Saskatchewan
Education

Student Evaluation:
A Teacher Handbook

December 1991

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Introduction

It will come as no surprise to you that evaluating students is an integral part of your teaching. It is something that you do virtually every day, and, most likely, you have become comfortable with the techniques you use to gather information on your students and to report your evaluations to students, parents/guardians, and other teachers. Why, then, do we need a new handbook on student evaluation? Here are some of the reasons.

- *Evaluation in Education*, the report of the Minister's Advisory Committee on Evaluation and Monitoring, recommended that "continuing education and professional development opportunities be provided for all teachers to support improvement of their capabilities in the evaluation of student achievement and progress and in the diagnosis of student learning needs" (p. 12). As part of the action plan, the committee recommended that: "Saskatchewan Education should revise the *Student Evaluation Handbook* and incorporate its use into inservice activities" (p. 12).

- The introduction of the Common Essential Learnings and their incorporation into all new curricula demands a wider variety of teaching strategies from teachers. Procedural knowledge, the processes and attitudes necessary for learning how to learn, has become a much more important part of what we want students to acquire. An integral part of these new strategies is an expanded range of techniques of student evaluation to help assess these forms of knowledge. Some of the traditional techniques are just not appropriate in the new situations.

- The responsibility for seeing that student evaluation is appropriately carried out lies within two divisions of Saskatchewan Education. The Evaluation and Student Records Division works to enhance teachers' overall competence in student evaluation. This division also cooperates with the Curriculum and Instruction Division to provide teachers with subject-specific student evaluation strategies when new curriculum guides are produced. This handbook and the accompanying inservice opportunities focus on issues in student evaluation that transcend specific subject-area concerns.

- Teachers are under increasing pressure to be more accountable to students, parents/guardians, and the public at large. A well-planned student evaluation program can help teachers meet these accountability pressures.

- Student evaluation is one of those responsibilities that requires the highest degree of professional judgment and expertise on the part of the teacher. The stakes are high when decisions are made that affect students' lives. Improving student evaluation practices improves teacher professionalism.

Background

This handbook has been developed by the Evaluation and Student Records Division of Saskatchewan Education in consultation with an inter-agency advisory committee representing the Saskatchewan Teachers' Federation; the Saskatchewan School Trustees Association; the League of Educational Administrators, Directors and Superintendents; Saskatchewan Education; the University of Saskatchewan; and the University of Regina. At the needs assessment stage, feedback from groups of teachers helped to set the general boundaries of the handbook. Its overall philosophy is in accordance with the guiding principles of student evaluation developed from *Evaluation in Education*.

The essence of these guiding principles is that student evaluation should be an integral part of good teaching practice. It should be treated as an ongoing and comprehensive process that is pervaded by careful planning and systematic implementation. Evaluation is considered a critical element that influences teacher decision making and guides student learning.

The guiding principles of student evaluation as stated below are more fully developed in the various sections of the document.

- **Evaluation should** be an integral part of the teaching-learning process.

- **Evaluation should** be a planned, continuous activity.

- **Evaluation should** reflect the intended outcomes of the curriculum.

- **Evaluation should** assist teachers in meeting individual needs and providing appropriate programs for students.

- **Evaluation should** include not only measurement but also interpretation and judgment.

- **Evaluation should** be sensitive to socio-demographic differences such as culture, gender, and geographic location.
- **Evaluation should** be based on a variety of indicators that may be norm-referenced, criterion-referenced, or self-referenced.
- **Evaluation should** use assessment techniques for formative, diagnostic, and summative purposes.
- **Evaluation should** provide information within the cognitive, affective, and psychomotor domains.
- **Evaluation should** respect and safeguard confidentiality of student information.
- **Evaluation should** be fair and equitable, giving all students opportunities to demonstrate the extent of their knowledge, skills, and abilities.
- **Evaluation should** provide positive, supportive feedback to students.
- **Evaluation should** foster students' abilities to transfer knowledge into life experiences.
- **Evaluation should** encourage active participation and student self-appraisal to foster lifelong learning.
- **Evaluation should** provide opportunities for student development and improvement.
- **Evaluation should** include the communication of a teacher's overall evaluation plan to students in advance. Students should be made aware of the objectives of the program and the procedures to be used in assessing performance relative to the objectives.
- **Evaluation should** be regularly communicated to parents/guardians and students in a meaningful manner.

During the development and piloting of this handbook, the writer, the overseeing advisory committee on student and program evaluation, and the Evaluation Division personnel have worked closely with the Curriculum and Instruction Division of Saskatchewan Education to make the handbook as compatible as possible with the curricula being developed. An extensive field testing process has helped to sharpen the focus of the handbook.

Scope of the Handbook

'Evaluation' is a term that has many meanings for teachers. In this handbook, the emphasis is upon those activities you need to carry out to formulate a professionally developed judgment concerning students' performance. Although this is a standard objective of resources on student evaluation, it is important to spell out the boundaries. In some instances, the term 'student evaluation' has come to include issues that are usually considered parts of instructional practice. The shift from a teacher-centered classroom to a more child-centered classroom places more emphasis upon involving students in reflection and self-evaluation so that they may more completely take control of their learning. While these wider applications of the notion of evaluation are discussed in the handbook, you will find it useful to draw upon the techniques described in the pertinent curriculum guides as you foster your students' skills of independent and lifelong learning.

Working With the Handbook

The main body of the handbook is divided into four chapters.

The first three chapters of the handbook present a plan of action that you can use to refine your own student evaluation program. The basic idea behind these chapters is that planning a student evaluation program is primarily a matter of making decisions about what you want to do and how you will do it. You already make such decisions, but this section will allow you to make your decisions *explicit* and *systematic*.

Chapter 1 shows you how to take stock of your current student evaluation practices. Chapter 2 outlines a process for helping you consider whether you should modify your student assessment techniques in light of what you uncover in Chapter 1. Chapter 3 extends your student evaluation planning to include working with other colleagues within a total school setting. Throughout these chapters, there are points at which decisions have to be made concerning your own professional practice. These sections are highlighted in bold print and placed in shaded boxes.

Chapter 4 explains the development and use of a variety of student assessment techniques. Some of these are traditional while some may be less familiar to you. None of them are particularly difficult to develop or use, but they do require you to exercise your professional judgment in specific ways so that you can make them fit into your overall student evaluation program.

Throughout Chapter 4, a variety of examples of assessment instruments is provided. These can be used in their given form or adapted as starting points for teachers who wish to develop their own instruments.

Using the Handbook

The handbook has been designed for teacher use in several ways.

- **As a workshop manual**
  If you attend an inservice session on student evaluation you can work through the activities of the handbook with the help of a facilitator.
- **As a guideline for developing a school policy on student evaluation**
  Many of the activities in the handbook lend themselves to group situations such as developing departmental, school, or division student evaluation policies.
- **As a self-learning unit**
  You can work through the handbook methodically, making your own professional planning decisions on student evaluation.

Chapter 1
Taking Stock

Introduction

This chapter will help you articulate how and why you are currently evaluating your students. As well, it provides a baseline from which further planning can begin. It's like making an initial trip to a financial planner. The first thing that planners require you to do is to list all your assets and liabilities so that they (and you) can identify what needs to be done in order to provide a more thorough and appropriate plan for you to reach your financial goals. They know, too, that the very act of requiring you to build an organized picture of where you stand will often suggest what further action needs to be taken, without any prodding from them. They, of course, stand ready with the expertise to help you follow the path you have set yourself.

At the same time, they will use the initial visit to introduce some technical terms and concepts common in the world of financial planning. These will enable you to enter into the language and way of thinking of their world. By analogy, the objectives of this chapter are:

- to assist you to prepare a student evaluation inventory of your current teaching.
- to introduce you to, or to refresh your memory of, some key concepts in the field of student evaluation that will help you understand the subsequent planning activities.

The Student Evaluation Summary Inventory

The various activities of this chapter lead to the completion of a Student Evaluation Summary Inventory Sheet on pages 15 and 16 that will be a record of assessment techniques you have used in the past and that will also serve as a planning structure. The information required to complete each section will be generated on the respective worksheet and then will be summarized on the Summary Inventory Sheet. For example, Worksheet 'B', on page 8, allows you to generate information that you can summarize on the Summary Inventory. You may find that you can summarize the information for one or more of the Inventory sections without using the specific worksheet. If so, ignore the worksheet that relates to that particular box and work directly with the Summary Inventory Sheet.

Student Instructional or Assessment Grouping: Worksheet 'A'

Turn to Worksheet 'A' on the next page. Consider the instructional groupings or the assessment groupings of students within your current teaching assignment.

Here is an example at the high school level. If your teaching assignment is two classes of Grade 10 English, one class of Grade 9 English, and one class of Grade 9 Health, you might decide that because you teach the health course very differently from the English courses, there are really two student assessment groups: all the English classes (one group) and health (the other group). Or you might feel that you treat the Grade 10 classes much the same, and the grade 9 classes much the same, too, although different from the Grade 10s. So the instructional and assessment groupings in this case might be: Grade 10 English (one group) and Grade 9 English and Grade 9 Health (the other group).

If you are a teacher who teaches most subjects to one grade, different factors might enter into your student assessment groupings. You may decide that, due to the similar instructional methods employed, you will use similar assessment techniques to assess student progress across subject areas.

You will find your detailed knowledge of your specific teaching assignment allows you to easily identify your instructional or assessment groupings. The points below may also help.

Decide on the student instructional or assessment groupings that apply to your specific teaching assignment.

Give each of them an easily remembered name. Enter these on Worksheet 'A'.

Photocopy sufficient Summary Inventory Sheets and Worksheets 'B', 'C', and 'D' to allow one per grouping.

Fill in the spaces indicated on these planning sheets with the name of each grouping.

All of the subsequent steps will be carried out for each student assessment group.

Student Instructional or Assessment Grouping: Worksheet 'A'

Description of Grouping	Similarities in instructional or student assessment techniques that caused me to group these together
Grouping #1	Easily remembered name to characterize this grouping:
Grouping #2	Easily remembered name to characterize this grouping:
Grouping #3	Easily remembered name to characterize this grouping:
Grouping #4	Easily remembered name to characterize this grouping:

Student Assessment Techniques Currently Used: Worksheet 'B'

Before considering the contents of this worksheet, take a moment to become familiar with the meanings of three central terms, **measurement**, **assessment**, and **evaluation**.

Measurement is collecting information on the frequency or extent of something.

Assessment, a broader term, involves collecting information on the progress of students' learning. It may include, but is certainly not limited to, measurement activities. Observation data also provide information for assessment. Some writers feel that the old meaning of the term 'assessor', as one who takes time to sit with a person in order to develop an understanding of that person's situation, captures what a teacher does when assessing a student.

Evaluation is making a judgment about the degree of merit or worth of the information collected.

To use a simple example, taking attendance is making a **measurement**. Adopting student attendance as a factor that affects student learning is an **assessment** decision. Deciding that a certain number of absences is a threat to a student's success is making an **evaluation**.

What about a numerical grade? Is a student's mark of 70% in a course a **measurement**, an **assessment**, or an **evaluation**? On the surface, it looks like a measurement: "Well, 70% is what Pat got! I developed the test and graded Pat's responses, but beyond that I had nothing to do with it. Therefore, the 70% must be a measurement." Actually, you did have something to do with it. If all the students had received less than 10%, you would have realized that the test was too difficult for Pat and the other students and you would have changed the nature of your test. Therefore, your testing methods and standards have been arrived at through a process of **evaluation**. Knowing what you know about your course objectives, your students, and your testing procedures, you have developed and arrived at a system where, to use the definition above, 70% does represent a judgment about the degree of merit or worth of Pat's performance. You have **evaluated** Pat.

Evaluation can take place even when there has been no measurement. Film critics do this every day. Which is the better movie, *Batman* or *Gone With The Wind*? Such evaluations are often seen as being subjective and open to challenge. Very often, the confidence we have in subjective judgments depends upon the esteem in which we hold the evaluator and the level of expertise that we feel has been brought to the evaluation task.

Measurement and assessment can theoretically take place without a context of judgment. Evaluation cannot. A person may weigh 60 kg. That is a measurement, one that is quite easy to carry out with reasonable accuracy. To evaluate that fact, that is, to make a judgment about whether 60 kg is in some sense 'good', one needs to consider the fact in relation to some external standard or standards. In essence, there are three ways in which standards can be used when evaluating.

- **Norm-referenced standards**
  In this type of evaluation, one compares assessment data with typical data collected from many other comparable people. If the census book shows that most other people of the same sex, height, and skeletal type have weights in the range of 50 to 53 kg, then one may make the evaluative judgment that 60 kg is in some sense 'not good'. This evaluation is made in the context of what 'good' means in this situation. In current western society, 'good' tends to be equated with being of average or below-average weight. In some cultures, the evaluation would turn out very differently. On the island monarchy of Tonga, the evaluation might be that the person, being of above-average weight, is marked as someone of high status.

- **Criterion-referenced standards**
  Here, the measurement is compared to some absolute standard, termed a criterion. A criterion may be set arbitrarily but usually there is some degree of logic behind it. One example might be that only people weighing 55 kg or less will be accepted for the space shuttle program. This criterion would have been set because of the design constraints of the rocket engines that govern the total weight that can be lifted into orbit. In this instance, the 60 kg person would be evaluated as failing to meet the criterion.

- **Self-referenced standards**
  The third type of external reference point is oneself. The comparison being made here is how one's performance today compares with one's performance earlier. To continue the illustration, consider the case where the person weighed 90 kg a year earlier when a diet program was begun. In this instance, a weight of 60 kg might be evaluated as a great improvement over the previous state of affairs, even if it were still above the norm weight of comparable people and even if it disqualified the person from going into space.

A Further Point on Standards

Although these three external reference standards have been treated separately, they can all enter into one evaluative decision. If a doctor has to make an overall evaluation of how 'well' our 60 kg person is, he or she will refer to all three types of standards by assessing them in light of other available medical and personal knowledge of the patient. The doctor will arrive at a professional evaluation: "Based on the average weights of people like you, and bearing in mind the various criterion level weights that have been set to warn against the onset of weight-related diseases such as diabetes and heart attacks, and taking into account the progress you have made on your diet, as your physician I would say that my professional evaluation of your condition is that you are in very good health."

In school, balancing the importance of the three types of external standards in arriving at an overall evaluation of a student requires the exercise of a teacher's professional judgment, especially when the different standards are tugging in opposite directions. "How is Jean doing in school? Based on classroom tests and the class examination with Jean's peer group, not so well (normative reference). But Jean did pass the system-wide minimum competency test (criterion reference). And class assignments did show improvement over the course of the year (self reference)." Now the teacher has to blend these judgments into one overall judgment. To do this, the teacher needs to know more about why the initial question about Jean was asked. To award a scholarship? Then the normative reference will take on more importance. To promote Jean to the next grade? Now the criterion reference may be the primary consideration. To report to Jean's parents? The answer to that will depend on the parents. Parents/guardians are often interested in self-referenced evaluation judgments.

Deciding on the appropriate blend of student evaluation standards can be a complex matter. Experience; school tradition; parental expectations; and school, school division, and provincial policies can all help. Chapter 3 offers some information on how to develop a school policy on student evaluation.

In summary, evaluation starts with assessing something. This assessment is then judged with respect to norm-, criterion-, or self-referenced standards. These judgments are then blended into an overall judgment that provides an answer to the evaluation question being posed. Breaking down what is often a continuous process into these steps will allow you to construct a more comprehensive student evaluation inventory and, ultimately, a more comprehensive evaluation program.

Now you can complete the task of filling in Worksheet 'B' for the first of your student evaluation groupings. To help you, techniques have been grouped into two major categories.

- **Ongoing Student Activities**
  The assessment techniques in this group are intended to be used when students are going about their customary learning activities.

- **Quizzes and Tests**
  These assessment techniques are used when students are engaged in test-taking activities.

For each of the techniques you marked on Worksheet 'B', indicate how you organize them and how you record the data you collect from them.

- **Methods of Organization**
  These methods are used to organize or conduct assessments, whether they are the ongoing student activity techniques or quizzes and tests.

- **Methods of Data Recording**
  These methods are used to record the assessment information from Ongoing Student Activities or Quizzes and Tests.

Think about your student instructional or assessment grouping in terms of the assessment techniques listed under Ongoing Student Activities and Quizzes and Tests. Consider how you organize those techniques and how you record the student information (listed across the top of the worksheet). Put check marks in the appropriate boxes to best describe your use of the assessment techniques.

To refresh your memory later, jot down where in your program you use the techniques.

For example, perhaps you identified presentations as an ongoing student activity that you use. If you have your students do these presentations on an individual basis, then you would check 'Individual' in the 'Methods of Organization' section along the top of the worksheet. If you use a rating scale for these presentations in order to record your ratings and comments, then check 'Rating Scales' in the 'Methods of Data Recording' section of the worksheet.

Student Assessment Techniques Currently Used: Worksheet 'B'

Student Instructional or Assessment Grouping

_____

Number of Grouping

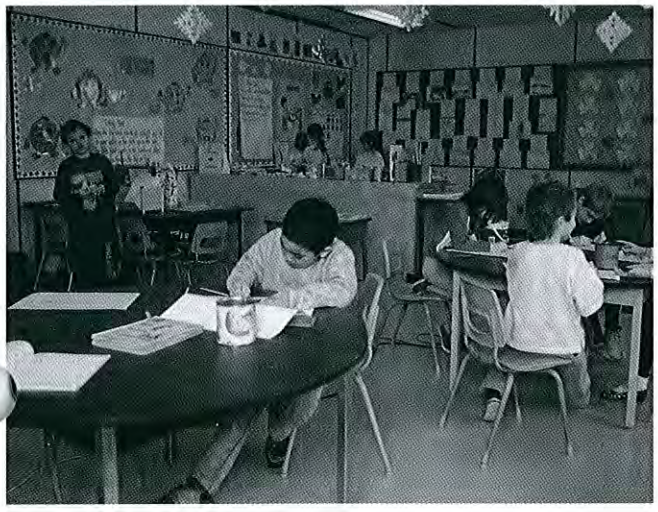
_____

	Methods of Organization						Methods of Data Recording			
	Assessment Stations	Individual Assessments	Group Assessments	Contracts	Self- and Peer-Assessments	Portfolios	Anecdotal Records	Observation Checklists	Rating Scales	**Where in my course do I use these techniques?**
Ongoing Student Activities										
Written Assignments										
Presentations										
Performance Assessments										
Homework										
Quizzes and Tests										
Oral Assessment Items										
Performance Test Items										
Extended Open-Response Items										
Short-Answer Items										
Matching Items										
Multiple-Choice Items										
True/False Items										

A further example deals with a Grade six mathematics grouping of students who are quite advanced in their knowledge and use of mathematics. You may look down the list of assessment techniques and consider that you gave them a test at the beginning of the term consisting of short-answer, extended open-response, and performance-test questions to establish what these students knew and were able to do. You had them complete this test individually and, since it was corrected/evaluated only by you, it did not involve, at that point, self- or peer-assessment. The analysis of their responses to the extended open-response question was done with a checklist and you used a rating scale with the performance test item. To record this on the worksheet, you would put a check mark in the box that cross-references short-answer items with individual assessments. Extended open-response items would cross-reference to both individual assessments and observation checklists. For performance tests, you would check the boxes that cross-reference with individual assessments and rating scales. Then, in the column at the far right, you would jot down that the test items were used at the beginning of the term in mathematics to establish a baseline of knowledge and skills.

Mark the columns **only** if you use the technique for student assessment — there could be techniques you use for other aspects of your teaching, but not for student assessment. For example, you might use questions to keep students interested in what is happening, but not consider the answers to the questions in your overall evaluation scheme. If you require clarification of one or more of the techniques listed in Worksheet 'B', refer to Chapter 4.

Worksheet 'B' summarizes the types of student assessment techniques you use, how you use them, and how you collect or record the assessment information from them. Transfer the information from Worksheet 'B' to the Student Evaluation Summary Inventory Sheet.



Purpose for Using Student Assessment Technique: Worksheet 'C'

The terms **formative** and **summative evaluation** have become part of the educator's lexicon since Michael Scriven coined them in 1967. They have come to mean different things to different people but for the purposes of this handbook, we will return to Scriven's original distinction.

