Objectives

Goals vs. Objectives

Goals:
- General
- Broad
- Lofty

Objectives:
- Specific
- Concrete
- Tangible
- Observable
- Measurable

Objectives

1. **By the end of this session, participants will write educational objectives which include the following components:**
   
   a. Who?
   b. What?
   c. When?
   d. How will we know?
Objectives

2. During the small group session participants will be observed:

**Formulating educational objectives** that are:

a. Based on a "task analysis"

b. Based on "needs assessment"

c. In the areas of knowledge, skills, and attitude.

d. Encouraging students to think about their learning.
Let’s give this a try

- Resident wants to *figure out* what dose to choose when prescribing antibiotics.

**Seriousness of Infection**
- More serious → higher dose

**MIC**
- Higher MIC → higher dose

**Penetration**
- Hard to get into area → higher dose

**Step 1: Task Analysis**
Step 2: Needs Assessment
She already told us this is what she needs

Step 3: Write Objectives

<table>
<thead>
<tr>
<th>Seriousness of Infection</th>
<th>MIC</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>More serious ➔ higher dose</td>
<td>Higher MIC ➔ higher dose</td>
<td>Hard to get into area ➔ higher dose</td>
</tr>
</tbody>
</table>

Goal: Choose correct dose of ABT
> After this exercise see examples at end of handout
More Practice

Here’s our goal:

The first year medical students will know how to explore a patient’s symptoms using the “7 cardinal manifestations”

Cardinal 7 Manifestations

- Quantity
- Quality
- Associated
- Timing
- Location
- Aggravating/Alleviating
- Setting (Context)

VERBS

<table>
<thead>
<tr>
<th>Remember</th>
<th>Understand</th>
<th>Apply</th>
<th>Analyze</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define</td>
<td>Describe</td>
<td>Demonstrate</td>
<td>Analyze</td>
<td>Create</td>
</tr>
<tr>
<td>List</td>
<td>Differentiate</td>
<td>Interpret</td>
<td>Compare</td>
<td>Design</td>
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<tr>
<td>Recall</td>
<td>Disease</td>
<td>Generalize</td>
<td>Contrast</td>
<td>Develop</td>
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<tr>
<td>Recognize</td>
<td>Evaluate</td>
<td>Operationalize</td>
<td>Distinguish</td>
<td>Formulate</td>
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<tr>
<td>Review</td>
<td>Review</td>
<td>Use</td>
<td>Draw</td>
<td>Manage</td>
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<td></td>
<td>Conclusions</td>
<td>Modify</td>
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<td></td>
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<td></td>
<td>Evaluate</td>
<td>Improve</td>
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<td>Infer</td>
<td>Predict</td>
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<td></td>
<td>Predict</td>
<td>Synthesize</td>
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<td></td>
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<td></td>
<td>Solve</td>
<td>Devise</td>
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</table>
Objectives - Practice

Here’s our goal: Obtain Cardinal 7 History

<table>
<thead>
<tr>
<th>Remember</th>
<th>Understand</th>
<th>Apply</th>
<th>Analyze</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define</td>
<td>Describe</td>
<td>Apply</td>
<td>Analyze</td>
<td>Create</td>
</tr>
<tr>
<td>List</td>
<td>Differentiate between Disease</td>
<td>Demonstrate Interpret</td>
<td>Create</td>
<td></td>
</tr>
<tr>
<td>Recall</td>
<td>Explain</td>
<td>Generalize Operationally Use</td>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>Recognize</td>
<td>Interpret</td>
<td>Use</td>
<td>Develop</td>
<td></td>
</tr>
</tbody>
</table>

By tomorrow, the student will list or define each of the Cardinal 7 categories (quantity, quality, associated, timing, location, aggravating/alleviating, and setting).

Evaluate
- Infer
- Predict
- Solve
- Diagnose

Synthesize
- Device

Tomorrow, the student will explain the details of each Cardinal 7, eg, Timing: Describes not only when the pain started but also describes the progression of the pain.

In 2 days, the student will demonstrate their ability to obtain a Cardinal 7 history from a patient using patient-centered language, beginning with open questions and then narrowing down as appropriate.
Objectives - Practice

Here’s our goal: Obtain Cardinal 7 History

<table>
<thead>
<tr>
<th>Remember</th>
<th>Understand</th>
<th>Apply</th>
<th>Analyze</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define</td>
<td>Describe</td>
<td>Apply</td>
<td>Analyze</td>
<td>Create</td>
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<tr>
<td>List</td>
<td>Interpret</td>
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<td>Compare</td>
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<td>Compare</td>
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<td>Differentiate</td>
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<td>Contrast</td>
<td>Formulate</td>
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<td>Generalize</td>
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<td>Differentiate</td>
<td>Manage</td>
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<td></td>
<td>Operationalize</td>
<td></td>
<td>Distinction</td>
<td>Modify</td>
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<tr>
<td></td>
<td>Use</td>
<td></td>
<td>State, Conclusion</td>
<td>Modify</td>
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<td></td>
<td>Evaluate</td>
<td>Modify</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Inferring, Predict</td>
<td>Modify</td>
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<td></td>
<td>Solve</td>
<td>Synthesize</td>
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<td></td>
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<td></td>
<td>Diagnosis</td>
<td>Design</td>
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Next week, the student will use the Cardinal 7 to prioritize their differential (draw conclusions/Dx).

Objectives - Practice

Here’s our goal: Obtain Cardinal 7 History

In 3 weeks, student will propose alternative ways to ask about severity and setting in order to obtain more useful information efficiently and effectively.

Summary: Required to Set Objectives

1. Task analysis
2. Needs assessment
What is required to set Objectives

1. Task analysis
   > In order to drive a car you need to:

2. Needs assessment

When do you need to set Objectives?

> When the material is difficult.
> When the learner is difficult.
> When you’re planning curriculum.
> When you’ve tried to teach something and it didn’t work.
Advantages of Objectives

- You come up with them here
- At end of Handout are the advantages from our perspective

Role Play Exercises

- Role play designed to get needs assessment
- Then break:
  - Generate Needs Assessment with group
  - Prioritize
  - Develop objectives
  - How would you get buy-in?
  - Look at verbs

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Examples of objectives for our resident prescribing ABTs

Goal: Choose correct dose of ABT

1. By Friday, the resident will be able to list 3 pieces of information used to decide on the dosage range of an antibiotic.
2. In two weeks, the resident will tell me the correct dose of 3 commonly used antibiotics used to treat OM, sinusitis, pneumonia, and meningitis.
   - The second objective builds on the first!
   - These are observable and measurable

Advantages of Objectives

- Leads to selection of instructional methods
- Collaboration
- Make objectives explicit to learner
- Orients student as to what is being taught