DOCUMENT RESUME

ED 225 019 CE 034 972

AUTHOR Wentling, Tim L.; Piland, William E.
TITLE Measuring Student Competencies. Local Leader Guide III. Locally-Directed Evaluation Handbook. Second Edition.
INSTITUTION Illinois State Board of Education, Springfield. Dept. of Adult, Vocational and Technical Education.
PUB DATE Oct 82
NOTE 37p.; For related documents, see ED 204 541 and CE 034 969-981.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; Adult Education; Adult Vocational Education; *Competence; *Educational Assessment; Evaluation Criteria; *Evaluation Methods; Evaluation Needs; Guidelines; Leaders Guides; Postsecondary Education; Program Development; *Program Evaluation; Program Implementation; Program Improvement; *School Districts; Secondary Education; *Student Evaluation; Technical Education; Vocational Education
IDENTIFIERS Illinois

ABSTRACT

This document, one of 12 guides that have been developed to facilitate evaluation by and for local education agency (LEA) personnel in Illinois, covers measuring sutdent achievement. This activity is designed to help local instructors and administrators first to expand the scope of their current efforts to assess student attainment of objectives and, second, to increase the number of ways in which the data and information obtained are used in evaluating and improving the total program. The guide has been designed to aid the person who has responsibility for leading this particular activity. It includes three sections. The first section on preliminary considerations contains a brief explanation of this evaluation activity and the necessary steps to prepare for the evaluation undertaking. Suggestions are included for holding a staff meeting to discuss the activity. The second section of the guide is a procedure/ task breakdown, which outlines suggested tasks for conducting this evaluation activity. The third section of this guide contains supporting documents, including information handouts, example documents, and references. (KC)

# Measuring Student Competencies

## Local Leader Guide III



*This Local Leader Guide is one of twelve guides that constitute the Locally-Directed Evaluation Handbook. These guides are designed to assist local education agency personnel in conducting internal or self evaluations.*

# Locally-Directed Evaluation Handbook

## Second Edition

*Prepared by:*

*Tim L. Wentling*
*Professor and Director*
*Office of Vocational Education Research*
*Department of Vocational and Technical Education*
*College of Education*
*University of Illinois*
*Urbana-Champaign, Illinois*

*With assistance from:*

*William E. Piland*
*Associate Professor*
*Department of Curriculum and Instruction*
*College of Education*
*Illinois State University*
*Normal, Illinois*

*Sponsored by:*

*Illinois State Board of Education*
*Department of Adult, Vocational & Technical Education*
*Research and Development Section*

*October, 1982*

# Introduction

This is one of twelve guides that have been developed to facilitate evaluation by and for local education agency (LEA) personnel. This guide has been designed to aid the individual who has assumed responsibility for leading this particular activity. It includes three sections: 1) Preliminary Considerations; 2) Procedure/ Task Breakdown; and 3) Supporting Documents. All parts of this document are suggested, the local staff is encouraged to adapt or change any procedures and instruments to meet the needs of its agency.

The first section of this Local Leader Guide entitled "Preliminary Considerations" contains a brief explanation of this evaluation activity and the necessary steps to prepare for the evaluation undertaking. Suggestions are included for holding a staff meeting to discuss this activity.

The second section of this guide is the "Procedure/ Task Breakdown." This breakdown outlines suggested tasks for conducting this evaluation activity. The tasks have been followed in the field tests. However, these tasks are flexible and should be adapted in each LEA.

The third section of this guide contains "Supporting Documents." These documents include: 1) information handouts, 2) example documents, and 3) references. Information handouts contain valuable information which will assist in conducting this activity. Example documents are forms which can be utilized with this evaluation activity. References include bibliographies and sources of information for additional assistance. These supporting documents have been developed and used in other LEAs. However, they can be adapted and revised to fit your specific needs. The local leader may wish to duplicate and distribute these supporting documents and work on this activity.

The value of this evaluation effort is dependent upon a team effort in obtaining and utilizing results. By combining these results with those of other activities of an evaluation system, the improvement of educational programs and services can begin.

# Preliminary Considerations

Measuring student achievement in instructional programs has been a part of educational programs for quite some time Most often these efforts have been limited to paper and pencil tests covering the content of lectures and reading assignments and to assigning grades to student projects Only rarely has measurement of student achievement been based upon well defined student performance objectives and has the data and information obtained been utilized in the educational program for some purpose other than assigning grades.

This activity is designed to help local instructors and administrators to do two things. first, to expand the scope of their current efforts to assess student attainment of objectives and second, to increase the number of ways in which the data and information obtained are used in evaluating and improving the total program The broad range of data and information available from an adequate measurement of student competencies can become valuable input to program improvement, through identifying and justifying needed program change.

It should be pointed out that for most LEAs the time frame for implementing and carrying this activity through to completion may be rather extensive. It will not be uncommon for LEAs to spend one or two years in upgrading their approaches to assessing student competencies and utilizing the results in program development

Every instructional staff member in the LEA should participate in the Measuring Student Competencies activity.

