Career Development & Occupational Studies

PART III.1

NOTE: This document is a work in progress. Parts II and III, in particular, are in need of further development, and we invite the submission of additional learning experiences and local performance tasks for these sections. Inquiries regarding submission of materials should be directed to: The Career Development & Occupational Studies Resource Guide, Room 681 EBA, New York State Education Department, Albany, NY 12234 (tel. 518-474-5922).

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Principles of Assessment

The National Forum on Assessment, in *Principles and Indicators for Student Assessment Systems,* has developed seven ethical premises to reinforce the general idea that evaluation should serve the cause of appropriate student instruction. The following indicators for Principle 1 provide a useful launchpad for the consideration of measurement tools.

Principle 1: Indicators

The primary purpose of assessment is to improve student learning.

Assessment systems are organized around the primary purpose of improving student learning, including classroom and large-scale assessment.

1. Assessments are based on curriculum and desired learning outcomes that are clearly understood by students, educators, and parents.
2. Assessment practices are compatible with current knowledge about how learning takes place and allow for variety in how students learn.
3. Assessment systems enable a process of continuous feedback for the student.
4. Most assessments allow students to demonstrate understanding by thoughtfully applying knowledge and constructing responses.
5. Assessment systems allow students multiple ways to demonstrate their learning.
6. Assessment systems include opportunities for individual and group work.
7. Classroom assessments are integrated with curriculum and instruction.
8. Teachers employ a variety of assessment methods and obtain multiple forms of evidence about student learning for planning and implementing instruction and for evaluating, working with, and making decisions about students.
9. Teachers can explain how their assessment practices and instruments help improve teaching and how they provide useful information for working with students.
10. Student self-reflection and evaluation are part of the assessment system.
11. Schools establish procedures for enabling classroom-based student assessment information to follow each student from year to year.
12. Assessment methods, samples of assessments, scoring guides or rubrics, and examples of work of varying kinds and quality are discussed and understood by students.
13. Scoring guides (rubrics) state in positive terms what students can do and enable users to analyze student strengths and needs in order to plan further instruction.
14. Educators make clear to students the uses and consequences of each assessment.
15. Teachers use current principles and technical concepts of assessment, particularly validity and reliability, in developing and analyzing their classroom assessments.
16. Multiple-choice and short-answer methods are a limited part, in time or impact, of the total assessment system.
17. Assessments intended to rank order students or compare students with each other are not a significant part, in time or impact, of the total assessment system.

Source: *The National Forum on Assessment*: *Principles and Indicators for Student Assessment Systems.* © 1995, National Center for Fair and Open Testing (Fair Test), Cambridge, MA.

Assessment in Career Development and Occupational Studies

Assessment in Career Development and Occupational Studies (CDOS) should be connected to the performance indicators and instructional content in the State Standards. The information contained within this section is intended to assist practitioners in planning local assessments as well as to provide information on current plans for State developed assessments.

Since the skills and knowledge delineated within the Learning Standards for CDOS are intended to be delivered within a K-12 continuum across all subject areas, it is critical that locally developed assessments be cooperatively planned by practitioners. These local assessments, when properly developed and administered, can reinforce instruction, stimulate student interest, and gauge student readiness for new learning. The philosophy which views assessment as a written test taken at the end of the learning process limits the contributions of other types of performance assessment.

The following glossary of assessment-related terms is intended to provide teachers with a common language when discussing assessment with other teachers. The descriptions of various assessment techniques will provide a point of departure for the planning of alternative assessments.

GLOSSARY OF ASSESSMENT-RELATED TERMS

Alternative Assessment Any assessment that is not limited to a paper-and-pencil or multiple choice test.

Performance Assessment Assessment of students' performance on objectives which are observed and judged by raters. It involves knowledge-in-use.

Authentic Assessment Measures and processes which are modeled after real-life, plausible tasks and challenges.

