

Appendix

EFFECTIVE TEACHING

Key Points

- ❖ **Clear, measurable objectives, based on core competencies, are the key to planning effective courses.**
- ❖ **Students retain more information when they are actively involved in learning.**
- ❖ **A variety of teaching methods and learning activities should be used to engage and involve students.**
- ❖ **Competency-based learning tools (such as checklists, learning guides) should be used to support learning and to assess new skills.**
- ❖ **Feedback should be given to encourage students to continue applying new knowledge and trying new skills, with specific plans for how to make improvements.**
- ❖ **Assessment should be used to measure students' progress in achieving core competencies.**

(Note: This appendix summarises key points for strengthening faculty teaching skills. This information is adapted from: The World Health Organization (WHO) and Jhpiego. 2005. *Effective teaching: A guide for educating health care providers*. Geneva: WHO.)

A.1 Introduction

Teaching can be defined as the conscious manipulation of the students' environment in a way that allows their activities to contribute to their development.

Learning can be defined as a change in behaviour, perceptions, insights, attitudes, or any combination of these that can be repeated when the need arises.

Good teaching supports learning. Research shows that students retain more information when a combination of teaching methods is used (e.g., verbal, written, and visual), and students recall the most when they are actively involved in learning through activities such as role plays, case studies, and practice.

In general, teaching and learning are more effective when:

- Students are ready and want to learn.
- Students are aware of what they need to learn (there are clear learning objectives).
- New knowledge, skills and attitudes build on what students already know or have experienced.
- Students are active and participate in their learning.
- Students are encouraged to apply critical thinking and alternative approaches supported by sound reasons.

- Numerous opportunities are given for students to practice both ideas and skills, and to receive feedback on their performance through self-, peer, or teacher assessment.
- Feedback to students on their performance is immediate, constructive, and nonjudgmental.
- Teaching moves step by step from simple to complex and is organized, logical, and practical.
- Ideas and concepts are presented clearly, alternative explanations are presented, and teachers check frequently for students' understanding.

A.2 Steps for Writing a Curriculum or Preparing a Course

1. Identify core competencies.

These are the aspects of a subject that are common to all students, essential to practice, and essential to master in order to graduate from an academic program and enter into professional practice. An example of a core competency would be “manage side effects and any related complications of family planning methods.”

2. Define objectives.

These are statements that describe what students will know or be able to do when they finish your course. Write learning objectives to define what learners must know (knowledge), do (skills), and/or believe (attitudes) to achieve the core competencies. Clear, measurable objectives will help you determine the course content, decide how you will teach the course, and identify how students' learning should be assessed.

Examples of learning objectives for the competency “manage side effects and any related complications” are:

- List the common side effects for each family planning method (knowledge)
- Use effective communication techniques when counselling clients (skill)
- Identify personal experience and beliefs regarding use of family planning (attitude).

This reference guide includes suggested learning objectives for each unit that you can use, when appropriate, in preparing your courses. Content, learning activities, and suggested assessment questions with answers are provided for these different learning objectives.

3. Choose how to assess that students have achieved the learning objectives for the course.

Changes in knowledge, skills, and attitudes can be measured in different ways. Frequently they are assessed like this:

- Knowledge: quizzes, tests, case studies
- Skills: observations using checklists
- Attitudes: observations, case studies.

4. Select appropriate teaching methods.

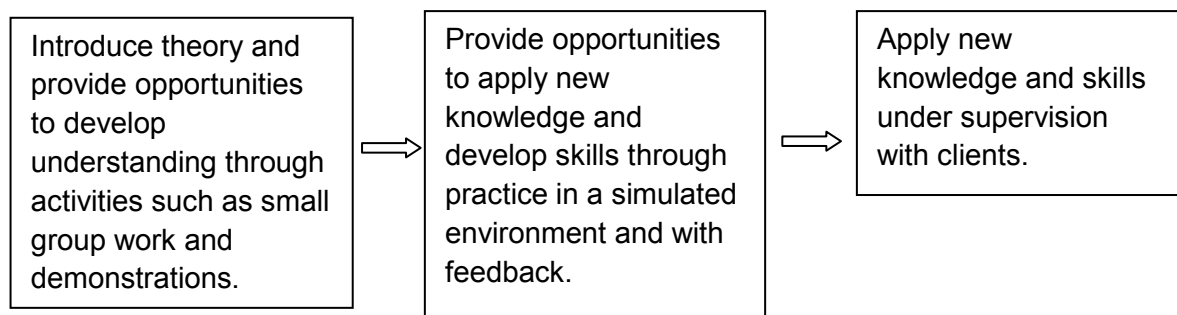
Select teaching methods that are appropriate for achieving the learning objectives and that provide an opportunity for sufficient practice. Use a variety of methods.