**Staff Meeting with Instructional Staff**

1. Briefly discuss the LEA's reasons for placing special emphasis on measuring student competencies at this time.
   a. Desire to obtain additional data and information for program improvement.
   b Response to a need indicated in an on-site evaluation report for the district.
2 Distribute summary Information Handout 3-1 indicating those areas the local staff might pay particular attention.
   - format for objectives
   - assessing higher levels of learning
   - assessing manual and perceptual skills
   - recording student performance
   - utilizing results for program improvement
3 Distribute and discuss Information Handouts 3-2 to 3-9. These are prepared for use in giving an orientation to each of the three major learning domains.
   Cognitive Domain
   1. knowledge level
   2. understanding level
   3. problem solving level
   Psychomotor Domain
   4. manual skills
   5. perceptual skills
   Affective Domain
   6. attitude
   7. interest
   8. values

   Each information handout contains example behaviors, objectives, and measurement items.
   The following questions might be used to stimulate and provide direction for the discussion of each handout.
   a. Does the list of objectives for our course currently contain objectives concerned with this type of learning?
   b. If so, what additional items might be added to the example "...student can do...what" items indicated on the handout?
   c. What additional objectives for other occupational areas might have been included on this handout?
   d. What changes, if any, are needed in the format of our objectives for the type of learning indicated on this handout?
   e. Are our current attempts to assess student attainment of objectives of this type direct, indirect, or nonexistent, and why is this the case?
   f Are direct assessment techniques feasible for our objectives that are concerned with this type of learning?
   g. If not, what good indirect techniques might be utilized to assess student attainment of objectives of this type?

   Note. You may find it advisable to distribute these handouts a week or so in advance of the initial meeting with your staff and request that they review and become thoroughly familiar with the information presented.

4. Present and briefly discuss the following major tasks.
   a. Develop for each course in your program a list of student performance objectives that are comprehensive in scope, clearly stated, and in measurable terms.
   b. Develop an instrument for assessing student attainment of each performance objective listed for the courses.
   c. Develop student performance records forms for each course or meaningful combinations of courses in the instructional program.
   d. Develop a delivery system for disseminating summaries of the information and data obtained from the assessment of student attainment of objectives to selected individuals and groups in the LEA and community so that they can be used for program improvement.

   Local agencies will vary with respect to the degree to which each of the foregoing tasks have already been completed. Obviously, those agencies that have been successful in upgrading their efforts in one or more of these four task areas will be "a step ahead" and will have little or no need to become involved with all of the tasks listed in the task breakdowns that follow
5. You may want to group staff members according to program areas. Decide on a method for coordinating the efforts of all staff and establish a schedule for subsequent meetings.

# Procedure/Task Breakdown

### Task A. Develop Adequate Objectives.

1 Gather and review the student performance objectives for each course in the instructional program to see that they are clearly stated and contain condition, outcome and criterion statements that lend themselves to practical assessment techniques.
2 Identify and list for each course in the instructional program which objectives would be classified in each of the following eight categories. Information Handouts 2 through 9 will help you make appropriate identification.
Cognitive
1. knowledge
2. understanding
3. problem solving
Psychomotor
4. manual motor skills
5. perceptual motor skills
Affective
6. attitudes
7. interests
8. values
3 Determine if present student performance objectives for each course in the program should be revised. One method of clearly specifying objectives is present in Example Document 3-1. This form is divided into two sections which can be used for. (1) specifying the evaluative outcomes for a performance objective and (2) recording and reporting the progress of a class of students on the selected objective.
4. Secure the assistance needed (e.g., advisory committee) and establish the program necessary to upgrade present student performance objectives for each course so that they are comprehensive in scope, clearly stated and in measurable terms.

### Task B. Develop an Instrument.

1. Develop for each student performance objective one or more proposed test items or other measurement techniques for adequately assessing student attainment of the objective. A variety of measurement tools and techniques have been used by occupational educators. Employer evaluations, paper and pencil tests and performance tests are just three of many different techniques that can be utilized. A detailed, comprehensive presentation of measurement techniques and instruments can be found in most educational measurement texts.
2. Submit the objectives and their proposed measurement techniques to other instructors and advisory committee members for review and constructive criticism.
3. Revise measurement techniques including suggestions by instructor and advisory committee reviewers.
4. Develop instructions for completing the instrument.
5. Administer the instrument.
6. Analyze the student responses to each measurement technique to determine if it is indeed measuring what it was designed to measure—the attainment of some particular objective.
7. Revise measurement techniques including the data and information provided by the analysis of student responses.

### Task C. Develop Student Performance Record Forms.

1 Develop a format for student performance records that can be utilized by all subject areas included in the instructional program. (Example Document 3-5)
2 Take the outcome statements from each student performance objective and list them on the student performance record form by task area and in order of their presentation in the instructional program. Do this for each course or individual program. (See example in Information Handout 3-1.)
3. Duplicate the completed forms so that they can be readily available to all staff members.