Portfolios Purposeful collections of students' work that exhibit the learners' efforts, progress, and achievements in one or more areas. They should include student participation in selecting content, criteria for selection, criteria for judging merit, and evidence of student self-reflection.

Content Standards Statements that define what students ought to know and be able to do: observable, measurable, or inferable and stated in results-focused terms; reflect broad goals; are comprehensive and developmental.

Performance Indicators Statements that specify how knowledge is to be used, or the kind of performance we expect from students relative to desired exit results.

Performance Standards	Statements that specify the level or quality of the performance we expect from students relative to desired exit standards. Standards characterize exemplary performance and are set once the task or process and appropriate criteria are established.
Criteria	Conditions that performances or products must meet to be considered of high quality.
Rubrics	Assessment tools that describe levels of student achievement on performance tasks.
Exemplars	Models that depict desired attributes of quality in ways that students can understand.

Assessment Techniques

General purposes of assessment:

- *To Plan Instruction* - If achievement is assessed before instruction, instruction can be tailored to meet the needs of students. In addition, the students will better understand the specific objectives for instruction.
- *To Motivate Students* - Most students will exert a greater effort to learn if they know how their achievement will be measured.
- *To Evaluate Instruction* - The extent to which students attain an objective is one indication of the effectiveness of instruction.
- *To Assist Learning* - Some assessment techniques provide opportunities for students to apply what they have learned, thereby reinforcing instruction.
- *To Measure Achievement* - Perhaps the most obvious reason for measuring achievement is to assign grades which are fair and accurate measures of student growth.

Choosing an appropriate assessment technique:

The more purposes an assessment technique can fulfill the more efficient it becomes. The method or technique chosen by the teacher should always be targeted toward the objective of instruction. Key words such as *know* and *demonstrate* or *apply* in learning objectives may call for different assessment techniques.

Alternative Assessment Techniques:

The on-demand paper and pencil test remains a basic component of assessment at both the state and local levels. Since the nature of the Learning Standards for career development and occupational studies lend themselves to assessments that are performance-based, the emphasis in this section will be placed on alternatives to the written exam.

Some general guidelines to consider when using any type of alternative assessment are listed below:
- Make students aware of the entire assessment process before it begins.
- Provide a model of quality work which students can use as a guide.
- Include the student, peers, and others in the assessment process.
- Provide timelines and deadlines when appropriate.

Source: *Assessing Achievement in Home Economics Education*, 1991, The New York State Education Department, Albany, NY.

Types of Alternative Assessments

1. **Projects: Group or Individual**
2. **Logs/Journals**
3. **Observations**
4. **Profiles**
5. **Portfolios**
6. **Demonstrations/Presentations**
7. **Questionnaires/Inventories**

1. Projects

■ careful, systematic observation/evaluation of procedures used by students in creating a product (product assessment); performing a task (process assessment); or combining process and product (project assessment).

Product Assessment = Efficiency

▲ teacher does not need to observe each student individually
▲ teacher does not need to observe products during class time
▲ less teacher time required

Process Assessment = Less Efficiency

▲ teacher must observe each student individually
▲ teacher unable to determine individual student efficiency during task by observing only product
▲ more teacher time required

Project Assessment = Opportunities and Challenges

Opportunities for Students
▲ work cooperatively in less formal environment
▲ apply decision-making and problem-solving skills to real-life situations
▲ utilize individual resources
▲ appreciate individual differences

Challenges to Students
▲ dominance by certain group members
▲ absenteeism
▲ personality conflicts
▲ objectivity/fairness of "group" grading

Source: *Assessing Achievement in Home Economics Education*, 1991, The New York State Education Department, Albany, NY.

