Instructor’s Resource Manual for
Community Health Nursing
Advocacy for Population Health

FIFTH EDITION

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Community health nurses must have the depth and breadth of knowledge that allows them to work independently and in conjunction with clients and others to improve the health of the world’s populations. In part, this improvement occurs through care provided to individuals and families, but it must also occur on a larger scale through care provided to communities and population groups. *Community Health Nursing: Advocacy for Population Health*, Fifth Edition provides community health nurses with the knowledge needed to intervene at these levels. This accompanying *Instructor’s Resource Manual* is designed to support your teaching in this stepped-up environment, and to reduce your preparation time for class. It will help you provide an optimal learning experience for your students and their many learning needs.

Each chapter in the Instructor’s Resource Manual is thoroughly integrated with the corresponding chapter in the textbook *Community Health Nursing*, Fifth Edition. Chapters are organized by learning outcomes, and the teaching unit flows from these outcomes. You will find the following features to support the objectives:

- The Concepts for Lecture in this manual may be used in their entirety for class presentation or they may be merged with the classroom activities for a mixture of teaching styles that will meet the needs of students with various learning styles.
- The Lecture Outlines can be found on your Instructor’s Resource DVD-ROM in PowerPoint. The number in the slide icon refers to the Concept for Lecture to which the slide correlates. Some lecture concepts have more than one slide, in which cases the slide icon will contain a letter after the Concept for Lecture number.
- Suggestions for Classroom and Clinical Experiences attempt to go beyond the traditional activities that have been the mainstay of nursing education for many years.
- The Resource Library identifies for you—the instructor—all the specific media resources and activities available for that chapter on the Companion Website and Instructor’s Resource DVD-ROM. Chapter by chapter, the Resource Library helps you decide what resources from the Companion Website and Instructor’s Resource DVD-ROM to use to enhance your course and your students’ ability to apply concepts from the book into practice.

This IRM also contains a brand new “Strategies for Success” module written by Sandra DeYoung. Included within are Learning Theories, Planning for Instruction, How to Use Effective Pedagogies, Assessing Learning, and more! There is also a guide on “Teaching Nursing to Students who Speak English as a Non-Native Language.” This tool is intended to guide you in reaching across cultural barriers to train nurses.

Finally, the following additional resources are also available to accompany this textbook. For more information or sample copies, please contact your Prentice Hall Sales Representative:

- **Companion Website www.prenhall.com/clark**
  This on-line study guide is designed to help students apply the concepts presented in the book. Each chapter-specific module features Learning Outcomes, Exam Review Questions with rationales, Chapter Outlines for lecture notes, Case Studies, Advocacy Interviews, Challenge Your Knowledge, Update *Healthy People 2010*, answers to textbook case studies, MediaLink Applications, WebLinks, Audio Glossary, and more.
  This valuable collection of 38 tools is intended for students and community health nurses to use in providing outstanding care to individuals, families, and population groups. Two types of tools are included: assessment tools and inventories. Assessment tools provide guidance for assessing the health status of individual clients or population groups and provide space for recording data collected. These tools also provide direction for the development of nursing diagnoses, planning interventions, and evaluating the outcomes of care. Inventories are checklists of client/population-specific interventions or risk factors for selected community health problems.
  This cross-platform DVD-ROM provides text slides and illustrations in PowerPoint for use in classroom lectures. It also contains an electronic test bank and slides for use in Classroom Response Systems. This supplement is available to faculty upon adoption of the textbook. *Note: Instructor’s Resource CD-ROM also available upon request.*

It is our hope that the information provided in this manual will decrease the time it takes you to prepare for class and will optimize the learning experience for your students.
TEACHING NURSING TO STUDENTS WHO SPEAK ENGLISH AS A NON-NATIVE LANGUAGE

We are fortunate to have so many multi-national and multi-lingual nursing students in the US in the 21st century. As our classrooms become more diverse, there are additional challenges to communication, but we in the nursing education community are ready. Our goal is to educate competent and caring nurses to serve the health needs of our diverse communities.

We know that ENNL students experience higher attrition rates than their native English-speaking counterparts. This is a complex problem. However, there are teaching strategies that have helped many students be successful.

