Chapter 10
Designing a Course

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"Dr. Samuels did that for years. Now that he's gone, we need a new EBM course. Can you take that on?"

Sooner or later, many of us who work in medical education will hear a variation of this quotation. A time will come when you'll be called upon to create a course. Unfortunately, many confuse a course with a list of topics or content to be covered. With the information in this chapter, you will be able to design a true course: a series of integrated instructional units that result in learner acquisition of knowledge, skills and attitudes.

There is a "trick" to designing a course. That trick is encapsulated in what Yelon (1996) has called "The Secret of Instructional Design." This is a depiction of The Secret (Fig. 10.1).

There are several principles represented by The Secret. All well-designed instruction contains certain elements:

- It meets an educational need.
- A description of the real world performance problem the course addresses, a course goal, an overall course objective, a visual model of the course units, and a description of the course content.
- Course units that lead learners to attainment of the course goal. Each unit contains its own objective, content, instructional/learning strategies, and learner evaluation strategies.

These elements must be consistent with each other. They must support each other and not clash or work against each other. This chapter will explain the elements of instructional design, and how they are integrated to be consistent with each other. But first, are you sure you have an "educational" problem?

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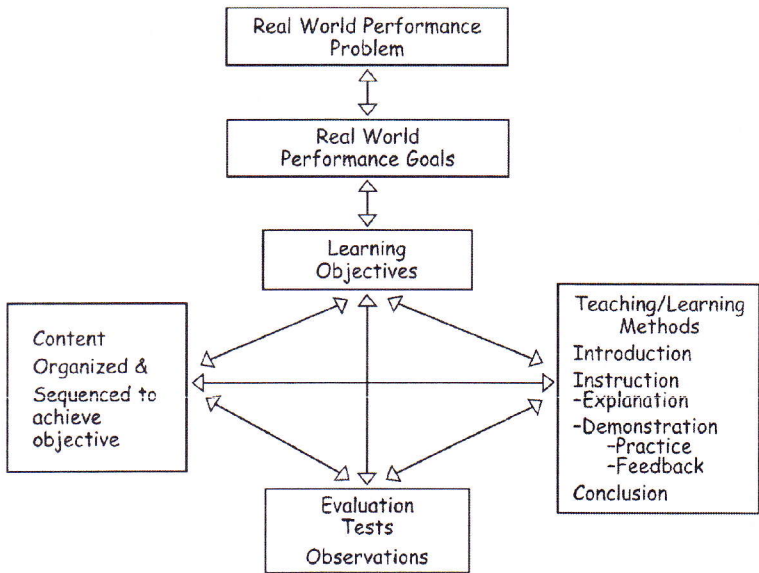College of Human Medicine, Michigan State University, East Lansing, MI, USA
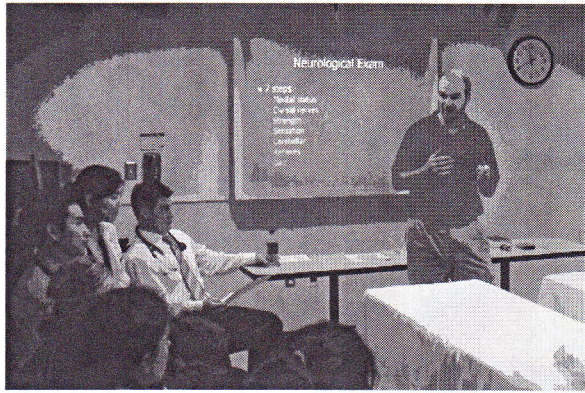
Fig. 10.1 The components of instructional design

First Steps: Needs Assessment and Feasibility

It takes a lot of time and effort to create a course. You want to be sure you need a course before beginning to work on one. Often, when there is a performance problem – your students or residents cannot do something competently – there is an automatic assumption that training or education is the solution. This isn't necessarily so! Consider the following scenario:

Dr. Mark has noticed that students in his program do not write post-encounter notes well. Important objective data are often missing, and assessment and plan sections do not follow logically from the data provided.

Dr. Mark decides that a brief course in post-encounter note writing is needed to make sure his students perform this task competently.

There are several possible reasons that Dr. Mark's students aren't writing notes appropriately:

- The students were never taught effectively, they simply don't know how to do it.
- The students know how to write notes, but they know that most preceptors will ignore their notes or give very cursory feedback.
- The students never have enough time to write notes well.