Basic teaching methods and learning activities that can be used with objectives in this reference guide are listed in the table below.

Table A.1: Teaching Methods and Domains

| Method/Activity | Definition | Domain(s) |
|-----------------------------|---|---|
| Brainstorming | Students generate a list of ideas, thoughts, or solutions on a specific topic or problem. Stimulates thought and creativity and is often followed by group discussion | Knowledge |
| Case study | Student problem-solving or reaction to realistic scenarios that focus on a specific issue. Done individually or in group | Knowledge, attitude |
| Demonstration | Teacher explains procedures, presents the steps necessary for completion of a procedure or clinical task or activity, and models correct performance of the skill. | Skill |
| Discussion | Interactive process in which students share their ideas, thoughts, questions, and answers in a group setting with a facilitator | Knowledge, attitude |
| Facilitated practice | Opportunity for students to practice or apply new skills (with models, simulated clients, or real clients) | Skill, attitude |
| Guest speaker | Presentation conducted by an expert in the field | Knowledge, attitude |
| Role play | Students act out roles in a simulated situation. | Knowledge, some skills (communication skills), attitude |

When planning, remember that learning builds on experiences:



5. Create, select, and/or modify teaching materials.

This reference guide contains some of the teaching materials you can use during your courses. You may photocopy checklists and summary tables to use as handouts, and copy role play and case study descriptions for learning activities, etc. More teaching materials can be found at the online references listed for each unit or you can create materials to fit your specific learning objectives.

A.3 Use Teaching Methods Effectively

Presentations

In the past, most classes consisted mostly of a teacher presenting information orally from the front of the class with students listening and taking notes. Student participation in the class was very limited. Today we know that students learn better if they are actively involved in their learning. Oral presentations are still an important part of many courses, but it is possible to increase student participation.

Careful planning makes for interesting, effective presentations that are easy to deliver. Group learning activities (e.g., case studies, role plays, brainstorming) can be used to enhance presentations. When making a lesson plan, include:

- The learning objective(s)
- An outline of key points (listed on a handout, chalk board, flipchart, or projected using a computer or other projector)
- Questions to involve the students
- Reminders of planned activities during the presentation, use of visual aids, learning activities, etc.
- Summary questions, comments, or activities.

Effective presentation techniques

1. Plan your presentation (create an outline based on objectives).
2. Introduce each presentation.
3. Use effective presentation skills:
 - Communicate in a way that is easy to understand (avoid jargon, unfamiliar acronyms).
 - Interact with students (use eye contact and students' names, ask questions).
 - Show enthusiasm for the topic and its importance.
 - Use appropriate visual aids.
 - Provide positive feedback ("Very good point, Mary!").
 - Provide smooth transitions between topics.
4. Use questioning techniques:
 - Ask a question of the entire group ("Would someone please tell me why...?").
 - State the question, pause, and then direct the question to a specific student (everyone has to pay attention).
 - Target the question to one student by using the person's name before asking the question.
 - Repeat students' correct answers.
 - Provide positive reinforcement for responses (even if the answer is incorrect).
 - When students ask you a question, respond in one of the following ways:
 - Answer the question
 - Respond with another question
 - Refer to a later section in the course when the question will be answered
 - Admit you don't know the answer but that you will try to find out.
5. Summarise your presentation.

Demonstrations and Facilitated Practice

Students of nursing and related disciplines must develop many skills during the course of their study. Health care skills are best developed by:

- Introducing and demonstrating the skill
- Observing students as they practice the skill
- Giving feedback on their performance of the skill
- Assessing students for competency in the skill.