2. Logs/Journals

Opportunities

- to record information about student activities, needs, feelings, and attitudes not obtained by more objective assessment procedures
- to serve as a basis for evaluating student achievement
- to plan future instruction
- to serve as basis for discussion during student/teacher conferences
- to encourage students to think about their learning
- to provide teachers opportunities to learn more about individual students

Challenges

- student unwillingness to reveal personal feelings and data
- limited student insight into behavior
- limited student ability to document behavior
- teacher difficulty in verifying accuracy of student entries
- teacher time involved in evaluating logs/journals

3. Observations

Opportunities

- teacher observes and records what students do without immediate judgment or interpretation
- observations serve as cross-check on student's logs/journals

Challenges

- limited number of subjects can be observed at once
- observations may be based on inaccurate or subjective perceptions
- invalid conclusions may occur

4. Profiles

Opportunities

- record student skills, and tasks over a period of time
- document long-term student achievement/growth
- indicate student readiness for employment or further education
- use as tool for student self-assessment and goal setting

Challenges

- limited ability to reflect individual student creativity

5. Portfolios

Opportunities

- document student performance
- provide basis for evaluation of student achievement
- provide opportunities for teacher and student to determine together which pieces of student work will be included in the portfolio

Challenges

- careful consideration must be given to the content and stirage of collected materials

6. Demonstrations/Presentations

Opportunities

- showcase student's ability to present an idea or perform a procedure for others
- provide students opportunity to practice and apply information as they develop information skills
- provide opportunity to observe level of competence of individual students
- provide students opportunity to learn from each other

Challenges

- student anxiety may influence performance during demonstrations/presentations

7. Questionnaires/Inventories

Opportunities

- gather information about opinions, interests, needs, and skill levels of students
- obtain factual information about students' backgrounds
- obtain information from the students' peers, parents, and other adults

Challenges

- unreliability of some information gathered, partly because interests, attitudes, and values of students are constantly changing, particularly during adolescence
- unreliability of information because of lack student awareness and/or willingness to share personal information, values, and attitudes.

Taxonomy of Learning Levels

By reviewing the Career Development and Occupational Studies standards, performance indicators, and specific learning objectives of curriculum to deliver these skills, teachers can determine the learning level which is called for. The taxonomy of learning levels is not intended to limit the creativity of local instruction. It is a suggested tool for teachers to use in planning assessments that will fit what is intended to be measured or evaluated.

Taxonomy of Learning Levels		
Learning Level	**The Student Is Expected To:**	**Descriptive Words Often Used**
# 1: Knowledge *Knowledge of:* • specifics • ways or means of dealing with specifics • the universals and abstractions in a field	✔ Remember an idea phenomenon, or a fact in somewhat the same form in which he/she learned them.	list match choose name find show label identify select define
#2: Comprehension *Comprehension through:* • translation • interpretation • extrapolation	✔ Communicate an idea or thing (event) in a new or different form (translation) ✔ See relationship among things. It may also mean qualifying ideas in relation to one's own experiences. (interpretation) ✔ Project the effect of things. (extrapolation)	reword propose describe calculate explain change outline
#3: Application *Application through:* • the use of abstract forms in concrete situations • abstractions in the form of general ideas, rules, or procedures	✔ Use what he/she knows (data) from a variety of areas to find solutions to problems. ✔ Relate or apply ideas to new or unusual situations.	relate manipulate utilize apply solve illustrate operate investigate demonstrate

Source: *Assessing Student Achievement in Home Economics Education*, 1991, The New York State Education Department, Albany, NY.

Taxonomy of Learning Levels

Learning Level	The Student Is Expected To:	Descriptive Words Often Used
#4: Analysis *Analysis focuses on:* • elements • relationships • organizational principles	✔ Break "things" down into their component parts. ✔ Uncover the unique characteristics of a "thing."	examine assess analyze contrast compare differentiate
#5: Synthesis *Synthesis through:* • communication in a unique way • the development of a plan or proposition of a set of operations • the development of a set of abstract relations (to hypothesize)	✔ Think creatively. (divergently) ✔ Make or create new or original "things." ✔ Take "things" and pattern them in a new way.	create construct reorganize generate develop predict
#6 Evaluation *Evaluation in terms of:* • internal standards • external criteria	✔ Make judgments about "things" based on either external or internal conditions or criteria. ✔ Rate ideas, conditions, objects, etc. ✔ Accept or reject "things" based on standards.	rate evaluate prioritize critique determine classify