Which of these is a true "educational" deficit? If you answered "the first," go to the head of the class! Only those issues that are due to a lack of knowledge and/or skill are educational problems. Other factors might inhibit performance, including faculty system design or lack of motivation.

So, before setting out to develop a course or other form of instruction, make sure your potential learners really don't know something, or can't perform a task competently! How can you do this? Some good places to start include:

- Assess your learners on the desired knowledge and skills.
- Review any performance data you have.
- Review your curriculum for the presence or absence of the desired knowledge and skills.
- Review the literature to see if other institutions think this is a performance problem, too. This can also lead to some good educational ideas, if you decide to proceed with course design.

Even if you know you have an educational problem on your hands, you still need to think before you design:

- Do you have the resources you need to develop and implement your course? Most importantly, will you be given TIME, that most important resource, to devote to your course?
- Do you have the institutional support that will allow you to get the resources you will need to develop and implement your course?
- Do you have access to learners at appropriate times and places in your curriculum so that they can learn effectively and efficiently from your course?

The important question is: Is your course feasible? A well-designed course could fail because promised resources were not made available, or curricular time couldn't be spared to implement the course effectively. I know of at least one medical educator who spent 9 months developing a beautifully-designed, comprehensive course

on medical informatics, only to see his professionally bound document gathering dust on the shelf when computers he was promised were not forthcoming!

How do you determine if your curriculum is feasible? Ask about critical resources (Bland et al., 2000):

- Ask the people in charge of scheduling at your institution if they are willing to give you time to develop and implement the course.
- Determine whether you will have access to your target learners in order to implement your curriculum.
- Figure out if you will have other resources such as space, equipment, staff, supplies and colleagues in order to implement your course.

Sometimes, even a good idea for a course, one that responds to a true educational need, must be put to the side because it isn't feasible. So:

- Be sure your performance problem is due to a lack of knowledge and/or skill, and
- Be sure your environment will support the development and implementation of your course.

The remainder of this chapter will explain the elements of The Secret of Instructional Design and their purposeful integration – how to make the elements consistent with each other.

Designing the "Big Picture" of Your Course

Designing a course is a lot like any design project. For example, in building a house, you need a plan, a set of blueprints that tell the builder where all the rooms go, the dimensions of each room, where the electrical fixtures, plumbing, windows and doors go. So much detail! But a good set of blueprints includes at least one that presents the picture, the overview that gives the builder and the buyer an idea of what the whole house will look like when it is finished.

When designing a course, you need a big picture, one that will allow your learners to know what the whole thing will look like and what to expect from the complete learning experience. This big picture serves several useful functions:

- It describes the real world performance problem the course addresses through a clear rationale for the course.
- It orients your learners to the course "destination" or goal, and the major course components and their sequence. This is often accomplished through a goal and a visible model of course units.
- It establishes course objectives, which inform your learners of how they will be assessed.

Let's look at each of these in turn.

Course Rationale

"Why do they have to learn this?"

Even if you have clearly defined a performance problem in your mind, that is no guarantee that your learners will see it as a problem! Smart course designers always cue their learners as to why a course was developed in the first place. This is often accomplished by including a rationale on the first page.

These are three elements of a course rationale: statement of the problem, cause of the problem, and exploration of why this course is the solution to the problem.

The combined statements, with support from the literature, form a complete rationale:

> "The ability to perform basic screening examinations is fundamental to physician training. Students at the Bien-Faire Medical College, have shown varying levels of competence at neurological and cardiovascular screening examinations due to differing levels of exposure to and practice with those tests.
> This course is intended to bring all entering interns to a standard level of skill in the neurological and cardiovascular screening examinations, irrespective of their backgrounds."

A brief paragraph or two modeled on the example will provide your target learners with the reasons why they should learn what your course has to offer them.

Course Goal

"What will they be able to do after they've finished this course?"

You've all heard the expression, "If you don't know where you're going, any road will get you there."

Pity the poor learners in courses that are just lists of topics! They often suffer from this problem, and have no idea what they are to do with all this marvelous content they've memorized.

As discussed in Chapter 1, a well-designed course provides learners with a clear destination in the form of a **course goal:** the knowledge and skills as they are applied in the real world to solve the problem presented in the course rationale.

In order to develop a course goal, ask yourself the following question:

What will your learners know and be able to do in the real world after completing your course?

