

Planning and Implementing an Effective Evaluation System

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Part C - Outline the Teaching and Assessment Plan

Outline the program content by area of competence and select instructional and assessment strategies. Each category of objective (e.g., knowledge, communication skill, systems-based practice) requires a slightly different approach at this phase. For further information about choosing teaching strategies consult Chapter 3 on Instructional Methods. For assistance in selecting learner assessment strategies use Chapter 4 on Assessing Learner Performance.

For each area of competence complete each step in the relevant section below. Remember, this is an ideal plan, so the objectives listed in Part A may need to be revised to ensure that all areas of competence are both taught and adequately assessed. Use the checklist below as an initial step, and then complete the Part C Table – Objectives Matched to Teaching Methods and Assessment Techniques

1. Knowledge

- a. List the relevant objectives (may be from the list in Part A or may be new/revised objectives).
- b. Specify ways in which the knowledge will be obtained
- ___ Classroom teaching sessions (formal presentation ___, openers/closers ___, games/audience response ___, learner presentations ___, small group ___)
 - ___ Independent use of materials (assigned readings ___, learner-selected readings ___, technology-based materials ___)
 - ___ Clinical setting (one-to-one precepting ___, rounds ___, role modeling ___)
 - ___ Other (specify) _____
- c. Indicate ways in which the knowledge will be reinforced and assessed
- ___ Learner self-reflection and self-assessment
 - ___ Examination (Objective Exam ___, essay exam ___)
 - ___ Oral Exercise (informal questioning by preceptor ___, oral case report ___, chart-stimulated recall ___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation ___)
 - ___ MSCE (questioning by examiner within station ___, inter-station activities ___)
 - ___ other (specify) _____

2. Patient Care - Clinical Problem Solving/Decision Making

- a. List the relevant objectives
- b. Specify ways in which the clinical problem solving skills will be learned
- ___ Classroom teaching sessions (lecture ___, progressive disclosure case ___, group discussion ___, problem-based tutorial ___, oral simulation ___)
 - ___ Independent use of materials (assigned readings ___, learner-selected readings ___, assigned technology-based materials ___, learner-selected technology-based materials ___)
 - ___ Clinical setting (one-to-one precepting ___, rounds ___, role modeling ___, patient contact with preceptor ___, patient contact on own ___, SP or MSCE [multi-station clinical exam] ___)
 - ___ Other (specify) _____
- c. Indicate ways in which the clinical problem solving will be reinforced and assessed
- ___ Learner self-reflection and self-assessment
 - ___ Examination/Written Exercises (objective exam ___, essay exam ___, pt mgt problems ___, written case report ___)
 - ___ Oral Exercises (oral exam ___, informal questioning ___, oral case report ___, chart-stimulated recall ___, oral simulation of problem solving ___)
 - ___ Rating Scale for Review of Patient Charts
 - ___ Rating Scale for Direct Observation (actual pts ___, simulated pts ___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation ___, 360 degree global rating ___)
 - ___ MSCE (questioning by examiner within station ___, inter-station activities ___)
 - ___ Documentation (procedure/case logs ___, learner portfolio ___)
 - ___ Other (specify) _____

3. Patient Care – Data Gathering Skills

- a. List the relevant objectives.
- b. Specify ways in which the data gathering skills will be learned
- ___ Classroom teaching sessions (demonstration___, expanded or progressive disclosure cases___, oral simulation/role play___, patient instructors___, use of SP with group___)
 - ___ Independent use of materials for prerequisite knowledge
 - ___ Clinical setting (one-to-one precepting___, rounds___, role modeling___, patient contact with preceptor___, patient contact on own___, SP or MSCE___)
 - ___ Other (specify) _____
- c. Indicate ways in which data gathering skills will be reinforced and assessed
- ___ Learner self-reflection and self-assessment
 - ___ Written Exercises (written case report___)
 - ___ Oral Exercises (informal questioning___, oral case report___, chart-stimulated recall___, oral simulation-problem solving___, oral simulation-patient interactions___)
 - ___ Rating Scale for Review of Patient Charts
 - ___ Rating Scale for Direct Observation (actual pts___, simulated pts___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___)
 - ___ MSCE (questioning by examiner within station___, inter-station activities___)
 - ___ Documentation (procedure/case logs___, learner portfolio___)
 - ___ Other (specify) _____