The first step toward developing success strategies is understanding language proficiency. Language proficiency has four interdependent components. Each component is pertinent to nursing education. Reading is the first aspect of language. Any nursing student will tell you that there are volumes to read in nursing education. Even native speakers of English find the reading load heavy. People tend to read more slowly in their non-native language. They also tend to recall less. Non-native speakers often spend inordinate amounts of time on reading assignments. These students also tend to take longer to process exam questions.

Listening is the second component of language. Learning from lectures can be challenging. Some students are more proficient at reading English than at listening to it. It is not uncommon for ENNL students to understand medical terminology, but to become confused by social references, slang, or idiomatic expressions used in class. The spoken language of the teacher may be different in accent or even vocabulary from that experienced by immigrant students in their language education. ENNL students may not even hear certain sounds that are not present in their native language. Amoxicillin and Ampicillin may sound the same. Asian languages do not have gender-specific personal pronouns (he, she, him, her, etc.). Asian students may become confused when the teacher is describing a case study involving people of different genders.

Speaking is the third component of language proficiency. People who speak with an accent are often self-conscious about it. They may hesitate to voice their questions or to engage in discussion. Vicious cycles of self-defeating behavior can occur in which a student hesitates to speak, resulting in decreased speaking skills, which results in more hesitation to speak. Students may develop sufficient anxiety about speaking that their academic outcomes are affected. Students tend to form study groups with others who have common first languages. Opportunities to practice English are therefore reduced, and communication errors are perpetuated. When the teacher divides students into small groups for projects, ENNL students often do not participate as much as others.

If these students are anxious about speaking, they may withdraw from classroom participation. ENNL students may feel rejected by other students in a small group situation when their input is not sought or understood.

The fourth aspect of language is writing. Spelling and syntax errors are common when writing a non-native language. Teachers often respond to student writing assignments with feedback that is too vague to provide a basis for correction or improvement by ENNL students. When it comes to writing lecture notes, these students are at risk of missing important details because they may not pick up the teacher’s cues about what is important. They might miss information when they spend extra time translating a word or concept to understand it, or they might just take more time to write what is being said.

Another major issue faced by ENNL nursing students is the culture of the learning environment. International students were often educated in settings where students took a passive role in the classroom. They may have learned that faculty are to be respected, not questioned. Memorization of facts may have been emphasized. It may be a shock to them when the nursing faculty expect assertive students who ask questions and think critically. These expectations cannot be achieved unless students understand them.

Finally, the European-American culture, which forms the context for nursing practice, creates challenges. Because they are immersed in Euro-American culture and the culture of nursing, faculty may not see the potential sources of misunderstanding. For example, if a teacher writes a test question about what foods are allowed on a soft diet, a student who understands therapeutic diets may miss the question if s/he does not recognize the names of the food choices. Nursing issues with especially high culture connection are: food, behavior, law, ethics, parenting, games, or choosing the right thing to say. These topics are well represented in psychiatric nursing, which makes it a difficult subject for ENNL students.

MINIMIZING CULTURE BIAS ON NURSING EXAMS

Our goal is not really to eliminate culture from nursing or from nursing education. Nursing exists in a culture-dependent context. Our goal is to practice transcultural nursing and to teach nursing without undue culture bias.

Sometimes our nursing exam questions will relate to culture-based expectations for nursing action. The way to make these questions fair is to teach transcultural nursing and to clarify the cultural expectations of a nursing student in the Euro-American-dominated health care system. Students must learn the cultural aspects of the profession before they can practice appropriately within it. Like other cultures, the professional culture of nursing has its own language (medical terminology and nursing diagnosis, of course). We have our own accepted way of dress,
our own implements, skills, taboos, celebrations, and behavior. The values accepted by our culture are delineated in the ANA Code of Ethics, and are passed down to our young during nursing education.

It is usually clear to nursing educators that students are not initially aware of all the aspects of the professional culture, and that these must be taught. The social context of nursing seems more obvious to educators, and is often overlooked in nursing education. Some aspects of the social context of nursing were mentioned above (food, games, social activities, relationships, behavior, what to say in certain situations). Students must also learn these social behaviors and attitudes if they are to function fully in nursing. If they do not already know about American hospital foods, what to say when someone dies, how to communicate with an authority figure, or what game to play with a 5-year-old child, they must learn these things in nursing school.

Try for yourself the following test. It was written without teaching you the cultural expectations first.