Your answer to this question should contain the following elements:

a. A role for your learner ("As a third-year student. . .")
b. A context for applying the knowledge and skill (". . .as a clerk in the ambulatory clinic. . .")
c. A statement of learner behavior or performance upon completing the course (". . .the student will be able to perform a neurological screening examination when called upon.").

Again, putting the pieces together, you have the following examples of course goals:

"A third-year student, as a clerk in the ambulatory clinic, will be able to perform a neurological screening examination when called upon."

An easy way to remember the purpose of a goal statement is to recall that:

"G" = "G"
"Goal" = "course Graduate"

A goal specifies what a "graduate" of the course should be able to do in real life when the course is completed.

You might be confused by the reference to "real life" behavior or performance here. "Real life" will vary considerably, depending upon your referent system: your learners and what you intend for them to do when they finish your course. "Real life" for a pre-clinical medical student may be the ability to take vital signs and communicate effectively with patients during their clerkship years, after they've completed their first two years of training. Real life for a resident may indeed refer to their independent practice of medicine after they have completed your course and all of their residency training.

Remember to specify what your learners should know and be able to do, and in what context, after they have finished your course.

Course Objectives

"What are the measurable learning outcomes required to achieve the course goal?"

The course goal describes what your learner will know and be able to do when they have finished your course. But, how will YOU know that your learners have learned, and will be ready to perform in the real world? You will know by assessing your learners in some manner. Student assessment should be as close an approximation to real life as possible, to ensure that your learners will be able to perform appropriately in the real world. A complete array of assessment possibilities is discussed in Chapter 11.

Example

For this goal: "Students who complete the course will be able to interpret the results of a urinalysis," consider these two assessments:

Assessment A: On the final exam, students are given a 25-item multiple choice test covering urinalysis test results.

Assessment B: On the final exam, students are given a series of urinalysis test results, and are asked to interpret them in writing.

Of the learners who do well on either Assessment A OR Assessment B, which would you trust to interpret urinalysis test results correctly in the real world? Those

students who performed well on Assessment B, and thus showed evidence of the desired goal behavior, could reasonably be expected to perform this mental skill. For those students who did well on Assessment A, well, we'll just have to wait until we see how they interpret such test results in the real world first! On the other hand, students will probably have to do well on Assessment A before they do well on Assessment B, so Assessment A could be an "enabler" for Assessment B.

In the big picture of your course, it is important to inform your learners of how they will be assessed. This creates a set of expectations for your learners, and helps them to know what is needed to succeed in your course. We all want our learners to succeed!

Objectives should inform learners about the content of the assessment. This can include:

A description of the assessment (what will be given to learners, and what learners will be able to use). This can refer to test forms ("Students will be given a 50-item multiple choice test of concepts related to the pathophysiology of pain") or various assessment stimuli ("Students will examine three simulated patients").

A description of the desired behavior (what learners will be expected to do during the assessment). The important concept here is that learners' behavior should be either observable ("students will perform a complete history and phys-ical examination"), or recorded ("students will record their answers on the forms provided").

A description of the criteria (what will be used as the ultimate authority for assessments). This can be expressed as a source ("according to the information found in Robbins, et al." or "according to the content presented in the lectures and the course pack").

A description of your lower limit, or passing score (how well learners will need to perform in order to pass). This can be expressed in terms of quality, or how well a learner performs ("at least 90% answered correctly" "with all checklist items performed" "so well that no pain is reported" "so well that no scar is left") or time, or how long it takes to complete the test ("learners will be given 50 minutes for the test" "the encounter must be completed within 20 minutes").

Here is an example of a complete course objective:

"Students will be given 5 copies of real urinalysis test results with patient infor-mation blacked out. Students will write an interpretation of each set of results, according to the handouts and lectures provided during the course. To pass, stu-dents will have to provide complete and accurate interpretations of all normal and abnormal test results. Students will have 60 minutes to complete the test."

What would happen if you left out:

- The test situation? ("5 copies of real urinalysis test results") – students might not practice with real test results, or might not practice urinalysis test interpretation at all.
- The test behavior? ("interpret in writing") – students might not practice written urinalysis test interpretation.

The test criteria? ("handouts and lectures") – students might use different sources to prepare for the test, which could lead to insufficient practice.

