

MPS 23 Obtaining criteria

1.1 given a term listed under "concepts introduced", you should be able to give a word definition, list pertinent characteristics and cite an example.

3.1 given a problem statement, you will be able to list the stated and inferred constraints and criteria. Over 80% of these should agree with the tutor's list.

5.1 given a situation, a decision to be made or a goal to be achieved, you will be able to create the "must," and the positive and negative "want" criteria.

6.1 given a situation and criteria, you will be able to identify measurable methods by which the criteria can be quantified. You will use judgement to limit the sophistication of the measurement technique so as to be consistent with the time available to the criterion and be consistent with the situation.

Concepts introduced

Criteria, criterion, constraint, checklist method, APA method, how-to-judge-success method, imagining alternatives method, the what-if? method, previous critical incidents method.

MPS 23: Obtaining criteria: Example assessment tasks:

1. Our task is to design an erector set type of toy for children age 6 to 10. What criteria would you use to select the best?

2. Betty is going to be married and you, representing her friends at work, are to purchase a gift with the \$300 they have collected. Betty works in the accounting Department of the bank; she likes to sew, cook and paint. Her fiancée is an Army officer, and they have rented a small apartment. They expect to move frequently. What criteria would you use to guide in the choice of gift?

3. Describe the method you would use to measure and the general numerical value you would assign to the following criteria:

- a. a quiet motorcycle racetrack, from the view of the neighbours.
- b. the reddest apple.
- c. acceptable dust emission from a smokestack.
- d. acceptable Word Processing system for the office.

4. Hilda is trying to decide what to do with her friends on Saturday night. One criteria they suggested was that the event should not be more than 10 minutes away because "they don't want to spend the evening travelling." Many were interested in magic. The illusionist Doug Henning had a show at the Royal Alexandra Theatre. The trip would take 22 min. Now what?

5. For the last job you held, what were your supervisor's expectations? Identify those that were constraints, those that were criteria. Quantify at least three of them.

MPS 24 Decision-making

1.1 given a term listed under "concepts introduced", you should be able to give a word definition, list pertinent characteristics and cite an example.

2.1 given a situation, you will be able to decide if the decision is or is **not** within your control; your assessment will be correct 80% of the time.

2.2 given a decision statement, you will be able to convert it to a *results* statement.

3.1 given a situation and a decision to be made, you will be able to identify whether individual or group process might be the most appropriate. Your assessment should agree with the tutor's 80% of the time.

3.2 given a situation and a decision to be made, you will be able to state whether it is a decision under certainty, risk, uncertainty or conflict.

3.3 given a decision judged to be under certainty, you will be able to list the measurable criteria, assign weightings, rate or rank each option. You will be able to demonstrate the use of a decision-matrix procedure and select the *best* option. The demonstration will include the correct application of the must criteria, positive and negative want criteria and the personal feelings impact criterion.

3.4 for any decision, you should be able to list 8 methods of evaluating/comparing options, 8 methods of displaying preference and 9 methods of group decision-making.

3.5 given a decision judged to be under risk, you will be able to identify the pertinent states of nature and estimate the probability for each. You will be able to demonstrate the use of decision trees or tables to make the decision.

3.7 given a decision under uncertainty, you will be able to apply maximin, maximax, minimax and subjectivist approaches. You should be able to rationalize the selection of each approach.

Concepts introduced

Steps in the decision-making process, certainty, risk, uncertainty, conflict, maximax, minimax, maximin, subjectivist.

MPS 24: Decision-making: Example assessment tasks:

1. You are shipwrecked on a deserted island in the Caribbean. To attract attention of the ships and planes in the area, and so be rescued, you have to select "which of the following would be the "best:" matches, mirror or flashlight." Display the decision-making process.