**CULTURE BIASED TEST**

1. Following radiation therapy, an African American client has been told to avoid using her usual hair care product due to its petroleum content. Which product should the nurse recommend that she use instead?
   - A. Royal Crown hair treatment
   - B. Dax Wave and Curl
   - C. Long Aid Curl Activator Gel
   - D. Wave Pomade

2. A Jewish client is hospitalized for Pregnancy Induced Hypertension during Yom Kippur. How should the nurse help this client meet her religious needs based on the tradition of this holy day?
   - A. Order meals without meat-milk combinations
   - B. Ask a family member to bring a serving of Marror for the client
   - C. Encourage her to fast from sunrise to sunset
   - D. Remind her that she is exempt from fasting

3. Based on the Puerto Rican concept of compadrazco, who is considered part of the immediate family and responsible for care of children?
   - A. Parents, grandparents, aunts, uncles, cousins, and godparents
   - B. Mother and father, older siblings
   - C. Mother, father, any blood relative
   - D. Parents and chosen friends (compadres) who are given the honor of childcare responsibility

4. A 60-year-old Vietnamese immigrant client on a general diet is awake at 11 PM on a summer night. What is the best choice of food for the nurse to offer to this client?
   - A. warm milk
   - B. hot tea
   - C. ice cream
   - D. iced tea

5. Which of the following positions is contraindicated for a client recovering from a total hip replacement?
   - A. Side-lying using an abductor pillow
   - B. Standing
   - C. Walking to the restroom using a walker
   - D. Sitting in a low recliner

When you took this test, did it seem unfair? It was intended to test nursing behaviors that were based on culture-specific situations. Your immigrant and ENNL students are likely to face questions like these on every exam.

Item #1 is about hair care products for black hair. Option C is the only one that does not contain petroleum products. Students could know this, if they were given the information before the exam. Otherwise the item is culture-biased.

Item #2 is about the Jewish holiday Yom Kippur. To celebrate this holiday, it is customary to fast from sunrise to sunset, but people who are sick, such as the client in the question, are exempted from fasting. This is only unfair if students did not have access to the information.

Item #3 expects you to know about compadrazco, in which parents, grandparents, aunts, uncles, cousins, and godparents are all considered immediate family. This can be an important point if you are responsible for visiting policies in a pediatrics unit.

Item #4 tests knowledge about the preferred drink for an immigrant Vietnamese client. Many people in Asia feel comforted by hot drinks and find cold drinks to be unsettling.

Item #5 does not seem so biased. If you understand total hip precautions, it is a pretty simple question, unless you have never heard of a “low recliner.” An ENNL student who missed this question, said, “I saw the chairs in clinical called ‘geri chairs’ and I know that the client cannot bend more than 90 degrees, but ‘low recliner’ was confusing to me. I imagined someone lying down (reclining) and I think this would not dislocate the prosthesis.”

The best way to avoid culture bias on exams is to know what you are testing. It is acceptable to test about hip precautions, but not really fair to test about the names of furniture. The same is true of foods. Test about therapeutic diets, but not about the recipes (an African immigrant student advised us to say “egg-based food” instead of custard).

Behavior in social and professional situations is especially culture-bound. Behavior-based questions are common on nursing exams. Make behavior expectations explicit. Especially when a student is expected to act in a way that would be inappropriate in his or her social culture, these are very difficult questions. For example, we expect nurses to act assertively with physicians and clients. It is inappropriate for many Asian students to question their elders. When a client is their elder, these students will choose the option that preserves respect for the client over one that provides teaching. We must make our expectations very clear.
Finally, talk with your ENNL and immigrant students after your exams. They can provide a wealth of information about what confused them or what was ambiguous. Discuss your findings with your colleagues and improve your exams. Ultimately your exams will be clearer and more valid.

**SUCCESS STRATEGIES**

The following strategies were developed originally to help ENNL students. An interesting revelation is that they also help native English speakers who have learning styles that are not conducive to learning by lecture, or who read slowly, or have learning disabilities or other academic challenges.