- **Formative evaluation** is intended to provide information for both teacher and student about the progress of that student so that corrective action may be taken to help achieve the desired learning outcome.

- **Summative evaluation** is intended to provide information to be used in making judgments about a student's achievement.

This distinction leaves out any reference to the type of assessment technique used or to the time at which it is used. So, the results of a written unit test could be used for both summative and formative evaluation. If the test or the unit is never referred to again and if the mark is simply reported, then that is summative evaluation. If, upon correcting the test, you find that most of the students have failed to grasp an important concept, and, if you decide to reteach the concept before going on to the next unit, then you have carried out formative evaluation as well. In school we have very few instances of evaluations that are purely summative or purely formative — usually we make use of the same assessment information in both modes. To keep the distinction between formative and summative evaluation clear, remember the illustration given by Robert Stake, a noted evaluator:

> **When the cook tastes the soup, that's formative. When the guests taste it, that's summative!**

There is a third kind of evaluation decision that we can include here: **diagnostic evaluation**. A common form of diagnostic evaluation is used at the beginning of a unit, course, or lesson when the teacher assesses students' readiness and background for what is about to be taught. This is **pre-instructional** assessment and evaluation. It occurs when you decide that you need assessment information on a student, group of students, or a whole class **before** you can proceed with the most effective instruction. It is considered part of good teaching practice to find out prior to instruction the level of knowledge and skill that is present in the learner.

Another form of diagnostic evaluation is used when more specific information is needed about a student's learning needs. Assessment information is gathered to give a more detailed representation of learning strengths and weaknesses. Instruction is then directed toward the specific learning needs of the student. While diagnostic evaluation is really a specialized extension of formative and summative evaluation, its emphasis is on assessing the strengths and educational needs of students as a starting point for instruction.

Diagnostic evaluation in group or class situations usually takes place before instruction begins. Some examples include: reading inventories in order to develop appropriate plans for student learning in reading, second-language oral tests in order to assign students to appropriate learning groups, writing tasks to assess the level of writing skills, or beginning-of-the-year tests to see what the students retained from the previous year.

Diagnostic evaluation with individual students is often initiated when you feel the need to find out more about how a student learns. Some examples include: assessing a student with a suspected learning disability to arrange for special intervention, assessing a transferring student to ensure accurate grade placement, and assessing a student to recommend an enriched program for the academically talented.

Now you can proceed with filling in Worksheet 'C' for the first of your student evaluation groupings.

For each of the Ongoing Student Activities and the Quizzes and Tests assessment techniques you checked off on Worksheet 'B', decide whether you use it primarily to make diagnostic, formative, or summative judgments.

On Worksheet 'C', indicate this primary use by writing a '1' in the appropriate column: diagnostic, formative, or summative.

Then decide if you also use the technique for a secondary purpose. If you do, mark a '2' in the appropriate column.

To refresh your memory later, make a note of the key points in your thinking that led you to your decisions.

Finally, transfer your ratings to the Student Evaluation Summary Inventory Sheet.

Purpose for Using Student Assessment Technique: Worksheet 'C'

Student Instructional or Assessment Grouping

_____

Number of Grouping

_____

	Diagnostic	Formative	Summative	**Key points behind my decision**
Ongoing Student Activities				
Written Assignments				
Presentations				
Performance Assessments				
Homework				
Quizzes and Tests				
Oral Assessment Items				
Performance Test Items				
Extended Open-Response Items				
Short-Answer Items				
Matching Items				
Multiple-Choice Items				
True/False Items				

Using the Techniques To Their Best Advantage: Worksheet 'D'

This section will help you decide whether you are currently using your student assessment techniques to best advantage. For each of the techniques that you have checked on Worksheet 'B', consider the reason you are using the technique (Worksheet 'C'). Complete Worksheet 'D' to determine if your use of the technique is of maximum benefit from a student evaluation standpoint. Concentrate on the first of your instructional and assessment groupings. The criteria to consider are explained below.

Systematic

Is your use of the technique systematic? For example, if you administer a test at the end of every unit, and, on that basis, you feel that you are able to make an evaluative judgment on the progress of your students, this is systematic assessment. In contrast, if you started student portfolios at the beginning of the year but haven't collected any pieces of work for two months, it would be difficult to claim that you have used this technique systematically.

For each of the techniques identified on Worksheet 'B', indicate with a check mark in the 'Systematic' column of Worksheet 'D' those techniques that you feel you use systematically.

Make a note of techniques that you feel you do not use systematically.

Recorded

For each of the techniques you identified on Worksheet 'B', consider if you record the results in some permanent fashion, such as in your daybook. You may find that currently you only record the outcomes of a few assessment techniques — written tests, for example.

For each of the assessment techniques selected on Worksheet 'B', indicate with a check mark in the 'Recorded' column those that you record in some permanent fashion.

Make a note of those techniques that you do not record.

Lowest Possible Inference

Inference refers to the extent to which the teacher is the instrument used to evaluate how well the student attains a desired objective. So, a low inference situation would exist if a teacher administered a valid and reliable commercial test to evaluate a student's progress. Where a teacher followed the test interpretation booklet, there would be relatively little inference. A high inference situation would exist if the teacher were the only available means of evaluating the student's progress. An example of this is a teacher who evaluates a student working cooperatively in a group situation. A useful way to think about the level of inference of an assessment technique is to ask yourself: "Could someone who is not a professional teacher use this technique to assess the students?" If the answer is yes, then the technique is probably a low inference one. If the answer is no, then it is probably a high inference one.

If you were to infer that Darcy can compute well because she spends her free time playing with a calculator, you are making an evaluation with a high level of inference. In this instance, it is easy to see that a computation test would lower the level of subjectivity and would provide a better indicator of Darcy's ability to compute. But if you wanted to evaluate Darcy's love of mathematics, probably your subjective observations on her individual initiative, desire to get involved in mathematical applications, and eagerness to share an interest in mathematics would be most appropriate.

Using The Techniques To Their Best Advantage: Worksheet 'D'

Student Instructional or Assessment Grouping

_____

Number of Grouping

_____

	Systematic	Recorded	Lowest Possible Inference	Appropriately Frequent	Thoughts for enhancement of use of technique
Methods of Organization					
Assessment Stations					
Individual Assessments					
Group Assessments					
Contracts					
Self- and/or Peer-Assessments					
Portfolios					
Methods of Data Recording					
Anecdotal Records					
Observation Checklists					
Rating Scales					
Ongoing Student Activities					
Written Assignments					
Presentations					
Performance Assessments					
Homework					
Quizzes and Tests					
Oral Assessment Items					
Performance Test Items					
Extended Open-Response Items					
Short-Answer Items					
Matching Items					
Multiple-Choice Items					
True/False Items					

The key point is that there is nothing wrong with high inference evaluative judgments (remember the case of the film critic) when that is the most appropriate and professionally responsible way to evaluate student growth. However, all other things being equal, where lower inference techniques are possible, they should be used. They tend to be less vulnerable to human traits such as bias and the halo effect . (Refer to the Glossary for clarification of terms.)

For each of the techniques that you use, consider whether it has the lowest possible inference for the use to which you are putting it. Remember your assessment techniques do not need to have a low level of inference, but they should aim for the lowest possible inference under the circumstances.

If you decide that your technique is one with the lowest possible inference, put a check mark in the column on Worksheet 'D'. If not, estimate its level of inference.

Appropriately Frequent

Student assessment and evaluation should occur with sufficient frequency to encourage your students in their studies and to provide you with enough information on which to base your judgments of progress. Student assessment and evaluation activities that occur too frequently can cut into instruction time and lead to counterproductive stress for yourself and your students. There are no hard-and-fast rules to guide you in establishing appropriate levels of frequency. It is a matter of your professional judgment.

For each of the techniques you use, review the frequency with which you use it.

If you feel that the frequency is appropriate, put a check mark in the column beside the technique on Worksheet 'D'. If you feel you want to make adjustments, make note of what you think is necessary.

Transfer your ratings on systematic, recorded, lowest possible inference, and appropriately frequent to the four columns on the Student Evaluation Summary Inventory Sheet.

Review the entries you have made on Worksheet 'D' and note any additional actions you might take to enhance the use of the technique. These will be helpful later.

Often the act of considering what you currently do will suggest improvements that you could make in your student evaluation program.

Extending the Process

You have now completed an inventory of your student assessment practices for the first of your student instructional or assessment groupings. All the information you wrote on Worksheets 'B', 'C', and 'D' can now be summarized on the Student Evaluation Summary Inventory Sheet for the first grouping. This will be a useful baseline when you come to decide in what ways you would like to change your student evaluation program — the topic of the next chapter. Retain the worksheets for future reference.

Complete the inventory sheets for the remaining student instructional or assessment groupings in the same way. You will find that the process is much quicker the next time through!

Student Evaluation Summary Inventory Sheet

Student Instructional or Assessment Grouping Number of Grouping	Purposes			Best Advantage				Planning Decisions
	Diagnostic	Formative	Summative	Systematic	Recorded	Lowest Possible Inference	Appropriately Frequent	
Methods of Organization Assessment Stations Individual Assessments Group Assessments Contracts Self- and Peer-Assessments Portfolios	These methods of organization are used as structures to conduct assessments and to present evaluation information to students and parents/guardians. They may include one or several data recording methods, ongoing student activities, or quizzes and tests.							
Methods of Data Recording Anecdotal Records Observation Checklists Rating Scales	These are methods used to collect assessment information by recording data as students participate in ongoing activities or quizzes and tests being used for evaluation purposes.							
Ongoing Student Activities Written Assignments Presentations Performance Assessments Homework	These activities are used for instructional and evaluation purposes. Assessment data are gathered as part of normal classroom instructional activity, using certain organizational and data recording methods.							
Quizzes and Tests Oral Assessment Items Performance Test Items Extended Open-Response Items Short-Answer Items Matching Items Multiple-Choice Items True/False Items	Quizzes and tests are designed and used to collect specific assessment information during or at the end of instructional activities. These activities can be used in whole or in part as organizational or data recording methods.							

Student Evaluation Summary Inventory Sheet

Student Instructional or Assessment Grouping Number of Grouping	Purposes			Best Advantage				Planning Decisions
	Diagnostic	Formative	Summative	Systematic	Recorded	Lowest Possible Inference	Appropriately Frequent	
Methods of Organization								
Assessment Stations								
Individual Assessments								
Group Assessments								
Contracts								
Self- and Peer-Assessments								
Portfolios								
Methods of Data Recording								
Anecdotal Records								
Observation Checklists								
Rating Scales								
Ongoing Student Activities								
Written Assignments								
Presentations								
Performance Assessments								
Homework								
Quizzes and Tests								
Oral Assessment Items								
Performance Test Items								
Extended Open-Response Items								
Short-Answer Items								
Matching Items								
Multiple-Choice Items								
True/False Items								

Chapter 2
How To Develop an Enriched Student Evaluation Program

Introduction

Chapter 1 showed you how to construct an inventory of your student evaluation practices in terms of the assessment techniques you use, the purposes for which you use them, and the manner in which you use them. This chapter is designed to help you develop your student evaluation program in light of a deeper knowledge of what is known about the best practices in student evaluation and also in light of new curricular emphases in Saskatchewan and the changing views of the teacher's role.

Two ways to increase the confidence with which you approach student evaluation are: to ensure that your evaluation program is the best that you can make it and to reaffirm that the most appropriate techniques for evaluating many objectives **requires** informed, inferential, and professional decisions. We know that, no matter how objective a mark or a grade may look on paper, it represents a professional's estimate, arrived at through a process involving subjective decision making.

Let us continue the analogy of the financial planner. Once the planner knows your current financial state, he or she can advise you in establishing your goals and in accomplishing them. At this stage, the planner's expertise will come into play more than in the inventory stage. However, the final decisions are yours, based on your own understanding of your goals. In this chapter, you will read about research findings, Saskatchewan policies on curriculum and evaluation, and trends in Saskatchewan curricula. To keep the handbook as readable as possible, no references to the literature are given in the text. A comprehensive bibliography is provided toward the end of the handbook.

After reading these sections, you might want to expand your evaluation program to take into account some of the issues raised. The handbook will show you how to do this. As before, we will proceed in steps. You will find it helpful to refer to your curriculum guide, daybook, or other resource documents you use for instructional planning.

By the time you have worked through this chapter, you will have reviewed the techniques you currently use to evaluate your students in terms of how adequate they are at the task. You will have identified gaps in your student evaluation program and will have considered which additional techniques would be suitable to fill the gaps. You will, in essence, have developed your own student evaluation program.

You may find that working through all the stages of the following process is challenging and time consuming, even to the point where you may feel overwhelmed. If that happens, decide on the one course where you feel it is most important to reassess your student evaluation program. Limit your scope to that course for now, and return to your other courses when time permits. Planning for student evaluation is a complex matter. To oversimplify it for expediency would be selling short your obligation to your students and to your own professionalism.

Assessing Process and Skill Objectives

One of the guiding principles of student evaluation is that the way you assess students should reflect as closely as possible what you want them to learn. If you want to check whether they have acquired content knowledge, you use something like a paper-and-pencil test that requires them to display that knowledge. But if you want to know if they can construct an argument, sew on a button, operate a microscope correctly, or sing the interval of a perfect fifth, then you have to use an assessment technique that allows them to demonstrate the skill. It is more difficult, though not impossible, to assess your students on such attributes as 'achievement of self-awareness' and 'independence'. The point is: the way you assess your students must match the type of learning you want them to develop.

A number of issues need to be addressed before we embark on the planning activities of this chapter. One concerns the matter of how the Common Essential Learnings can be accommodated within a student evaluation program. Others include discussions concerning the Adaptive Dimension, bias, fairness and equity issues, and relationships among learning objectives, instructional approaches, and assessment techniques.

Common Essential Learnings

The introduction of the Common Essential Learnings (CELs) into Saskatchewan curricula may have been accompanied by some uncertainty in the minds of teachers. The crucial point to remember is that Communication, Numeracy, Critical and Creative Thinking, Technological Literacy, Personal and Social Values and Skills, and Independent Learning are not taught in isolation. They are addressed only through the medium of course content. For example, the teacher does not specifically set out to teach students to work cooperatively. Rather, he or she draws upon the plans in the social studies curriculum, for instance, where working cooperatively has been incorporated. In that way, the teacher will bring the students to the point where working cooperatively is considered an appropriate way to learn. From this approach flow several consequences for student evaluation.

- Just as the Common Essential Learnings are not taught in isolation, so it follows that they are not evaluated in isolation. They are evaluated only in terms of the objectives of courses that incorporate these learnings. The Common Essential Learnings stress the skills and abilities through which students use higher-level thought processes to develop their ideas, attitudes, and values. Therefore, the course objectives that reflect the Common Essential Learnings will be process-oriented.

- In the curricula that are being issued by Saskatchewan Education the Common Essential Learnings are incorporated during the development process. As teachers plan their courses from these curricula, they do not have to concern themselves with incorporating the Common Essential Learnings into their objectives — that has been done for them. With the curricula awaiting revision, teachers have to make adjustments to incorporate the Common Essential Learnings. Opportunities for including the Common Essential Learnings will differ depending upon the CEL, the grade level, and the area of study.

- Because the Common Essential Learnings represent an expansion of what traditionally takes place in the classroom, you may need to expand your repertoire of student assessment techniques to accommodate them. Indeed, this is one of the reasons for developing this handbook.

- The Common Essential Learnings should be incorporated into all curriculum areas. Although some CELs are more easily associated with certain curricula, efforts should be made to gather information on student growth in all aspects of the Common Essential Learnings throughout all curricula.

In summary, the Common Essential Learnings represent an expansion of what teachers are required to teach, not a radical departure. In time, as the new curricula incorporating objectives derived from the Common Essential Learnings become available, the interweaving of what students should know, how they should come to know it, and how we should assess both of these will result in a holistic conception of the teaching-learning process.

The Adaptive Dimension

An essential component of the curriculum review and revision process that began with *Directions* is the Adaptive Dimension. As defined in *Instructional Approaches: A Framework for Professional Practice*, the Adaptive Dimension is:

> **the concept of making adjustments in approved educational programs to accommodate diversity in student learning needs (p. 30).**

Teachers may choose to make adjustments in one, two, or all of the following areas.

- curriculum
- instructional practices
- learning environment

The Adaptive Dimension permeates all practices the teacher uses to make learning meaningful and appropriate to each student. It requires constant monitoring of student progress and exploration into the reasons for the progress or lack of it. It is not designed solely for special needs students but emphasizes the importance of adapting programs for all students, as appropriate.

Student evaluation, as part of good pedagogy, must also be addressed within the Adaptive Dimension. If you are adjusting your program to meet the requirements of the Adaptive Dimension, you must also be prepared to adjust your student evaluation program. The assessment techniques you use are the same techniques that are outlined in Chapter 4.

The specific assessment techniques and the way they are used in the student evaluation program must be in line with the adaptations of curriculum content, instructional approaches and learning environment required within the Adaptive Dimension. Because each student is unique with

individual strengths and weaknesses, and abilities, assessing all students in the same way may penalize some students. It is important to remember that, when assessing any student, barriers to accomplishing the assessment task, such as physical disabilities or visual impairment, should not interfere with the task.

When making adaptations to reflect specific student needs, it is important to remember that curricular objectives should not be modified. Therefore, although instructional strategies and assessment techniques may differ, all students are working toward attaining similar learning outcomes. The assessment practices used should align with the adaptations to curriculum and instruction provided for the student.

Adapting assessment techniques may require changing parameters such as the frequency of use, the criteria for judging student progress, the length of time allowed to complete the assessment activity, and the type of assessment technique itself. Some examples of these changes include:

- demonstrating skills or knowledge rather than completing a written test or report.
- using oral assessment techniques for students with reading or writing disabilities.
- allowing more time to complete tests and other assignments.
- stating instructions in simpler terms.
- focusing on a smaller number of assessment techniques or changing the frequency of gathering assessment information.
- adjusting the type of criteria used for expected responses and the degree of accuracy required in these responses.
- reducing expectations in the amount of work accomplished.
- requiring above average students to provide more than one solution to a problem.
- using a word processing program with a spell-check feature with students who have problems spelling correctly.
- modifying the presentation and answer sheets of tests and assignments to accommodate student weaknesses.
- reducing student anxiety by providing familiar surroundings and practice in test-taking strategies.

As outlined in the *Instructional Approaches* document, the first step in the Adaptive Dimension is the assessment and evaluation of the needs of all students relative to the approved curriculum. Then, teachers have the opportunity to make decisions concerning the needs, abilities, and interests of small groups of students or of individual students.

Adaptations to curriculum, instruction, and learning environment should be guided by the following beliefs:

- The Adaptive Dimension includes all students in all educational settings.
- The Adaptive Dimension places expectations upon the teacher and support personnel to assess, plan, and deliver appropriate learning experiences for all students.
- The Adaptive Dimension recognizes that students approach learning in multiple ways.
- The Adaptive Dimension recognizes the importance of careful pre-planning for instruction.
- The Adaptive Dimension requires the teacher to attend to the learner, the learning task, and the learning environment.
- The Adaptive Dimension requires that assessment practices align with the adaptations to curriculum and instruction provided for the student.
- The Adaptive Dimension expects student diversity, as reflected in individual differences, to be the key consideration for teacher planning.
- The Adaptive Dimension assumes that there is an interrelationship among the variables associated with adaptation.

Principles of the Adaptive Dimension, *Instructional Approaches: A Framework for Professional Practice*, p. 32

A challenge to teachers is to determine the knowledge, processes, and skills that already exist in relation to the levels of expectation for the students' age and grade and the knowledge, processes, and skills that are in need of instructional attention in order to facilitate their growth. Both these objectives can be met by using diagnostic evaluation.

Diagnostic evaluation involves an intensive effort to gather information about a student's learning. The classroom teacher or resource teacher may conduct a formal assessment that includes standardized test results on the student's achievement and/or ability. The classroom teacher may also conduct informal assessment based on the curricula that will give information about the student's learning within the classroom setting.