4. Patient Care – Medical Procedures/Technical Skills

- a. List the relevant objectives
- b. Specify ways in which the data gathering skills will be learned
- ___ Classroom teaching sessions (demonstration/video clip___, patient instructor/simulator___)
 - ___ Independent use of materials (for prerequisite knowledge___, skill practice___)
 - ___ Clinical setting (one-to-one precepting___, rounds___, role modeling___, patient contact with preceptor___, patient contact on own___) - May need to specify numbers and types of patients for specific skills.
 - ___ Other (specify) _____
- c. Indicate ways in which medical procedures/technical skills will be reinforced and assessed
- ___ Learner self-reflection and self-assessment
 - ___ Oral Exercises (chart-stimulated recall___)
 - ___ Rating Scale for Review of Patient Charts
 - ___ Rating Scale for Direct Observation (actual pts___, simulated pts___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___)
 - ___ Documentation (procedure/case logs___, learner portfolio___)
 - ___ Other (specify) _____

5. Collaborative/Team Skills

- a. List the relevant objectives
- b. Specify ways in which the collaboration/team skills will be learned
 - _____ Classroom teaching sessions (video clip___, brainstorming___, group tasks & debriefing___, problem-based tutorial___, oral simulation/role play___, narrative/reflective writing___)
 - _____ Independent use of materials for prerequisite knowledge
 - _____ Clinical settings (rounds___, role modeling___, patient contact with preceptor___, patient contact with other members of team___)
 - _____ Other (specify) _____
- c. Indicate ways in which the collaboration/team skills will be reinforced and assessed
 - ___ Learner self-reflection and self-assessment
 - ___ Oral Exercises (informal questioning___, oral simulation-problem solving___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___, 360 degree global rating___, patient/peer rating___)
 - ___ Documentation (learner portfolio___)
 - ___ Other (specify) _____

6. Interpersonal & Communication Skills

- a. List the relevant objectives
- b. Specify ways in which the communication/interpersonal skills will be learned
 - _____ Classroom teaching sessions (video clip___, brainstorming___, group tasks & debriefing___, problem-based tutorial___, oral simulation___, patient instructor___, use of SP with group___, narrative/reflective writing___)
 - _____ Independent use of materials for prerequisite knowledge
 - _____ Clinical settings (one-to-one precepting___, rounds___, role modeling___, patient contact with preceptor___, patient contact on own___, SP or MSCE___)
 - _____ Other (specify) _____
- c. Indicate ways in which the communication skills will be reinforced and assessed
 - ___ Learner self-reflection and self-assessment
 - ___ Oral Exercises (informal questioning___, oral case report___, chart-stimulated recall___, oral simulation-patient interactions___)
 - ___ Rating Scale for Direct Observation (actual pts___, simulated pts___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___, 360 degree global rating___, patient/peer rating___)
 - ___ MSCE
 - ___ Other (specify) _____

7. Professionalism/Habits and Attitudes

- a. List the relevant objectives

- b. Specify ways in which the professionalism attitudes, skills and habits will be learned
- ___ Classroom teaching sessions (demonstration/video clips___, group tasks & debriefing___, problem-based tutorial___, oral simulation___, patient instructor___, use of SP with group___, narrative/reflective writing___)
 - ___ Independent use of materials (prerequisite knowledge___, extending perspectives___)
 - ___ Clinical settings (one-to-one precepting___, rounds___, role modeling___, patient contact with preceptor___, patient contact on own___, SP or MSCE___)
 - ___ Other (specify) _____

- c. Indicate ways in which relevant attitudes and habits will be reinforced and assessed
- ___ Learner self-reflection and self-assessment
 - ___ Written Exercises (written case report___)
 - ___ Oral Exercises (informal questioning___, oral case report___, chart-stimulated recall___, oral simulation-problem solving___, oral simulation-patient interactions___)
 - ___ Rating Scale for Review of Patient Charts
 - ___ Rating Scale for Direct Observation (actual pts___, simulated pts___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___, 360 degree global rating___, patient/peer rating___)
 - ___ MSCE (questioning by examiner within station___, inter-station activities___)
 - ___ Documentation (learner portfolio___)
 - ___ Other (specify) _____

8. Practice-Based Learning and Improvement (PBLI)

- a. List the relevant objectives

- b. Specify ways in which the needed PBLI skills and habits will be learned
- ___ Classroom teaching sessions (demonstration/video clip___, expanded or progressive disclosure cases___, group tasks & debriefing___, learner presentations___, narrative/reflective writing___)
 - ___ Independent use of materials (own charts___, standards of care___, local norms___, medical literature___, other _____)
 - ___ Clinical settings (one-to-one precepting___, role modeling___, patient contact with preceptor___)
 - ___ Other (specify) _____

- c. Indicate ways in which relevant PBLI skills and habits will be reinforced and assessed
- ___ Learner self-reflection and self-assessment
 - ___ Exams and Written Exercises (objective exam___, essay exam___, written case report___)
 - ___ Oral Exercises (informal questioning___, oral case report___, chart-stimulated recall___, oral simulation-problem solving___)
 - ___ Rating Scale for Review of Patient Charts
 - ___ Rating Scale for Direct Observation (simulated pts___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___, 360 degree global rating___, patient/peer rating___)
 - ___ MSCE (questioning by examiner within station___, inter-station activities___)
 - ___ Documentation (learner portfolio___)
 - ___ Other (specify) _____