2. (from Whetten and Cameron, 1985). You are the general plant supervisor. Seven product lines, that involve four of your eight foremen, must be disrupted to satisfy an emergency request from an important client. You want to minimize disruption. No additional personnel are available; time is short. The plant is new and is the only plant in an economically depressed area dominated by farming. This is the first industrial development in this area in the past 15 years. The wages are substantially above farm wages; the worker's jobs depend on the profitability of this plant. Your subordinates are relatively inexperienced. You have been supervising them more than you would prefer had the plant been located in a well-established industrial area, and they had been more experienced. They willingly accept your supervision and want the plant to succeed. The decision is "How to reschedule the work to meet this emergency within a short time frame and with the minimum of disruption." Who should make the decision?

3. Which duplicating machine should I use for the office, A, B or C? All have the same technical, ethical, environmentally safe, and safety merits. The criterion of discounted cash flow (DCF) should be used which means the option with the largest value is the best. However, our company will not accept any project with a DCF that is less than 40%. The values of the DCF calculations are 38%, 65% and 45% for A, B and C respectively. In addition, we estimate that the following adverse consequences might occur. Alternative A: our estimate of the downtime is incorrect. Probability is 2 and the impact is 3. Alternative B: delay in receiving a piece of equipment. Probability is 5 and the impact is 2. Alternative C: experienced maintenance engineer who could trouble shoot any problems on the machine leaves the company. Probability is 0.5 and the impact is 5.

MPS 27 Group skills

1.1 given a term listed under "concepts introduced", you should be able to give a word definition, list pertinent characteristics and cite an example.

2.1 given a problem, as a member of a group, you will participate in the task and morale components of the process such that your participation will be judged by an observer to be "active" and to have more positive than negative contributions.

2.2 as above but your performance will be judged to be "most of these skills" for both task and morale by two independent observers.

2.3 given a problem, the group will complete the assigned task by the designated time and over 60% of the members of the group will choose to work together again.

2.4 given a group solving a problem, you will be able to observe the group, record plus and minus contributions toward both task and morale components. You will be able to do this observing an individual client or the group as a whole. Your records will agree to within 80% of the average records made by four other observers or with those of the tutor.

2.5 as a member of an observer group, you will be able to provide written suggestions on how the group can improve its task and morale components. Eighty percent of your recommendations will agree with those of the tutor.

2.6 as a member of a group solving a problem, you will be able to self assess the performance of the group. Your assessment should agree within 80% of the assessment of outside assessors.

2.7 as in 2.6, you will be able to self-assess your personal contribution to the task and morale components of the group process. Your assessment should agree within 80% of the assessment of an outside assessor.

Concepts introduced

Task and the positive and negative contributions toward task, Morale and the positive and negative contributions toward morale, FIRO-B, stages of group evolution, feedback form.

MPS 27: Group skills: Example assessment tasks:

1. Watch the videotape of a group meeting and use the feedback form given in Table 1 to assess the performance of each group member and the group as a whole. Note the five strengths of the group and the two areas to work on.

2. The following are the results of FIRO-B for Andre.

| | | |
|---|---|---|
| 4 | 7 | 4 |
| 8 | 3 | 7 |

a. Assume that this is a reasonable description of Andre; how is Andre likely to behave in a group?

b. Based on your own FIRO-B, compare your responses with those of Andre and suggest how you and Andre might interact from at least four different points-of-view: inclusion, control, affection, expressed toward others and wanted from others.

3. You have just joined a PBL group. They have found out that you have had some training in group process. They ask you to "tell them how to improve their group skills." Summarize the key ideas about group process.

4. You have just joined a PBL group. They have found out that you have had some training in group process. They ask you to "give us some training in group skills." Prepare a workshop. Estimate the time required, outline the activities, highlight the main points you want them to focus on.

MPS 29 Chairperson skills

1.1 given a term listed under "concepts introduced", you should be able to give a word definition, list pertinent characteristics and cite an example.

6.1 given a group and a decision that had to be made and the process to be used to make the decision, and given the feedback forms from the participants, you will be able to objectively summarize the findings, extract a description of the role you played, contrast the descriptors the members give you with the ones you wrote in the pretest and write out an action plan to help you improve. Your analysis of the evidence should agree within 80% of that of the tutor.