Informal diagnostic assessment has the advantage that it is directly related to instruction. Using diagnostic assessment techniques will provide information on the student's current level of performance, help in the selection of instructional goals and objectives, give direction to instructional modifications, provide documentation of student learning progress, and guide future assessment.

In all types of assessment, and especially in informal diagnostic assessment, teacher observation assessment tools such as rating scales, checklists, and anecdotal records are important and useful data recording and scoring devices. When observation techniques are used systematically to detail, record, and analyze student performance, information is gathered concerning the student's strengths and instructional needs. Work samples collected over a period of time in a portfolio can be the basis for evaluation. Informal inventories and quizzes may also form part of the diagnostic assessment conducted by the classroom teacher.

Diagnostic assessment and evaluation will also provide the teacher with information about student learning style and the instructional strategies that have been tried previously with the student, either successfully or unsuccessfully. Instructional time can be saved by eliminating unsuccessful methods early in the school year. As well, through daily school contact you become sensitive to the nonverbal reactions students have to the work being presented and you develop the ability to assess these clues for signs of frustration or enjoyment. Recording this information through the use of assessment techniques such as portfolios and anecdotal records are valuable tools within the Adaptive Dimension.

Structuring assessment techniques into questionnaires and interviews can also be used to obtain formative information on student motivation and interests, student study habits, and effective learning strategies. Adaptation can then be made to curriculum content, instruction, or classroom environment for small groups or individual students.

Many students have test information accompanying them throughout their school careers. It is important that teachers are aware of what assessments have been done and what information is already available. Historical test data that is more than one year old can provide some information about students, but current data are more valuable for planning purposes. You may wish to look at the assessment data accompanying students in terms of:

- whether the information consists of all standardized test scores or whether there is a balance between norm-referenced and criterion-referenced testing.
- whether there are representative assessments that are teacher-made and curriculum-based.
- whether the information gives direction to you in terms of planning or holds little instructional value.
- whether there are areas that could still be explored.

Maintaining good communication channels between the home and the school is important with all students, but with students having difficulties in school, the importance escalates. For example, knowing how extensively parents or guardians have been involved in supporting a student's educational program and how past communications have occurred can be valuable information in providing teachers with access to support mechanisms.

For more information about instruction and the Adaptive Dimension refer to *Instructional Approaches: A Framework for Instructional Practice*, Saskatchewan Education, 1991.

When evaluating a student who may require modifications in curriculum content, instructional practices, and/or learning environment, you may find the following steps useful.[1]

- Call a meeting of those involved in modifying the student's program such as the parents or guardians, department head, consultant, counsellor, and school administrator.
- Develop and record the student's profile. What is known about the student and the student's needs? What prior experiences has the student had?
- Record a teacher profile. Note other obligations to students you have such as class size, presence or absence of aides, and availability of assistance from other professionals in the school. The teacher profile allows you to be realistic about what additional obligations you can assume.
- Considering the two profiles, develop and record the program you will attempt with your student. This will often be an adaptation of your overall program for the class.
- Decide upon and record the accommodations you are going to make. Will there be the same number of assignments? Will you use smaller assignments more frequently? Will you allow more time for the completion of the task? Will you adapt the criteria for evaluation without altering the course objectives? Will you use an oral examination if reading skills are inadequate? Will you introduce a ceiling? For example, will the student's final mark be out of 80% of the usual mark?
- Make copies of the plan and be sure the student, parents or guardians, and other professionals understand this record.
- Review your plan regularly.

[1] *Developed by Ev Stange, Regina Educational Consultant; used with permission*

Fairness and Equity

Evaluation in Education, the Report of the Minister's Advisory Committee on Evaluation and Monitoring, stressed the need for fairness in evaluation:

> **Students, teachers and programs must be evaluated in a way that is sensitive to the context of the family, classroom, school and community. Since the determinants of educational outcomes vary so greatly among classrooms, schools, and communities it is important that evaluation procedures in education provide for fairness among students, teachers and others in education and, in particular, that procedures be sensitive to issues of educational equity (p. 10).**

Operationalizing the terms is not simple. It depends upon what is meant by the phrase 'fairness and equity.' There are two extreme views on the matter.

- Fairness and equity can mean that we must take into account each student's individual situation and evaluate accordingly. Students are to be seen as individuals having a variety of educational or social needs that must be addressed through adaptations or alternative approaches to both teaching and evaluation.
- The second view is almost the antithesis of the first. Fairness and equity can mean that everybody should have an equal chance to compete for their goals (e.g., completion of Grade 12; entrance into a limited-access university program) and should therefore be evaluated equivalently. This view has been referred to as the 'level playing field' argument.

These two views on fairness and equity can be seen as mutually exclusive. In Saskatchewan we might generalize by saying that in the elementary school the first view predominates, and by Grade 12 the second view has taken over. How you interpret fairness and equity is a value judgment that you as a teacher must make according to the philosophy of the curricula you use and your own goals and those of your school and district. By acknowledging openly where you stand on the continuum whose ends have been identified above, you will reduce the potential for confusion when you are discussing your teaching and evaluation practices with students and parents/guardians.

Bias

Bias is the treatment of students unequally by virtue of their gender, race, culture, socioeconomic status, or other stereotypical basis. Within Saskatchewan Education, great efforts are being made to alert teachers to situations where bias can creep into classroom life.

Saskatchewan Education has instituted specific mechanisms for reducing racial and gender bias in curricular and resource material. Teachers must be alert to the possibility of all kinds of bias within their classrooms and must act to eliminate them.

Recent research has found that testing practices are extremely susceptible to gender and ethnic bias. If you develop test items that use illustrations from hockey and baseball, you will find that boys consistently out-perform girls, even when the underlying principles are equally well understood by the two genders. As another example, if you develop an observation checklist to assess your students' functioning in group situations, you may unwittingly assume that your expectations for group functioning are the appropriate ones. In some cultures, group expectations are quite different from those of the mainstream culture to which most teachers belong. For an example of responses being subject to socioeconomic bias, consider the evaluation of an assignment devoted to 'comparing our community to another Canadian community'. Students who have been able to travel may be at an advantage when completing this assignment.

It is very important that you are constantly on the alert for any type of bias that might creep into your student evaluation practices.

Determining the Intent of Learning Objectives

Saskatchewan curricula provide relatively broad foundational objectives and more specific learning objectives to guide the instructional process, including the evaluation of student learning progress. To a large extent, the intent of the curriculum objectives can be determined from the language used and in turn the language used provides insights into appropriate instructional strategies and assessment techniques. The key elements in curriculum language are the verbs that are used to convey the meaning of the foundational and learning objectives.

A useful way of examining the meaning or intent of curriculum objectives is in reference to a taxonomy of instructional objectives. Although it is recognized that other valuable taxonomies exist, elements of Bloom's Taxonomy (1956) are referred to here because educators generally recognize and understand them. Through an examination of the main verbs, teachers can gain insights into the intent of the objectives and the cognitive (knowledge, understanding, thinking), affective (feelings, interests, attitudes, appreciation), and psychomotor (physical skills) levels or domains that the objectives address.

Once they have understood the meaning of curriculum-stated learning objectives, teachers must develop specific course, unit, and lesson objectives. It is important that these objectives are stated clearly because they will form the basis for the selection or design of instructional material and teaching methods. As well, they provide insights into appropriate assessment techniques that can be used to determine the extent to which the learning objectives have been met.

Relationships Among Learning Objectives, Instructional Strategies, and Assessment Techniques

An examination of the sample verbs within the cognitive domain of knowledge (e.g., recall, list, recognize) may suggest that instruction related to those learning objectives would be focused on giving the information to students through the use of texts, notes, lectures, or other types of direct teaching. There is a place for the use of direct teaching strategies to assist students in acquiring basic knowledge that will enable them to accomplish higher-level learning tasks; however, in the new Saskatchewan curricula students are expected to learn, for the most part, through guided exploration. The activities recommended for most learning objectives emphasize experiential, interactive, independent, or indirect instructional strategies.

With regard to assessment, teachers should use a variety of techniques to evaluate the cognitive domain. However, the verbs used to convey the intent of the learning objectives provide useful information for selecting specific assessment techniques. For example:

- The verb 'identify' in a learning objective describing what the student should be able to do might suggest that the teacher consider using objective assessment techniques comprising multiple-choice, matching, or true and false items to gather information on student learning progress.
- The use of verbs such as 'apply', 'manipulate', and 'operate' listed within the Application level of the cognitive domain might suggest that the teacher consider performance assessment tasks as the most appropriate assessment technique.
- Verbs within the Comprehension, Analysis, Synthesis, and Evaluation levels (e.g., 'interpret', 'defend', 'explain', 'categorize', 'formulate', 'propose', 'judge', 'contrast') might suggest that extended open responses, written assignments, or presentations are appropriate data-gathering techniques.

The affective domain focuses on the student's willingness to pay attention, to participate, to attach value to things, and to develop a consistent personal value system. The Common Essential Learnings such as Independent Learning and Personal and Social Values and Skills are important components of Saskatchewan curricula that give expression to cognitive, but more importantly, affective learning objectives. Due to the nature of the domain, evaluation can be perceived as problematic or difficult. It is important, however, that evaluation include the affective domain. One of the most effective ways of collecting student progress data in this domain is through observation. The key to successful assessment in the affective domain is to have a clear understanding of the learning objectives and to identify specific indicators of learning progress. Once these elements are in place, students can be assessed by means of observation checklists or rating scales incorporating the progress indicators or by means of anecdotal records. For example, if an affective learning objective states "the student will demonstrate a concern for protecting the environment," specific indicators of student progress might include:

- doing extra reading or research on the topic.
- watching television programs and discussing environmental issues.
- joining related clubs.
- showing concern for the environment through everyday actions.

Self-assessment techniques such as attitude scales or written assignments may be used in conjunction with other activities such as interviews with the teacher to obtain information on student attitudes and interests.

Learning objectives within the psychomotor domain are concerned with gross and finely coordinated body movements as well as verbal and nonverbal communication. Observation checklists, rating scales and anecdotal records are effective ways of gathering student progress information on student psychomotor development.

The chart on the following page has been constructed to aid teachers in matching assessment techniques to various instructional outcome categories that were identified in *Instructional Approaches: A Framework for Professional Practice*. The assessment techniques assigned to learning outcome categories are only suggestions for usage. Other combinations may also be appropriate.

Matching Assessment Techniques With Learning Outcome Categories

Learning Outcome Category / Assessment Technique	Facts and Information	Concepts	Learning Generalizations	Step-by-Step Psychomotor Skills	Step-by-Step Cognitive Skills	Thinking Skills	Critical Thinking, Problem-Solving, and Decision-Making Processes	Creative Thinking and Performance	Interpersonal and Social Skills	Attitudes, Appreciations, and Values
Written Assignments	●	●	●		●	●	●	●		●
Presentations	●	●	●		●	●	●	●	●	●
Performance Assessments	●	●	●	●	●	●	●	●	●	●
Homework	●	●	●		●	●	●	●		●
Oral Assessment Items	●	●	●		●	●	●	●	●	●
Performance Test Items	●	●	●	●	●	●	●	●		●
Extended Open-Response Items	●	●	●		●	●	●	●		●
Short-Answer Items	●	●	●		●	●	●	●		●
Matching Items	●	●	●			●				●
Multiple-Choice Items	●	●	●			●				●
True/False Items	●	●	●			●				●

Application to a Saskatchewan Curriculum

In addition to the previous section, some specific instructional planning considerations are described to illustrate the relationships among learning objectives, instructional strategies, and assessment techniques. This information is intended to assist you in reflecting on your evaluation practices. As part of the process, a sample instructional plan is included that will assist you in understanding how these considerations might be applied to a curriculum.

The instructional plan is based on the Elementary Science Curriculum at the Grade 4 Level. One core unit in the curriculum is titled Cells and Systems. The first of two foundational objectives is "Understand some aspect of cell theory." Within the core unit, students are expected to learn some basic information about cells. Having mastered this basic information, the students proceed to the next foundational objective in which they study the skin in detail. The following example of instructional planning relates only to the first foundational objective. It should be pointed out at the outset that each teacher's approach to this unit would likely be different. This example is meant to illustrate some of the thought processes a teacher might go through in developing an instructional plan that incorporates assessment and evaluation in a unit of work. The chart that follows provides a handy overview of the planning decisions made by the teacher.

Examination of Learning Objectives

In the initial preparation stage the teacher determines the intent of the foundational and learning objectives. The broader foundational objective requires that the student understand certain concepts at the cognitive level of comprehension. The specific learning objectives require that the student:

- describe the basic structure of cells.
- identify cells as the smallest component of organisms.
- recognize the relationships among cells, tissues, and organs.
- recognize the characteristics of cells, tissues, and organs.

The verbs associated with the curriculum learning objectives suggest that the objectives focus on the cognitive levels of Knowledge and Comprehension. Therefore, the overall purpose of evaluation is to determine the extent to which the students have internalized the basic cell concepts. This will be the foundation upon which the students will explore the topic further.

Instructional Strategies and Assessment Techniques

This section deals with some of the considerations and decisions that formed the basis for the fictitious instructional plan. These considerations address many of the reflective questions presented later in this chapter.

Although the instructional objectives appear to emphasize the two lowest cognitive levels, the curriculum guide provides possible teaching activities that incorporate experiential, interactive, and indirect instructional strategies. However, this is not to say that direct instruction (e.g., lecture, texts, and note-taking) is inappropriate. Indeed, it can be an effective way of introducing knowledge-level information, provided there is an appropriate match with the teaching and learning styles of the teacher and student respectively.

For the purposes of this example, the teacher spends two weeks on this unit of study.

Day 1

- Teacher introduces unit (lecture format).
- Pre-instructional diagnostic quiz administered to determine student's existing familiarity with unit concepts.

This format is appropriate since the learning objectives are targeted at the Knowledge and Understanding cognitive levels. In addition, this format allows the assessment to be conducted with a relatively low level of inference on the part of the teacher. High inference, more subjective techniques such as extended open-response questions could be used in the pre-instructional quiz, but all things considered, an objective- and short-answer quiz is most appropriate. In this instance, the teacher collects and marks the student responses, but the marks are not recorded; they are used for diagnostic purposes only.

Day 2

- Learning contracts (including clear performance expectations and evaluation criteria) developed with students requiring enrichment.

For those students who demonstrate prior knowledge and understanding of the basic concepts, learning contracts are developed to provide them enrichment. The tasks outlined in the learning contracts are to be completed by day eight. Linkages with subject areas such as health, language arts, social studies, physical education, mathematics, and consumer education are encouraged when developing contracts with the students. In these circumstances, learning contracts provide an excellent instructional solution for the more advanced students. Not only do they provide enrichment, but they also provide valuable and challenging activities for these students while the balance of the class obtains the basic unit knowledge and understandings. In addition, attention to more advanced students addresses the Adaptive Dimension. Checklists, rating scales, and anecdotal records are used to assess processes and products related to the learning contracts. The specific content of these data recording methods mirrors the evaluation criteria established in advance with the students.

... continued

- Reading-for-meaning exercise assigned to the balance of the class. Questions on the topic of cells assigned; students are expected to use resource materials and work independently to discover answers.

Numerous instructional approaches are possible to assist students to acquire the basic knowledge and understandings required of the unit. The direct lecture method is appropriate for constructing knowledge; however, in this instance the teacher has considered the learning styles of the students in the class and has concluded that they learn best by indirect and other student-centered methods. Since the purpose of the exercise is mainly formative, the teacher circulates around the class, observes student progress, provides encouragement and guidance, and notes significant observations on student behaviors by using checklists and creating anecdotal records.

Day 3

- Class discussion of assigned questions takes place.

In this case, the teacher decides that having the students share their knowledge and understanding and having them discuss concepts assists them to construct and reinforce the required knowledge base. In addition, misconceptions on the part of the students are readily identified and corrected. Again, since the activity is mainly formative in nature, the teacher uses the discussion period to determine whether the students have grasped the basic concepts or whether additional instruction is needed before proceeding to the next part of the instructional plan. Since acquisition of specific knowledge is to be demonstrated by the students at this point, the teacher employs a checklist and a rating scale to record the extent to which specific learnings are exhibited by the student.

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Day 4

- Demonstrate the use of the microscope.
- Small group cooperative learning project initiated.

The demonstration method within the direct instruction strategy is selected by the teacher because it is an effective way of introducing step-by-step skills such as operating a microscope. The teacher, realizing that interactive instruction and experiential learning are particularly effective ways to foster understanding and retention of knowledge, organizes the small group cooperative learning project to reinforce the basic concepts learned to date.

Approximately four days are provided to introduce and complete the project.

Day 8

- Written reports and presentations developed through the cooperative learning project made to the whole class by small groups.

Observation checklists, rating scales, and anecdotal records are used to assess written reports and oral presentations. The content of the checklists, rating scales, and anecdotal records is determined by the specific knowledge and understandings to be exhibited by the students. Furthermore, these criteria are developed with input from the students in advance of the assignment. Again, since specific unit learning objectives are related to the acquisition of basic knowledge and understandings, data collection on student progress is conducted efficiently and meaningfully using these data recording methods. Assessments are conducted individually and as a group. As a follow-up to the project, samples of written work are placed in the students' portfolios for end-of-term and end-of-year evaluations and for use at parent-teacher interviews.

... continued

Day 9

On the final day of the unit, a summative, multiple-choice and short-answer test is used to check for knowledge and understanding. The multiple-choice and short-answer format is selected, in this instance, because it lends itself well to the Knowledge and Understanding cognitive levels of the learning objectives. In addition, this format provides for a low level of inference on the part of the teacher; all things being equal, this is desirable. The nature of the learning objectives suggests that assessment techniques employing higher levels of teacher inference are unnecessary, and indeed, they could result in less-reliable evaluations of student progress.

In the event that some students have not yet mastered the required knowledge and understanding, the assessment information would serve a formative purpose, suggesting areas where the teacher should reinstruct or where additional student work is required.

Summative Evaluation

Provided that summative evaluation of students at the end of this unit is desirable, the following are some considerations.

- Since there is nothing in the curriculum guide to suggest that more emphasis should be placed on one learning objective than another, equal weight is given to all learning objectives in the student's overall evaluation for the unit.
- Provided all assessments adequately reflect the learning objectives, it is relatively easy to combine scores or ratings to derive overall student marks or grades as necessary.
- More importantly, if you have carefully designed your assessment and evaluation plan around the foundational and learning objectives, you will be in a position to describe in a meaningful way what students know, what their attitudes are, and what they can do at any given time. This is the type of information that is of particular value to the students themselves, their parents or guardians, and other educators.

The chart on the next page presents a sample instructional plan for the fictitious instructional unit. An identical blank form is also provided that can be copied and used for your planning purposes.

Instruction Plan

Objectives	Instructional Strategies & Methods					Assessment Techniques																						Time-lines
	Strategies					Methods of Organization						Methods of Data Recording			Ongoing Student Activities				Quizzes and Tests									
Foundational and Learning Objectives	Direct	Indirect	Interactive	Experiential	Independent	Assessment Stations	Individual Assessments	Group Assessments	Contracts	Self- and Peer-Assessments	Portfolios	Anecdotal Records	Observation Checklists	Rating Scales	Written Assignments	Presentations	Performance Assessments	Homework	Oral Assessment Items	Performance Test Items	Extended Open-Response Items	Short-Answer Items	Matching Items	Multiple-Choice Items	True/False Items				
	Methods																											
Understand some aspects of cell theory	*lecture*																											*Day 1*
• describe the basic structure of cells							√						√	√							*diagnostic test*	√		√				*Day 1*
• identify cells as the smallest components of organisms					*learning contract*				√			√	√	√														*Day 2*
• recognize the relationship among cells, tissues, and organs		*reading for meaning* ←		→	*assigned questions*		√					√	√		√													*Day 2*
			class discussion				√						√	√					√									*Day 3*
• recognize the characteristics of cells, tissues, and organs	*demon-stration*																											*Day 4*
			cooperative learning ↔		*field observation*																							*Day 4*
							√	√			√	√	√	√	√	√												*Day 8*
							√															√		√				*Day 9*
																					summative test							

Instruction Plan

Objectives	Instructional Strategies & Methods					Assessment Techniques																					Time-lines
	Strategies					Methods of Organization						Methods of Data Recording			Ongoing Student Activities				Quizzes and Tests								
Foundational and Learning Objectives	Direct	Indirect	Interactive	Experiential	Independent	Assessment Stations	Individual Assessments	Group Assessments	Contracts	Self- and Peer-Assessments	Portfolios	Anecdotal Records	Observation Checklists	Rating Scales	Written Assignments	Presentations	Performance Assessments	Homework	Oral Assessment Items	Performance Test Items	Extended Open-Response Items	Short-Answer Items	Matching Items	Multiple-Choice Items	True/False Items			
	Methods																										

Reviewing Your Course Objectives

The first step in creating the inventory in Chapter 1 was to cluster your teaching assignment into groupings according to how you teach and evaluate the students. To do this, you noted similarities and differences in how you taught various segments of your assignment. The focus was on how you actually taught your courses, rather than on any preconceived notion of how you 'should' teach them. However, in Saskatchewan since the late 1980s, curriculum changes have been taking place at such a rapid rate that you may not have been able to assimilate some of the objectives of the new programs into your course planning. Now is the time to double-check that your groupings and student evaluation program are appropriate and complete.