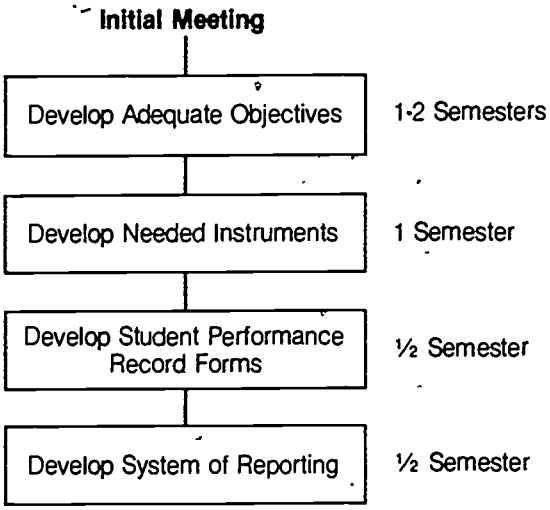
### Task D. Develop a System of Reporting.

1 Determine which groups or individuals should receive the results of the evaluation, e.g., advisory committees, LEA administrators, employers, students and parents.
2 Determine the scope of the information each individual and group should receive—for example, summaries of individual student progress, individual class progress, and student progress for an individual or the entire instructional program. The Individual Program Profile (Example Document 3-6) illustrates a format for describing class achievement on the course performance objectives. The Composite Program Profile (Example Document 3-7) illustrates a format for describing student achievement on selected or on all performance objectives in several attendance centers in the LEA.
3 Determine a time schedule for distributing each of the summary reports within the LEA.
4. Develop a format for summarizing student progress reports that (1) is based on student performance objectives and (2) would be useful in making decisions regarding the instructional program.
5 Implement the system on a pilot basis and survey the individuals and groups involved to determine the extent to which the system provides them with needed data and information.
6 Revise the system on the basis of the feedback received in the above survey.

### Suggested Time-Action Plan

The following time-action plan is presented to assist the local leader to gauge the time that will be required for the LEA to successfully complete the tasks presented in the foregoing task breakdowns. The actual time required will be influenced significantly by the level of development that has already been achieved by the LEA in areas such as the development of instructional objectives.

## Time-Action Plan



# Information Handouts


| No. | | Page Number |
|---|---|---|
| 3-1. | Measuring Student Competencies: A Summary | 10-11 |
| 3-2. | Cognitive — Knowledge Level | 12 |
| 3-3. | Cognitive — Understanding Level | 13 |
| 3-4. | Cognitive — Problem Solving Level | 14 |
| 3-5. | Psychomotor — Manual Skills | 15 |
| 3-6. | Psychomotor — Perceptual Skills | 16 |
| 3-7. | Affective — Attitude | 17 |
| 3-8. | Affective — Interest | 18 |
| 3-9 | Affective — Values | 19 |

## Information Handout 3-1:

### Measuring Student Competencies: A Summary

Local district personnel concerned with assessing student attainment of objectives should be asking four basic questions regarding this activity. These four questions as well as information and ideas that will assist local district personnel in finding answers to these questions are presented in this summary.

**I. How might the format of instructional objectives be improved?**

Clearly stated measurable objectives are the first requisite for assessing student attainment of objectives. All clearly stated measurable student performance objectives contain at least three important parts:

1. Condition Statement
2. Outcome Statement
3. Criterion Statement

**Example Objective**

Given the appropriate tools, equipment, and replacement parts, the student will be able to install and adjust distributor points, as per manufacturer's specifications and within flat rate time.

**II. How might the range of competencies be expanded?**

Most educational programs should be based on student performance objectives that are concerned with three important types of skills and behaviors. Each level of these skills and behaviors has associated with it a wide variety of student performances. Each has potential for being developed into a student performance objective.

**Skill and Behavioral Outcomes For Occupational Programs...**

**1. Cognitive Skills**
- —knowledge
- —understanding
- —problem solving.

**2. Motor Skills**
- —manual
- —perceptual

**3. Affective Behaviors**
- —attitude
- —interest
- —values

**Example Knowledge Level Cognitive Skills.....**

| . . . the student can | . . . what |
|---|---|
| —define | —terms |
| —describe | —equipment |
| —identify | —materials |
| —select | —tools |
| —name | —methods |
| —state | —procedures |
| —list | —facts |
| | —concepts |
| | —principles |

**III. How might measurement instruments and procedures be improved?**

Any serious attempt to assess student attainment of objectives will be based upon the objectives themselves. Clearly stated student performance objectives that are measurable and contain condition, outcome, and criterion statements provide the best guidelines as to methods of assessing student attainment of that objective. *Objectives are the Key!*

**Example Knowledge Level Cognitive Objective. . . .**

Given a list of 25 technical terms commonly used in the pipe trades, the student will be able to *define* to his instructor's satisfaction, at least 22 of the 25 terms.

**Example Instrument for Assessing Student Attainment of Definition of Terms Objective . . . . . .**

Directions: The following listing contains 25 technical terms that are commonly used in the pipe trades. In the space provided following each term, write a definition for that term as it is used in the pipe trades.