Competency-based learning tools

Competency-based learning tools such as learning guides, decision trees, flowcharts, algorithms, and charts greatly facilitate the demonstration, practice, feedback, and assessment of skills. These types of tools are found throughout this reference guide to make it easy to incorporate them into your courses. Some of the ways competency-based learning tools can be used include:

- Students follow the steps in the tool while a teacher or other students demonstrate a skill.
- Pairs of students work together with one performing the skill while the other prompts, as needed, on the steps involved in the skill.
- Teachers use the tool as a reference standard for observing and giving feedback.
- The tool is used for self-assessment, peer assessment, or teacher assessment.

Tips for demonstrating skills

Different ways to demonstrate a skill in accordance with accepted performance standards include showing slides or videos in which the steps and their sequence are illustrated, performing a role play, using anatomic models to demonstrate the skill, or using simulated or real clients. Be as realistic as possible, using actual equipment and materials.

For long or multi-part procedures, follow the “whole-part-whole” process. Demonstrate the whole procedure from beginning to end, then isolate or break down the procedure into parts, allowing students to practice the individual parts. Then demonstrate the whole procedure again and allow students to practice it from beginning to end.

Before demonstrating a skill, it is essential that you introduce it and provide an overview. Include:

- What the skill is
- Why it is important
- When it should be used
- The objectives of the demonstration
- The steps involved in performing the skill
- Questions to find out how well the students have understood the information you have shared
- Handout copies or references to competency-based learning tools.

During the demonstration, you should:

- Make sure that everyone can see what you are doing
- Ask students to follow along with the learning tool, if applicable

- Always demonstrate the skill correctly
- Interact with students: explain what is being done and ask students questions to keep them involved
- Use equipment and materials correctly
- Follow infection prevention guidelines while performing the steps.

After the demonstration, discuss the procedure and ask the students if they have any questions. Briefly review the learning tool and resolve any problems with its use.

Tips for facilitating practice

The most important step in teaching and learning skills is practice—when students perform a skill in the presence of a teacher or other observer. Practice can be done in simulated (with models) or real conditions. With dangerous or complicated procedures, it is recommended that students show proficiency using models before being allowed to practice on clients.

- Make the practice situation as close to reality as possible, using real equipment and materials, if available.
- Observe and interact with students as they practice a skill. Listen, question, give feedback, and help students overcome problems.
- Start with relatively easy and short skills so that students experience success and reinforcing feedback right away. As students become more proficient, introduce more difficult skills.
- Have students use competency-based learning tools such as checklists while they practice a skill.

Feedback

Feedback is information given to students about the quality of their performance. If given correctly, feedback encourages students to try a new behaviour again, with specific plans for how to improve. To be effective, feedback must be specific, constructive, and nonjudgmental.

Conduct a feedback session immediately after practice. First, ask students how they felt about their own performance. Ask them what they believed they did well and what they would like to improve or do differently. Refer to a competency-based learning tool for a quick review of the steps and ask students where they experienced difficulty. Discuss the observed strengths of their performance and offer specific suggestions for improvement. Determine if they need additional practice.

Tips:

- Give feedback during practice only if critical information is needed to avoid a negative outcome.
- Avoid embarrassment. Pointing out a single student's errors in front of other students will only serve to embarrass the student and create a negative learning environment.
- Be specific. Describe specific behaviours and reactions, particularly those that the student should continue and those that should be changed.
- Do not criticize. Describe the consequences of the behaviour; do not judge the person.
- Be encouraging. Conclude your feedback with words of encouragement, reaffirming approval of the performance and the expectation that improvement will continue.

- Convey positive feedback by facial expression and tone of voice rather than words, when appropriate.
- Give students an opportunity to respond to the feedback, while you actively listen during this response.

Role Play

A role play is a learning activity in which students play out roles in a simulated situation that relates to 1 or more learning objectives. Role plays:

- Promote learning through imitation, observation, feedback, analysis, and conceptualization
 - Help students develop communication skills
 - Are useful for exploring, discussing, and influencing students' behaviours and attitudes.
- Role plays are used in 2 ways—as role play demonstration, or as role play practice:
- In role play demonstration, the role play is performed by volunteers in front of the whole class, with the rest of the class as observers. This is especially useful for introducing skills students will later practice in small groups.
 - In role play practice, the role plays are conducted in small groups with some group members responsible for playing the different roles and others responsible for observation and feedback. Members' duties can shift for different scenarios.

