Writing Learning Objectives

Dr. John A. Gedeon July 2004

This Lesson's Objectives...

- The aim of this lesson is familiarize trainers with the proper use and construction of learning objectives.
 - Objective 1: When designing a training program or course, the trainer will value well defined objectives as the most critical step.
 - Objective 2: Given an instructional intention and target group, the trainer will formulate behavioral objectives which are observable and measurable.

The Role of Objectives

- To determine behavioral outcomes
- To be a reference point in determining: structure, content, instructional/learning methods, and assessment & evaluation design
- A communications tool to explain the course to students, other facilitators, examiners, employers, registrars, and other stakeholders
- A motivational device for students in setting expectations and targets
 - A framework to help develop student's ability for self-assessment
 - A selling tool for course marketers

Most Common Pitfalls

Many trainers give only perfunctory importance to objectives; they first plunge into content and then afterwards try to decide on what the objectives should be.

Objectives are so vague or broad that they can not be measured or tested.

They focus on what the teacher is doing, and not on the student.

The Situational Analysis

Before one can write objectives a situational/training needs analysis must be undertaken

There are two main reasons for training:

- To correct a current deficiency in performance
- To adapt to a change in the environment that requires new behaviors

One must be clear about these behaviors and the conditions under which the skills will be used

An audience analysis must be conducted to know what the existing skill levels are and where they are applied

Types of Statements of Intention

- The broadest statement of intention is an "aim" or "training goal," they express broad but <u>not</u> measurable outcomes
- Training/learning/behavioral objectives specify a measurable outcome under defined operational conditions
- The three main types of objectives are:
 - "Cognitive" Knowledge or Information
 - "Psychomotor or Skill" Performance
 - "Affective or Attitude" Values
- It is OK to start with aims or goals but these must be supported by several detailed objectives

Objectives are Essential

- One cannot DESIGN training without objectives
- Objectives are your (legal) CONTRACT with the participants

Everything you do in your session MUST support the accomplishment of the objective—nothing more, nothing less that is, content must be "necessary and sufficient."

Definition of an Objective

A learning objective describes: What the <u>participant</u> will be able to know (knowledge), do (skill), or value (attitudes) after successfully completing instruction. "ASK"

The objective is NOT <u>how</u> you are going to do it, but what will be the <u>outcome</u> or result when training is completed.

Training vendors and training impact <u>cannot</u> be evaluated without them either.

Hint: look at performance standards as guide, if they exist

A-B-C's of Learning Objectives

- A Audience (by specific job title) Not "students, participants, or audience"
- B **Behaviour** desired in <u>observable</u> and measurable way
- C Conditions under which the task is performed (optional)



PROHIBITED Phrases

To appreciate To be exposed to To understand To be introduced to To sensitize To examine To know

To become familiar with To gain knowledge in To survey To be acquainted with To remember To learn To perceive All of these are not measurable

Objective Writing Formats

Here are two formats used to write objectives:

1. The easiest is: "Upon completion of training..." (this helps you focus on what the student will do, NOT what the teacher does)

2. The more comprehensive way starts with "Given or When..."

2 Learning Objective Templates

- **"Upon completion of training, the** [insert job title] **will** [insert observable skill]."
 - "Upon completion of training, the field officer will write a complete report."

Given/when [raw materials or triggering event], **the** [insert job title] **will** [insert observable skill]."

"Given a field visit, the field officer will write a comprehensive report."

Multiple Objectives in Training Manual

Upon completion of this workshop registry clerks will:

- 1. Classify correspondence according to the Public Service standard
- 2. Make portfolio entries correctly
- 3. Forward incoming documents to the correct office
- 4. File correspondence in the correct files
- 5. Retrieve any filed document, when requested

Example 1: Objective Statement

Given a cash flow forecasting spreadsheet [condition], the financial officer [target]will specify loan requirements for the next period [outcome behavior].

Example 2: Objective Statement

When confronted with a conflict situation [condition], the customer service representative [target] will will calm the client and resolve their problem [outcome behavior].

Example 3: Objective Statement

Given the geographical coordinates, [condition] the surveyor [target] will locate the construction site reference point [outcome behavior].

Bloom's Taxonomy of Learning

In 1956, Bloom developed a continuum of the levels of learning from the low level, simple, concrete to the higher level, complex, abstract learning. He theorized <u>six</u> levels:

- 1. Knowledge identification and recall of information
- 2. Comprehension understanding (not parroting)
- 3. **Application** use of knowledge, concepts, rules, principles to solve problems
- 4. Analysis breaking down the whole into its parts
- 5. **Synthesis** pulling together divergent pieces to create a new "whole"
- 6. **Evaluation** judgment of value based on criteria or standards

Bloom's Behaviors

<u>LEVEL</u>

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

STUDENT BEHAVIOR

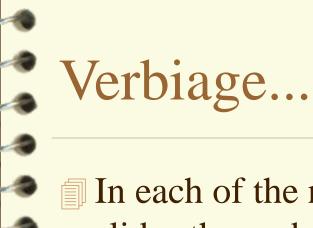
- Responds, Absorbs, Remembers, Recognizes
- Explains, Translates, Demonstrates, Interprets
- Solve Problems, Demonstrates, Uses Knowledge, Constructs
- Discusses, Uncovers, Lists, Dissects
- Discusses, Generalizes, Relates, Contrasts
- Judges, Disputes, Debates, Forms Opinions

Getting the VERBS right

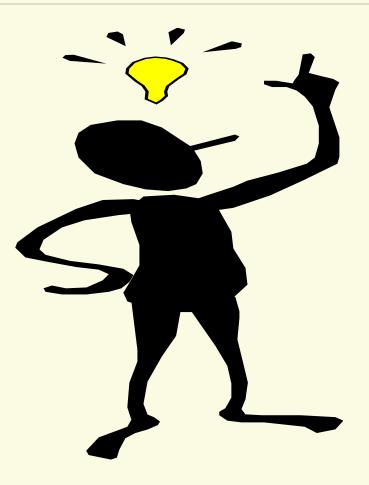
The most critical part of writing an objective is selecting a precise verb to define behavior

- Only use the following verbs for "aims" or "goals"--not objectives:
 - Appreciate, know, understand, enjoy, exposed to, overview, introduced to, survey...