6.2 concerning the assessment of the group and of the chairperson, given the same group functioning under different chairpersons at different times and with different tasks, as a group you will consistently rate the group's performance on task and morale and consistently discriminate between the group's inherent ability and the chairperson's contribution to the group. The consistency will be within 1.8 units on the 8 point scale.

6.3 concerning improvement, given the assessment in #6.1 and other opportunities to be chairperson, you will convert at least one of your "Areas to work on" into a "strength."

6.4 given that you are to chair a meeting and given the purpose, you will be prepare an agenda, devise ahead of time whatever materials you feel need to be brought to the meeting, run the meeting and complete 60% of the agenda in the time available and receive better than average ratings on both task and morale for the conduct of the meeting and receive fewer than 20% ratings of a negative contribution to the extent greater than 3 on any of the activities.

6.5 as in #6.4, but complete 80% of the agenda.

6.6 as in #6.4 but complete 95% of the agenda.

Concepts introduced

Agenda, chairperson, strengths, areas to work on or areas for improvement AFI.

MPS 29: Chairperson skills: Example assessment tasks:

1. You have been assigned the role of Chairperson for the "Goal setting

Meeting"
for the PBL Case given in the Table X. The meeting is to last 2 hours and is 1 week from today.

- a. Create an agenda for the meeting.
- b. List any activities you would do between now and then and rationalize.

2. You are chair of the teach meeting. Here are excerpts from part of the meeting.

Dave: "Let's keep on track. It's Jenn's turn to present what she has found".

Bonnie: "But I still have questions of Vickie; I don't understand.."

Jim: "You can ask that of Vickie after the meeting. The rest of us all understand."

Vickie: "Bonnie, I explained it in great detail. I also gave you good summary notes. You shouldn't have any questions from my presentation."

Given no additional information about the backgrounds of these people, and just based on this script:

- a. What's going on here?

MPS 31 Defining real problems: goals, mission and vision

1.1 Given a term listed under "concepts introduced," you can define, list pertinent characteristics and cite an example.

2.1 Given your "problem", you will be able to create and write out a mission statement and a vision statement to place the problem in a broader context. An independent observer will assess that your statement matches 80% of the criteria.

3.1 Given your "problem," you will be able to broaden the perspectives to list at least 10 issues that pertain. You will be able to use such techniques as Why? Why? Why? to "Happiness and Bliss." An independent observer will agree that 80% of your broadening statements are reasonable and in an appropriate increase in generality. Your statements will lead you "broader" and not narrower.

3.2 Given your problem and your mission and vision statements, you will be able to state if your present goals are consistent with your mission and vision and revise them to make them consistent if needed.

3.3 Given a situation and a goal statement, you will be able to identify whether it is a "symptom" or an underlying cause.

3.4 Given a situation and the problem, you will be able to identify who is the owner, and who are the stakeholders.

3.5 Given a problem statement, you will be able to identify whether it is results oriented or action oriented and convert it to results oriented.

3.6 Given a problem or goal statement, you will be able to identify whether it is written in observable terms or not and to correct it if necessary.

3.7 For your goal statement, you will be able to express it as "results", you will be able to write it in observable terms and you will be able to creating matching criteria that are measurable.

Concepts introduced

Owner, stakeholders, perspectives, symptom versus cause, mission, vision, goal.

MPS 31: Defining real problems:
Example assessment tasks:

1. For the problem in Table Y, use the Why? Why? Why? technique to broaden perspectives. Create at least five levels between the stated problem and "happiness and bliss."

2. For the problem given in Table Y,
a. List six issues that are pertinent to the problem, that are related to the overall course objectives and that, if you learned new knowledge about that issue, would help you to understand or solve the problem.

b. Prioritize the issues and rationalize your listing.

3. For the problem given in Table Y,
a. Identify the owner(s).
b. List at least six stakeholders and hypothesize as to their stance on the situation.

4. Describe how the problem given in Table Y, and the pertinent learning issues, relates to your overall learning goals for this year.