**STRATEGIES FOR PROMOTING ENNL STUDENT SUCCESS**

1. You cannot decrease the reading assignment because some students read slowly, but you can help students prioritize the most important areas.
2. Allow adequate time for testing. The NCLEX is not a 1-minute-per-question test anymore. Usually 1.5 hours is adequate for a 50 item multiple-choice exam.
3. Allow students to tape lectures if they want to. You might have lectures audio-taped and put in the library for student access.
4. Speak clearly. Mumbling and rapid anxious speech are difficult to understand. If you have a problem with clarity, provide handouts containing the critical points. Provide the handouts anyway. You want to teach and test nursing knowledge, not note-taking skills.
5. Avoid slang and idiomatic expressions. This is harder than heck to do, but you can do it with practice. When you do use slang, explain it. This is especially important on exams. When in doubt about whether a word is confusing, think about what the dictionary definition would be; if there are two meanings, use another word.
6. Allow the use of translation dictionaries on exams. You can say that students must tell you what they are looking up, so they cannot find medical terminology that is part of the test.
7. Be aware of cultural issues when you are writing exams. Of course you will test on culture-specific issues, but be sure you are testing what you want to test (the student’s knowledge of diets, not of recipes).
8. Feel free to use medical terminology, after all this is nursing school. However, when you use an important new term, write it on the board so students can spell it correctly in their notes.
9. In clinical, make the implied explicit. It seems obvious that safety is the priority, but if a student thinks the priority is respecting her elders, when a client with a new hip replacement demands to get out of bed there could be a disaster.
10. Hire a student who takes clear and accurate lecture notes to post his/her notes for use by ENNL and other students. The students will still attend class and take their own notes, but will have this resource to fill in the details that they miss.
11. SOA (spell out abbreviations).
12. Many international students learned to speak English in the British style. If something would be confusing to a British person, they will find it confusing.
13. Provide opportunities for students to discuss what they are learning with other students and faculty. A faculty member might hold a weekly discussion group where students bring questions. It can be interesting to find a student having no trouble tracing the path of a red cell from the heart to the portal vein, but having difficulty understanding what cream of wheat is (“I thought it was a stalk of grain in a bowl with cream poured on it”).
14. Make it clear that questions are encouraged. When a student is not asking, and you think they may not understand, ask the student after class if s/he has questions. Make it easier for students to approach you by being approachable. Learn their names, and learn to pronounce them correctly. Hearing you try to pronounce their name might be humorous for them, and it will validate how difficult it is to speak other languages.
15. Take another look at basing grades on class participation. You may be putting inordinate demands on the ENNL students. Of course nurses must learn to work with others, but the nurse who talks most is not necessarily the best.
16. Be a role model for communication skills. You might even say in class when you talk about communication that if you respect a person who is trying to communicate with you, you will persist until you understand the message. Say, “Please repeat that,” or “I think you said to put a chicken on my head, is that correct?” or “You want me to do what with the textbook?” It may be considered socially rude to ask people to repeat themselves repeatedly. Make it clear that this is not a social situation. In the professional role, we are responsible for effective communication. We cannot get away with smiling and nodding our heads.
17. In clinical, if a student has an accent that is difficult for the staff to understand, discuss clarification techniques (#16 above) to the student and staff member. Make it explicit that it is acceptable for the student to ask questions and for the staff to ask for clarification.
18. If your college has a writing center where students can receive feedback on grammar and style before submitting papers, have students use it. If you are not so fortunate, view papers as a rough draft instead of a final product. Give specific feedback about what to correct and allow students to resubmit them.
19. Make any services available to ENNL students available to all students (such as group discussions and notes). These services may meet the learning needs of many students while preventing the attitude that “they are different and they get something I don’t.”

20. Faculty attitudes are the most important determinant of a successful program to promote the success of ENNL nursing students. Talk with other faculty about the controversial issues. Create an organized program with a consistent approach among the faculty. The rewards will be well worth the work.
Strategies for Success
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Improving our Teaching
Every faculty member wants to be a good teacher, and every teacher wants the students to learn. In particular, we want to achieve the student learning outcomes that our educational institutions say we must achieve. How can we best meet both goals? We cannot just teach as we were taught. We have to learn a variety of teaching methods and investigate best practices in pedagogy. We also have to learn how to measure student learning outcomes in practical and efficient ways. The next few pages will introduce you to principles of good teaching and ways to evaluate learning. Keep in mind that this is only an introduction. For a more extensive study of these principles and pedagogies, you might consult the resources listed at the end of this introduction.

Learning Theory
In order to improve our teaching, we must have some familiarity with learning theory. Nurses who come into educational roles without psychology of learning courses in their background should read at least an introductory-level book on learning theories. You should, for example, know something about stages and types of learning, how information is stored in memory and how it is retrieved, and how knowledge is transferred from one situation to another.