1. run _____
   _____
2. I.D. _____
   _____
3. O.D. _____
   _____

**IV. How might methods of disseminating information be improved?**

If reported and disseminated in a proper format, data and information obtained from assessing student performance of objectives can be utilized for program improvement as well as for assigning report card grades. Cumulative student performance records provide a simple mechanism for summarizing and disseminating to various important groups student performance data and information that can be utilized for program improvement.

## Example Cumulative Student Performance Record

| Date | Task No. | Task | Hours | Final Rating | Instructor |
|---|---|---|---|---|---|
| | | Basic Skills, Theory and Service Operations | | | |
| | | Perform the basic skills involved in tube swagging, flaring, and bending. | | | |
| | | Perform the basic soldering operations using types of tubing. | | | |
| | | Measure and perform necessary functions to prepare threaded iron pipe. | | | |
| | | Recognize and manipulate basic hand and power tools. | | | |
| | | Determine thermodynamics of gases. | | | |

### Distribution of Summary Data and Information

| . . . to whom | . . . for what purpose |
|---|---|
| —teachers | —identifying problem areas in the instruction<br>—identifying unnecessary areas of instruction<br>—identifying students needing additional help<br>—identifying gifted students |
| —school administrators | —evaluating program effectiveness<br>—evaluating the impact of program variables |
| —advisory committee members | —reviewing standards of proficiency<br>—reviewing course content |
| —parents and students | —improving student interest and motivation<br>—increasing parental support for programs |

## Information Handout 3-2

## Cognitive—Knowledge Level

**Skill and Behavioral Outcomes For Occupational Programs**

**I. Cognitive Skills**
- —knowledge
- —understanding
- —problem solving

**II. Motor Skills**
- —manual
- —perceptual

**III. Affective Behaviors**
- —attitude
- —interest
- —values

**Knowledge Level Cognitive Skills**

| . . . the student can | . . . what |
|---|---|
| —define | —terms |
| —describe | —equipment |
| —identify | —materials |
| —select | —tools |
| —name | —methods |
| —state | —procedures |
| —list | —facts |
| | —concepts |
| | —principles |

**Examples of Cognitive Objectives . . . knowledge level**

Given a listing of 25 technical terms commonly used in the pipe trades, the student will be able to define, to his instructor's satisfaction, at least 22 of the 25 terms

Given a random sample of 15 common tools from the tool crib, the student will be able to name each tool and describe its use on the job without error

**Examples of Items to Directly Assess Attainment of these Objectives . . . . .**

Directions The following listing contains 25 technical terms that are commonly used in the pipe trades In the space provided following each term, write a definition for that term as it is used in the pipe trades

1 run _____

_____

2 ID _____

_____

3 OD _____

_____

Directions The 15 tools pictured below can be found in our tool crib In the space provided after each tool, write first the correct name for that tool, then describe its use on the job

1 

_____

_____

_____

2 

_____

_____

_____

_____

# Information Handout 3-3

## Cognitive—Understanding Level

**Skill and Behavioral Outcomes For Occupational Programs**

**I. Cognitive Skills**
- —knowledge
- * —understanding
- —problem solving

**II. Motor Skills**
- —manual
- —perceptual

**III. Affective Behaviors**
- —attitude
- —interest
- —values

**Understanding Level Cognitive Skills**

**. . . the student can**
- —interpret
- —translate to verbal material
- —estimate from data
- —summarize
- —give examples of
- —paraphrase

**what**
- —verbal material, charts & graphs
- —non-verbal formulas
- —future consequences
- —data & information
- —expected consequences
- —policies & regulations

**Examples of Cognitive Objectives . . . understanding level**

Given the recipe for any common bakery good, the student will be able to explain, with 100% accuracy, the general consequences of altering any one of the ingredients or procedures presented in the recipe

Given a collection of 25 different used automobile parts, the student will be able to list, for at least 22 of the 25 parts, the expected consequences of continued use of the used part in its original installation, spending no more than 5 minutes on each part

**Examples of Items to Directly Assess Attainment of These Objectives . . .**

Directions: Two changes have been made in the following recipe They have been made by lining out the original ingredient or procedure and adding the new one in parentheses. In the space provided on the answer sheet, write the probable effect that these changes would have on the final product

Pie Crust Recipe
(2)
~~1½~~ c flour ½ c shortening (boiling)
½ tsp. salt 5-7 tbsp. ~~cold~~ water
Sift flour and salt Cut in shortening Add water, tbsp at a time

Directions: Twenty-five used automobile parts have been assembled here You will have five minutes each in which to examine a part and write in the appropriate space below examples of what could be expected to happen to the operability of the car had that part not been replaced