MPS 36 Self-directed learning or lifetime learning

1.1 Given a term listed under "concepts introduced", you should be able to give a word definition, list pertinent characteristics and cite an example.

2.1 Given a problem, you will ask questions, explore issues so that within 30 min, as a group of five, you will be able to identify all of the five to six major issues, and these shall agree within 95% of those identified by the tutor.

2.2 Given a problem, you will be able to list the possible knowledge you would need to know to solve the problem; your list should agree within 80% of the list of others in your group and within 85% with the list of the facilitator/tutor.

3.1 Given a problem, a list of the possible knowledge and resource available, you will create learning objectives and methods of assessment. These will be 90% acceptable according to the criteria for self-performance assessment (in MPS 3)

3.2 Given the learning objectives and methods of assessment, you will be able to identify reasonable and pertinent sources of information and be able to allocate the resources to achieve the objectives in the time available.

3.3 Given the learning objectives, you will create for yourself examination questions that are consistent with the objectives. These will be judged by peers and or tutor to be 90% acceptable.

3.4 Given that other members of the group have acquired key knowledge pertinent to the situation, you will ask questions so that you can learn from them the knowledge you need. You will interact such that they will rate a willingness above 70% to continue to share information with you.

Concepts introduced

Peers as resources, Perry's inventory, learning objectives, assessment.

MPS 36: Self-directed learning: Example assessment tasks:

1. For the learning goal "to explore the environmental issues related to the Red Hill expressway" (the problem posed in PBL Case 3)

- (a) If pertinent, break this into further subgoals.
- (b) Rewrite the subgoal in "observable terms."
- (c) Create at least one measurable criterion that you be used to measure success in achieving the subgoal.
- (d) Write out one type of evidence you would collect to show progress toward your subgoal.

2. Given in Table Z are the results of the Jungian Typology and the LASQ inventories and the Perry level for all the members of your group. The handout that Ralph has prepared for the teach meeting is given in Table R. Critique the handout based on your interpretation of the learning needs and preferences of the members of the group.

3. List the learning preferences and level of Perry development for each member of your group. Document the evidence that you used to reach this assessment.

4. For the PBL Case given in Table X,
- a. List ten issues you think are pertinent;
 - b. Prioritize these in the context of this course.

5. Given in Table Z are the results of the Jungian Typology, the LASQ inventories and the Perry Level for all the members of your group. For the PBL case 3, reproduced in Table X,

- a. Identify the topic you contracted to teach the group.
- b. From the information in Table Z, outline how you would teach the group. Assume you have 30 min. Create the handout sheets you would use.

MPS 45 Coping creatively with conflict

1. You will have a chance to think about your attitude about conflict.
2. Given a questionnaire about your personal style in responding to conflict, you will be able to assess the degree to which that really describes you. You will be able to put your response in the context of others.
3. You will be able to list the different types of causes of conflict and the implications.
4. Given a situation, you will be able to apply seven criteria to select an approach for coping with conflict that may be most appropriate.
5. Given feedback from an observer about how you handled conflict, you will be able to assess the degree to which this describes your usual approach.
6. You will be able to contrast your style of responding to conflict with the approaches taken by others.
7. You will be able to list and describe effective processes and procedures that PBL groups could use for handling conflict.

Concepts introduced

Options: Accommodate, withdraw, compromise, collaborate/negotiate, force;
criteria: context and content, your goals, time, place and complexity, trust, your style, needs of others, you/them; processes and procedures.