Matching Student Assessment to Course Objectives: Worksheet 'E'

The preceding section provided you with information that will assist you in examining the intent of learning objectives and in selecting appropriate assessment techniques. This section will guide you through the completion of Worksheet 'E'.

Make several copies of Worksheet 'E'. Then, start with your first grouping. For each course or subject in that grouping, list five or six of the major learning objectives your students are expected to achieve. If there are too many major learning objectives, start with a unit or two, then add additional major learning objectives for subsequent units. It is not important for this exercise that the objectives be stated in strict behaviorist terms — all that matters is that they are pedagogically important and have a basis in the curriculum guide of the course or subject. Additional major learning objectives may be derived from:

- the Common Essential Learnings (for those areas where revised curricula are not yet available).
- the resource materials developed or approved for the course.
- any bulletins or materials concerning the course or subject that have been distributed by your school system for locally developed options.

You may find that your current evaluation program contains adequate techniques for assessing your students on content objectives. However, in recent curricula, process and skill objectives have gained prominence. Your program may not include techniques for measuring these. Chapter 4 of this handbook contains a wide variety of techniques for your consideration.

Using Worksheet 'E', record some of the most important objectives for each of the units, courses, or subjects in your first grouping.

Record in the second column the technique or techniques you are using to assess your students. If your current evaluation program does not allow you to assess an objective, the gap in this column will alert you that additional techniques may be needed.

Repeat this analysis for all the groupings in your courses using as many copies of Worksheet 'E' as you need.

Leave blank for the moment the column headed 'Additional Assessment Techniques to be Included'.

Matching Student Assessment to Course Objectives: Worksheet 'E'

Student Instructional or Assessment Grouping

_____

Major Objectives	Assessment Techniques Used Now	Additional Assessment Techniques To be Included	Uses? Diagnostic? Formative? Summative?	Best Use?			
				Systematic	Recorded	Lowest Possible Inference	Appropriate Frequency
Objective #1							
Objective #2							
Objective #3							
Objective #4							

Purposes of Assessment Techniques for Student Evaluation

When filling in Worksheet 'C' in Chapter 1, you considered whether the purpose for which you were using the student assessment techniques was formative, summative, or diagnostic. Now you can expand this analysis by considering each of your objectives in turn. Decide if you want to change how you use your techniques. To help you, here are some rules to bear in mind.

- The needs of your teaching should determine the purposes of your student evaluation program – not the other way around. Are you collecting assessment information for diagnostic, formative or summative purposes? For example, if you plan to structure reading groups based on current level of learning, you will need a student assessment technique that will be used for diagnostic purposes. If you know from experience that students have great difficulty in understanding the scientific concept of density, you need a student assessment technique for formative purposes. This will provide you with the necessary feedback on how well the students have acquired the concept. If you have finished the health education unit on safety and you will not be returning to it again, it is time for an assessment technique that will contribute to summative evaluation.

- Even though an assessment technique can be used for more than one purpose, you should have one **primary** purpose for using it. In that way you can keep the most important aspects of your student evaluation program at the forefront.

- By thoughtful planning you can often expand the use of any one student assessment activity to achieve more than one purpose. For example, if a presentation is intended to contribute to summative evaluation, you can use the information formatively through teacher-student interviews immediately following the presentation. The event will still be fresh in your students' minds so that you can do some remedial or additional teaching. If you discuss the assessment information much later, then the purposes are restricted to the summative mode.

- The relative emphasis on diagnostic, formative, or summative evaluation will reflect the adaptations made to curriculum, instructional practices, and learning environment within your classroom. Students requiring modifications to their programs will need more emphasis on diagnostic evaluation, accompanied by formative evaluation to guide instruction. If the students are a group requiring enrichment, the emphasis may be on formative evaluation to guide their learning and summative evaluation to assess their range of progress. For students within the regular classroom, a combination of the three will be used dependent upon the information the teacher requires.

  Diagnostic evaluation requires the most care because it is necessary to look at students' performance in terms of both **what** they are able to demonstrate and **how** and **why** they perform in the way they do. What strengths are noted and what areas are weak?

- Student knowledge, skills, and attitudes change over time. While knowledge and skills can be assessed to show a student's level of development over short intervals of time, student growth or progress related to attitudes and values are best observed over a longer period. Teachers tend to do this intuitively, but for summative evaluation purposes, this aspect of student evaluation must be formalized. That means that the data on which you will base your summative evaluation judgment must be systematically gathered and recorded over an appropriate period of time.

- Students are entitled to know the circumstances under which they are being assessed and evaluated. If grammar and general appearance of a written assignment is important to the objectives you are teaching, students need to be informed of these criteria when you assign the task. If evidence of background or independent preparation is an element you are looking for in assessing students' work, it is important that they are fully aware of this criterion as well. If you intend to observe 'working cooperatively' and include this in your assessment of your students, you should announce this fact at the beginning of the task, unit, or course of study.

With these points in mind, record in the third column of Worksheet 'E' your use (diagnostic, formative, or summative) of the student assessment techniques for each of the objectives.

Using the Techniques to Best Advantage

This section concentrates on how you can make the best use of the techniques that you have chosen for your grouping. You may have thought about the characteristics of best advantage when you were working through Worksheet 'D' in Chapter 1. This section is a more in-depth discussion of systematic

use, recording of data, lowest possible inference, and appropriate frequency of assessment.

Systematic Use of Techniques

For each of the techniques you have selected for this grouping, decide how you can use it more systematically.

- You need to know when you will use the assessment technique in the course(s) you are teaching for each student instructional or assessment grouping (e.g., initially, at the start of the course? ongoing, throughout the course? at the end of the course?).

  Diagnostic evaluations involving the assessment of the level of science vocabulary or concepts, mathematical technical competency, language competence, or reading level are often done at the beginning of the year. Summative evaluations are most commonly carried out at the end of a unit although assessment information may have been collected much more frequently. Formative evaluations may be more informal because they are often carried out in response to the way you interpret your students' progress. An example of this is checking on students' rough notes before they begin a major project on 'The Environment'.

- Try to evenly space the times at which you will be assessing your students. In this way your assessments will be less dependent on the rhythms of the classroom and will encompass both the peaks and valleys of learning activities.

- Tell your students when you will **not** be assessing and evaluating them. Some learning activities are too fragile to survive the strain of knowing that they will be assessed and evaluated. Language arts authorities now suggest that you divide the writing process into stages. For example, students should feel free from the pressures of summative evaluation during those 'writing workshop' phases when they are exploring creative and original ways of expressing themselves, through group work or dialogue with the teacher. During this time, the students will be assessing their own progress. In addition, they will be aware that their final products will be evaluated summatively.

When you feel you have fully considered this characteristic in relation to the assessment techniques listed on the worksheet, indicate its application in the 'Systematic' section of the 'Best Use' column of Worksheet 'E'.

Also, record in your planning book any decisions you have made in light of working through this section.

Recording of Data

The recording and storing of the raw data from which you will make your evaluative decisions is extremely important. Indeed, this may well be where your new student evaluation program will differ most from your current one. The importance of keeping complete records stems from both the nature of the techniques in an expanded evaluation program and the job the information must do.

The nature of many of the techniques is that they require the teacher as the instrument much more than is traditionally the case. This is, of course, an entirely appropriate professional role. However, teachers are human beings and so have imperfect memories. Not only might you forget important information that you have collected on your students over the course of a school year, but your recollection of the information may be colored by the way you and your students have changed over time. You may be so pleased with the way your class is now functioning you forget the student growth that had to occur in order for the progress to happen. Anita and Darcy may have come out of their shells to such an extent that your recollection of this development fades. Only records written at the time can refresh your memory of what things were like back then. By rereading your data you will be able to arrive at an appropriate assessment of your students' achievements over the school year.

The second reason for maintaining your raw data is that these records have a job to do beyond the classroom. You may find in your community that you will need to work with your students' parents/guardians in explaining how your student evaluation program operates and what it is designed to accomplish. Parents/guardians are familiar with written examinations and have probably accepted the idea that marks on tests are somehow sacrosanct. When you report student progress on dimensions that were not assessed through written tests, you may well find that you need to demonstrate how you arrived at your evaluation. In turn, parents/guardians may provide you with insights into what sort of evaluative information they find most useful and relevant.

The data sheets will be invaluable aids to communication as well as records of student accomplishment. Here are some things to consider.

- Designate a storage area exclusively for student data and evaluation records. Develop a system of files and envelopes that will allow you to store and retrieve data quickly.
- Maintain security and confidentiality of information.
- As a part of school policy establish how long data sheets should be stored and then be ruthless in disposing of outdated material. Saskatchewan Education keeps the provincial examinations for one year. You may wish to follow this guideline.

When you feel you have fully considered this characteristic in relation to the assessment techniques listed on the worksheet, complete the 'Recorded' section of the 'Best Use' column of Worksheet 'E'.

Also, record in your planning book any decisions you have made in light of reading this section.

Lowest Possible Inference

Assessment techniques should mirror closely the objectives that they are designed to evaluate. In Chapter 1, we considered the example of assessing a student's ability to compute. The most appropriate way to assess this skill is the use of a computation test or performance test. To infer competence from some other behavior, such as the observation of the student's constant use of a calculator during free time, is to use a technique that is unnecessarily subjective.

Do not assume that low subjectivity means making no inferences at all! If you wish to gather data about your students' personal and social skills, directly observing how your students function in social situations will provide you with more appropriate information than a written test. Asking students what they would do in certain situations provides a wealth of information in this area. The written test may appear to reduce the level of inference you must make about your students' achievements. But it is still an inappropriate assessment technique here because it cannot provide you with the information demanded by the objective.

When you feel you have fully considered this characteristic in relation to the assessment techniques listed on the worksheet, indicate this in the 'Lowest Possible Inference' section of the 'Best Use' column of Worksheet 'E'.

Also, record in your planning book any decisions you have made in light of reading this section.

Appropriate Frequency of Assessment

This is the balance between using time for collecting assessment information to make your student evaluation decisions and using time for instruction.

- Research shows that notice of upcoming assessment activities stimulates students to study harder — they want to do well so they put in an effort to prepare themselves. This effect wears off when the assessment activities are too close together — the students become overloaded and the effect of prior notice is reduced.
- Count the cost in instruction time of assessment activities. Study periods before a test, the time for the test itself, and the time to go over completed tests are all factors that you should think about. Time spent on student assessment should be considered as time spent in reinforcing learning that has already taken place. Instructional time is usually time spent in helping students acquire new knowledge and skills. Where you strike the balance is a matter of professional judgment.
- If you question the value of time spent by your students in assessment activities, then consider using ways of assessing them that require less instructional time. For example, an assessment station is a technique that may take each student out of class participation for only two or three minutes. In that way, regular instruction may continue.
- Aim for a mix of assessment techniques. Include techniques that require individual students to prepare in advance, work in groups, and participate in activities assessed on an ongoing basis during regular class time. For example, an evaluation plan for a unit might include assessment techniques to reflect the objectives requiring continuous, direct observation as well as a written unit test to reflect the objectives that demand knowledge acquisition and application. Or, you may choose to use one or two less-formal

quizzes for the unit test and perhaps add another assessment technique to provide you with richer feedback on the progress of your students.

When you feel you have fully considered this characteristic in relation to the assessment techniques listed on the worksheets, complete the 'Appropriately Frequent' section of the 'Best Use' column of Worksheet 'E'.

Also, record in your planning book any decisions you have made in light of reading this section.

Adding Techniques to Your Student Evaluation Program

This is the point at which you should fill in any gaps in your student evaluation program.

Scan Worksheet 'E' and the notes you have made in your planning book.

Decide where you need additional or alternative student assessment techniques in your overall program.

Write these techniques in the column 'Additional Assessment Techniques to be Included'.

You may find it helpful to browse through Chapter 4 of this handbook to refresh your memory of the techniques that are available. Each description of a technique includes the student evaluation context in which its use is most appropriate. Also, consult with your colleagues about how they assess their students. There is no point in reinventing the wheel. If you can borrow and adapt an existing instrument, so much the better.

Aggregating and Using the Assessment Information

In the next section of this chapter, you will make some decisions concerning how you can aggregate your student assessment information into a final grade and how you will inform your students and their parents or guardians of your evaluation practices. One further section offers you ways in which you may evaluate your evaluation plan.

Weighting the Student Assessment Information: Worksheet 'F'

Quite often, you are required to submit a final mark for each student in your course. Your students' overall achievement will be made up of various components. You will have to decide what weight, or emphasis, to assign to each component. The term 'weighting' is used here in a slightly different way than usual. Rather than weighting your overall mark in terms of the proportion of **time** spent on a topic or the proportion of **content** covered in a unit, weighting here refers to the proportions of the different **types of student learning**.

For example, your course in science might comprise the following types of student learning, weighted according to the percentages shown in parentheses: knowledge acquisition (30%), knowledge use in critical and creative thinking situations (30%), equipment-using skills (20%), functioning in group learning situations (10%), and attitude towards the subject (10%). These types of student learning may all have been assessed concurrently, through student activities or quizzes and tests, and not sequentially. The types of student learning come from the learning objectives of the course and are made explicit through the types of instructional strategies, student learning activities, and assessment techniques that you employ. You can usually arrive at the weighting of student learning by deciding what proportion of the final grade should be given to the assessment information collected by the various techniques.

Use Worksheet 'F' to identify the learning components of your lesson, unit, or course. Identify also the techniques you will use for assessing your students on these components and the weighting you have decided to give each component.

Weighting the Student Assessment Information: Worksheet 'F'

Course Name:_____

Learning Component to be Evaluated	Sources of Assessment Information	Weighting

Total: _____

Preparing Student Evaluation Handouts for Students and Parents

As previously noted, every student should know how he or she will be assessed and evaluated in your course. So that there are no misunderstandings, you will need to develop a written handout outlining how you intend to gather assessment information and to evaluate the students. This need not be a lengthy document and may, of course, be incorporated into other handouts such as a course outline. Your student evaluation statement should contain the following items.

- a brief statement of the school's and your philosophy on student evaluation
- an outline of the course components or the learning objectives that you will be assessing and the weighting of each
- some broad indications of the techniques you intend to use in your student evaluation program

You should also inform parents or guardians of your student evaluation policy. How this is done is a matter of individual choice and school policy.

Reflecting on Student Assessment: Worksheet 'G'

After you have completed the course or unit of work and you have evaluated your students, take time to reflect upon the adequacy of your student evaluation plan. Try to schedule your time for reflection as soon after the end of the course as possible. Some of the issues you may wish to consider are given below. A more complete list is included on Worksheet 'G'.

- Did my student evaluation plan permit me to probe sufficiently into my students' knowledge, understanding, skills, attitudes, and processes?
- Did I consider the appropriateness of my assessment techniques in conjunction with the instructional approaches used?
- Were my assessment techniques appropriate for the student information required?
- Did my assessment techniques allow my students to show their best performance?
- Were my assessment techniques fair and appropriate for the levels of my students' abilities?
- Did the range of information I collected allow me to make interpretations and evaluate my students' progress?
- Did my student evaluation plan allow me to report results meaningfully to my students, their parents/guardians, and other educators?

Complete Worksheet 'G' as soon as possible after the end of the course or unit of work. If you note any changes you need to make, transfer these to the appropriate places in your teaching-planning system.

Still to Come: Chapter 3

You have now completed the development of your personal student evaluation program. You have probably been impressed with the number of professional decisions you have had to make and you may be conscious that other teachers may well have made different, equally legitimate decisions. You may be feeling the need for some 'perception checking' with colleagues. In Chapter 3 we will sketch out a process for working with your colleagues and ultimately for developing a school policy on student evaluation.

Reflecting on Student Assessment: Worksheet 'G'

Course Name:_____

Issue for Reflection	Comments and Observations	Action to be Taken
Did the plan cover enough of: • knowledge? • understanding? • skills? • attitudes? • processes? • growth?		
Did my student evaluation plan allow me to make efficient use of time?		
Did my evaluation plan make use of a variety of assessment techniques?		
Did the range of my techniques allow me to make interpretations and evaluate my students' progress?		
Did I consider the appropriateness of my assessment techniques in conjunction with the instructional approaches used?		
Were the assessment techniques appropriate for the information I required?		

...continued

Issue for Reflection	Comments and Observations	Action to be Taken
Did my assessment techniques allow my students to show their best performance?		
Were my techniques fair, and were they used fairly?		
Did the assessment techniques that I used involve my students in transferring their knowledge and skills into life experiences?		
Did I involve my students in self-appraisal?		
Did I communicate my evaluation plan to my students in advance?		
Did I regularly communicate evaluation information to my students and to their parents/guardians?		
Were my reporting procedures meaningful to my students and to their parents/guardians?		

Chapter 3
Working Together

Introduction

Now that you have analyzed your evaluation program, it is time to think about how your program could be combined with those of your colleagues. This is an important step for several reasons.

- The more wide-ranging type of student evaluation program that you have developed in Chapters 1 and 2 represents, at least to some degree, new territory for you and your students. You will find that checking your perception of what constitutes appropriate student evaluation with that of your colleagues will reassure you that you are on the right path.

- Students and parents/guardians can become confused when teachers in different grades and different subjects use differing student evaluation programs. Working with colleagues will develop a useful degree of commonality among your program and those of your colleagues.

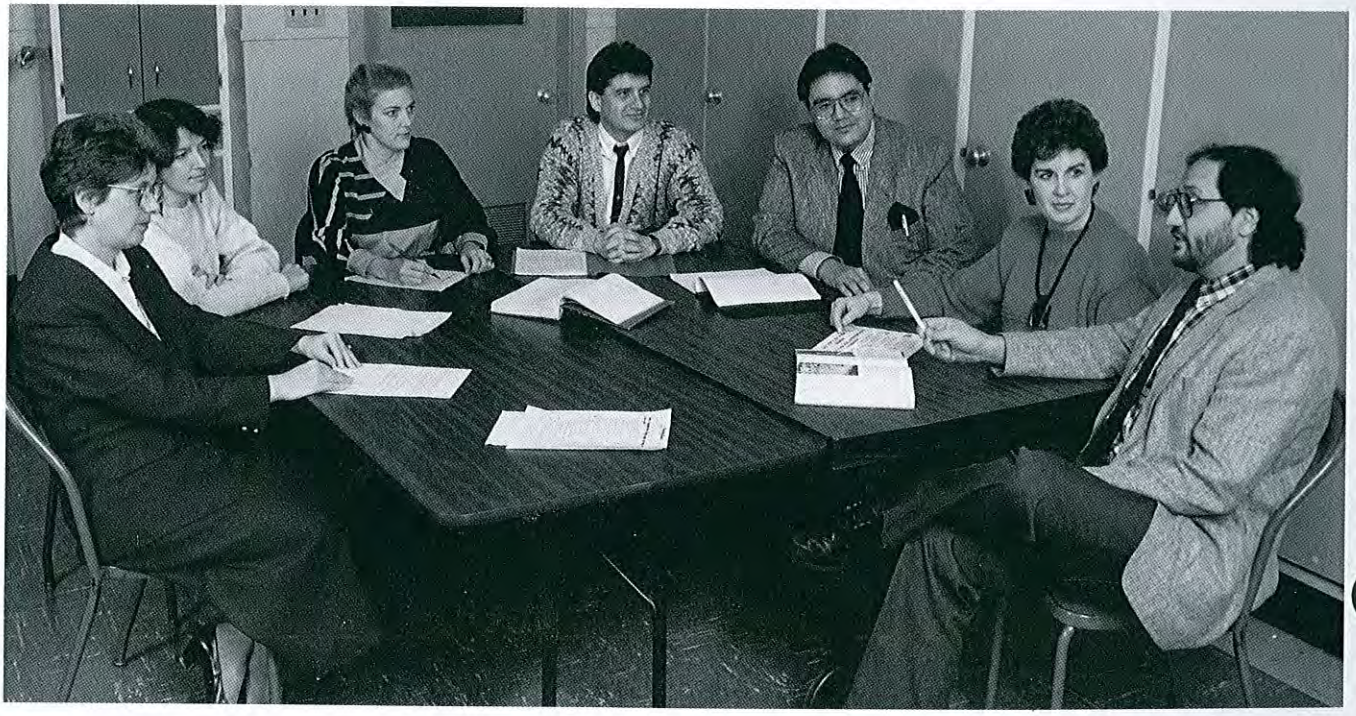
- Each school needs to develop its own policy and shared understanding of the role student evaluation should have within the total operation of the school and of how that role can be operationalized.