1 ignition points _____

_____

2 fuel line filter _____

_____

3 starter brushes _____

_____

## Information Handout 3-4

# Cognitive—Problem Solving Level

**Skill and Behavioral Outcomes For Occupational Programs**

**I. Cognitive Skills**
- —knowledge
- —understanding
- * —problem solving

**II. Motor Skills**
- —manual
- —perceptual

**III. Affective Behaviors**
- —attitude
- —interest
- —values

**Problem Solving Level Cognitive Skills**

| . . . the student can | . . . what |
|---|---|
| —apply | concepts and principles in new situations |
| —analyze | new materials for organizational structure, unstated assumptions, and fallacies in reasoning |
| —synthesize | materials from different areas into a new plan, scheme, or presentation |
| —evaluate | the logical consistency, adequacy, or value of new material |

**Examples of Cognitive Objectives . . . problem solving level**

Given the prescribed AICPA formula and the necessary figures relating to cost, useful life, and scrap value, the student will be able to compute within 30 minutes and with 100% accuracy, each of the four standard types of depreciation allowance for any given piece of equipment

Given a problem in agricultural production, the student will be able to propose, within an ordinate amount of time, a plan for investigating this problem that would conform to all established principles of scientific investigation

**Examples of Items to Directly Assess Attainment of These Objectives . . .**

**Depreciation Problem**

Acme Company purchased a new machine for $20,000 plus $800 installation costs. Its expected useful life was 5 years and 400,000 units of products. Its scrap price at the end of 5 years was estimated to be $400. The first year of production, it produced 100,000 units of products.

**Problem**—Compute the depreciation for this machine after its first year of operation using the following AICPA methods
- —straight line $ _____
- —sum-of-the-years' digit $ _____
- —double-declining balance $ _____
- —units of production $ _____

**Time**—30 minutes

**Production Problem**

Fertilizer X would cost Acme Farms 15% more than the fertilizer they used last year on their corn. Fertilizer X is also advertized as being capable of increasing corn production up to 20% over other popular fertilizers.

**Problem**—Design and present, in the space provided on your answer sheet, an experiment that would answer the question as to whether or not it would be profitable for Acme Farms to start using Fertilizer X on their corn next year.

**Time**—45 minutes

# Information Handout 3-5

## Psychomotor—Manual Skills

**Skill and Behavioral Outcomes For Occupational Programs**

**I. Cognitive Skills**
- —knowledge
- —understanding
- —problem solving

**II. Motor Skills**
- * —manual
- —perceptual

**III. Affective Behaviors**
- —attitude
- —interest
- —values

**Examples of Manual Motor Skills Objectives**

Given the necessary tools and equipment, the student will be able to clean and adjust automobile spark plugs as per specifications outlined in the manufacturer's service manual and within flat rate time

**Manual Motor Skills**

**. . . the student can**
- —drive
- —assemble
- —adjust
- —cut
- —sharpen
- —clean
- —bake
- —prepare

**. . . what**
- —golf balls
- —automobiles
- —nails
- —screws
- —tools
- —equipment
- —cookies
- —meat

Given access to the necessary tools, equipment, and ingredients, the student will be able to prepare a tossed salad that matches U S N. recipe portions and is in sufficient quantity to serve 150 with 5% or less left after serving

**Examples of Items to Directly Assess Attainment of These Objectives . . .**

**Performance Test Card**
**Clean and Gap Spark Plugs**

Directions Remove the spark plugs from the automobile provided, clean and adjust them in accordance with the auto manufacturer's specifications, and submit them along with this form to your instructor for evaluation

| Inspection points: | Accept | Reject |
|---|---|---|
| —insulators clean | ☐ | ☐ |
| —electrodes clean | ☐ | ☐ |
| —correct gap | ☐ | ☐ |
| —time required | ☐ | ☐ |
| Test Results | ☐ Pass | ☐ Fail |

Instructor's signature _____

**Performance Test Rating Card**
**Preparing Tossed Salad**

Directions Prepare a tossed salad that is in accord with U S N recipe portions and will serve 150 people plus 5% or less excess Then present this card and *your salad to your instructor for evaluation.*

| Inspection points: | Unacceptable | | | | Outstanding |
|---|---|---|---|---|---|
| —correct ingredients | 1 | 2 | 3 | 4 | 5 |
| —ingredient proportions | 1 | 2 | 3 | 4 | 5 |
| —appearance | 1 | 2 | 3 | 4 | 5 |
| —sanitation | 1 | 2 | 3 | 4 | 5 |
| —size of excess | 1 | 2 | 3 | 4 | 5 |
| Overall Rating | 1 | 2 | 3 | 4 | 5 |

Instructor's signature _____

Overall Rating ☐ Pass ☐ Fail

## Information Handout 3-6

# Psychomotor—Perceptual Skills

**Skill and Behavioral Outcomes For Occupational Programs**

I. **Cognitive Skills**
- —knowledge
- —understanding
- —problem solving

II. **Motor Skills**
- —manual
- * —perceptual

III. **Affective Behaviors**
- —attitude
- —interest
- —values

**Examples of Perceptual Motor Skills Objectives**

Given access to the appropriate tools and supplies, the student will be able to blend paints that upon drying will match specified color samples

Given the locations of a fire hydrant and 10 hypothetical fires, the student will be able to estimate within 10 seconds and with 100% accuracy the number of lengths of firehose it would take to service a fire at those locations.