Behaviorist Theories
Behaviorist theories are not in as much favor today as they were 25 years ago, but they still help to explain simple learning. Conditioning and reinforcement are concepts with which most educators are familiar. Conditioning explains how we learn some simple movements and behaviors that result in desired outcomes, such as a nurse responding when an alarm sounds on a ventilator. Reinforcement refers to the fact that behavior which is rewarded or reinforced tends to reoccur. Therefore, reinforcement is a powerful tool in the hands of an educator.

Cognitive Learning Theories
Cognitive learning theories are much more sophisticated. They deal with how we process information by perceiving, remembering, and storing information. All of these processes are a part of learning. One of the most useful concepts in cognitive theory is that of mental schemata. Schemata (plural) are units of knowledge that are stored in memory. For example, nurses must develop a schema related to aseptic technique. Once a schema is stored in memory, related information can be built on it.

For instance, changing a dressing is easier to learn if the learner already has a schema for asepsis.

Metacognition is another concept identified in cognitive theories. This concept refers to thinking about one’s thinking. To help learners who are having difficulty mastering certain material, you might ask them to think about how they learn best and help them evaluate whether they really understand the material.

Transfer of learning occurs when a learner takes information from the situation in which it is learned and applies it to a new situation. Transfer is most likely to occur if the information was learned well in the first place, if it can be retrieved from memory, and if the new situation is similar to the original learning situation. Educators can teach for transfer by pointing out to students how a concept is applied in several situations so that learners know the concept is not an isolated one, and the students begin to look for similar patterns in new situations.

Adult Learning Theories
Adult learning theories help to explain how learning takes place differently for adults than for children. Adults usually need to know the practical applications for the information they are given. They also want to see how it fits with their life experiences. When teaching adults, nurse educators need to keep in mind adult motivation for learning.

Learning Style Theories
Learning style theories abound. Research has shown that some learners are visually oriented, some are more auditory or tactile learners, some are individualistic and learn best alone, others learn best by collaboration, some deal well with abstract concepts, and others learn better with concrete information. Measurement instruments that can determine preferred learning styles are readily available. Although not many educators actually measure their students’ learning styles, they should keep learning styles in mind when they plan their instruction.

Planning for Instruction
With some background knowledge of how students learn, the nurse educator can begin to plan the learning experiences. Planning includes developing objectives, selecting content, choosing pedagogies, selecting assignments, and planning for assessment of learning. All nurse educators come to the teaching process already knowing how to write objectives. Objectives can be written in the cognitive, psychomotor, and affective domains of learning. In the cognitive domain, they can be written at the knowledge, comprehension, application, analysis, and synthesis
levels of complexity. The critical aspect of objectives is to keep referring to them as you plan your lesson or course. They will help you focus on the “need to know” versus the “nice to know” material. They will help you decide which assignments will be most suitable, and they will guide your development of evaluation tools.

SELECTING ASSIGNMENTS
Selecting and developing out-of-class assignments calls for creativity. You may use instructor’s manuals such as this for ideas for assignments or you may also develop your own. To encourage learning through writing, you can assign short analysis papers, position papers, or clinical journals, all of which promote critical thinking. Nursing care plans of various lengths and complexity may be assigned. You may create reading guides with questions to help students read their textbooks analytically. You might also ask students to interview or observe people to achieve various objectives.

USING EFFECTIVE PEDAGOGIES
Selecting teaching methods or pedagogies takes considerable time. You must consider what you are trying to achieve: To teach facts, you may choose to lecture or assign a computer tutorial. To change attitudes or motivate learners, you may use discussion, role-playing, or gaming. Developing critical thinking may be done effectively using critical-thinking exercises, concept maps, group projects, or problem-based learning. There are traditional pedagogies, activity-based pedagogies, and technology-based pedagogies.

TRADITIONAL PEDAGOGIES
Traditional pedagogies include lecture, discussion, and questioning. Lecturing is an efficient way to convey a great deal of information to large groups of people. However, the lecture creates passive learning. Learners just sit and listen (or not) and do not interact with the information or the lecturer. Research has shown that students learn more from active learning techniques (i.e., from being able to talk about, manipulate, deduce, or synthesize information). If you are going to lecture, it would be wise to intersperse lecture with discussion and questioning.