The test lower limits? ("complete and accurate interpretations, 60 minutes") – students might not practice as hard as they should.

By including well-developed course objectives, you tell your learners exactly what you expect them to do in order to perform well in assessments, thus creating the conditions that will maximize their chances for success.

Visual Model

"What does this course look like?"

All courses divide into parts. These parts are often called units, modules, or lessons. By dividing your course into parts, you will structure all the knowledge and skills your learners need to learn into meaningful, digestible pieces.

A visible model will allow you to show how your course is organized, how the parts relate to each other and to the whole course. Take a look at the following example (Fig. 10.2):
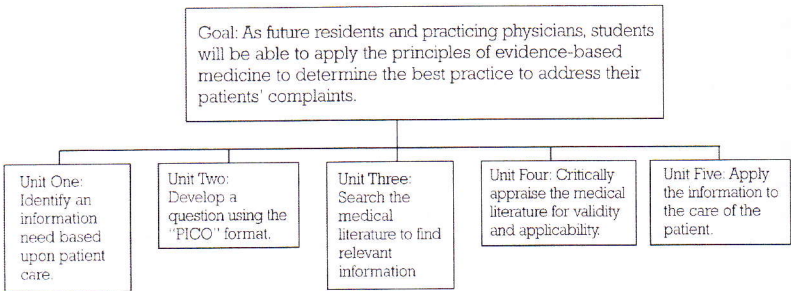
Fig. 10.2 Chronological order model

The course goal appears in the upper-most box. Note the role, the context, and the learner behavior specified in the goal. Each of the five units beneath the goal contributes something directly toward attainment of the goal, and each unit includes both a verb (behavior) and an object. This allows you to specify clearly your expectations of the learner.

In this case, the units are arranged chronologically, in the order in which they would be performed as a complete skill. There are other ways in which you can order your units in your visible model, for example (Fig. 10.3).

This model presents a framework for a clinical encounter, which will then be applied to a six different presenting patient symptoms. The basic skill set
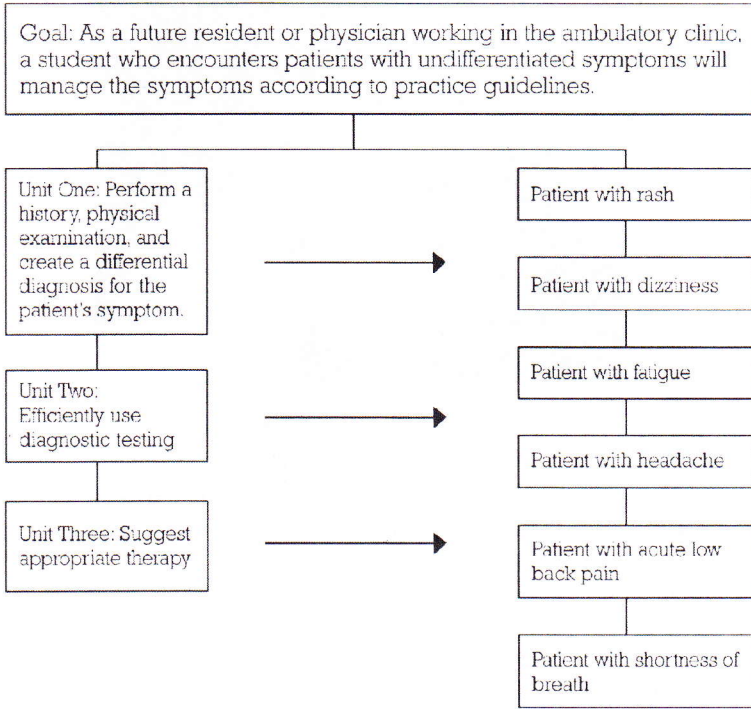
Fig. 10.3 Theme and variations model

remains the same: performing a history and physical examination (Unit One), efficiently using diagnostic testing (Unit Two), and suggesting appropriate therapy (Unit Three). This is the theme applied to six variations found in the differing symptom presentations. It is not important that students see patients in the order shown by the boxes of symptoms on the right-hand side; what is more important is the order of the tasks on the left-hand side.

Chronological order and "theme and variation," are two possible ways of depicting your course in a visual model. What is most important is to develop a display of your curriculum units that (1) accounts for everything your learners will learn in a systematic manner, and (2) shows how the various pieces of your course fit together.