This chapter offers you a process for coordinating your student evaluation program with those of your colleagues in adjoining grades or in the same subject area as well as for developing a school student evaluation policy.

Integrating Your Evaluation Plan With Those of Your Colleagues

We will make use of our financial planning metaphor one last time! Now that you have developed your personal financial plan, you will benefit from working with others to achieve common financial goals. One way of doing this is to form an investment circle with other investors who have similar goals and who can draw upon much the same resources for achieving them. Within the context of student evaluation, we will call the counterpart of this the student evaluation circle. It can be a source of support, of efficiencies, and of a more coherent overall evaluation plan for your students.

Begin by considering which colleagues constitute a natural or logical group with whom you need to integrate your student evaluation program. In the elementary school, the circle membership will



probably comprise other teachers teaching the same grade or teachers teaching adjoining grades. The same sort of aggregation might be appropriate in the middle years, too, although subject matter groupings might be appropriate as well. In those high schools that have a departmental structure, the department is the obvious unit. In other high schools, the subject area may dictate the grouping. In smaller high schools, teachers may need to consider grouping by related or complementary areas (e.g., math with science, or English with social studies). In small schools all teachers may be involved.

Preparing for the First Meeting

Obviously, the issues that concern you and your colleagues will depend upon your unique situation. However, the following aspects will probably be common to all situations. Prepare copies of these items so that they may serve as organizers for the first meeting of the student evaluation circle.

- the Student Evaluation Summary Inventory Sheets, developed in Chapter 2, outlining your overall student evaluation plan and listing the techniques that you have incorporated into them
- copies of any assessment instruments that you have developed or adapted
- copy of your school's student evaluation policy (if available)
- copy of your school division's student evaluation policy (if available)
- your handout on student evaluation practices that you make available to students or parents/guardians. This will be particularly useful if it contains your philosophy of student evaluation. (Refer to Chapter 2.)
- weighting scheme for establishing the overall final grade. (Refer to Chapter 2.)

Meeting with Your Colleagues

The evaluation circle meetings will provide you with some of the following opportunities.

- **Comparing student evaluation philosophies**
  If each teacher has written down her or his philosophy of student evaluation, then these can form the basis for drafting an evaluation circle philosophy. In all likelihood this will be a matter of choosing one philosophy that has the broadest appeal and modifying it so that it encompasses the ideas of all members. Treat this as a working document to which you can refer during the subsequent discussions. Ultimately, it should be formalized because it will become an important reference for you, for other circle members, for future members, and in the preparation of a school policy on student evaluation.

- **Verifying the appropriateness of the chosen student assessment techniques**
  Each member of the evaluation circle can explain to the others the reasoning behind the selection of the particular techniques in his or her student evaluation plan. A starting point can be the topics on your copies of the Student Evaluation Summary Inventory Sheet.

- **Validating student evaluation plans by considering individual students**
  At several fixed times during the year, teachers often meet to consider the progress of particular students. Not only are these meetings opportunities for teachers to focus on the 'whole student', but they can also be opportunities to compare student assessment and evaluation practices.

- **Comparing student evaluation plans**
  Your plan will be unique, owing to the decisions you have made during its construction and the specifics of the courses you are teaching. You will find that most of your colleagues in your evaluation circle have had to solve similar problems. Their ways of solving them may result in a somewhat different emphasis or a different selection of techniques, but those differences will probably look more significant than they really are. You and your circle colleagues should, in turn, explain your overall student evaluation plan and verify that it accords with the group's philosophy. If there are points of discrepancy, then either the circle philosophy or your student evaluation plan should be amended. Whatever direction the discussions take, they should be conducted with sensitivity to the collegial nature

of the evaluation circle and to the need to respect each member's professional integrity.

- **Developing common student assessment techniques**

  The evaluation circle offers an opportunity and a mechanism to explore the potential for standardizing the ways of assessing your students. Some reasons for doing this are:

  - *to minimize the investment of student time and effort in introducing a technique.* Some student assessment techniques require quite a bit of 'setting up' with the students. For example, preparing a class to use assessment stations effectively takes a few trial runs. Circle members may decide that agreeing to use assessment stations over several grades or in several subject areas saves in the time required to orient the students to a new assessment technique.

  - *to construct long-range profiles on student development.* Some student characteristics such as lifelong learning or communication skills are so incremental that even one school year is not really enough time to assess evidence of student progress through the program of study. You and your colleagues may be able to plan a long-term program of collecting information over a period of years. For example, you may agree on certain items to be included on all your observation checklists.

  - *to construct common examinations in order to ensure that teachers who teach the same subject at the same grade level are all teaching much the same things at much the same level.* In the same way, evaluation circle members may wish to develop a wider repertoire of common instruments so that they can develop an understanding of how their students are performing on a wide range of objectives.

- **Deciding what you would like to see in a school student evaluation plan**

  Every school needs to develop a policy on student evaluation along with a system of communications to transmit this information to students and parents/guardians. Each evaluation circle will contribute to this process. You and the other members should prepare a working summary of what you feel is important for the school to include in its overall policy on student evaluation, within the context of provincial and school division policy.

Developing a School Student Evaluation Policy

School policy issues are beyond the scope of this teacher handbook. Nonetheless, since you may be involved in formulating a school policy on student evaluation, you may find the following observations and the statements concerning policy on the next page useful.

- Every school should have a written, formal student evaluation policy in order to facilitate communication among teachers, parents/guardians, students, and the school board.

- The principal and the school staff should be crucially involved in developing the school policy. This does not mean that they are the only people who should be involved. Parents/guardians, students, administrators, board members, and Saskatchewan Education can all contribute to the process. It does mean, though, that the principal and the teachers, because of their professional preparation and responsibility, must take the leadership in developing the policy.

At a minimum, every school policy on student evaluation should incorporate the following aspects.

- *a statement of the school's vision or philosophy on the purposes behind the evaluation of students.* Saskatchewan Education's set of guiding principles of student evaluation, outlined in the Introduction section of this document, makes a useful starting point.

- *a general description of the way in which students will be evaluated*

- *specific requirements of all teachers in the school.* Some examples might be: development and communication in writing of a student evaluation plan, formal procedures for storing information developed during student assessment activities, and formal requirements for communicating with parents or guardians in certain crucial situations.

- *a grading policy.* The final grade is far from being the only purpose of student assessment but it is an important one. The school policy should address such issues as the role of grades in continuous assessment or promotion policies, grading for modified classes, and adaptations of assessment and evaluation procedures for identifiable groups such as exceptional students.

- *a general description of how the school's evaluation policy and the student's progress will be communicated to parents/guardians.* Equally important, it should include a delimitation of what will not be evaluated or reported to parents/guardians.

- *a step-by-step procedure whereby parents/guardians and students can discuss reported student progress*

- *a protocol on what records will be kept at the school level and at the division level, including the length of time the raw information on student evaluation (e.g., data sheets, portfolios) should be kept at the teacher level, at the school level, and at the division level.*

- *a formal description of teachers' authority in evaluating students.* Student evaluation places a great degree of responsibility on the individual teacher. It opens the teacher to challenges to his or her professional competence in the area, and it reduces the opportunities for the teacher to shelter behind 'objective' grading practices ("Kim got 48% on the test and there is nothing I can do about it"). Teachers need to know that they have the authority to draw upon their professional expertise in evaluating students. They must also feel secure with the policy if this professional expertise is questioned. As well, it is essential that teachers, parents/guardians, and students know the source of teachers' authority.

- *an adjudication and review process.* For the protection of all parties — teachers, students, parents/guardians, administrators, and boards — some kind of adjudication or review process should be developed and put into place in every school. From the teacher's point of view, school division processes should be established to resolve conflict in the area of student evaluation. This element may well be the most important and most enabling aspect of a school's student evaluation policy.

In Summary

As a teacher, you never really stop learning how to teach more effectively. You try new approaches and modify old ones. You learn how to meet the demands of new curricula. You adjust to the needs of each particular class and of each particular student. Student evaluation, as a part of the teaching process, must become another one of those aspects of teaching that you submit to continual review and reconsideration. Treat it as an opportunity for your professional growth and you will find that forcing yourself to think through your student evaluation program will have an impact on your whole approach to teaching.

The final chapter is devoted to specific student assessment techniques.

Chapter 4
Specific Student Assessment Techniques

Introduction

This section of the handbook describes a variety of student assessment techniques. They are presented in four major groups: methods that are **organizational** in nature, methods teachers use for **data recording**, **ongoing student activities** where students are assessed as they go about their customary learning activities, and **quizzes and tests** where students are engaged in test-taking activities.

Methods of Organization

- Assessment Stations
- Individual Assessments
- Group Assessments
- Contracts
- Self- and Peer-Assessments
- Portfolios

Methods of Data Recording

- Anecdotal Records
- Observation Checklists
- Rating Scales

Ongoing Student Activities

- Written Assignments
- Presentations
- Performance Assessments
- Homework

Quizzes and Tests

- Oral Assessment Items
- Performance Test Items
- Extended Open-Response Items
- Short-Answer Items
- Matching Items
- Multiple-Choice Items
- True/False Items

This list includes generic techniques teachers use for the systematic assessment of their students' progress. There are other techniques that have specialized purposes such as Error Analysis in the Language Arts area. These subject-specific techniques are not included in this handbook. They are considered subsets of the generic techniques and are found within the various curricula as assessment suggestions.

Examples of assessment instruments are included throughout this section. You can use these as they are, or you can modify them to suit your specific needs.

Organization of the Technique Descriptions

The descriptions of the student assessment techniques are presented as a handy reference; therefore, they are brief. Fuller descriptions can be found in many standard texts of educational measurement, including those listed in the bibliography.

Descriptive Headings

Each description of a technique has been organized under the following headings. Not all headings are used with every technique.

- **Description**
  A brief description of each technique is provided. It is particularly useful in cases where you are not familiar with the technique or where you know it by another name.

- **Evaluation Context**
  Here suggestions are made as to how, when, where, and why the technique is used most effectively.

- **Using Technique to Best Advantage**
  Under this heading you will find some pointers on how the technique is best used within a total evaluation plan.

- **Guidelines for Use**
  This section describes how to develop and use the technique.

- **Example**
  Wherever appropriate, an example is given. This may be a sample item or a specimen grid. The examples are chosen to provide clarification and to illustrate the ideas presented in the text.

- **Using the Information for Student Evaluation**
  This section indicates how the information that you have gathered can be transformed into evaluative data on your students' progress.

- **Hints**
  Useful information, advantages, and disadvantages of the technique are provided.

- **Variants**
  Variations, adaptations, or expansions of the basic technique are offered in this section.

Methods of Organization

Whether you will be assessing students during their ongoing activities or in a quiz or test situation, there are broader organizational decisions to be made. You should determine the match between the most appropriate organizational method and the type of student information to be gathered. Organizational methods are listed below.

- **Assessment Stations**
  Assessment stations refer to areas designated by the teacher that are used specifically for assessment purposes. These areas may be located inside or outside the classroom.

  A teacher may decide to use assessment stations to have students demonstrate a skill, make observations, or manipulate materials. The teacher may observe and keep records of student performance, or students may work through assessment stations, recording their work in a written format.

- **Individual Assessments**
  Individual assessments focus on individual student progress. Assessment activities constructed by the teacher are completed individually by the students.

  Teachers may wish to have students work individually on written assignments, presentations, or performance assessment tasks in order to assess individual progress.

- **Group Assessments**
  Group assessments focus on the progress a group of students has made by cooperating and collaborating to complete assessment activities organized by the teacher.

  In order to assess social skills and cooperative learning processes, teachers may decide to have students complete written assignments, presentations, or performance of skills and processes in groups.

- **Contracts**
  A contract refers to an agreement between a student, or a group of students, and a teacher regarding what activity will be undertaken, who will do it, how it will be done, when it will be completed, and how it will be evaluated according to the criteria established.

  Contracts can be organized on an individual or a group basis and may involve written assignments, presentations, or performance of skills and processes as part of the structure. Students may partially fulfill the requirements of their contracts by self-assessment of their work.

- **Self- and Peer-Assessments**
  Self-assessment refers to the students' own assessment of their progress in knowledge, skills, processes, or attitudes. Peer-assessment refers to student assessment of other students. Peer-assessments can be conducted either individually or collaboratively in groups.

  Students may be involved in a variety of self- and peer-assessment activities using their individual efforts, their participatory efforts in a group, their own end products of written assignments and presentations, or their performance of skills and processes. Students may also be involved in assessing their efforts on quizzes and tests. Contracts frequently have a self- or peer-assessment component.

- **Portfolios**
  A portfolio is a collection of student work that assists the student and teacher to make judgments about student learning progress. Samples of work to be included may be selected by the student, by the teacher, or by the student and teacher in consultation.

  Copies of assignments, contracts, assessments of presentations, assessments of the performance of skills and processes, quizzes, and tests are all examples of items that may be included in portfolios. In addition, samples of students' day-to-day work may become part of the portfolio.

  Samples of work completed on an individual basis may be included along with work completed in groups. Copies of self-assessment instruments and peer-assessment instruments may also become part of the portfolio.

Assessment Stations

Description

The assessment station is an organizational structure teachers may use in arranging for the assessment of student progress. It usually refers to a place designated by the teacher for the specific purpose of allowing students, individually or in groups, to be assessed on knowledge and concept attainment, processes, skills, and attitudes.

Evaluation Context

The assessment station allows students to be assessed and evaluated on a task that may involve the manipulation of materials, ideas, or words. It is designed to be used during regular classroom time; however, it is not limited to being located within the classroom.

Assessment stations may involve students in demonstrating skills such as the correct use of a microscope, the performance of the physical skills required for basketball, the ability to work with technology, or the writing of a newspaper story based on observations of a predetermined event or situation. Assessment stations can have a paper-and-pencil aspect to accompany the interactive component of the station. Students may be required to record the results of interactive tasks performed at the assessment station. However, requiring students to complete a task using only paper and pencil may be better achieved using traditional organizational methods.

Guidelines for Use

- **Criterion-level mode**
  Sometimes students must be able to use a piece of apparatus correctly so that it can be successfully and correctly used in subsequent activities. After the class has received instruction in the correct use of the equipment, an assessment station can be set up to assess each student's ability to perform the operation correctly. An example of assessing competence would be to have the students find the mass of a rock.

- **Summative mode**
  An assessment station can be used when you need to assess students on whether they have acquired sufficient knowledge about a concept so that they can manipulate materials appropriately.

- **Setting up**
  If the assessment station is to be used within the classroom, a specific area for students to work may be designated. Clear instructions indicating what students should do will allow for smooth student movement to and from the assessment station. These instructions may be recorded on a card or paper. If the assessment station is located outside the classroom, then specific instructions outlining the following information are necessary.

  - the location of the assessment station
  - clear instructions about the task
  - movement from station to station
  - the length of time to be spent at each station
  - the manner in which information is to be recorded
  - the tasks to be begun upon return to the classroom

- **Conducting the assessment**
  When assessing students within the classroom, one approach is to either choose or ask for a volunteer to be the first student to go to the assessment station. She or he completes the task, hands in the results, tells the next student to go, and returns to his or her place. The sequence continues until all students have visited the assessment station. Meanwhile, regular classwork continues and each student misses only a very small part of the lesson.

  When assessing students at a location other than inside the classroom, you may wish to have the students working simultaneously at assessment stations. For example, to assess students on the soil, plant, and insect samples they have been studying you may have them each use a length of string to make a circle on the ground in a particular area. That encircled area then becomes an assessment station. Students would perform the tasks required at their own particular assessment station.

  When assessing students in groups, you may designate an area outside of the classroom where they are to perform specific tasks. For example, the school library may become the assessment station for assessing students on their research skills.

Example

Students have previously learned the concept of the electrical circuit by experimenting with bulbs, batteries, wires, and switches. Now you want to assess how well they have acquired the concept of a circuit. Place two bulbs, one battery, one switch, and several pieces of wire in the work station. The set of instructions that might be provided at the assessment station may look like these.

- Check that there are two bulbs, one battery, one switch, and at least three pieces of wire.

- Connect the materials so that when you close the switch, both lights go on, and when you open the switch, both lights go out.
- Draw a picture of the circuit on a piece of paper.
- Dismantle your circuit and leave the materials in the assessment station.
- Hand in your picture of the circuit to the teacher.
- Tell the next student to proceed, and return to your seat.

Using the Information for Student Evaluation

The work submitted by students can be scored using rating scales or checklists that consist of the specific points looked for in this particular assessment task. Their observable behavior in completing the assessment station task may also be recorded in anecdotal record form or on a checklist or rating scale.

Hints

- If the same location is always used, such as a designated area in the classroom, the assessment station should operate in the same way each time. This builds consistency in procedure for the students and helps subsequent assessment stations operate smoothly. If the location and rationale for the assessment stations change, there will still be organizational features that may be kept consistent.
- The instructions on the card should be simple, clear, and explicit. They should include how the student must ready the assessment station for the next student. Students should be able to read the instructions without difficulty.
- Keep the activity simple.

Individual Assessments

Description

Individual assessment is a technique for assessing students who are working individually rather than students collaborating in a group situation.

Evaluation Context

Individual assessment basically refers to the assessment of **individual** student progress. A decision must be made whether the student's progress will be compared to:

- his or her previous level (self-referenced).
- a predetermined standard (criterion-referenced).
- a group standard at the same age or grade as the student (norm-referenced).

Guidelines for Use

- As has been mentioned before, students should be fully **informed** as to the ways in which they will be assessed and evaluated. Making expectations clear to students is crucial in both individual and group assessment.
- An effort should be made to incorporate a **combination** of standards into evaluations based on individual assessments. When learning progress, based on self-referenced, criterion-referenced, and norm-referenced standards, is discussed with the student and parents/guardians, an enhanced understanding of student progress is achieved.
- A **variety** of assessment techniques used to collect student learning progress information is important in individual assessments. A final judgment based on a limited range of assessment information, such as only on a series of similarly structured tests, leaves large holes in the evaluation. In order to assess the broader objectives in the new curricula, it becomes very important to plan a student evaluation program that 'covers all the bases'.

Additional suggestions relevant to individual assessments are given in the section on 'Group Assessments'.

Hints

There are advantages and disadvantages to individual assessment.

Advantages

- Evaluations based on individual assessments 'fit' with most school systems in how student progress is reported. Each student at each grade level is assessed according to his or her standing in attaining the objectives set out in curriculum documents.
- Self-referenced standards provide specific feedback to the individual on strengths and weaknesses. In addition, they are useful for motivating students and allow for a more relevant method of reporting progress for students with special needs.
- Individual assessments can motivate students to accept a greater degree of responsibility for their learning progress. For students who set their own standards or expectations of what they wish to accomplish, individual assessments can provide a far greater degree of involvement in the learning process.
- Conducting individual assessments allows teachers to focus on the learning needs of students in a more direct manner. Specific direction or instruction can be given based on the results of individual assessments.