MPS 45: Coping creatively with conflict: Example assessment tasks:

1. Your PBL group has been meeting for the past 4 weeks. In your opinion, two of the five members, Jody and Ivan, are not "pulling their weight." They are free riders.
 - a. List 10 options for dealing with this situation and explain how each option might work.
 - b. Outline a strategy for asking the group to address the issue.
2. Your PBL group is scheduled to have its third meeting. According to the guidelines for effective groups, your group should "have an accepted method of resolving conflicts." Table 5-4 p. 5-16 in **HTGTM**.
 - a. From your knowledge of the group members so far, list the areas in which conflict is most likely to occur.
 - b. List 10 options for dealing with each of these potential conflicts and explain how each option might work.
 - c. Outline a strategy for asking the group to address the issue.
3. For the conflict scenario given in Table C, explicitly apply the criteria and suggest which strategy you would use to cope with this apparent conflict.
4. You are getting frustrated because no one else seems to be studying or teaching the new material in the depth that you think you are doing or that you want from others. List five ways that might be used to make the behaviour visible (and thus lead to a basis for resolving the apparent conflict).

MPS 49 Managing change

1.1 Define and describe the emotions and feelings that one typically works through when you are forced to change: grieving process, Bridge's 3 step and Taylor's model.

1.2 You can relate the change process to stress, management of anger

1.3 You can list the misconceptions related to change and note what current research suggests is the "reality."

1.4 You can list four tactics one can use to manage change effectively.

2.1 For team projects, you will assess your current attitudes and skills, list the opportunities for growth and skill development and proactively write out a plan to empower yourself with the skills.

2.2 For self-directed learning, you will assess your current attitudes and skills, list the opportunities for growth and skill development and proactively write out a plan to empower yourself with the skills.

2.3 For the changes that are thrust on you now, you will be able to list what you do now, what you are asked to do because of the change and to create "opportunities".

2.4 For a change that is thrust on you, you will be able to describe for others the elements of disengagement, disidentification, disenchantment and disorientation.

3.1 You can summarize how you currently manage change. you will identify the section of Billings-Moos that you think describes you and the section that does not.

4.1 Through lab report writing and monitoring, you will document growth such that an independent assessor will agree with your assessment.

5.1 If pertinent, you will create enrichment goals related to this topic, create criteria for achieving the goals, gather evidence to show achieve and summarize your findings such that an independent evaluator will concur with your conclusions.

MPS 49: Managing change: Example assessment tasks:

1. Alex, a member of your PBL group, is extremely angry. He exclaims to you, "The teacher isn't doing her job! She has set up these groups and is just sitting in the room. This is too important a subject for us to be trying to learn on her own. She should be lecturing."

a. Describe Alex's attitude in the context of Perry's model.

b. Describe Alex's response in terms of the grieving model and Taylor's model.

c. What actions might you take with Alex and with the group? Which would you recommend?

2. Any of the questions at the end of Chapter 1 in **HTGTM**.

3. For your interpretation of the Perry model, complete an opportunities chart.

4. List four tactics that can be used to manage change.

5. List five issues that build or diminish trust. From your activities this past week (in any context) list four actions that pertain and note whether they would build or diminish trust.

6. You are chair of a PBL group where all other members of the group have a Perry score of 3. Your Perry score is 5.

a. What are the implications?

b. What might you do?

MPS 52 Interpersonal skills

1.1 you will be able to list the five fundamental rights and at least ten of the guidelines.

1.2 you will be able to name and describe the four steps in the SIER model of listening and describe four different classes of responses and four different contexts.

1.3 you will be able to list the six criteria to decide what type of response is appropriate.

1.4 you will be able to describe and illustrate passive, assertive, aggressive and passive-aggressive responses.

3.1 given a situation and a response, you will be able to identify if the response violates the fundamental rights and be able to create an improved response for those that violate those rights. Your identification should agree 80% with the tutor and 80% of your responses shall be judged by three peers or the tutor as being consistent with the rights.

3.2 given a situation and a response, you will be able to identify if the response follow the guidelines and be able to create an improved response for those that do not. Your identification should agree 80% with the tutor and 80% of your responses shall be judged by three peers or the tutor as being consistent with the rights.

3.3 given questionnaires and feedback about your personal preference, you will be able to describe the implications for how you are more likely to respond to different situations.

3.4 given a scenario, you will be able to apply the criteria to decide what general types of responses might be appropriate.