Content Outline

"What are the knowledge, skills and attitudes that learners need to know?"

"Content" refers to the knowledge and skills you want your learners to acquire. As you design the big picture of your course, develop a brief content outline for each of your units. Do this by determining what is essential in order to learn the knowledge and skill described by the course goals and objectives.
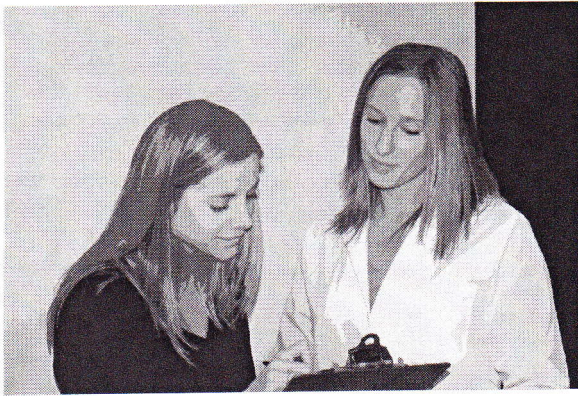
Example

Goal: As future residents and practicing physicians, students will be able to apply the principles of evidence-based medicine to determine the best practice to address their patients' complaints (Table 10.1).

Note that all the content specified in the column to the right is critical to attainment of the behaviors in the column to the left. There is nothing like "history of medical informatics" or other irrelevant content.

Let these principles guide you as you choose content for your course (Table 10.2).

Table 10.1 Sample content outline

Units	Content
Unit One: Identify an information need based upon patient care.	Identifying an information need: • Sources of information needs • Simple formats • Keeping a log of questions • "Hunting" and "foraging"
Unit Two: Develop a question using the "PICO" format.	Defining the patient (P) Defining the intervention (I) Defining the control or comparison (C) Defining the outcome (O)
Unit Three: Search the medical literature to find relevant information	Searching bibliographic databases (Medline) Searching web portals (e.g., WebMD) Searching compendia (e.g., Cochrane) Appropriate use of search engines (e.g., "Google Scholar" versus "Google")
Unit Four: Critically appraise the medical literature for validity and applicability.	Appraising articles on diagnosis, prognosis, and therapy
Unit Five: Apply the information to the care of the patient.	Models of patient education Health literacy

Table 10.2   Guiding principles for selecting course content

"Principle of shame"	Include only the **essential** knowledge and skills your learners need to **know** when they have completed your course – you would be ashamed if they didn't know this, or couldn't do this!
"Nice to know"	Content that may be related, but if left out it will not hurt learner attainment of the course goal. If you really want to include "nice to know" content in your course, do so as "supplemental reading" or appendices.

Your content should be as "lean" as possible. The predominant tendency among experts is to "teach" more, with learners feeling overwhelmed, as if they are "drinking from a fire hose." If you really want your learners to learn, less is often more! Less content will leave more time for meaningful practice and application of that content – but more on that when you begin to design your units.

Moving from the "Big Picture" to Designing Individual Units

Your "big picture" contains the elements described in Table 10.3:

Table 10.3   Elements of course content

Element	Function
Course Rationale	Describes the topic your course addresses, why that is an educational issue and how your course is the solution to the problem. Helps to motivate your learners.
Course Goal	Describes what learners who have completed your course will know and be able to do in the real world. Helps to orient and motivate your learners.
Course Objectives	Helps to establish course expectations. Informs assessment criteria.
Visual Model	Shows the different "pieces" (lessons, units, modules) of your course, how they are related, and how they lead to attainment of the course goal. Also helps to orient your learners.
Content Outline	Lists the different knowledge and skills that your learners will need to acquire in order to attain the course goal. This helps to establish course expectations for your learners.

Once you have a well-developed course big picture, you can begin to design the specific pieces of your course – the units, modules, or lessons. I use these words interchangeably, so we will use "units" for the remainder of the chapter. The next section will present a brief overview of how to design course units that will help your learners to acquire the knowledge and skill they need to attain the course goal.

Designing Your Course Units

As described earlier, each unit contains its own goal, objectives, content, instructional/learning strategies, and learner evaluation strategies. The remainder of this chapter will guide you through the steps in designing the unit components. Much of what you have already learned when designing the big picture of your course can be applied to designing your units. If you follow the guidance provided in this section, you will be able to develop a plan for your units that will guide you in creating the presentation and evaluation materials for that unit.