**Perceptual Motor Skills**

**. . . the student can**
- —blend
- —compare
- —identify
- —estimate
- —shoot
- —sketch
- —design

**. . . what**
- —wind velocity
- —distances
- —sounds
- —weights
- —textiles
- —paints
- —stars
- —microorganisms
- —firearms

**Examples of Items to Directly Assess Attainment of These Objectives . . .**

**Performance Test Card**
**Paint Color Matching**

Directions Starting from white base, blend one quart of paint that, upon drying, will match the color of the attached sample After thorough mixing, smear a sample of your mix in the space provided below and submit this form to your instructor for evaluation

☐ Pass ☐ Fail

Smear Sample HERE

Instructor _____

**Performance Test Record**
**Firehose Estimation Problem**

Directions: Estimate the number of lengths of standard firehose it would take to service, from a given hydrant, a fire at each of the ten locations pointed out by your examiner and record your estimates on the attached answer card.

**Time Limit:** 10 seconds per estimate

**Test Results:** ☐ **Pass** ☐ **Fail**

**Examiner** _____

# Information Handout 3-7

## Affective—Attitude

**Skill and Behavioral Outcomes For Occupational Programs**

**I. Cognitive Skills**
- —knowledge
- —understanding
- —problem solving

**II. Motor Skills**
- —manual
- —perceptual

**III. Affective Behaviors**
- * —attitude
- —interest
- —values

**Example Affective Objective**

**. . . attitude**

While working on the job, the students will demonstrate safety consciousness as evidenced by achieving a rating of 85 or better in safety on their biweekly Learning Progress Rating Form

**Examples of Affective Behaviors**

| . . . the student will | . . . what |
|---|---|
| —demonstrate | —democratic processes |
| —express | —sensitivity toward others |
| —seek | —safety consciousness |
| —defend | —responsibility |
| —propose | —regulations |
| —accept | —self-reliance |
| —question | —own strengths |
| | —own limitations |
| | —differences |

**Example Item to Directly Assess Attainment of This Objective . . .**

Learning Progress Rating Form

Student _____ Date _____

Directions After each of the following traits there is a line drawn with descriptive phrases placed along it and above the line a numerical rating. Place a check mark at the place on the line which you think shows the degree to which this student has that particular trait

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 Appearance | 0 | 60 | 70 | 80 | 90 | 100 |
| | Unsatisfactory | Often neglects personal appearance | Usually neat and clean | Always presents favorable appearance | Exceptionally neat and clean | |
| 2 Initiative | 0 | 60 | 70 | 80 | 90 | 100 |
| | Needs frequent directions or prodding | Routine help usually waits to be told | Occasionally ventures out on his own | Resourceful and alert to appoint ments | Seeks and sets added tasks for himself | |
| 3 Safety | 0 | 60 | 70 | 80 | 90 | 100 |
| | Unsafe worker | Frequently exhibits unsafe work habits | Occasionally exhibits unsafe work habits | Rarely exhibits unsafe work habits | Sets the example for others to follow | |

# Information Handout 3-8

## Affective—Interest

**Skill and Behavioral Outcomes For Occupational Programs**

**I. Cognitive Skills**
- —knowledge
- —understanding
- —problem solving

**II. Motor Skills**
- —manual
- —perceptual

**III. Affective Behaviors**
- —attitude
- * —interest
- —values

**Example Affective Objective**

**. . . Interest**

When given a formal opportunity to do so, students will express a high degree of interest in at least one occupation for which, in the judgement of the guidance personnel, they would appear to have the necessary aptitudes and abilities

**Example Item to Directly Assess Attainment of This Objective . . .**

**Examples of Affective Behaviors**

**. . . the student will**
- —demonstrate
- —express
- —seek
- —defend
- —propose
- —accept
- —question

**. . . what**
- —democratic processes
- —sensitivity toward others
- —safety consciousness
- —responsibility
- —regulations
- —self-reliance
- —own strengths
- —own limitations
- —differences
- —interests

**Interest in an Occupation**

Directions. Below is a listing of statements about all occupations Place a (✓) in front of each statement that you agree with as it pertains to working as a/an

---

This is not a test that you will be graded on Your response to each item is correct if it expresses your true opinion

___1 I would love to do this work
___2 This job would give me some pleasure
___3 This job would be worth having
___4 The good and bad points about this job are about equal
___5 Many people do not like this job
___6 There are many things about this work that I wouldn't like
7 This would be the worst job in the world for me

# Information Handout 3-9

## Affective—Values

**Skill and Behavioral Outcomes For Occupational Programs**

I. **Cognitive Skills**
- —knowledge
- —understanding
- —problem solving

II. **Motor Skills**
- —manual
- —perceptual

III. **Affective Behaviors**
- —attitude
- —interest
- * —values

**Example Affective Objective**

. . . **value**

"While working with others on team efforts that require cooperation, the students will accept the cultural, racial, and socioeconomic differences of other team members as evidenced by zero observations of any negative reference to such differences being recorded by the instructor."