9. Systems-based practice (SBP)

- a. List the relevant objectives

- b. Specify ways in which the needed SBP knowledge, skills and behaviors will be learned
 - _____ Classroom teaching sessions (demonstration/video clip___, brainstorming___, expanded or cases___, group tasks & debriefing___, narrative/reflective writing___)
 - _____ Independent use of materials for prerequisite knowledge
 - _____ Clinical settings (one-to-one precepting___, rounds___, role modeling___, patient contact with preceptor___, patient contact on own___)
 - _____ Other (specify) _____

- c. Indicate ways in which relevant SBP skills and behaviors will be reinforced and assessed
 - ___ Learner self-reflection and self-assessment
 - ___ Examination/Written Exercises (objective exam___, essay exam___, written case report___)
 - ___ Oral Exercises (informal questioning___, oral case report___, chart-stimulated recall___)
 - ___ Rating Scale for Habitual Behavior (end of rotation evaluation___, 360 degree global rating___, patient/peer rating___)
 - ___ MSCE (questioning by examiner within station___, inter-station activities___)
 - ___ Documentation (learner portfolio___)
 - ___ Other (specify) _____

Part C Table
Objectives Matched to Teaching Methods and Assessment Techniques

Area of Competence	List relevant objectives (by #)	Teaching/Learning Methods - Specify ways the competency will be learned	Assessment Techniques - Indicate ways in competency will be reinforced and assessed
Knowledge		•	
Patient Care - Problem Solving		•	•
Patient Care - Data Gathering Skills		•	•
Patient Care - Procedures /technical skills		•	
Collaboration skills		•	•
Interpersonal & Communication skills		•	
Professionalism		•	•
Practice-based learning and improvement (PBLI)		•	•
Systems-Based Practice (SBP)		•	•

PART D - Design the Learner Evaluation System

Data from the assessment of learners can be used in multiple ways. The evaluation system is designed to ensure that data are used to meet the program's needs.

1. State the purposes that the evaluation system is designed to serve.
Check all purposes that apply:
 - _____ a. To evaluate learner entering skills and knowledge
 - _____ b. Ongoing formative evaluation - to monitor, provide feedback, etc.
 - _____ c. Periodic summative evaluation - grading, promotion, certification, etc.
 - _____ d. Program evaluation or program improvement
 - _____ e. To meet the requirements of an accrediting or funding agency
 - _____ f. Other _____
2. Instruments / Criteria / Rater Training / Data Collection / Data Analysis - For each assessment instrument to be employed complete a plan for individual instrument use. For each instrument provide the following information utilizing the form provided below: who is to be assessed; categories of competence to be assessed; criteria to be used in decision making; training of raters, etc. (type, amount, who will provide); data collection (who is responsible, schedule for collection); data analysis (what type, who will do it); instrument-specific feedback (who will provide, in what form, who will receive it). Duplicate the form as needed. (Chart on last page)
3. Describe the mechanism for data storage and retrieval within the overall program or program component. Recall that this mechanism must insure both 1) that data are stored efficiently so that they can be retrieved when and how needed; and 2) that the privacy of both those providing evaluation data and those being evaluated is protected.
4. Describe the decision making process to be used to combine assessment data and make judgments about learner performance.
 - a. Specify who will make the judgments.
 - b. Specify how often judgments will be made
 - (1) Formative
 - (2) Summative
 - c. Specify how data from each assessment technique will be tabulated and weighted.
 - (1) Individual data
 - (2) Grouped data
 - d. Describe how performance criteria will be applied to assure fairness to all learners
5. Describe the mechanism for providing feedback and taking action.
 - a. Feedback
 - (1) Describe who will provide feedback to learners, how often, and in what form
 - (a) Formative
 - (b) Summative
 - (2) Describe who will provide feedback to instructors and other relevant audiences.
 - b. Action

- (1) Describe the types of action that will be taken for learners whose performance is unsatisfactory or needs improvement - also specify who is responsible for assuring that the learner understands what is to be done and that the planned action is followed through - finally specify how reassessment will be conducted.
 - (a) Formative (i.e., remediation)
 - (b) Summative (e.g., repeat course, probation, dismissal)
 - (2) Describe the plan for use of grouped data (data summed across relevant groups of learners) to evaluate program performance and make programmatic adjustments.
6. Specify who will be responsible for regular monitoring of evaluation system and state how often the periodic review of the evaluation system will be undertaken.