Discussion gives students an opportunity to analyze and think critically about information that they have read or were given in a lecture. By discussing key concepts and issues, they can learn the applicability of the concepts and see how they can transfer to varied situations. Discussions can be formal or informal, but they generally work best if they are planned. For a formal discussion, students must be held accountable for preparing for it. The teacher becomes a facilitator by giving an opening statement or question, guiding the discussion to keep it focused, giving everyone a chance to participate, and summarizing at the end.

Questioning is a skill that develops over time. The first principle to learn is that you have to give students time to answer. Most teachers wait only 1 second before either repeating the question or answering it themselves. You should wait at least 3 to 5 seconds before doing anything, to allow students time to think and prepare a thoughtful answer. Research has revealed that most instructor-posed questions are at a very low level (lower-order), eliciting recall of facts. But questioning can be used to develop critical thinking if it is planned. Higher-order questions are those that require students to interpret information, to apply it to different situations, to think about relationships between concepts, or to assess a situation. If you ask higher-order questions during your classes or clinical experiences, students will rise to the occasion and will be challenged to provide thoughtful answers.

ACTIVITY-BASED PEDAGOGIES
Activity-based teaching strategies include cooperative learning, simulations, games, problem-based learning, and self-learning modules, among others. Cooperative learning is an old pedagogy that has received more research support than any other method. This approach involves learners working together and being responsible for the learning of group members as well as their own learning. Cooperative learning groups can be informal, such as out-of-class study groups, or they can be formally structured in-class groups. The groups may serve to solve problems, develop projects, or discuss previously taught content.

Simulations are exercises that can help students to learn in an environment that is low risk or risk-free. Students can learn decision making, for example, in a setting where no one is hurt if the decision is the wrong one. Simulations in skill laboratories are frequently used to teach psychomotor skills. Simulations can be written (case studies), acted out (role-playing), computer-based (clinical decision-making scenarios), or complex technology-based (active simulation manikins).

Games can help motivate people to learn. Factual content that requires memorization (such as medical terminology) can be turned into word games such as crossword puzzles or word searches. More complex games can teach problem solving or can apply previously learned information. Board games or simulation games can be used for these purposes.

Problem-based learning (PBL) provides students with real-life problems that they must research and analyze and then develop possible solutions. PBL is a group activity. The instructor presents the students with a brief problem statement. The student group makes lists of what they know and don’t know about the problem. They decide what information they must collect in order to further understand the problem. As they collect the information and analyze it, they further refine the problem and begin to investigate possible solutions. The educator serves as a facilitator and resource during the learning process and helps keep the group focused.

Self-learning modules are a means of self-paced learning. They can be used to teach segments of a course or an entire course or curriculum. Modules should be built around a single concept. For example, you might design a module for a skill lab based on aseptic technique,
or you could develop a module for a classroom course around the concept of airway impairment. Each module contains components such as an introduction, instructions on how to use the module, objectives, a pretest, learning activities, and a posttest. Learning activities within a module should address various learning styles. For example, you should try to include activities that appeal to visual learners and tactile learners, conceptual learners and abstract learners, and individual learners and collaborative learners. Those activities could be readings, audiovisuals, computer programs, group discussion, or skills practice. The educator develops and tests the module and then acts as facilitator and evaluator as learners work through the module.

**TECHNOLOGY-BASED PEDAGOGIES**

Technology-based pedagogies include computer simulations and tutorials, Internet use, and distance learning applications. Computer simulations include decision-making software in which a clinical situation is enacted and students are asked to work through the nursing process to solve problems and achieve positive outcomes. They also include simulation games such as SimCity, which can be a useful tool in teaching community health principles. Computer tutorials are useful for individual remedial work such as medication calculations or practice in answering multiple-choice test questions.

The Internet is a rich resource for classroom use and for out-of-class assignments. There are hundreds of websites that can be accessed for health-related information. Students need to be taught how to evaluate the worth of these websites. The criteria they should apply to this evaluation include identifying the intended audience, the currency of the information, the author's credentials or the affiliated organization, and content accuracy. Students may not know how to identify online journal sources compared to other websites. It is worth spending time, therefore, teaching students how to use the Internet before giving them such assignments. If your classroom is Internet access enabled, you can visually demonstrate how to identify and use appropriate websites. For example, if you want students to find relevant information for diabetic teaching, you can show them the differing value of information from official diabetes associations versus pharmaceutical sites versus chat rooms or public forums.