Rubric: Assessment

Definition of a Rubric

Arubric is an assessment tool that describes levels of student achievement on performance tasks. Grant Wiggins defines it as a printed set of guidelines for distinguishing between performances or products of different quality. Rubrics are based on standards for achievement, provide criteria understandable to students, and contain scores arranged on a scale. Other characteristics of rubrics are:

- the points (scores) of the scale are equidistant on a continuum

- descriptors are provided for each level of student performance

- descriptors are valid (meaningful) and scores are reliable (consistent)

- the highest point (level) indicates exemplary (professional) performance

- scores relate to actual levels of student performance (empirically validated)

- the scale includes 4 or more rating levels (points)

- types include holistic (overall student performance) and analytic (dimensions): the assessment of a student performance should include both types

- they make explicit to students, parents, and administrators the criteria for student achievement

- they can be used by students to assess their own performance and the performance of other students.

> *Defines and describes levels of performance (rarely, sometimes, frequently, extensively) for critical dimensions related to performance standards. . .*
>
> Source: *State Collaborative on Assessment and Student Standards Year-End Report.* The Council of Chief State School Officers, Washington, DC, 1996.

Rubrics: Types

Task-Specific

Strengths	*Weaknesses*	
• Faster to learn • High inter-rater agreement • Direct measure of a task	• Measures small part of a skill domain • Poor generalizability or transfer ability to other real world tasks • Doesn't indicate what to teach next • Must develop, verify, and train a new rubric for each question or task	

Developmental

Strengths	*Weaknesses*	
• Increases understanding of what is meant by the concept • Increases teaching to the skills and what to do next • Direct measure of the skill • Can tell what is being assessed by looking at the rubric • Different rubrics do not have to be developed • Improved generalization of skills • Same examples can be used across different grade levels or groups	• May take longer to develop • Needs consensus from users on what skills come next • May be harder to learn but easier to use	

Relative

Strengths	*Weaknesses*	
• Fastest to learn • Good for the 'big' picture or outcome assessments • Will work for most accountability needs	• Reliability is not always high • Can't always tell what is being assessed by looking at the rubric • Rubric doesn't always help to define the concept • Dependent on different examples, i.e., anchor samples, at different grades or for different target groups • Doesn't communicate to students what to do differently at different points in time	

Source: *State Collaborative on Assessment and Student Standards Year-End Report.* The Council of Chief State School Officers. Washington, DC, 1995.

Rubric Writing Rules

Format

1. Levels are ordered, sequences per a continuum that lends itself to instruction

2. Full range of knowledge and skills targeted for learning

3. Continuum is inclusive of all learners

4. Minimum of four levels, usually

5. Choose between an odd or even number of levels

6. Top level is above the expected standard

7. More bottom levels than top levels to assist instruction to the proficiency

8. Avoid using implied or missing levels between stated levels.

Instruction

9. Choose between a task-specific, developmental or relative rubric to meet the needs of training and the purpose of the assessment

10. Targeted skills are consistently present at each level

11. Avoid lower level's wording written in terms of missing or negative skills

12. Levels progress from the least developed to the most developed features written in clear terms

13. Sample evidence is represented for each level

14. At least one version of the rubric is written in learner terms.

Measurement

15. Choose type of measurement: change in skills, typicalness, or attainment of a standard

16. If using difficult-to-get consensus constructs, then define in behavioral terms

17. Avoid value-laden terms as constructs

18. Avoid terms that depict "averageness"

19. Avoid adjectives attached to a trait as the sole means of differentiating performance

20. The wording in the middle levels needs to reliably separate students who meet and do not meet the standard

21. The psychological distance between each level of performance should be equally difficult or easy to attain or rate.

Source: *State Collaborative on Assessment and Student Standards Year-End Report.* The Council of Chief State School Officers. Washington, DC, 1995.