CHART FOR PLANNING USAGE OF INDIVIDUAL INSTRUMENTS -D2

Information Needed	INSTRUMENTS		
	# ____	# ____	# ____
Description of Instrument- e.g., number of items/stations			
Who is to be Assessed?			
Categories of Competence Assessed			
Criteria to be Used in Decision Making (Formative & Summative)			
Data Collection - Who Responsible?			
Training of Raters, etc. Type? Amount? Who will provide?			
Data Collection - Provide Schedule:			
Data Analysis What Type? Who will do it?			
Feedback Who will provide? In what form? Who will receive it?			
Plan for Remediation or other Actions (if performance below standard)			

PART E - Implement and Evaluate Revised Program

After completion of the plan, changes can be implemented. Prior to implementation several things need to be completed including a) completion of all educational materials and assessment instruments, b) alignment of resources to ensure that new activities can take place as planned, c) development of a timetable for implementation and evaluation of changes, d) orientation of all persons associated with the program to the changes. When extensive change is proposed, the implementation should be done in a gradual manner to minimize resistance.

1. Make a checklist for the pre-implementation activities and check them off as completed.
 - a. Program materials completed (this is a sample list, each list must be tailor ed)
 - ___ Revised objectives for program, activities or rotations
 - ___ Revised description of program and program elements
 - ___ For an academic course (___Course schedule, ___Course syllabus, ___Reading list)
 - ___ Required approvals for changes have been attained (university, GMEC, director)
 - ___ Handouts prepared / availability of assigned materials verified
 - ___ Evaluation instruments prepared
 - ___ for assessment of learner performance
 - ___ for monitoring and evaluation of program
 - b. Needed resources lined up
 - ___ Classroom site(s) scheduled
 - ___ Clinical site(s) cleared with relevant administration
 - ___ Instructors contacted and scheduled
 - ___ Provision made for any necessary materials and supplies
 - ___ Financial needs of program arranged to be met
 - ___ Provision made for clerical backup
 - c. Timetable for implementation established
 - ___ Final dates and time of program set
 - ___ Outline of dates and times for all new activities (to be used in monitoring)
 - ___ List of dates for all data collection made (to be used in monitoring)
 - ___ Scheduling of learner activities completed
 - d. Relevant audiences informed and/or oriented to new activities, teaching methods, and assessment techniques/instruments
 - ___ Relevant audience identified (administrators, faculty, learners, etc.)
 - ___ Announcement or description of program sent to relevant audiences
 - ___ Faculty development activities for new teaching or assessment procedures
 - ___ Learner orientation to new activities or procedures

In the initial implementation of a new program the program planner should carefully monitor the program to be certain that it is being implemented as intended and that intended outcomes are being achieved. Initial implementation should be accompanied by a careful evaluation of program effectiveness.

2. Monitor program delivery to help assure that implementation matches the plan, to make modifications as needed, and to document changes or deviations for program planners and other relevant audiences. Use your monitoring checklist.
3. In multi-site programs monitor implementation at the various sites to detect differences, to document the differences, and to allow program staff to make adjustments as required.
4. Monitor the implementation in order to assess the level of quality of the teaching provided and of the materials used. Use your data collection schedule.

All clinical training programs should be evaluated on an ongoing basis. Formative program evaluation is designed to provide information needed to monitor implementation and to improve the program. Summative evaluation is not always required in ongoing programs, especially in relation to required elements since summative evaluation data are generally used in making decisions concerning whether or not to keep a program or program element. Pilot tests of innovations are the exception, since they are by nature summative as the program decides if the innovation should be fully implemented, modified or rejected.

5. Formative Evaluation is the evaluation of the quality of the instructional process or sequence in order to improve the sequence itself.
 - a. Formative evaluation of program plan - A formative evaluation of the program plan might address such questions as:
 - Is the program plan designed so that all of the program objectives can be met?
 - Is the program plan designed to make optimal use of the resources available?
 - Is the program plan realistic; i.e., can it be implemented with available resources and within the context of the sponsoring institution?
 - b. Formative evaluation of the program during initial implementation - For all programs some type of evaluation of the implementation process should be conducted to assure smooth implementation and allow for adjustments in the program during its implementation. This step requires that all monitoring data, data on sessions and teachers and data on learner performance be analyzed. Judgment is then added to determine how to enhance the program for the current group of learners and for subsequent groups.
2. Summative Evaluation is evaluation to determine the overall effectiveness of the new program. If innovations are being instituted as pilot studies, then a summative evaluation might be conducted. Just as in formative evaluation this step requires that all monitoring data, data on sessions and teachers and data on learner performance be analyzed. Judgment is then added to determine if the innovation should be fully implemented as designed, significantly modified and pilot tested again, or rejected.