an estimate of the rate of progress in laying land mines." The logic that underlies the selection of the most appropriate leadership style is as follows:

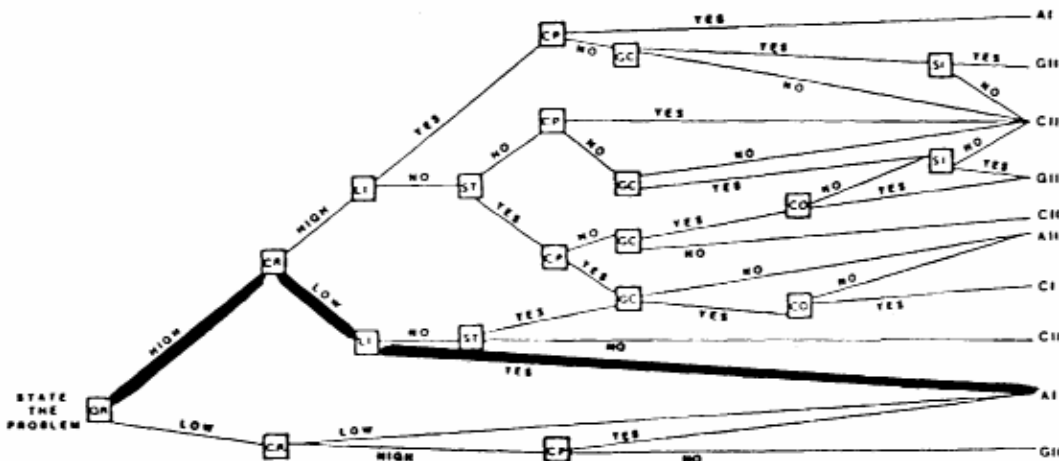
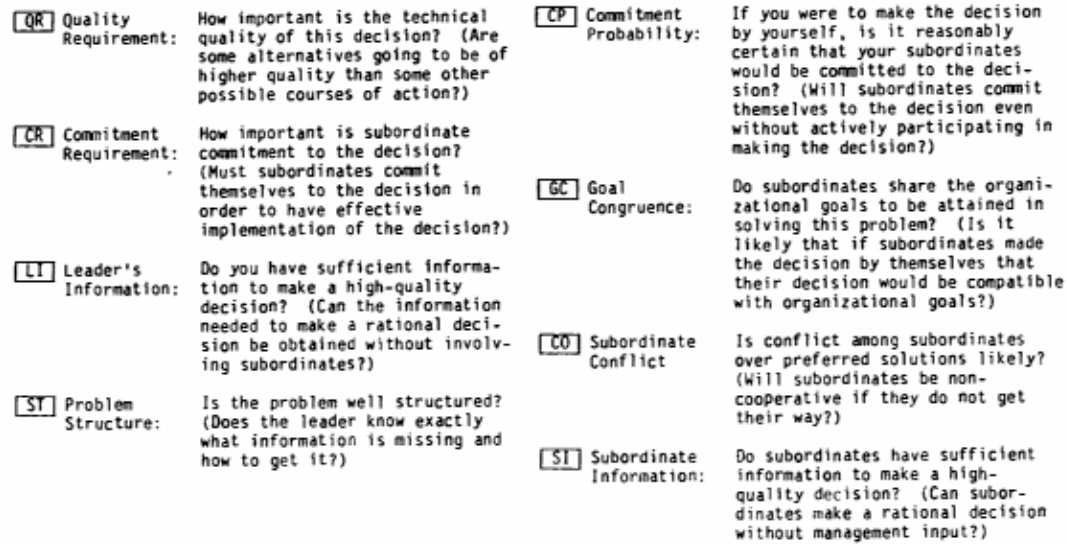
QR-HIGH--You must have a high quality decision. If time estimates are off (materials arrive too early or too late), the materials would be vulnerable to sabotage (land mines) and/or spoilage (food) and the personnel laying the mines to bodily harm from the opposition (the Iraqis or those loyal to the Iraqi cause).