Disadvantages

- Using only individual assessments can foster a competitive atmosphere that can hamper learning progress for some students. Competition in learning tasks or getting the highest mark needs to be balanced with cooperative efforts.
- Individual assessments will not give teachers the information necessary to make judgments concerning cooperative work and social interaction objectives.
- Individual assessments may be time consuming. To assess each student's work takes a greater amount of time than assessing a group of students as a unit.

Group Assessments

Description

Group assessment is a technique for collecting assessment information on students working in group situations. A decision must be made whether to:

- evaluate group work only by awarding the same mark to all members of the group.
- evaluate individual student progress within the group, using groups to structure learning, but not for evaluation purposes.
- award group and individual marks.

Guidelines for Use

You must decide what approach is most appropriate for the situation and for the teaching aims.

- Evaluations based on group assessment information may be considered as the ideal to which students can strive. Their willingness to accept this type of evaluation will depend upon how long they have been accustomed to working cooperatively as opposed to how long they have been accustomed to being evaluated competitively. Students in the lower grades and students with long exposure to group assessment are the most likely to perceive the group assessment option as fair and appropriate.
- For classes where the students are not ready to accept the option of group assessment, the contribution of the individual student can be incorporated into the basic group evaluation. The individual component should focus on those aspects of the group activity that are most appropriately assessed on an individual basis – for example, participation level in the group activity or willingness to respect the views of others.
- Whatever technique is used, communicate it and your expectations to the students. "I will be marking the final group presentation myself. All members of the group will receive that mark. It will be a mark out of 80. In addition, I will be assessing you **individually** on your willingness to work on your own and your cooperativeness in group situations. That individual assessment information will be used to determine an individual mark out of 20. It will be added to the group mark to give you each your final mark out of 100."
- The effect of the evaluation scheme on the objectives of the group activities should be monitored closely. As groups become more comfortable with cooperative learning, the approach to evaluation may change.

Hints

There are three types of marks that can be arrived at through decisions made using group assessments: group mark, individual mark, and a combination.

Group Mark Only

Advantages

- Group work is intended, in part, to foster cooperation among students. Assigning a single mark to the work of the group fosters this trait.
- Since the summative product of a group activity is the product of several students' work, group evaluation frees the teacher from disentangling the contributions of individuals.
- The document *Instructional Approaches: A Framework for Professional Practice* describes the value of cooperative learning, a view that is supported by the following quotation from Johnson and Johnson (1989):

  Cooperative learning experiences, compared to competitive and individualistic ones, promote higher achievement, greater motivation, more positive interpersonal relations among students, more positive attitudes toward the subject area and teacher, greater self-esteem and psychological health, more accurate perspective taking, and greater social skills (p. 8-9).

Disadvantages

- Students have come to expect their progress to be compared against criteria and against each other on an individual basis. There is evidence to suggest that they view individual evaluation as being more fair than group evaluation, at least in the early stages of their experience with cooperative learning.

Individual Mark Only

Advantages

- Assigning individual marks fits into the traditional expectations of students and so is more readily accepted by them.

- Some process measures of student activity, such as participation level in the group activity or willingness to respect the views of others, are more appropriately made on individuals.

Disadvantages

- Individual marks assigned for group work diminish the spirit of cooperation that is so valued by advocates of group learning.
- Marking students individually is a more complex task when assessing individual contributions to a summative product.

Combination of Group and Individual Marks

- The group component may foster the spirit of cooperation and the individual component may permit the recognition of individual contributions.

Contracts

Description

Contracts are plans of intended learning that students develop either by themselves or in conjunction with the teacher. In the student evaluation context, attention is directed toward evaluating the contract itself. Techniques for evaluating the product of the contract can be found elsewhere in this chapter – for example in written assignments and portfolios.

Evaluation Context

Students can be encouraged to take charge of their learning by developing a performance contract ahead of time. Usually the contract includes a statement of the goals to be reached, the way in which these will be reached, a timeline, and criteria whereby the performance will be evaluated.

Guidelines for Use

Using the contract as an organizational structure requires an appreciation of the fact that there are **two** aspects of contract work to consider. First, the contract produces a product, usually a report or artifact of some sort, that is evaluated by the means set forth in the initial contract. Second, and less often acknowledged, the student's participation in the act of setting up the contract is itself a performance that can be evaluated. In view of the emphasis on lifelong learning and personal growth in the Common Essential Learnings, this aspect of the contract should be stressed.

As much attention must be paid to the process of setting up the contract as is paid to the nature of the product that is finally submitted. Students must be made aware that their work in developing their contract is being monitored. Students should be offered some general guidelines. Overly specific guidelines may reduce the opportunities for students to take control of their own learning. A series of teacher-generated questions may serve to organize the contract-development process.

- What work do you wish to include in the contract?
- How will you go about it? For example, what books will you use; what other resources will you consult?
- How long will it take you to develop a detailed plan, to gather your resources, and to finish the assignment?
- What criteria are you prepared to meet for an 'A' grade, for a 'B' grade, or for a pass?

Example

Students reflect on a planning sheet similar to the one on page 54. The evaluation aspect is covered at the bottom of the sheet under the heading 'Evaluation Criteria'. Following reflection and initial planning, a contract may be completed between the student and teacher. More examples of contract structures are included indicating contracts that illustrate details appropriate for a range of ages or grade levels.

Using the Information for Student Evaluation

If the contract has been well designed, the evaluation of the final product is straightforward because the criteria have been established beforehand. Evaluating the other aspect, the extent to which the student has been able to take control of his or her learning, is best done by breaking up the exercise into subordinate tasks. You and your students need to establish the criteria against which the contract will be evaluated. Another set of questions can be generated. Some of these might be:

- How realistic is the contract in terms of the time constraints?
- How appropriate are the contract questions to the objectives of the project?
- How appropriate are the chosen resources to the objectives of the project?
- How realistic was the contract in terms of the student's knowledge of his or her capabilities?
- How comprehensive was the planning?

The evaluation questions can be rated by the teacher or by the teacher working with the student. A rating scale would then become the recording instrument for the assessment information. These ratings can then be translated into an overall grade for the student's work in preparing the contract.

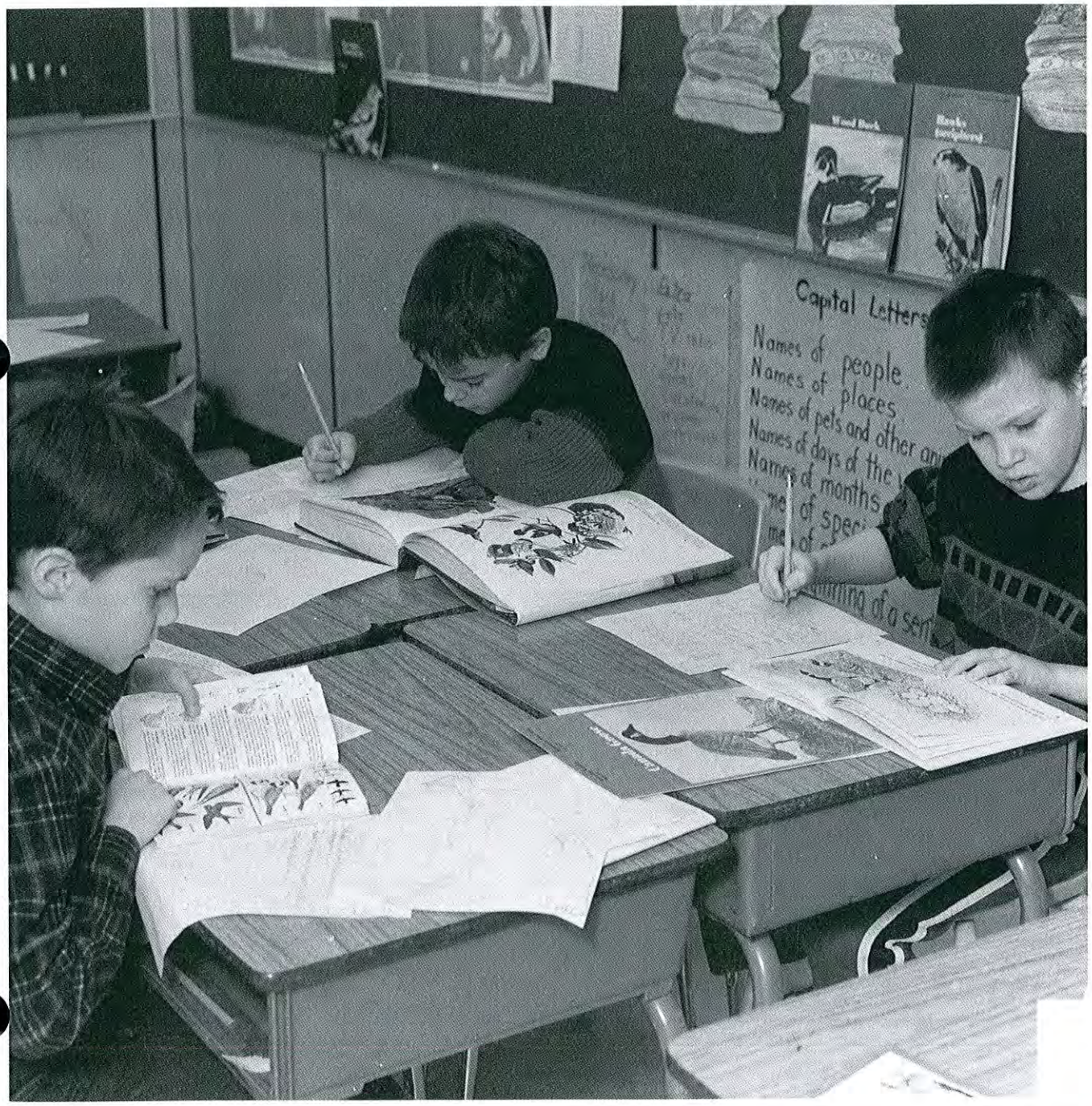
Hints

- Be prepared to spend more time than you anticipate when setting up the contract system for the first time. One useful strategy is to take a unit of work that has already been completed and, using it as a sample, allow students to develop a contract in a situation where they know the extent of the work involved. "Imagine you had wanted to set up a contract for that last unit on 'Mathematics in the Supermarket'. How would you have found out about the resources you would need?"

- Students vary greatly in their ability to conceptualize what is required for a successful contract. It may be necessary to go through the stages of planning, organizing, and writing a contract with them. The time spent with your students teaching them **how** to prepare a contract will give them greater independence.

Variants

Contracts can also be used to help floundering students take control of their lives in terms of school attendance and behavior standards. Some students have a learning style that makes independent learning a motivating option for them. Providing them with the learning tools necessary to prepare and fulfill a contract may be an extremely useful instructional method.



Setting Up a Contract

Contracted Work: _____

Student:_____Class:_____Date:_____

Contract Questions	Answers
1.	
2.	
3.	
4.	
5.	
6.	

Evaluation Criteria	Rating
A.	1 2 3 4 5 6 7 8 9 10
B.	1 2 3 4 5 6 7 8 9 10
C.	1 2 3 4 5 6 7 8 9 10
D.	1 2 3 4 5 6 7 8 9 10
E.	1 2 3 4 5 6 7 8 9 10

Comments:

Overall Grade: _____

Example 1 of a Learning Contract

Student Name: _____
Teacher Name: _____
Time Period of Contract: _____
Description of Purpose of Contract: _____
_____
_____

1. I am planning to do an in-depth study of _____
_____
_____
_____
_____

2. The reason I have decided to work on this topic is _____
_____
_____
_____
_____

3. The main focus of my study will be _____
_____
_____

4. Some questions that I want to answer are _____
_____
_____
_____
_____
_____

5. I intend to collect information from: (Check (√) at least 5.)
   ____ books
   ____ interviews with experts
   ____ experiments
   ____ magazines
   ____ encyclopedias
   ____ newspapers
   ____ filmstrips, records, pictures, films, videos
   ____ museums
   ____ community agencies, organizations
   ____ my own research (Explain.)
   _____
   _____
   _____
   ____ other sources (List.)
   _____
   _____

... continued

6. The product of my study will be in the form of _____

_____

_____

7. The learning skills I will be using in order to complete this study are _____

_____

_____

_____

_____

8. I will make these arrangements to share the information from my study.
   - who I will share it with: _____

     _____
   - when I will share it: _____
   - how I will share it: _____

     _____

     _____

9. My study will be completed by _____
10. This study will be evaluated by _____

    _____
11. The important things that the evaluator(s) will be looking for are _____

    _____

    _____

    _____

    _____

    _____

    _____
12. I will evaluate this study and my own learning by _____

    _____

    _____

    _____

_____ _____

Teacher Signature Student Signature

_____

Date

Example 2 of a Learning Contract

Student Name: _____

Teacher Name: _____

Date: _____

General topic to be studied:

Questions or problems I will try to solve:

Information I already have on this topic:

Information I need to look for:

When I will have this done:

Who will evaluate this project when I am done:

_____ _____

Teacher Signature Student Signature

_____

Date

Example 3 of a Learning Contract

Student Name:_____

What I am going to do:_____

_____

_____

How I am going to do it:_____

_____

_____

_____

_____

_____

This is a good thing to do because_____

_____

_____

I am going to show this to_____

_____

_____

_____
Student Signature

_____
Teacher Signature

_____
Date

Self- and Peer-Assessments

Description

Self-assessment occurs when students evaluate their own work. Peer-assessment occurs when a student's work is evaluated by some or all of the other students.

Evaluation Context

Information gathered through self- and peer-assessments can be used by students to make judgments on their learning and on the learning of their peers. Self- and peer-evaluation are designed to allow students to take more responsibility for their learning by reflecting upon it and by receiving feedback from their peers. They are particularly powerful formative evaluation methods. The essential difference between self-evaluation and peer-evaluation is that in self-evaluation the student is learning about learning through reflecting on his or her own activities. In peer-evaluation, the student is learning about learning through reflecting on the activities of other students.

Students and teachers perceive self-evaluation very differently. Historically, students have not felt in control of their evaluation. They see the teacher as having far more authority. Consequently, they try to match their evaluation to what they perceive are the teacher's expectations.

Encouraging the student to become involved in setting criteria for evaluation of his or her work shifts a portion of responsibility to the student. Used sensitively, with more emphasis on student growth and self-understanding than on arriving at a final grade, self-evaluation can contribute to a student's ability to structure his or her learning. It can increase a student's ownership for the learning process.

A further instructional purpose is served when students help in developing criteria. Students learn the expectations concerning their work in greater depth.

Peer-evaluation can add a further dimension to a student's growth in self-knowledge. Students who are more concerned with "you scratch my back and I'll scratch yours" considerations than with developing insights into the learning process may experience a shift in attitude. More responsibility for what they do and how they do it will occur when they are in consultation with peers who are providing suggestions for improvement. Great benefits accrue to the students who are doing the evaluation and are forced to think analytically about the nature of their peers' performance. In turn, they are able to extend that thinking to their own performance.

Self- and peer-evaluation should be reserved for those situations where student self-knowledge about the learning process is important. Major projects involving a mix of learning skills such as researching, planning, drafting, and bringing to completion are good examples. This also applies to situations where a high degree of student interaction is encouraged.

Guidelines for Use

- In **self-assessment**, the situation should be structured so that the student feels that he or she is truly in control of the evaluation. A small percentage of the evaluation responsibility totally within the student's control is preferable to a larger percentage ostensibly 'negotiated' between the teacher and the student. Developing the evaluation criteria should be part of the exercise. Students, working alone or in groups, make the initial suggestions and these are modified in consultation with the teacher. (Refer to Contracts, page 52.)

- In **peer-assessment**, the parameters within which the students will evaluate their peers should be narrow and carefully defined. When considering what aspects should be peer-evaluated, the teacher should emphasize those areas where the act of peer-evaluating will help the student **doing** the evaluation in addition to helping the student **being** evaluated. Not only will this approach maximize the benefits of the exercise, but it will also reduce the influence of any student bias that might exist. Areas to stress are being descriptive rather than judgmental, being consistent, being realistic, being positive, and being reflective.

Examples

The examples on the following pages are rating scales or checklists that will give you ideas as to how to design this type of data recording technique. Keep in mind these are only examples.

Hints

Caution should be exercised when using peer- and self-evaluation in a summative mode. If self-evaluation is to be used in the summative mode, to ensure that the student evaluation result overlaps as much as possible with the teacher evaluation result, the following points should be considered.

- Offer a sequence of self-evaluation opportunities. Experience in self-evaluation activity increases overlap of student and teacher evaluations.

- Restrict self-evaluation to traditional tasks. For example, assess the relative quality of written products. Overlap is the greatest on such tasks and the least on attitude measures.
- Avoid global ratings. Overlap is greatest on specific tasks rather than on global ratings.
- Take the time and effort to work with the students to develop evaluation criteria together. Overlap increases with student development and ownership of evaluation criteria.
- Avoid evaluating 'effort'. Overlap is minimal for teacher and student estimates of effort.

Rating Scale for Student Self-Assessment in Cooperative Work Situations

Student Name: _____

Date or Time Period of Assessment: _____

Directions:

Read each question. Circle the phrase that best describes how you feel about each statement.

1. How do you feel about choosing the members of your group on a project?

   I really like it. It's okay. I don't like it.

---

2. How do you feel about having your teacher choose the members of your group on a project?

   I really like it. It's okay. I don't like it.

---

3. How do you feel about deciding in your group how you are going to work together to do a project?

   I really like it. It's okay. I don't like it.

---

4. How do you feel about taking a leadership role in your group when you are deciding how to do a project?

   I really like it. It's okay. I don't like it.

---

5. How do you feel about someone else taking a leadership role in your group when you are deciding how to do a project?

   I really like it. It's okay. I don't like it.

---

6. How do you feel about working together to finish a project in class?

   I really like it. It's okay. I don't like it.

---

7. How do you feel about being part of a group that works together to complete a project for your school work?

   I really like it. It's okay. I don't like it.

Self-Assessment Rating Scale to Assess Attitude

Subject: Reading

Date or Time Period of Assessment:_____

Student Name: _____

Directions: Color in the face that is closest to how you feel about the questions you or your teacher will read.

1. When you think about reading a book all by yourself, how do you feel?

2. When your teacher asks you to read something out loud to her/him, how do you feel?

3. When your teacher asks you to read something out loud to the other students, how do you feel?

4. When you are reading by yourself and you see a new word, how do you feel?

5. When you get up in the morning and you know you are going to school, how do you feel?

6. When your teacher gives you time to read in school, how do you feel?

... continued

7. When your teacher reads a story to your whole class, how do you feel?

8. When you have work to do that you do all by yourself, how do you feel?

9. If an adult asked you to read to a younger child, how would you feel?

10. When your parents/guardians read to you at home, how do you feel?

11. When you think about growing up and reading when you are an adult, how do you feel?

12. When your teacher asks you to talk about a book that you have read, how do you feel?

13. If you got a book for a present, how would you feel?

Self-Assessment with Essay Question/Assignment

Student Name: _____

Data: _____

_____

Directions: Check (√) appropriate criteria.

Pre-Writing State:

- Have I read the question carefully? ____
- Did I highlight the key words or phrases? ____
- Did I construct an outline that includes the key words and the main ideas? ____

The Essay

A. Introduction

- Did I make sure the topic of my essay is included in the introductory paragraph? ____
- Did I say what my point of view or theme was in a clear manner? ____

B. Body of Essay

- Does each of my paragraphs link back to my introduction? ____
- Is each of my ideas or details in the introduction followed up in the body of my essay? ____
- Do I have enough proof to support my reasoning? ____

C. Conclusion

- Do I have a concluding paragraph that supports what I have already stated? ____
- Have I been careful to avoid putting in new data that I have not already reported? ____

Post-Writing State:

- Did I read over my final copy to look for possible changes and improvements of such things as spelling and sentence structure? ____

Portfolios

Description

The portfolio is a collection of student-produced materials assembled over an extended period of time that allows the teacher to evaluate student growth and overall learning progress during that period of time. It is an organizational structure teachers may use to accumulate and organize student assessment information.