**Example Item to Directly Assess Attainment of This Objective . . .**

**Examples of Affective Behaviors**

| . . . the student will | . . . what |
|---|---|
| —demonstrate | —democratic processes |
| —express | —sensitivity toward others |
| —seek | —safety consciousness |
| —defend | —responsibility |
| —propose | —regulations |
| —accept | —self reliance |
| —question | —own strengths |
| | —own limitations |
| | —differences |

**Social Skills Development Check List**

Student _____ Date _____

Directions Answer the following questions for the student named above The boxes following each question should be checked yes or no depending on your observation of this student's conduct in class during the present working period

| | | Yes | No |
|---|---|---|---|
| 1 | Does he/she accept cultural differences in others? | ☐ | ☐ |
| 2 | Does he/she exhibit racial prejudice? | ☐ | ☐ |
| 3 | Does he/she accept the socio-economic differences of others? | ☐ | ☐ |
| 4 | Is he/she punctual? | ☐ | ☐ |
| 5 | Is he/she conscientious in caring for tools and equipment? | ☐ | ☐ |

# Example Documents


| No. | | Page Number |
|---|---|---|
| 3-1. | Objective Specification Form | 22 |
| 3-2. | Objective Specification Form For Duplication | 23 |
| 3-3. | Proficiency Index of Students | 24 |
| 3-4. | Self Rating Form | 25 |
| 3-5. | Learner Performance Profile | 26 |
| 3-6. | Individual Program Profile | 27 |
| 3-7. | Composite Program Profile | 28 |

**Example Document 3-1**

**Objective Specification Form**

Course: General Business I

Total Number Enrolled: 25

Objective Number: 6

Learning Domain: Cognitive

Learning Level: Knowledge

Measurement Technique: Paper and Pencil

**Section A:**
**Performance Objective Specification Form**

Objective: Given selected information on workmen's compensation the student will be able to correctly answer at least 70% of the questions asked on a written examination.

Condition Statement. "Given selected information on workmen's compensation"

Information units will include:

1. Insurance on employee by employer
2. Types of disability insurance
3. Occupation disease
4. Accident reporting procedures
5. Arbitration between insurance company and employer

Task Statement:

Item type will include:

1. Multiple choice
2. True/false
3. Completion
4. Essay

Criterion Statement: "At least 70% of the questions on a written examination"

The criterion breakdown is specified as follows:

**Excellent** — The student will correctly answer at least 90% of the questions on the exam.
**Above Average** — The student will correctly answer at least 80% of the questions on the exam.
**Average** — The student will correctly answer at least 70% of the questions on the exam.
**Below Average** — The student will correctly answer from 1-69% of the questions on the exam.

**Section B:**
**Student Performance Record**

Results of Objective. Determine the percentage of students who have performed according to the following categories.

| Excellent | Above Average | Average | Below Average | Total |
|---|---|---|---|---|
| 5 % | 10 % | 30 % | 55 % | =100% |

Results of Evaluation:

Yes ___ No ✓ Successful Fulfillment of the Objective Shows the Majority of Students to be Average or Above.

Yes ✓ No ___ Unsuccessful Fulfillment of the Objective Shows the Majority of Students to be Below Average.

Conclusion: This objective should be revised. Yes ✓ No ___
A different measurement technique should be applied. Yes ✓ No ___

## Example Document 3-2

## Objective Specification Form for Duplication

Course: _____

Total Number Enrolled: _____

Objective Number: _____

Learning Domain: _____

Learning Level: _____

Measurement Technique: _____

**Section A:**
**Performance Objective Specification Form**

Objective:

Condition Statement:

Information units will include:

1.
2.
3.
4.
5.

Task Statement:

Item type will include:

1.
2.
3.
4.

Criterion Statement:

The criterion breakdown is specified as follows:
**Excellent** — The student will correctly answer at least _____ of the questions on the exam.
**Above Average** — The student will correctly answer at least _____ of the questions on the exam.
**Average** — The student will correctly answer at least _____ of the questions on the exam.
**Below Average** — The student will correctly answer from _____ of the questions on the exam.

**Section B:**
**Student Performance Record**

Results of Objective: Determine the percentage of students who have performed according to the following categories.

| Excellent | Above Average | Average | Below Average | Total |
|---|---|---|---|---|
| % | % | % | % | = % |

Results of Evaluation:

Yes ___ No ___ Successful Fulfillment of the Objective Shows the Majority of Students to be Average or Above.

Yes ___ No ___ Unsuccessful Fulfillment of the Objective Shows the Majority of Students to be Below Average.