You may be using this instructor's manual in a distance learning course. Distance learning takes the forms of interactive television classes, webcasting, or online courses. In any form of distance learning, students are learning via the technology, but they are also learning about technology and becoming familiar with several computer applications. Those applications may include synchronous and asynchronous applications, streaming video, and multimedia functions.

**ASSESSING LEARNING**

You can assess or evaluate learning in a number of ways. Your first decision is whether you are just trying to get informal, ungraded feedback on how well students are learning in your class, or whether you are evaluating the students for the purpose of assigning a grade. Following are a number of techniques that can be used for one or both purposes.

**CLASSROOM ASSESSMENT TECHNIQUES**

Classroom assessment techniques (CATs) are short, quick, ungraded, in-class assessments used to gauge students' learning during or at the end of class. Getting frequent feedback on students' understanding helps educators to know if they are on the right track and if students are benefiting from the planned instruction. If you wait until you give a formal quiz or examination, you may have waited too long to help some students who are struggling with the material. The most popular CAT is probably the minute paper. This technique involves asking students to write down, in 1 or 2 minutes, usually at the end of class, what was the most important thing they learned that day or what points remain unclear. A related technique is the muddiest point, in which you ask the class to write down the "muddiest" part of the class was for them. In nursing, application cards can be especially useful. After teaching about a particular concept or body of knowledge, and before you talk about the applications of the information, ask the students to fill out an index card with one possible clinical application of the information. This technique fosters application and critical thinking. Always leave class time during the following session to give feedback on the CAT results.

Another means of doing a quick assessment of learning in the classroom is the use of a classroom (or student) response system, sometimes called clicker technology. By the use of radio frequency technology, a laptop computer, a projector, and student remote controls (the clickers), an instructor can pose a written question on the screen and ask students to use their clickers to select the correct answer. The answers are then tallied and can be projected as a graph of results on the screen. This technology permits quick assessment of student understanding of critical information and keeps students active during a lecture. Classroom response systems are often made available by publishers in conjunction with their textbooks.

**TESTS AND EXAMINATIONS**

Tests and examinations are also used to assess or evaluate learning. Tests should be planned carefully to measure whether learning objectives have been met. You should form a test plan in which you decide the number of test items to include for each objective as well as the complexity of the items. Just as objectives can be written at the knowledge through synthesis levels of knowing, test items can be written at each level, too. Some types of items lend themselves to the lower levels of knowing, such as true-false and matching items, while multiple-choice and essay questions can be used to test higher levels.
TRUE-FALSE QUESTIONS

True-false questions are used simply to determine if the student can identify the correctness of a fact or principle. This type of question should be used sparingly, because the student has a 50% chance of guessing the correct answer. Well-written true-false questions are clear and unambiguous. The entire statement should be totally true or totally false. An example of a question that is ambiguous is:

(T F) A routine urinalysis specimen must be collected with clean technique and contain at least 100 mL.

The answer to this question is false because the specimen does not require 100 mL of volume. However, the clean technique part of the question is true. Because part of the statement is true and part is false, the question is misleading. A better question is:

(T F) A routine urinalysis specimen must be collected with clean technique.

True-false questions can be made more difficult by requiring the student to explain why the statement is true or false.

MATCHING QUESTIONS

Matching questions also test a low level of learning—that of knowledge. They are most useful for determining if students have learned definitions or equivalents of some type. They should be formatted in two columns, with the premise words or statements on the left and the definitions or responses on the right. You should have more responses than premises so that matching cannot be done simply by process of elimination. Instructions should be given that indicate if responses can be used more than once or even not at all.

An example of a matching question is:

Match the definition on the right with the suffix on the left. Definitions can be used only once or not at all.

____ 1. -itis  a. presence of
____ 2. -stasis  b. abnormal flow
____ 3. -rrhage  c. inflammation
____ 4. -asis  d. discharge or flow
____ 5. -ectomy  e. contraction
                  f. surgical removal of

MULTIPLE-CHOICE QUESTIONS

Multiple-choice questions are used to test critical thinking. A multiple-choice question has two parts. The first part, the question, is also called the stem. The possible answers are called options. Among the options, the correct one is called the answer, while the incorrect options are termed distractors. You can word stems as questions or as incomplete statements that are completed by the options. For example, an item written as a question is:

WHAT IS A QUICK WAY TO ASSESS THE APPROXIMATE LITERACY LEVEL OF A PATIENT?

a. Pay attention to her vocabulary as she speaks.
b. Give her an instruction sheet to read.
c. Administer a literacy test.
d. Ask her whether she graduated from high school.