Evaluation Context

Because the materials in the portfolio have been collected over a period of time, the student's progress can be judged in a way few other assessment techniques can offer. Reviewing the materials at the end of the course is like looking at a set of photographs taken during a child's developmental years.

The portfolio has long been used by art educators and is gaining popularity in language arts. It is sufficiently versatile to be used in other subject areas, too. Its particular strengths lie in allowing you to evaluate students on developmental patterns and on attributes such as creativity and critical thought, responsibility for learning, research skills, perseverance, and communication skills.

Guidelines for Use

The portfolio is more than a collection of student work. Before the portfolio is begun, inclusion rules need to be established. Some decisions are:

- Who will decide what to include? Student? Teacher? Both, working in consultation?
- What will be included? Examples of best work? Examples of worst work? Examples of typical work? Some of each type?
- Will there be an overall limit to the amount of materials that can be included?

The answers to these inclusion rules will provide the framework within which you and the student can operate.

Since the purpose of the portfolio is to record student progress over a long time period, the collecting should be started as early in the course as possible. Baseline data is particularly valuable. Subsequent additions should be made according to the prearranged framework, always allowing for unexpected additions, of course. There are really three phases in the development of a portfolio.

- **Before the collection begins**
  This phase has been covered above. Decisions need to be made and agreed upon with your students.
- **Collecting the materials**
  Throughout the span of the portfolio, place the selected materials in a folder or large envelope. Each item should be dated and have a note attached to it from yourself or the student stating why the material was chosen and what special features should be recalled later. If you are unfamiliar with the use of portfolios, you may find that it is hard to come up with many portfolio items. Start by including traditional products such as tests. As you gain familiarity with the technique, you will find yourself designing assignments that fit the portfolio mode: a biology assignment might be to review a 'Nova' or 'Nature of Things' television program; a math assignment might be to write a story of a world with no zero in its numbers.
- **Evaluating the materials**
  When the portfolio is complete, you will need to examine the contents once again. One method is to prepare a grid with the list of attributes you decided to evaluate written down one edge and a Likert-type scale (e.g., very good/good/average/poor/very poor) across the top. Complete the grid. A complete grid will provide a rich array of assessment information.

Example

An example of a grid is provided on page 67.

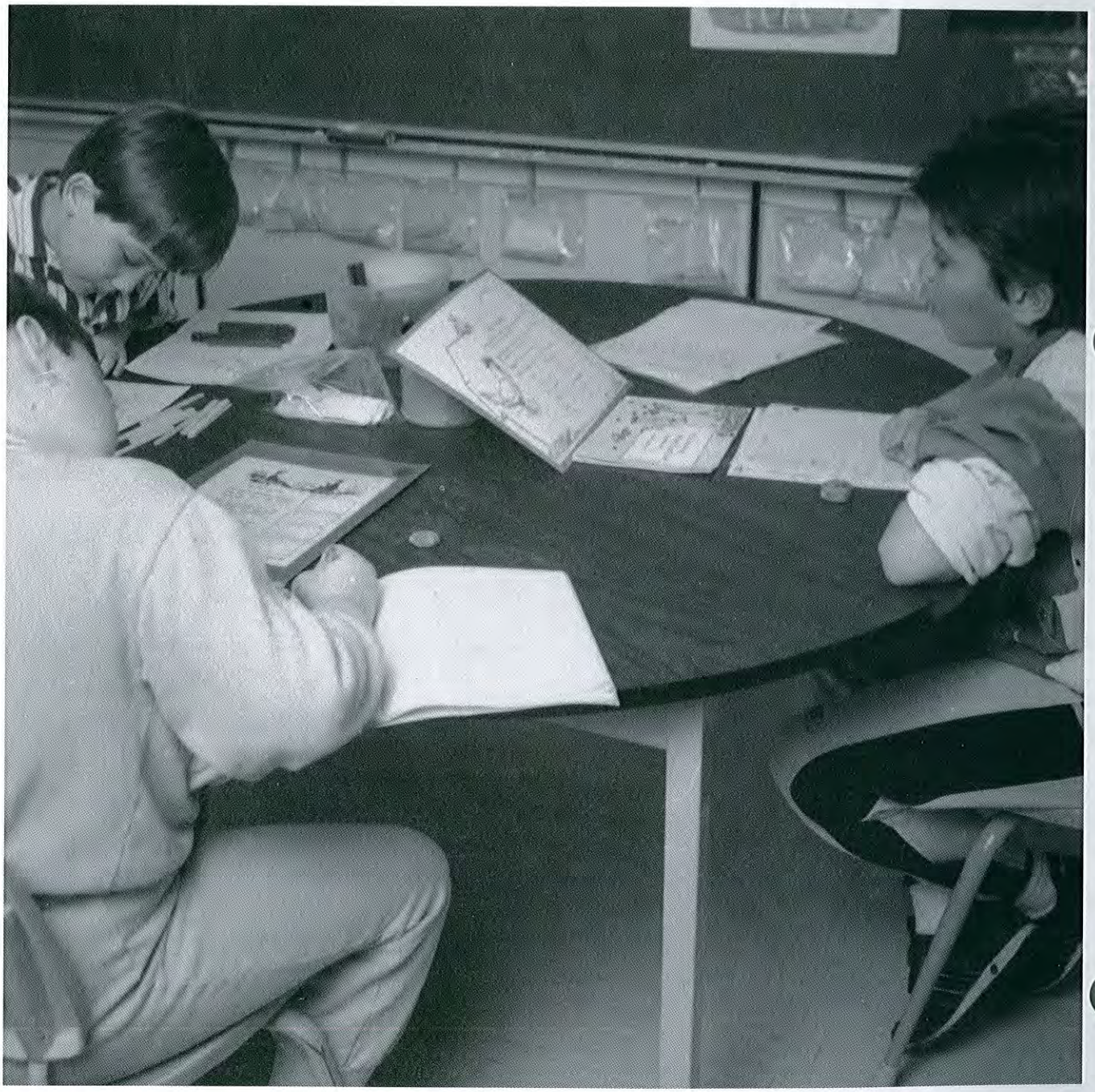
Using the Information for Student Evaluation

A grid can serve as an evaluation document just as it is. If you wish to record a numerical grade, you can also assign numbers to the five points on the scale and convert your evaluation into a number grade.

Hints

- Limit the number of items or storage could become a problem. If you find you have too many items, leave out things like quizzes or final exams which do not fit the portfolio philosophy that emphasizes work created by the student.
- You may wish the student to have the portfolio item available for reference. In that case, file a photocopy in the portfolio. Senior students often produce written work on computers. They will find it easy to produce two copies of products, one for the portfolio and one for themselves.

- Portfolios are powerful ways to report student progress to parents/guardians. Prepare a 'typical' portfolio with samples from students you have taught previously. Be sure to remove names and obtain student permission. Make this sample available to parents/guardians ahead of time, perhaps with the items in a folder in the waiting area or mounted on a convenient wall. Your discussions with the parents/guardians can then be informed by their awareness of what you expect of your students.



Portfolio Assessment

Student Name: _____ Class: _____ Date: _____

Attribute to be Evaluated	Scale				
	Very Good	Good	Average	Poor	Very Poor
originality		√			

Methods of Data Recording

The assessment techniques in this category may be used with any of the ongoing student activities as well as with the quizzes and tests. The appropriateness of the technique for the purpose intended should act as a guide.

- **Anecdotal Records**
  Anecdotal records refer to written descriptions of student progress that a teacher keeps on a day-to-day basis.

  A teacher may decide to keep anecdotal records on students' ability to manipulate materials at assessment stations, to work in a group, to work in a test-taking situation, or to complete a project or a written report. There are situations where a teacher will keep anecdotal comments on the development of specific skills related to instructional objectives, on the behavior of a student, or on the attitude expressed or demonstrated by a student. Anecdotal records are as flexible as a teacher wishes to make them.

- **Observation Checklists**
  Observation checklists are lists of criteria a teacher determines are important to observe in students at a particular time. Beside each of the criteria, a notation is made as to whether that particular criterion was observed.

  Checklists can be used to record the presence or the absence of knowledge, particular skills, learning processes, or attitudes. They may be used to record such information in relation to written assignments, presentations, classroom performance, test-taking behaviors, individual or group work, fulfillment of the requirements of a contract, self- and peer-assessment of work, or completion of an assessment station. How a teacher wishes to use an observation checklist depends upon the type of student progress information required.

- **Rating Scales**
  Rating scales have the same usage as observation checklists. The essential difference lies in what is indicated. Observation checklists record the presence or absence of a particular knowledge item, skill, or process. Rating scales record the degree to which they are found or the quality of the performance.

Anecdotal Records

Description

An anecdotal record is a written description of the observations made on students. These records are usually collected in a specific book or folder.

Evaluation Context

- **Formative**
  The very act of recording observations may serve to alert you to some aspect of a student's learning or attitude that may need immediate attention; for example, an outburst caused by frustration.

- **Summative**
  Since the anecdotal record concentrates on describing incidents of student performance over a period of time, the sequence of anecdotes can serve as a record of the student's development towards long term goals such as lifelong learning, healthy self-concept, cooperative learning, skill development, work/study habits, knowledge attainment, and interest/attitude.

- **Diagnostic**
  Through the regular spotlighting of a student's performance, areas needing special attention may emerge. Examples include communication skills and personal development. Your anecdotal records may start to show that Billy is consistently having trouble in expressing coherent thoughts. As a consequence, you may decide to investigate the causes of this behavior more thoroughly.

Using Technique to Best Advantage

Entries must be made with appropriate frequency. They should eventually encompass all the students, although some students may warrant more entries than others. Anecdotal records offer you a way of recording aspects of your students' learning that might not be identified by other techniques.

Guidelines for use

- **What to write**
  First, you write a description of the incident in an objective way by describing what actually happened. Then make further notes on your analysis of the situation, any comments you want to make, and any questions you pose to yourself that may guide further observations.

- **When to use**
  For many teachers, the time when students are engaged in writing offers an opportunity to demonstrate that teachers are writing, too. You can use a portion of your writing time for recording your anecdotes. Teachers who do not have these opportunities may use times when students are engaged in independent work. In program areas such as physical education and home economics, there are parts of the period when students change clothes or tidy up equipment. You might be able to use these times for recording entries. Whichever scheme is chosen, it should offer **regular** opportunities for entering observations.

- **How to record**
  Various formats have been developed. A notebook with each entry dated offers a powerful chronological record, although it is sometimes difficult to locate a particular student. Alphabetized notebooks, looking like large address books, are available and they permit easy reference by student name. Alternatively, a looseleaf format may be used so that the entries may be entered chronologically, and at the end of the year may be reformatted by student name. One further idea: modern technology has provided us with conveniences for recording and storing student progress data that range from electronic student data files available on various software programs to removable self-stick notes that can be used to record the anecdote and then be affixed to the student record.

Example

No example is required for the open-ended, unstructured anecdotal record. The examples that follow are formats for anecdotal records designed to give you ideas as to how to set up this type of data recording method. Keep in mind these are only examples.

Using the Information for Student Evaluation

While the entries themselves are usually not shown to the student or the parents/guardians, they can form a valuable basis for communication. They allow you to flesh out your year-end reports on the more holistic dimensions of student growth.

Hints

Be faithful in your use of the anecdotal records. Fair-weather entries are easy to make. It is only human nature to want to tell somebody, even your anecdotal records, about a particularly successful student experience, but these alone give a distorted picture of the total year-long educational situation. The converse is also true. Only recording unsuccessful attempts or behaviors gives a limited view of a student's total school experience.

Anecdotal Records in an Art Class

Student Name: _____

Date or Time Period of Assessment: _____

Activity: _____

1. **Attitude** **Comments:**

Keys:	toward own work toward other people toward work of others materials/techniques time frame for completion acceptance of criticism

2. **Awareness of Visual Art Concepts** **Comments:**

Keys:	elements/principles of design the designed environment the natural environment own role in an environment

3. **Process** **Comments:**

Keys:	learning experience initiative self-assessment application of learning striving for improvement imposes a structure for working on self develops project into expression of self originality/creativity in evidence uses elements/principles of design effectively brings closure to projects

4. **Product** **Comments:**

Keys:	results in art form of best personal effort new learning evident in product able to criticize own work constructively able to use established work as step to next project/level

Anecdotal Records for Group Process Activities

Students' Names: _____

_____

_____

_____

_____

Date or Time Period of Assessment: _____

Observation Period: _____

Comments Regarding Group Members:

1. Demonstrating balance between talking and listening:

2. Demonstrating respect for others:

3. Demonstrating active participation:

4. Stating own opinion:

Student(s) who fulfilled the role of recorder for group information:

Effectiveness:

Student(s) who fulfilled the role of reporter for the group:

Effectiveness:

Student(s) who fulfilled the role of participant:

Effectiveness:

Student(s) who fulfilled the role of time-keeper:

Effectiveness:

Observation Checklists

Description

The observation checklist is a listing of specific concepts, skills, processes, or attitudes, the presence or absence of which you wish to record. If the observation checklist is used relatively frequently and over time, a longitudinal profile of a student is assembled and ultimately evaluated.

Evaluation Context

The observation checklist is most appropriately used in situations where you wish to assess your students' abilities, attitudes, or performance in process areas. For example, it can assess communication skills, cooperative learning skills, extent of participation, interest in the topic, and psychomotor skills.

Using Technique to Best Advantage

Used on a single occasion, the observation checklist can provide formative evaluation information for the situation in which it is used. For example, to learn how effective students are when working in groups, a checklist to observe them in a single group session can be used. This will provide information to guide future instruction.

Observation checklists are most useful when collected over time and used summatively or diagnostically. Once you decide to use observation checklists in your evaluation plan, you must use them systematically. They are misleading when used sporadically.

Guidelines for Use

Usually the observation checklist is used during class time. Therefore, it must be simple. The most efficient way to collect data is to record learning progress on four or five students at the same time. If you choose to observe four students per lesson and you have 28 students, you will cover the class once every seven lessons. At the end of the term or unit, you will have several observations on every student. If your class is working in groups, do one group every day. If not, use your seating plan to identify groups of students sitting in the same area. If you choose students alphabetically, you may find that your eyes are having to cover too much of the room in order to encompass the selected students.

- **Before the unit or course begins**, develop an estimate of what would constitute appropriate learning outcomes for your students. If you intend to use the information for making criterion-referenced judgments, decide on what your criteria will be. You may wish to develop minimum criteria (e.g., "six of the eight behaviors must be observed over the course of the unit"), or you may wish to develop different criteria levels for what would constitute excellent, satisfactory, or unsatisfactory work. Decisions on criteria should be made before the observation sequence begins.

- **Before every class**, enter the names of the students, the date, and the activity. During class, pay special attention to the selected group so that you build an impression of their level of competence or execution of the skills, processes, or attitudes you wish to record.

  Recording options: You may simply mark an entry on the item's first appearance and leave it at that, or you may record an item's every appearance (e.g., 𝍸). If you develop some measure of degree to describe the item (e.g., !, ?, or X), you have transformed your observation checklist into a rating scale. This is a characteristic of rating scales and checklists that gives you more flexibility. Make sure you record the date and the class on every observation checklist you use.

- **After class,** annotate the checklist sheet with any appropriate thoughts. For example, "Fire drill interrupted the group activity – recorded instances are therefore lower than I anticipated." File the checklist sheet with the others so that the class set is available for evaluation at the end of the course or unit. Large envelopes are useful here.

Example

The example checklists are designed to give you ideas as to how to set up this type of data recording technique. Keep in mind these are only examples.

Using the Information for Student Evaluation

Arrange the sheets into piles according to the student groups. Read them all over once or twice to develop a feeling for the overall class picture. For criterion-referenced judgments, refer to the criterion levels you made initially. For norm-referenced judgments, estimate where each student lies relative to the others in the class and make your judgment. If you have looked for very general or broad items, be careful not to overinterpret your data – for example, "On these aspects of the course Kim seems to be performing a little bit more consistently than most of the students." This may be about the level of sophistication that is possible, depending on how you constructed the instrument. For self-referenced judgments, all the checklists on one particular student can be studied, providing a measure of

progress over the span of the unit or course. This is one of the most powerful uses of the checklist.

- Where you can, start with an existing checklist and modify it according to your needs.
- Choose items that relate to the intended learning outcomes of the unit. If you wish to use checklists in several courses and they have many overlapping items, develop a master list and eliminate those items that are inappropriate for the specific unit or course.
- Choose items that you can observe or reasonably infer. If an item is too vague (e.g., interest in the subject), you may not be consistent throughout the term in your estimation and recording of it.
- Keep the list of items manageable. Twelve is about the maximum.
- Keep the language of the items simple and jargon-free. In that way you can use the checklists at parent-teacher or student-teacher interviews.

Variants

Develop checklists that detail one particular series of components. For example, a checklist on the correct operation of a microscope may be useful in minimum competency situations where something just has to be done correctly.

As previously mentioned, the observation checklist shares many characteristics with the rating scale. This is an advantage that can be a time-saver for you.

Science Observation Checklist

Class: _____

Date: _____

	Evaluation Criteria	Names			
Observation	stated an observation				
	accurate (relevant?)				
Discussion Techniques	spoke clearly				
	listened to others				
	waited for turn				
	relevant				
	not repetitious				
	challenged a remark				
	gave reasons for challenging				
'Scientific' Thinking	noticed a discrepant event				
	"I think", "I'm not sure"				
	offered a hypothesis				
	changed opinion on basis of data				
	suggested a model				
	suggested further experiments				
	stated a relationship between facts				
Manipulation of Materials	constructive				
	innovative				
	carried out an experiment				
	devised own experiment				
	made a discovery				
	observed safety rules				

Observation Checklist for the Assessment and Evaluation of Affective Aspects

Evaluation Criteria	In Evidence	Not in Evidence
A. Task Attitude • shows enthusiasm • cooperates with others • works hard at improving • can work with others on a team • shows consideration for the safety and well-being of others		
B. Motivation • can work by her/himself • is able to predict/understand the tasks to be done and completes them without being told		
C. Reliability • can be trusted • is able to follow oral or written directions • is on time with tasks • attends class regularly • meets responsibilities		
D. Flexibility • is able to learn new methods of doing things easily • can adapt to new assignments easily • follows detailed directions well		

Checklist to Assess a Student's Handwriting in a Writing Sample

Student Name: _____

Date or Time Period of Assessment: _____

Description of Writing Sample: _____

Check (√) appropriate criteria.

_____ Problems with spacing between sentences, words, or letters

_____ Problems keeping 'on the line'

_____ Evidence of large amount of erasing or scribbling out words

_____ Lower case letters evenly made

_____ Incorrect formation of capitals

_____ Capital letters correctly formed

_____ Writing consistent in cursive letters

_____ Writing shows a mixture of cursive and manuscript letters

_____ Slant of the letters consistent within a sample of writing

_____ Slant of the letters inconsistent within a sample of writing

_____ Certain letters consistently malformed

_____ Able to produce a reasonable amount of writing in the time period allotted

Checklist to Assess Problem-Solving Skills in Mathematics

Student Name: _____

Date or Time Period of Assessment: _____

Check (√) applicable criteria.

Student is able to decode the words in story problems/performance tasks/activities. _____

Student is able to understand the situation or circumstances described in the story problems/performance tasks/activities. _____

Student is able to choose the correct mathematical operation (addition, subtraction, multiplication, division). _____

Student is able to distinguish between relevant and irrelevant information that is presented in the story problems/tasks/activities. _____

The student is able to correctly write down the necessary computations. _____

The student demonstrates a facility with number facts. _____

The student is able to correctly choose the correct computational algorithm for use in the problem/task/activity. _____

This instrument may be adapted for use as a rating scale.

Checklist for Marking an Essay

Student Name: _____

Date or Time Period of Marking: _____

Evaluation Criteria	In Evidence	Not in Evidence
A. General Elements • theme or point of view is evident • theme or point of view is developed in a systematic way • the arguments have a logical consistency • examples or illustrations of the theme or point of view are evident • composition reflects proper essay form • the information included in the essay is compatible with the form in which it is written		

B. Criteria for Confirming a Mark or Grade

Check (√) Applicable Criteria

1. Above Average Answer
   - Clearly stated an overall conclusion based on a synopsis of facts ____
   - Includes information suitable for the main idea or theme ____
   - Presents data to reinforce the particular point of view or idea that is being proved ____
   - If applicable, presents alternate aspects of an issue to demonstrate the superiority of a certain interpretation ____
   - Contains convincing evidence of development of form and clarity of organization and display ____

   This instrument may be adapted for use as a rating scale.