Conclusion: This objective should be revised. Yes ___ No ___
A different measurement technique should be applied. Yes ___ No ___

**Example Document 3-3**

# PROFICIENCY INDEX OF STUDENTS*

KEY: (1) poor (2) fair (3) good (4) excellent

## PERSONAL APPEARANCE

| | |
|---|---|
| Grooming | 1 2 3 4 |
| Suitability of dress | 1 2 3 4 |
| Poise | 1 2 3 4 |
| Posture | 1 2 3 4 |
| Health | 1 2 3 4 |
| Stamina | 1 2 3 4 |

## PERSONAL TRAITS

| | |
|---|---|
| Tact | 1 2 3 4 |
| Ambition | 1 2 3 4 |
| Use of time | 1 2 3 4 |
| Promptness | 1 2 3 4 |
| Being confidential | 1 2 3 4 |
| Initiative | 1 2 3 4 |
| Cooperation | 1 2 3 4 |
| Interest in work | 1 2 3 4 |
| Manners | 1 2 3 4 |
| Sense of humor | 1 2 3 4 |
| Willingness to work hard | 1 2 3 4 |
| Self control | 1 2 3 4 |
| Respect for the rights of others | 1 2 3 4 |
| Oral expression | 1 2 3 4 |
| Attitude under pressure | 1 2 3 4 |

## ATTENDANCE

Times absent _____

Times tardy _____

## DEPENDABILITY

| | |
|---|---|
| To follow directions | 1 2 3 4 |
| To take criticism | 1 2 3 4 |
| To understand written instructions | 1 2 3 4 |
| To attend to details | 1 2 3 4 |
| To keep on the job | 1 2 3 4 |
| To get things done on time | 1 2 3 4 |
| To plan ahead | 1 2 3 4 |
| To adapt to new ideas | 1 2 3 4 |

## JOB SKILLS

| | |
|---|---|
| Efficiency on job | 1 2 3 4 |
| Performance on job | 1 2 3 4 |
| Speech, ability to convey ideas | 1 2 3 4 |
| Safety practices | 1 2 3 4 |
| Mathematical ability | 1 2 3 4 |
| Knowledge of routine job assignments | 1 2 3 4 |

## BUSINESS TECHNIQUE

| | |
|---|---|
| Use of telephone | 1 2 3 4 |
| Use of sources of information | 1 2 3 4 |
| Care of equipment | 1 2 3 4 |
| Use of supplies | 1 2 3 4 |
| Public relations | 1 2 3 4 |

GENERAL COMMENTS Strong Points

Principle Area for Improvement

Student Learner _____ Date _____

Signature of Evaluator _____ Coordinator's Signature _____

*Adopted from Decatur School District #61, Lakeview High School Vocational Cooperative Education, Decatur, Illinois.

**Example Document 3-4**

## SELF RATING FORM *

| TRAIT | EXCELLENT | GOOD | FAIR | POOR | VERY POOR |
|---|---|---|---|---|---|
| ATTITUDE | | | | | |
| COURTESY | | | | | |
| DEPENDABILITY | | | | | |
| DESIRE TO SUCCEED | | | | | |
| ENTHUSIASM | | | | | |
| FORESIGHT | | | | | |
| FRIENDLINESS | | | | | |
| HEALTH | | | | | |
| HONESTY | | | | | |
| INITIATIVE | | | | | |
| LOYALTY | | | | | |
| MORALITY | | | | | |
| NEATNESS | | | | | |
| OPEN MINDEDNESS | | | | | |
| PERSONAL APPEARANCE | | | | | |
| PUNCTUALITY | | | | | |
| SELF CONTROL | | | | | |
| SENSE OF HUMOR | | | | | |
| TACT | | | | | |
| USE OF VOICE | | | | | |

*Adopted from Decatur Public School District #61, Decatur, Illinois.

## Learner Performance Profile*

Program: Instructor:

School: Semester:

| Learner | Objective Number | | | | | | | | | | | | Summary | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Excellent | Above Average | Average | Below Average | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Totals | | | | | | | | | | | | | | | | | |

*Adopted from Decatur Public School District #61, Decatur, Illinois.

Example Document 3-5

## Individual Program Profile*

Program: Instructor:

School: Semester:

| Evaluative Ratings | Objective Number | | | | | | | | | | | | | | | | | | | | | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| Excellent | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Above Average | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Below Average | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | | | | | | |

Example Document 3-6

*Adopted from Decatur Public School District #61, Decatur, Illinois.

# References


Ahmann, J. S. and M. D. Glock. *Evaluating Pupil Growth: Principles of Tests and Measurements.* Boston: Allyn & Bacon, Inc., 1975.

Bloom, B. S., J. T. Hastings and G. F. Madaus. *Handbook on Formative and Summative Evaluation of Student Learning.* New York: McGraw-Hill, Inc., 1971.

Boyd, J. L. and B. Shimberg. *Handbook of Performance Testing.* Princeton, New Jersey: Educational Testing Service, 1971.

Erickson, R. C. and T. L. Wentling. *Measuring Student Growth: Techniques and Procedures for Occupational Education.* Urbana: Griffon Press, 1976.

Gronlund, N. E. *Constructing Achievement Tests.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968.

Gronlund, N. E. *Measurement and Evaluation in Teaching.* London: The Macmillan Company, 1965.

**Illinois**
**State Board of Education**

100 North First Street
Springfield, Illinois 62777

Edward Copeland
*Chairman*

Donald G. Gill
*State Superintendent of Education*