The same knowledge can be tested by a stem written as an incomplete statement:

A QUICK WAY TO ASSESS THE APPROXIMATE LITERACY LEVEL OF A PATIENT IS TO

a. pay attention to her vocabulary as she speaks.
b. give her an instruction sheet to read.
c. administer a literacy test.
d. ask her whether she graduated from high school.

Notice the differing formats of each item. When the stem is a question it is also a complete sentence, so each option should be capitalized because each is also a complete sentence and each ends with a period. When the stem is an incomplete statement, it does not end with a period, so the options that complete the statement do not begin with a capital letter but do end with a period. Stems should be kept as brief as possible to minimize reading time. Avoid negatively stated stems. For example, a poor stem would be:

WHICH OF THE FOLLOWING IS NOT A GOOD WAY TO ASSESS A PATIENT’S LITERACY LEVEL?

It is too easy for readers to miss the word not and therefore answer incorrectly. If you feel compelled to write negative stems occasionally, be sure to capitalize or underline the word not, or use the word except as in the following example:

ALL OF THE FOLLOWING ARE GOOD WAYS TO ASSESS A PATIENT’S LITERACY LEVEL except

In this case, the reader is less likely to miss the negative word because of the sentence structure and also because the word except is capitalized.

Options usually vary from three to five in number. The more options you have, the more difficult the item. However, it is often difficult to write good distractors. Be sure that your options are grammatically consistent with the stem. Next is a test item in which all of the options do not fit grammatically with the stem:

The lecture method of teaching is best suited to

a. when the audience already knows a lot about the topic.
b. large audiences.
c. times when you are in a hurry to cover your material and don't want to be interrupted.
d. young children.

Not only are the options grammatically inconsistent, they are also of varied lengths. Attempt to keep the options about the same length. The following restatement of the item corrects the problems with grammar and with length:
The lecture method of teaching is best suited to:
a. an audience that already knows the topic.
b. an audience that is very large.
c. times when you must cover your material quickly.
d. an audience of young children.

Distractors that make no sense should never be used. Instead, try to develop distractors that reflect incorrect ideas that some students might hold about a topic.

**Essay Questions**
Essay-type questions include short answer (restricted-response questions) and full essays (extended-response questions). These types of items can be used to test higher-order thinking. Extended-response essays are especially suited to testing analysis, synthesis, and evaluation levels of thinking. An example of an essay that might test these higher-order levels of thinking is:

Explain how exogenous cortisone products mimic a person's normal cortisol functions and why long-term cortisone administration leads to complications. Also explain how nursing assessment and intervention can help to reduce those complications.

The educator must plan how the essay is going to be graded before the test is given. An outline of required facts and concepts can be developed and points given to each. Then a decision must be made as to whether it is appropriate to give points for writing style, grammar, spelling, and so on.

**Test Item Analysis**
After a test is given, an analysis of objective items can be conducted. Two common analyses are item difficulty and item discrimination. Most instructors want to develop questions that are of moderate difficulty, with around half of the students selecting the correct answer. A mixture of fairly easy, moderate, and difficult questions can be used. The difficulty index can be calculated by dividing the number of students who answered the question correctly by the total number of students answering the question. The resulting fraction, converted to a percentage, gives an estimate of the difficulty, with lower percentages reflecting more difficult questions.

Item discrimination is an estimate of how well a particular item differentiates between students who generally know the material and those that don't. In other words, a discriminating item is one that most of the students who got high scores on the rest of the examination got right and most of the students who got low scores got wrong. The discrimination index can be calculated by computer software or by hand using a formula that can be found in tests and measurement textbooks.

**Helpful Resources**
These few pages are but an introduction to teaching techniques. To be fully prepared for the educator role, you will need to enroll in formal courses on curriculum and teaching or do more self-learning on educational topics. For more information, you might consult the following print and Web-based resources:


Web sites:
www.crlt.umich.edu/tstrategies/teachings.html
www.gmu.edu/facstaff/part-time/strategy.html
www.ic.arizona.edu/ic/edtech/strategy.html