These static verbs are wide open for interpretation and are not measurable



In each of the next six slides the verbs associated with Bloom's learning levels will be listed Note that some verbs are common to more than one group--they have a contextual meaning



Bloom's "Knowledge" Verbs

Tell List Define **Name** Recall **Identify** State **Know** Relate

Reproduce **Memorize** Order Remember Repeat Recognize **Label** Recite **Match**

Bloom's "Comprehension" Verbs

- Transform
- Change
- Restate
- Describe
- **Explain**
- Review
- Paraphrase
- **Relate**
- Generalize
- Contrast
- Classify
- Summarize
- Describe
- **Discuss**

- **Summarize**
- Interpret
- **Infer**
- Give Main Idea
- **Justify**
- **Report**
- **Sort**
- **Translate**
- Select
- **Indicate**
- **Illustrate**
- **Represent**
- **Formulate**
- **Express**

Bloom's "Application" Verbs

- Apply
- Practice
- Employ
- Use
- Demonstrate
- Illustrate
- Show
- Report

Use

- Compute

Predict

Instruct

- Perform
- Choose
- Schedule
- Sketch
- Interpret

Bloom's "Analysis" Verbs

- Dissect,
- Distinguish
 - Examine
- - Contrast
- Survey
 - Investigate
 - Separate
 - Categorize
 - Classify

Deduce

- Organize
- Analyze
- Identify
- Differentiate
- **Solve**
- Appraise
- Calculate
- Categorize
- Criticize
- Discriminate

Bloom's "Synthesis" Verbs

- Create
- Invent
- Compose
- Construct
- Design
- Modify
- Imagine
- Produce
- **Propose**
- What If
- **Write**

- Combine
- **Summarize**
- Restate
- **Generalize**
- Conclude
- Arrange
- Assemble
- **Formulate**
- Plan
- **Prepare**
- 🗊 Set-up
- **Synthesize**

Bloom's "Evaluation" Verbs

- Judge
- **Assess**
- Decide
- Select
- Justify
- **Evaluate**
- Critique
- Debate
- Verify
- Recommend
- **Support**
- Defend

- Appraise
- Argue
- Attack
- Choose
- Compare
- **Estimate**
- Predict
- **Rate**
- **Score**
- **Value**
- Determine

Advanced Tips

Adult vs. Children's Objectives

- Children's objectives are usually the first two levels of Bloom's Taxonomy
- Adult objectives should start on level three and go as high as is required for the learning situation
 - The levels correlate closely to the management hierarchy:
 - Workers:1, 2, and some of 3Supervisors:1 3, and some of 4Manager's:1 4 and some of 5Leaders:1 6.

Two Verb Objectives

Bloom's higher order objectives assume lower level skills. In order to apply (level-3) something, one must have knowledge and comprehension (levels 1 & 2) of it.

For instance, "Explain and design an operational plan." Those are actually two objectives, but if you use the higher-order one it assumes knowledge of the lower order one, so all you need is: "Design an operational plan."

Scope of Objectives

How much ground should one objective cover?
As a rule of thumb, there should be enough objectives that if you gave the list to a colleague, they could design the course or lesson.

Another rule is about one objective for each session of training. Remember you don't want to overwhelm the student with too many. But, not so few, that enabler objectives are lost or not implied.

Teacher-Centered Objectives

Example: We will cover the ABC Model." That is what the teacher will do, but what is the student expected to know, do, or value?

Revised: "The student will be able to describe the major components of the ABC Model."

Objectives Stand Alone

For example, "Develop a recipe for each of the above situations." Do not refer to other objectives in another objective.

Revised: "Develop breakfast, lunch, and dinner specialty recipes for tourists using local foods."

Not Matching Level vs. Course

In foundational courses, most objectives
 will be on Bloom's levels 1-2 and some of
 3.

For advanced or graduate courses the focus will be on the higher-order levels (4-5-6)
Of course, there may be lower level objectives depending on the content.

Course vs. Module level Objectives

For academic courses, collectively the module-level objectives should:

- 1. Be **necessary** to achieve the course-level objective
- 2. Be **sufficient** (in number or type) to achieve it



Refine Objectives

Refine your objectives after exposing them to colleagues and students, getting their feedback and interpretation of it.

Summary and Next Step

- You now know the reasons why objectives are important and how to construct them.
- As you develop the training structure, content, methods, and assessments (tests), you <u>must</u> do it with reference to your objectives.
- You can only defend your design if you can demonstrate how your learning activities and materials support the objectives.

References

Maritru, B., Mwangi, A., Schlette, R. (1995). *Teach Your Best: A Handbook for University Lectures*. Institute for Socialcultural Studies: University of Kassel, Germany.

Hirumi, A. (2000). Enhancing the Dick & Carey Model for Instructional Systems Design. University of Houston.

Additional Web-based Resources

:http://chiron.valdosta.edu/whuitt/col/cogsys/bloom.html;

http://killeenroos.com/adm/Blooms.htm;

http://chiron.valdosta.edu/whuitt/col/plan/behobj.html.

http://www.wested.org/tie/dilrn/blooms.html (distance learning related)