Unit Goals

As you did when designing the big picture of your course, you need to describe what your learners will be able to do in the real world after they finish a unit of instruction. The same elements you created when writing your course goal also apply to writing a unit goal: a role for the learner, a context for applying the knowledge and skill learned, and a statement of real world behavior or performance.

You will probably recognize this goal from one of our visual models presented earlier:

> Goal: As a future resident or physician working in the ambulatory clinic, a student who encounters symptomatic patients will manage the symptoms according to practice guidelines.

The visual model also specified three instructional units: (1) perform a history, physical examination, and create a differential diagnosis for the patient's symptom, (2) efficiently interpret diagnostic testing, and (3) describe appropriate therapy. The knowledge and skills in these units are applied to patients with different types of symptoms, e.g., patients with rash, patients with dizziness, etc. Since the unit titles specify a behavior, we can easily create unit-level goals from the unit titles:

> Unit 1: As future residents or practicing physicians, when presented with a symptomatic patient, the student will perform a history, physical examination, and create a differential diagnosis for the patient's symptoms.
>
> Unit 2: As future residents or practicing physicians, when presented with a symptomatic patient, the student will efficiently interpret diagnostic testing.
>
> Unit 3: As future residents or practicing physicians, when presented with a symptomatic patient, the student will suggest appropriate therapy.

Depending upon your own design sense, you may word your goals differently. For example, unit goal 1 may be split into three separate goals, one addressing history-taking, one addressing physical examination, and one addressing differential diagnosis. Like their big picture siblings, each unit goal includes a role, a context, and a description of the real world behavior or performance.

Unit Learner Evaluation

Evaluation of learners is addressed elsewhere in this book. Nevertheless, it is useful to introduce a guiding principle that will help you when you are designing your course instructional units.

If you know your unit goal, it is relatively easy to determine how best to evaluate your learners. The ultimate test of learning is performance of the knowledge and skill in the real world, under real world conditions. To the greatest extent possible, your assessments of learners should be realistic. For example:

If your goal is:

Students will be able to suture a wound leaving no scar.

Then your "best test" should be:

The student sutures a wound leaving no scar.

This represents an ideal learner evaluation; learners who pass this test will have our confidence that they can do the skill in the real world.

While this may sound logical, it is not always feasible to assess learners in the real world, under real world conditions. Therefore, we often try our best to create a close simulation of the behavior described in the goal:

The student must suture a pig's foot, employing the proper technique that will assure leaving no scar.

While we may not be as confident of a student who passes this test being able to perform the suturing skill in the real world, we are reasonably confident that she can ... but we'll be sure to observe her first real life performance!

Remember the principle: assess your learners under real world conditions, or under conditions that closely approximate the real world.

Unit Objectives

After you decide how you will evaluate your learners, you can write your unit objectives. Recall that an objective is a measurable learning outcome that is required to achieve the course goal. Thus it specifies the assessment situation, the assessment behavior, the assessment standards, and the assessment criteria.

Here is the objective from our "symptoms" course that accompanies the Unit 1 goal:

When provided with a written case scenario (test situation):

a. Students will state the history, signs and symptoms associated with serious causes of back pain, physical exam and psychosocial screening needed in a patient with acute low back pain (assessment behaviors).
b. Students will write a differential based on age, history and physical exam findings (additional assessment behaviors).

c. They will then choose tests used in the evaluation of acute low back pain and explain their reasoning (additional assessment behaviors).

d. Finally, the student will create a treatment plan addressing patient education, medication and non-medication therapy, activity limitation, exercise, case management and when to refer (additional test behaviors) using current practice guidelines (standards).

Any student reading the objective should have a good idea what the unit assessment will look like. From this example, it should be apparent that objectives can be of considerable length, as long as they serve the purpose of describing the assessment.

One can write objectives that describe assessments of a wide variety of knowledge and skill. For example, objectives can be used to describe assessments of interpersonal skill:

Given 5 simulated patients, the student will obtain histories using the SPIKES protocol.

Objectives can be used to describe assessments of knowledge:

Students will be assessed with a 90-item multiple choice test of pathophysiology, pharmacology, and microbiology related to the neuro-musculoskeletel system. Passing level will be set at 75% of items correctly answered.