CR-LOW--This situation really does not require subordinate commitment for successful implementation. The problem in the exercise does not involve "how to provide direct guidance to the troops laying the mines," the problem is simply coming up with "an accurate estimate of the rate of progress" (earliest and latest times at which materials will be needed at the next field site). The person (or group of persons) who has the technical skills to make an accurate estimate is the one (or group) that should decide.

<sup>5</sup> <sup>6</sup>Instructor's material is provided for comparison among the VYJ Model, the Fiedler Contingency Theory, and the Hersey-Blanchard Life Cycle Theory of Leadership.

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FIGURE 3  
SOLUTION TO SITUATION A USING THE VYJ APPROACH\*\*



\*\*Model from Victor H. Vroom and Arthur G. Jago, *The New Leadership: Managing Participation in Organizations*, Englewood Cliffs, NJ: Prentice-Hall, 1988, p. 184.

LI-YES--You (the leader) are the one who has flown over the particular tract of land in question to ascertain the nature of the terrain. You also have access to the standard's book. Furthermore, the background information indicates that it is a simple matter to calculate the earliest and latest times at which materials will be needed. It would appear that you, the leader, have sufficient information to make a high quality decision.

Ideal Leadership Style--Style AI. In Situation A, Style AI (you make the decision alone) appears most appropriate.

Figure 4 shows the correct path through the VYJ decision tree for Situation B. The explanation of the logic that underlies Situation B appears below.

## Situation B

The problem in Situation B is "to identify the cause(s) of fires in the supply depot/maintenance facility and eliminate the cause(s)." The logic that underlies the selection of the most appropriate leadership style is as follows:

QR-HIGH--A high quality decision is needed because a simple "stop gap" measure may still permit a major catastrophe to occur.

CR-HIGH--Without subordinate commitment it is possible that prescribed safety measures may not be adhered to by all that could contribute to or be affected by a major fire. Subordinate commitment is critical to resolve this problem in the long run.

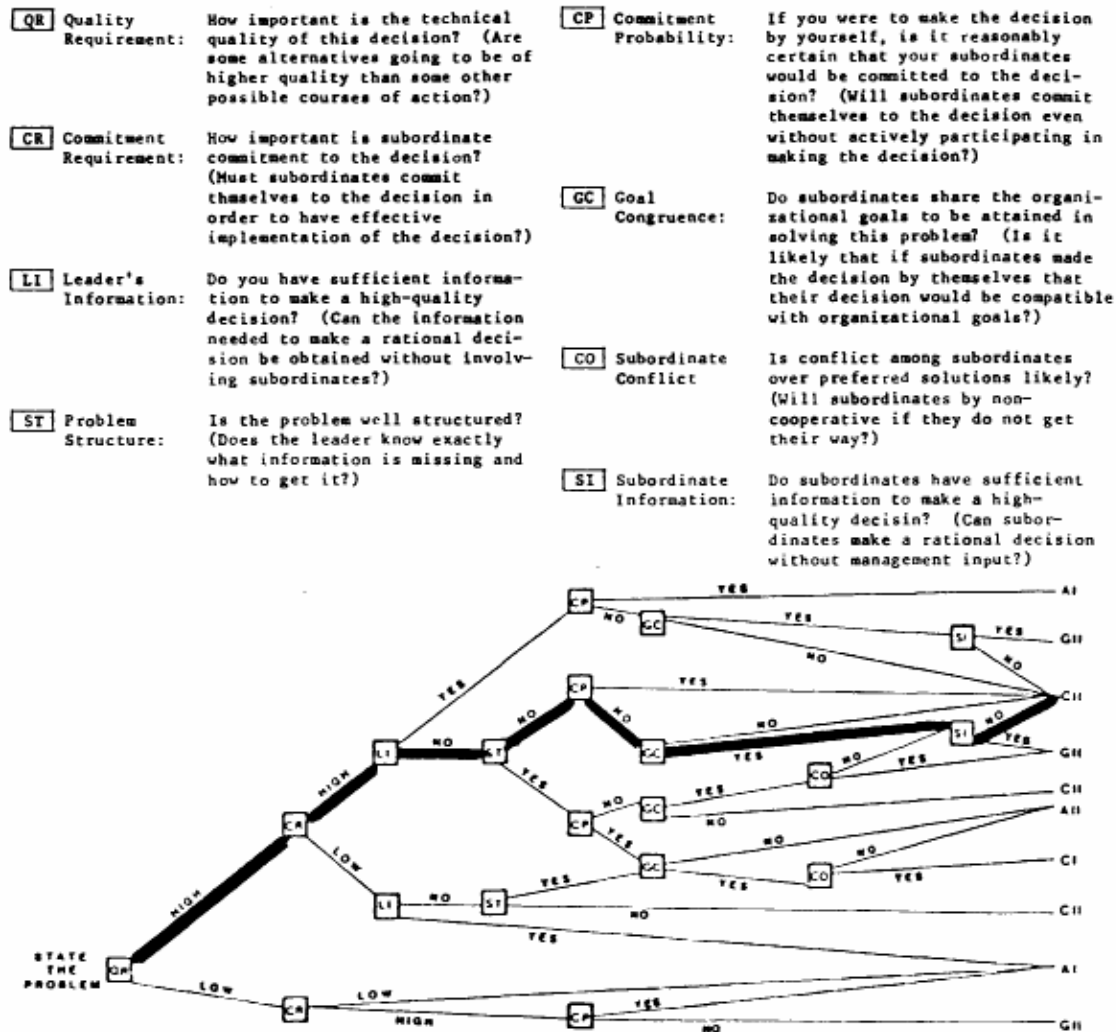
LI-NO--You do not have sufficient information to make a high-quality decision on your own.