Advantages of role plays

- Encourage student participation and stimulate thinking
- Help students understand another person's perspective or situation
- Can be used to assess and improve a variety of skills and attitudes such as:
 - Communication and interpersonal skills
 - Attitudes such as caring, compassion, and understanding
- Give students opportunities to receive feedback in a safe setting.

Facilitation

Before:

- Explain the objective(s) of the exercise.
- Define the setting and situation of the role play (distribute role play handouts to participants).
- Brief the participants on their roles, or give them time to read the information and prepare for the role play.
- Explain what the other students should observe and what kind of feedback they should give (provide observer checklists when appropriate, see below).
- Keep role play brief and to the point.

During role play practice:

- Circulate among the small groups to observe the interactions, and make note of points to discuss with the whole group.
- Set time limits for each role play with feedback from observer(s).
- Allow participants to switch roles.

After:

- Engage students in a follow-up discussion.
- Provide feedback and suggestions for improvement.
- Summarise what happened in the session, what was learned, and how it applies to the skill being learned.

Role play observer checklist

Checklists can be developed to help the observer(s) focus on the attitudes, behaviours and skills that should be demonstrated during the role play. The following is an example of a checklist that could be used when observing a role play of a family planning counselling session.

Role Play Observer Checklist: General Counselling Skills

| Instructions: As you observe the role play, tick the skills demonstrated by the “provider” and make comments when appropriate (use the back of the page if necessary). | |
|---|--------------------------|
| Skills | Skills Observed/Comments |
| Assures privacy and confidentiality | |
| Uses active listening techniques (eye contact, non-verbal cues, paraphrase/summarise client concerns) | |
| Asks mainly open-ended, non-leading questions | |
| Maintains a friendly tone of voice | |
| Encourages client to express concerns, ask questions, and explain needs | |
| Demonstrates sensitivity to cultural, religious, and other factors that affect a client’s decision-making | |
| Gives accurate, concise information requested by the client | |
| Uses visual aids appropriately to increase understanding and retention of information | |
| Lets client make the decision | |
| Summarises the discussion with the client | |
| Other: | |

Case Study

A case study is a learning activity that uses realistic written situations focusing on a specific issue, topic, or problem. Students typically read, study, and react to the case study individually or in small groups.

Case studies:

- Develop problem-solving and decision-making skills

- Strengthen students' ability to apply information
- Clarify and expand students' knowledge
- Explore and change attitudes.

Advantages

- Participatory, actively encourages students to interact with one another
- Cases relate directly to course and often to the future work environment
- Student reactions often provide different perspectives and different solutions to problems presented in the case study.

Facilitation

- Before: provide clear directions of how to complete the case study, how to present answers, and what the time limit is.
- During: Students should be given the opportunity to react to the case in one or several ways:
 - Analyze the situation and determine the source of the problem
 - Respond to case study questions
 - Offer possible solutions for the situation being presented.
- After individual or group work, students should be given time to discuss the responses given by different people/groups. You can confirm key points and add any other points you think the participants may have missed.

Brainstorming

Brainstorming is a teaching method that generates a list of ideas, thoughts, or alternative solutions to a specific topic or problem. It is often used along with group discussions. The key to brainstorming is to separate the generation of ideas, or possible solutions to a problem, from the evaluation of these ideas or solutions.

Advantages

- Allows students to share their ideas without criticism
- Allows for creative thinking
- Generates ideas
- Allows for expressing opinions.

Facilitation tips

- Share the objective of the session
- Explain the rules:
 - All ideas will be accepted.
 - Discussions of suggestions will be delayed until after the activity.
 - No criticism of suggestions is allowed.
- State the topic or problem
- Maintain a written record on a flipchart or writing board to prevent repetition and keep students focused
- Provide opportunities for anonymous brainstorming by giving the students cards on which they can write their comments or questions

- Involve all students and provide positive feedback (do not let a few students monopolize the session)
- Review written ideas and suggestions periodically to stimulate additional ideas
- Conclude brainstorming by summarizing and reviewing all suggestions and by placing ideas in categories, if useful.