Objectives can even be used to describe assessments of attitudes:

Students will conduct interviews with 3 simulated patients, using the techniques specified in the course manual, and demonstrating respect for the patients according to the principles outlined in the manual. The interviews will be rated according to the checklist in the manual, with all mandatory items present in each.

Unit objectives follow the same guidelines as do course objectives. They are comprised of the same components, and serve the same purpose: to describe the assessment so that learners will have clear expectations as to how they will be evaluated.

Unit Content

What will be taught in each unit? The unit objectives specify the knowledge, skills and attitudes needed to accomplish the unit goals. But what will the unit actually teach? This is the unit content. Here are some content types, their definitions, and examples to consider, based loosely on the work of Robert Gagne (1985), a well-known learning theorist (Table 10.4).

Gagne's is an example of one way of analyzing the content of instruction, and there are others. Many in medical education are familiar with "Miller's Pyramid," which addresses clinical performance (Miller, 1990) (Fig. 10.4).

While Miller's evaluation framework was developed with assessment of clinical performance in mind, it is a useful framework for any complex skill set.

- *Does (Action)*: Individual functioning independently in practice.
- *Shows How (Performance)*: Can document what learner /trainee will do in real world setting.

Table 10.4   Types of knowledge and skills

Type of content		Definition	Examples
Knowledge	Facts	Organized collections of propositions	Different types of radiology imaging technologies and their strengths and limitations
	Concepts	Definitions/exemplars and examples	Diagnosis of different neurological diseases: examples include multiple sclerosis, hematomas, hemorrhages, dementias, and their defining characteristics
	Principles	Variables and their relationships: supporting evidence	
Skills	Psychomotor	Coordinated muscle skills	Taking a blood pressure Suturing
	Interpersonal	Communication and social interaction skills	Taking a culturally-sensitive medical history
	Intellectual	Using symbols to perform a task	Calculating a therapeutic dose
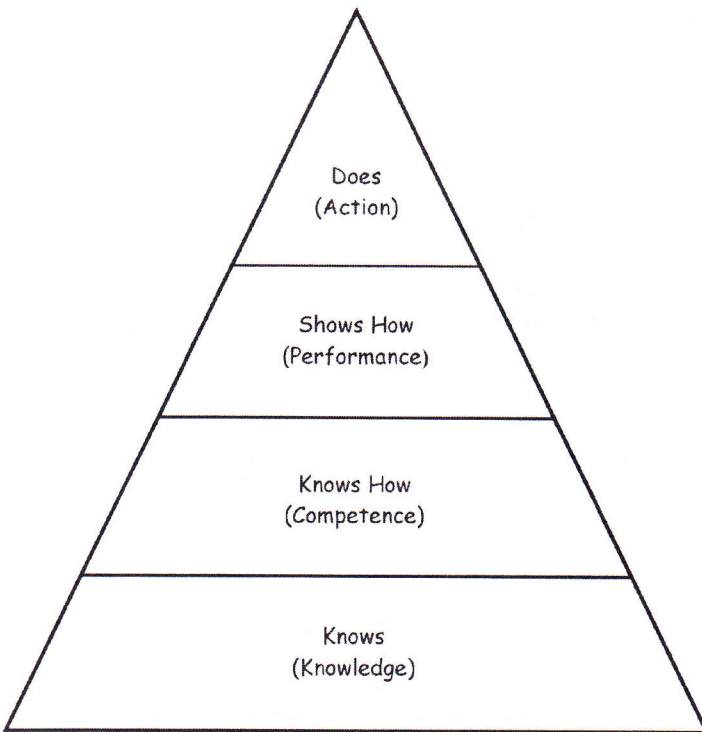
Fig. 10.4   Miller's pyramid

- *Knows How (Competence)*: Appropriate application of knowledge, skill in acquiring information, analysis, interpretation, creation of plans. Done in an academic setting.
- *Knows (Knowledge)*: Evaluation of knowledge base.

There are a variety of ways of conceiving content. As you think about your course, try to specify clearly what are the knowledge and skills you expect your learners to learn. It is important to have a sound idea of the different kinds of content you want your learners to acquire because, as we will see in the next section, that will make a difference in how they are taught and learned.

Unit Instructional Methods

A better word for this section would be "Unit Learner Practice Methods." The ultimate purpose of any unit instructional method should be to promote learner practice of the unit content. Too often, we conceive of teaching as "presenting" – lectures, grand rounds, noon conferences. Whatever presentation methods we use should not be ends unto themselves, but means to help learners practice.