ST-NO--From the background to Situation B, it does not appear that you know what information is missing and how to get it.

CP-NO--If fire prevention solutions require actions involving extra effort or more time expended to accomplish the same task, preventative measures are likely to be frequently overlooked. Active involvement in the decision, however, may not only go a long way to identifying the cause(s), but also to getting personnel committed to the actions necessary to resolve the problem. There is little reason to believe that

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FIGURE 4  
SOLUTION TO SITUATION B USING THE VYJ APPROACH\*\*\*



\*\*\*Model from Victor H. Vroom and Arthur G. Jago, *The New Leadership: Managing Participation in Organizations*, Englewood Cliffs, NJ: Prentice-Hall, 1988, p. 184.

subordinates would be especially committed to remedies to this problem without active involvement in the solution.

CG--PROBABLY-YES--Fires are dangerous to all and since personal safety is a major organizational goal there would appear to be goal congruence.

SI-NO--The probability is good that subordinates do not have all of the information. If sabotage were a cause of some fires and others occurred as a result of mistakes or lack of safety, your input as well as that of your subordinates may be needed to clearly identify the causes and to develop a viable action plan to deal with the problem.

Ideal Leadership Style--Style CII. In Situation B, Style CII (managers and subordinates meet as a group to discuss the situation, but the manager makes the decision) appears most appropriate.

In Exercise 2, Part A, participants were to identify the specific advantages the VYJ Model holds over other leadership theories/models (specifically, Fiedler's Contingency Theory and the Hersey-Blanchard Life Cycle Theory of Leadership). One of the more obvious advantages is that the VYJ Model includes many more situational variables than either the Fiedler or Hersey-Blanchard Model. Secondly, the model had been supported by research as having validity.

Parts B and C of Exercise 2 ask for the shortcomings/difficulties of using the VYJ approach to select a leadership style and the practical utility of the framework in a current or future job. The most obvious weakness has to do with the difficulty one would have in memorizing the variables and the decision tree needed to select a leadership style. Most situations calling for leadership require rather spontaneous leader reactions and, resultingly, do not lend themselves to such a cumbersome framework. In many instances by the time one works through the eight questions and selects a leadership style, the window of opportunity to provide leadership may have closed. In addition, the VYJ model does not take into consideration either the subordinate's ability or their maturity to carry out an assignment.

Exercise 3 provides the space and the reason for students to formalize their perceptions regarding what they have learned from involving themselves in this experiential exercise. Asking participants to turn-in this page of notes can serve to stimulate them to think more seriously about the frameworks/models involved in the exercise.