Group Discussions

Group discussions give students the opportunity to share their ideas, thoughts, questions, and answers in a group setting with a facilitator. The key to an effective discussion is keeping it focused on the learning objectives. Group discussions can be used in support of other teaching methods to:

- Conclude a presentation
- Summarise the main points of an audiovisual presentation
- Check students' understanding of a clinical demonstration
- Examine alternative solutions to a case study
- Explore attitudes exhibited during a role play
- Analyze the results of a brainstorming session.

Advantages

- Provides a forum to discuss attitudes
- Emphasizes key points
- Creates interest and stimulates thinking about a topic
- Encourages active participation.

Facilitation tips

Your role as the discussion facilitator is to keep the discussion focused, ensure that all students have equal opportunity to participate, and intervene when the discussion moves away from the objectives.

- State the topic as part of the introduction.
- Shift the conversation to the students. Encourage all students to participate.
- Allow the group to direct the discussion; act as a referee and intercede only when necessary to ensure the discussion stays on the topic.
- Summarise key points periodically. Provide feedback when appropriate.
- Ensure that no one student dominates the discussion.

Tips for Group Learning Activities

Different learning activities can be used to support students' gains in knowledge and skill mastery. The following tips on conducting group activities should help you incorporate these activities into your courses.

- Before dividing students into groups, clearly describe the activity to all students, ask if any clarification is needed, explain how each group should record its decisions, and suggest how each group's discussion should be reported back to the larger group.
- During group work, move among the students to monitor the work of each group.

- After the groups have completed their activity, bring them together as a large group to discuss the activity.

A.4 Prepare Knowledge and Skills Assessments

As with all decisions regarding choice of methods and materials, how to assess student knowledge and skills is based directly on learning objectives (which themselves are based on core competencies for becoming a nurse, midwife, or other health worker). Objectives can target gains in knowledge, mastery of skills, or changes in attitude. The type of assessment will depend on the type of objective. For example, you cannot assess how well a student performs an IUCD insertion by means of a written test. You can, however, assess knowledge about the procedure (steps and sequence, etc.). In general, knowledge can be assessed by written or oral tests, case studies, project reports; skills can be assessed by observation of skill performance; and attitudes can be assessed by both.

Assessing knowledge

Sample multiple choice, true/false, and short answer questions and case studies have been included in the units of this reference guide to assess mastery of many of the defined learning objectives. These can be used, as is, if they respond directly to your own course's learning objectives and the content that you provide. They can also be modified, as appropriate.

In general, follow these guidelines when preparing an assessment of knowledge:

- Identify the learning objectives or outcomes to be assessed and make sure that questions reflect the conditions stated in the objective (for example "identify" is not the same as "list").
- Use simple and clear language in all questions, as well as correct grammar.
- Include at least 1 item per objective.
- Make sure that incorrect answers in multiple choice questions are reasonable and similar in structure and length to correct answers.
- Make each test item separate from every other item. Do not build a test item upon the response to a previous test item.
- Provide clear instructions for each type of item.
- Use answer keys or checklists for scoring.

Assessing mastery of skills

Direct observation is the most valid way to assess students' skills. It can be difficult to observe each individual student; nevertheless, several techniques can be used to overcome obstacles:

- Staggering assessments by dividing students into small groups for practice and assessment at different times
- Asking other teachers and staff to help with assessment.

Checklists

The more persons involved with assessing skills, the more important it is to use a standardized checklist to reduce variations in scoring. A checklist is a list of steps needed to perform a skill correctly, given in the correct sequence. It can be developed based on the competency-based learning tools, but only contain sufficient detail to help the assessor evaluate and record the student's performance. The checklist should identify the standards or minimum level of performance for each of the key steps or tasks to be observed.

Use assessment results to improve performance

Make every effort to help your students achieve the core competencies. To help students learn from the assessment of their knowledge and skills:

- Give students an opportunity to ask questions about topics/problems/steps they did not understand or they performed incorrectly
- Tell students to re-study or practice the topics/steps they did not get right/perform correctly
- If many students had trouble with the same information/tasks, there may be a problem with the teaching methods or materials or how a task was defined. Do not be afraid to revise problematic learning objectives or to adapt teaching methods and materials to better address the content.

References

The World Health Organization (WHO) and Jhpiego. 2005. Effective teaching: A guide for educating health care providers. Geneva: WHO.

http://www.jhpiego.jhu.edu/resources/pubs/effteach/EffTeach_man.pdf

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