Here is a simple way to conceive of instructional methods that includes student practice, with an example (Yelon, 2001):

- *Explaining the content*: present a video of how to do cardiopulmonary resuscitation (CPR).
- *Demonstrating how the content is used*: use a mannequin to show students up close how to deliver CPR.
- *Allowing time for learner practice of the content*: adjourn to a practice room where students take turns giving CPR to mannequins.
- *Providing feedback on learner performance of the content*: instructor observes student performance giving CPR, and provides corrective feedback.

As mentioned before, instructional methods may vary, depending upon what is being taught (Table 10.5).

While one may quibble with certain tasks or their details (e.g., "We have people who do our screening for us!") certain principles should stand out:

- All instructional methods should specify the means by which students should practice using the content.
- Practice should mirror how learners will be assessed.

By applying these two principles governing your choice of instructional methods, your learners will be guided to practice the content meaningfully, and should be well prepared to accomplish the objectives.

Table 10.5 Examples of instructional methods

If you want students to learn how to:	Then you should:
Recall the imaging capabilities of different imaging technologies, including their strengths and weaknesses.	Present an organized description of the capabilities of different imaging technologies, and their strengths and weaknesses.
	Demonstrate how you would memorize and recall the organized description. Present a table or mnemonic device that would promote memorization of these facts.
	Have your students practice recall in class, by quizzing each other after a few minutes of study.
	Test your students on their recall of the capabilities of different imaging technologies, and their strengths and weaknesses.
Perform cardiologic screening tests effectively.	Have students read description of the procedure for correctly performing the screening test.
	Demonstrate the cardiologic screening test procedure.
	Instruct students to pair up and practice the screening procedure on each other, with a third student observing and providing feedback.
	Assess your students on their ability to perform the test.
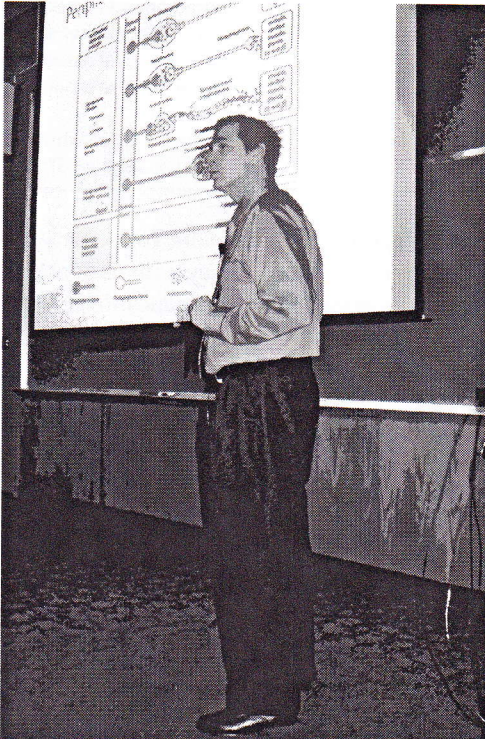
Final Notes

By following the guidelines in this chapter, you should be able to design a good plan for your course, one that is complete with respect to instructional elements, and in which the instructional elements "make sense" – they are tightly integrated with each other and aligned with the goal of the course. There will still be a lot of work to do! Lectures and other presentations must be developed, tests and test directions will have to be created, resources such as readings, presentation slides, labs, and simulated patients will have to be procured or developed as needed. Keep your plan in mind as you proceed with the development of your course.

It is advisable to get your course plan reviewed by experts in both the course content and in instructional design. Some questions you might ask of both types of experts are found in Table 10.6:

Table 10.6 Questions during expert review of your course

Questions for a content expert	Questions for an instructional design expert
Is the content I've specified for my course essential and up-to-date?	Is my design consistent?
Have I left out anything important?	Are my assessments a reasonable approximation of the tasks/behavior in my course goal?
Have I included anything that is not important and could be deleted?	Does the content appear appropriate for my objectives and assessments?
	Are my instructional methods appropriate for my objectives and assessments? Have I clearly specified how my students are to practice the content?
	Are there ways in which the design of the course could be improved?

By taking a systematic approach to designing your course, one that accounts for all instructional elements and their consistency with each other, you will be able to develop a course that is truly responsive to the educational needs of your learners.

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