5.1 given your personal awareness, skills and needs, you will create for yourself, as appropriate, your own enrichment objectives and criteria as they pertain to this topic.

MPS 52: Interpersonal skills: Example assessment tasks:

1. Watch a videotape or another PBL group meeting and identify the extent to which the fundamental rights of an individual are claimed and honoured.

2. Watch a videotape or another PBL group meeting and identify the extent to which the principles of Shangri La are used. Be specific.

3. Watch a videotape or another PBL group meeting and identify the extent to which Gottman's four behaviours are present.

4. What is acceptable conduct?

a. "I think that is an unacceptable idea."

b. "That's a stupid idea."

c. "What a damn good idea!"

d. "Only a woman would think of that."

e. "That's just like your ridiculous idea you had for last year's Christmas party."

f. "Let the guys finish up the calculations; the girls can tidy up this messy room."

D.4 Example creation of the guidelines for coping with anticipated difficulties

In Table D.4-1 are listed six guidelines. Illustrations of given, and, where appropriate, additional comments made.

Table D.4-1: Creating an environment for win/win.

| If we value the processing skills needed in PBL, then | Illustration | Comments |
|--|--|--|
| 1. Make the acquisition of process skills part of the objectives of the course. | See outline in D.2 | The objectives include the processing skills; the processing skills are assessed, see F.1. and section D.3. |
| 2. Help the students gather evidence of growth. | See outline in D.2 where the issue is addressed. I think it is important to address as many of the issues as possible early in the course. | Evidence is crucial for anyone. Without evidence, it is difficult for anyone to make claims. Some of the forms given in F.8 provide <i>some</i> evidence. |
| 3. Be prepared to help them over some of the rough parts. | Publically display a force-field diagram that addresses some of the issues. | Use class ombudspeople to give you feedback about how the learning process is going and to identify the rough spots. |
| 4. Give them an opportunity to demonstrate that they have acquired the skills. | | |
| 5. Build into the approach clear explanations of expectations and consequences. | Undoubtedly you will encounter "sticky" situations. Anticipate these and think of how you will handle this before it occurs. Include this in the course outline or create a class-teacher contract on how issues will be handled. | Anticipate the major difficulties. see Woods et al. (1995) about the major issues in smooth functioning of tutored and tutorless groups. |
| 6. Establish a climate of acceptance with the chair and academic deans. | Whatever you do in issue #5 above needs to be accepted by other administrators as being "fair." For example, the following example letter to student who habitually fails to attend the PBL meetings is given in Table D.4-2 . This was discussed and approved by the Academic Dean before anything occurred. If and when it happened, the students, you and the Dean knew the consequences and the procedure. | This letter is only possible if the course outline, D.2 , includes the proper wording. Rather Draconian but it works. The message is, create an environment that will allow you to gracefully and professionally cope with anticipated problems. |

Table D.4-2 An example letter to a delinquent student

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|---|
| <p>Dear _____,</p> <p>For the PBL part of the course I noticed that you have been (absent from the PBL meetings. In discussing this with group members I learned that you had not informed them ahead of time that you would be absent). The guidelines handed out at the beginning of the semester said:</p> <p style="padding-left: 40px;">" For the Unit on PBL, failure to attend and do your share of the activities for all of the sessions will result in a failure in that Unit on PBL."</p> <p>In agreement with that condition, I have reconstituted the group to which you used to belong. You are no longer a member of that group. Furthermore, since a required component of this course is the development of interdependent learning and full participation in the PBL group process, and since you have failed to try to develop that skill, you will receive a zero on that Unit.</p> <p>Concerning the subject knowledge being learned through the PBL process, you are responsible for learning that material.</p> <p>I would be pleased to discuss this with you and help you in achieving as many of the objectives of the program as we can.</p> <p>Sincerely,</p> <p>Instructor cc student file, Dean's file.</p> |
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References

Woods, D.R. et al., (1995) "Tutored and Tutorless Groups in PBL," Chemical Engineering Dept., McMaster University, Hamilton ON

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