2. Average Answer
   - Includes sufficient detail to explain the question/topic sufficiently ____
   - Illustrates a perception of the facts implicated in the issues; however, constructs only sufficient connection between the facts and the main idea or point of view ____
   - Undertakes with fair success to validate a point of view and associate proof to that point of view ____

3. Below Average Answer
   - Includes inadequate data to answer the question sufficiently ____
   - Does not adequately support a point of view ____
   - Gives a listing of data rather than structuring them and giving a point of view supported by the data ____

Checklist to Assess Student's Ability to Use Information

Student Name: _____

Date or Time Period of Assessment: _____

Check (√) applicable criteria.

1.	Student is able to state the purpose for the collection of the information.	____
2.	Student is able to gather information from own recall of past learning.	____
3.	Student is able to identify main elements needed in information.	____
4.	Student is able to organize information into usable units.	____
5.	Student is able to identify related details.	____
6.	Student is able to recognize relationship of information gathered to information remembered.	____
7.	Student is able to clearly state ideas that fit with the topic being addressed.	____
8.	Student is able to give evidence of checking information for accuracy.	____

This instrument may be adapted for use as a rating scale.

Checklist to Assess Spelling

Student Name: _____

Date or Time Period of Assessment: _____

Check (√) appropriate criteria.

_____ Silent letters left out

_____ Sounded letters left out

_____ Letters, other than those required, added

_____ Letters, other than those required, substituted

_____ Word(s) spelled phonetically but not correctly

_____ Letters reversed in position

_____ Letters correct but in wrong position

_____ Incorrect doubling of letters

_____ Apostrophe left out or in wrong position

_____ Handwriting mistakes

- ____ connections between letters poor
- ____ below-the-line loop on **f g j p q** reversed
- ____ incomplete formation of the letters **s o g d q p a**
- ____ **e l** not looped
- ____ **i t** looped
- ____ **t** not crossed
- ____ letters **c h y u b** over-formed and appear closed
- ____ letters **m/n, u, v,** or **w** unclear or easily mistaken for each other

_____ odd or out-of-the-ordinary mistakes

_____ no answer or answer omitted

Checklist to Assess Students' Attitudes and Values in Relation to an Issue

Student Name: _____

Date or Time Period of Assessment: _____

Check (√) applicable criteria.

_____ Student read the material, watched the film/video or listened to the tape of the background information about the issue.

_____ Student was active in the discussion on the issue.

_____ Student contributed an answer when asked a question concerning the issue.

_____ Student followed the established procedure for classroom discussion.

_____ Student gave her/his own opinion on the issue.

_____ Student cited information to back up her/his position on the issue.

_____ Student expressed ideas, comments, agreement, or disagreement with the response of other students.

_____ Student showed evidence of seeking more information on the issue.

_____ Student defended her/his position on the issue regardless of how much in agreement with it others were.

_____ Student accepted criticism of the position she/he took on the issue.

_____ Student showed she/he had thoughtfully developed a position on the issue.

This instrument may be adapted for use as a rating scale.

Rating Scales

Description

Rating scales are measuring instruments that allow representation of the extent to which specific concepts, skills, processes, or attitudes exist in students and their work.

Evaluation Context

Rating scales enable the teacher to record student performance on a wide range of skills and attitudes. They are particularly useful in situations where the student performance can be described along a continuum, such as participation in a debate or skill in preparing a microscope slide.

Guidelines for Use

Usually the rating scale is used during class time. Therefore, it must be simple to use.

- **Developing the rating scale**
  Once you decide upon the activity you wish to rate, break it up into its constituent parts. Make the parts as specific as possible so as to increase the scale's reliability. For example, instead of globally rating "performance in debates," decide on what performance criteria you wish to observe in the student. Perhaps "states argument," "demonstrates background preparation," "responds to opposition arguments relevantly" might together give a less inferential picture of the student's performance than the rating on the global behavior alone.

  The next task is to develop the scale points. You might use the old stand-by: "very good/good/average/poor/very poor," or you can develop more descriptive scale points. For the criterion mentioned above, "states argument," you could choose to use points based upon how forceful the student was: "very forceful/forceful/average/diffident/very diffident."

- **Before the unit or course begins**
  If you intend to use the information for making criterion-referenced judgments, decide on what your criteria will be. You may wish to develop minimum criteria such as, "six of the eight behaviors must be rated at the satisfactory level or higher over the course of the unit." Or you may wish to develop different criteria levels for what would constitute excellent, satisfactory, or unsatisfactory work.

- **Before every class**
  Enter the names of the students, the date, and the activity. This will usually be governed by the activity being rated. If Peter and Petra are facing off in today's debate, then theirs are the names entered.

- **Recording**
  As you form an impression of student behavior on each criterion, mark the point on the continuum.

- **After class**
  Examine the individual criteria and decide on an overall rating for each student on the total behavior being rated. File the rating sheet with the others so that the class set is available as a record. Large envelopes are useful here.

Example

In the first example provided, the full sheet on 'Performance in Debates' is developed. The other examples that follow are designed to give you ideas as to how to set up this type of data recording method. Keep in mind these are only examples.

Variants

Rating scales have many variants and any book on measurement will offer examples. Two variants are described here.

- **Self-evaluation**
  Rating scales are very useful in allowing students to perform self-evaluation on their own work. Present the student with a rating scale that covers the aspects of the unit or project which you wish him or her to self-evaluate. Examples may be the amount of effort expended in research, the amount of effort expended on initial organization, the extent to which the student reflected on the initial organization, the amount of reorganization, or the effort spent on writing. The student's ratings on the five-point scale can form a useful starting-point for teacher-student dialogue. A number of examples of rating scales for self-assessment are included within the section 'Self- and Peer-Assessment'.

- **Number line**
  The number line is a variant that is particularly useful with pre-reading students. On a long piece of paper, draw a horizontal line and mark off five to ten intervals. On the extreme left-hand mark, draw a sad face, at the mid-point draw a neutral face, and at the right-hand mark, draw a happy face. Mount the number line on the wall at a suitable height. The student then places the left palm on the sad face and, in response to a question (such as "How much did you like that story?"), positions the right palm accordingly. If the story was not a success, then both hands overlap on the unhappy face. By training the students to pass by the number line fairly quickly, you can obtain rapid feedback on

the question you pose. With experience, more sophisticated questions can be asked. Here are examples from a unit on estimation. "When you guessed the number of peas in the pea pod that I showed you, how sure were you of your answer?" "Now, when you guessed the number of Smarties in the bottle, how sure were you?"

Rating Scale

Activity *Performance in Debates* Course *English* Date *November 21*

Activity Component	Scale Points		Student Name: *Susan*	*Vince*	*Gloria*	*Gordon*
States argument clearly	5	Very logical				
	4	Logical				
	3	Average				
	2	Not very logical				
	1	Virtually illogical				
Demonstrates background preparation	5	Very well prepared				
	4	Well prepared				
	3	Average				
	2	Not all that well prepared				
	1	Ill prepared				
Responds to opposition arguments relevantly	5	Very relevant arguments				
	4	Relevant arguments				
	3	Average				
	2	Only some relevance				
	1	Virtually irrelevant				
Speaks clearly and without hesitations	5	Very clear, no hesitations				
	4	Clear, few hesitations				
	3	Average				
	2	Not always clear				
	1	Not clear, many hesitations				

Rating Scale for Cooperative Group Learning

Student Name: _____

Date or Time Period of Assessment: _____

1. The student works with a wide range of peers, not just with close friends.	1 never	2	3 sometimes	4	5 always
2. The student willingly shares materials and ideas with others.	1 never	2	3 sometimes	4	5 always
3. In group work the student shows respect for others by listening and considering other points of view.	1 never	2	3 sometimes	4	5 always
4. The student follows group work rules as established for the activity.	1 never	2	3 sometimes	4	5 always
5. The student fulfills her/his work responsibilities in the group.	1 never	2	3 sometimes	4	5 always
6. The student exhibits appropriate work behaviors during time set aside for groups.	1 never	2	3 sometimes	4	5 always
7. The student participates in discussions during the time set aside for group work.	1 never	2	3 sometimes	4	5 always
8. The student contributes ideas to the group efforts during the discussions in the time set aside for group work.	1 never	2	3 sometimes	4	5 always

This instrument may be adapted for use as a checklist.

Rating Scale for Technical Skills (Example: Science Laboratory Work)

Student Name: _____

Date or Time Period of Observation: _____

	unacceptable			excellent
1. Clearly shows an understanding of the problem to be investigated.	1	2	3	4
2. Is able to follow written or oral directions with care.	1	2	3	4
3. Chooses and uses appropriate materials and equipment for the task.	1	2	3	4
4. Is able to use the chosen equipment with efficiency and accuracy.	1	2	3	4
5. Uses the equipment with proper safety procedures.	1	2	3	4
6. Records data in a systematic fashion.	1	2	3	4
7. States conclusions based on data collected.	1	2	3	4
8. Refers to limitations and/or generalizability of the results of the investigation.	1	2	3	4
9. Cleans up work station according to accepted procedure.	1	2	3	4

This instrument may be adapted for use as a checklist.

Rating Scale for the Assessment and Evaluation of Affective Aspects

Student Name: _____

Date or Time Period of Observation: _____

Evaluation Criteria	Average	Above Average	Improvement Needed
A. Task Attitude • shows enthusiasm • cooperates with others • works hard at improving • can work with others on a team • shows consideration for the safety and well-being of others			
B. Motivation • can work by her/himself • is able to understand the tasks to be done and completes them without being told			
C. Reliability • can be trusted • is able to follow oral or written directions • is on time with tasks • attends class regularly • meets responsibilities			
D. Accepts Recommendations • shows a desire to improve • asks for help • carries suggestions through to completion			
E. Flexibility • is easily able to learn new methods of doing things • can change and adapt to new assignments easily • follows detailed directions well			
F. Group Interaction Skills • is able to cooperate with others in a group • is considerate of others' feelings • demonstrates self-control • appears to be a happy and contributing member of a group			

Rating Scale for a Food Preparation Class

Student Name: _____

Date or Time Period of Assessment: _____

Evaluation Criteria	Done with Minimal Effort Giving Unsatis-factory Results	Done with Effort Giving Satisfactory Results	Done with Flair and Creativity for Exceptional Results
1. Chooses a meal plan that incorporates the instructional concepts			
2. Organizes the structure and sequence of the activities leading to the successful completion of the meal production			
3. Has within the organizational features: a) timing b) presentation c) dietary considerations d) cost e) 'audience'			
4. Produces the meal according to the plan			
5. Cleans up appropriately after the meal			

Holistic Rating Scales: A Rating Scale Variation

Description

A holistic rating scale is a technique that attempts to combine the benefits of global scoring and analytic scoring (see extended open-response). It is applicable to written assignments and also to extended problem-solving exercises in areas such as mathematics.

Evaluation Context

A holistic rating scale is appropriate when assessing students' abilities to carry through an extended intellectual investigation. This type of activity spans subject and grade levels. Extended intellectual investigations represent the type of learning that current curricula advocate.

Guidelines for Use

Once you have developed the extended intellectual exercise, develop the characteristics of the focused holistic scoring scheme appropriate for each step in the exercise. Keep these free of content specifics, where possible, and concentrate on describing the quality of work that is worth, for example, 0 - 4 marks. The student would receive the mark that best describes her or his effort.

Example

This example of a holistic rating scale for assessing problem formulation, has been adapted from the work of the National Council for Teachers of Mathematics (NCTM) and Randall Charles.

0 points

- Blank papers show no work completed.
- Data in the question are simply recopied.
- Incorrect steps are done with no work shown.

1 point - Unacceptable

- An inappropriate strategy is started but not carried out.

2 points - Poor

- An inappropriate strategy was carried through to an incorrect formulation of the problem.
- An appropriate strategy was used but not carried far enough to allow the student to formulate the problem.
- The problem is framed appropriately but no description of the work is provided.
- Appropriate strategies were properly applied but the student did not actually formulate the problem.

3 points - Good

- Student has used a strategy that leads to correct formulation of problem.
- There is evidence that appropriate strategies were used but the work is not altogether clear.

4 points - Excellent

- The student fully understood all of the information.
- The student selected an appropriate problem-framing strategy.
- The student formulated a correct problem.
- The reasoning was recorded.

Holistic scoring schemes can be adapted for use with essays and oral presentations. Two examples are included in this section.

Holistic Rating Scale to Mark an Essay

Student Name: _____

Date or Time Period of Assessment: _____

Assignment to be Graded: _____

The essay being awarded a rating at a specific scale point will show **some** or **all** of the following qualities.

A. Papers at the top two scale points exhibit the following general qualities.

- **well-developed**
- **a feeling of active involvement with the subject**
- **focused and intentional writing**
- **originality**
- **reader can detect a feeling of 'voice' in the writing**
- **command of sentence structure and vocabulary**
- **technical errors do not intrude on the reader's appreciation and pleasure**

6

- likeable paper written with creativity, animation, and style
- has strong sense of personal 'voice'
- is intentional and direct
- moves smoothly from a convincing beginning through a progression of occurrences or concepts to a convincing end
- particulars and illustrations used effectively to set mood, form character, or explain a controversy
- writer takes chances; outcomes convincing
- effortless skill in sentence structure evident; may involve suitable and accurate subordination, and effective use of parallel structures and fragments
- vocabulary proper and well-suited; it may be refined
- infrequent mechanical errors

5

- proficient paper, well-developed
- less skillful sense of personal 'voice', strength, and creativity
- is deliberate and centered
- moves rationally from constructive opening through a sequence of circumstances or concepts to a finish
- particulars and instances used effectively to set mood, unfold character traits, or detail an argument
- writer takes some risks but effects irregular
- sentences regulated and diverse
- subordination for the most part appropriate and accurate
- vocabulary suitable and correct
- few technical mistakes

B. Papers at the two mid-points of the scale exhibit the following general qualities.

- **proficiently written**
- **show concern for formalities of standard English**
- **contain few cases of innovation or distinctiveness**
- **give little evidence of polish in ideas or vocabulary**

... continued

- **have a core of ideas that is for the most part clear but development often unsophisticated or fragmentary**
- **indicate the writer shows some command of elemental sentence structures and vocabulary**
- **have technical mistakes that reduce the effectiveness**

4
- centered and ordered
- few examples of creativity
- substance of the paper exhibits lack of depth or insight
- logical arrangement of ideas
- introduction and conclusion but ideas not mature in nature
- writer takes small risks but outcome weak
- paragraphing, sentence structure, vocabulary elementary and accurate
- technical mistakes present

3
- paper considers topic but development unsubstantial and many times immature
- little creativity or distinctiveness or chance-taking
- introduction and conclusion included
- order and connection between ideas/events indistinct or unreasonable
- sentences predictable
- difficulties found with pronouns, verb tense, and punctuation
- vocabulary restricted, tedious, and often idiomatic
- technical mistakes inhibit comprehension

C. Papers at the bottom two scale points have numerous deficiencies.
- **unsubstantial sense of intention, organization, and development**
- **numerous difficulties with conventions of standard English**
- **substance of theme or ideas insufficient and frequently hard to follow**
- **no sense of 'voice'**
- **sentences elementary and tedious**
- **numerous mistakes evident in usage**
- **vocabulary restricted**
- **paper laborious to read and understand**

2
- some effort to center on topic or relate a story shown but little, if any, development of ideas
- may have an introduction and conclusion but not strong
- some efforts at logical structuring of events evident
- some efforts at paragraph development seen
- the subject matter and the amount of material weak – may be restricted to a solitary example or happening
- vocabulary narrow in range and at times inappropriately idiomatic
- may have repetitive sentences in structure or content
- mistakes in usage and sentence structure frustrate reader's flow of thought; however, writing is understandable

1
- little or no impression given of purpose, directedness, or organization
- if development exists, it is unreasonable and baffling
- logical progression of ideas not observable
- few linkages between concepts or ideas
- no mastery or skill observed in structuring sentences
- word choice inappropriate and random
- vocabulary elemental and often used out of context
- mistakes in verb tense, point-of-view, and idiom
- technical errors extreme and large in number so that understanding of the meaning lost

Holistic Rating Scale for an Oral Presentation

Student Name: _____

Date or Time Period of Assessment: _____

Scale:

3 = Words are clear.
Voice has good modulation.
Speed of speech is well-paced.
Pauses or emphases are appropriate.
Voice is loud enough to be heard easily.
Presentation is organized, logical, and interesting.
Large amount of student preparation is evident.
Material in presentation is relevant to topic.
Language used in presentation is appropriate.
Evidence of creativity exists in presentation of topic.
Audience appears 'involved' in the presentation.

2= Some words are not clear.
Voice has some modulation.
Rate of speech is at times too quick for the listener to catch the full meaning.
Sentences have some inappropriate pauses or run on together, hampering meaning.
Voice dropping in volume at times makes it difficult to get the full import of the presentation.
Presentation shows signs of organization; however, there may be portions that do not tie together.
Presentation has 'down' portions with regard to keeping the audience interested.
There is evidence of a fair amount of student preparation.
Material in presentation is, for the most part, appropriate.
Format of presentation is predictable.
Audience is passive listener.

1= Many words are not clearly spoken.
Voice is more monotone in presentation.
Rate of speech is either too fast or too slow.
Pauses or emphases for effect are not in evidence.
Voice is low, making hearing of the presentation difficult.
Presentation shows poor organization.
The audience reacts in a disinterested manner.
There is minimal student preparation in evidence.
Material in presentation is inappropriate or does not appear relevant to the topic.
Format of presentation lacks structure.
Audience is not engaged.

Scoring for the presentation is done on the basis of the category that is **most representative**.

Ongoing Student Activities

The techniques in this category comprise those that are used by the teacher during the normal running of the classroom. In contrast to the techniques listed under Quizzes and Tests in the following section, they do not require students to devote time exclusively to assessment activities. Instead, they require that the students be engaged in their usual learning activities so that student performance can be observed and recorded. Elementary school teachers may be more accustomed to using these techniques than secondary school teachers because measures of a student's progress in areas such as social development or communication skills have traditionally been seen as important at elementary levels. Comparable goals are now being seen as important at the secondary level, too. Consequently, these techniques will become more widely used throughout the K-12 system in conjunction with techniques from Quizzes and Tests that are designed to elicit student performance in test situations.

- **Written Assignments**
  A teacher may wish to collect student progress information by having students plan, organize, and produce a written product. This may be done on an individual or a group basis and may occur in the form of a contract or as an ongoing task. The written report may accompany a presentation or it may be the sole focus. Teachers may assess the content, skill development, attitudes of the student toward the task, and learning processes found within the task of producing a written product by using checklists or rating scales. They may be included in a portfolio. Self-assessment or peer-assessment may be used in conjunction with teacher-assessment of the written report.

- **Presentations**
  Presentations may accompany written assignments and student performance assessment. They may be done on an individual or group basis, be organized into assessment stations or contracts, be self- and/or peer-assessed, and be included in portfolios. Checklists, rating scales, and anecdotal records may be used to record assessment information.

- **Performance Assessment**
  Students may be assessed on various forms of performance. Performance may be individual- or group-based, may be organized into contracts or assessment stations, may involve a self-assessment and/or peer-assessment component, and may involve written assignments and presentations. The recording of assessment information may be done by checklists, rating scales or anecdotal records.

- **Homework**
  Homework refers to assignments students are given that are to be completed during their time away from the classroom. Homework is both an assessment technique and an instructional method. As an instructional method it can involve activities for independent study such as assigning questions, completing reports, and preparing for presentations. As an assessment technique, it can be used to evaluate student performance through the use of rating scales, checklists, or anecdotal records.

Written Assignments

Description

Written assignments are designed to allow the student to plan, compose, and report upon a unit of learning. Students may be given the opportunity to choose their topic and to design their research plan, or they may be provided with a structured framework. Written assignments are ongoing student activities that provide information for teachers on student progress. This section offers some general pointers and specific techniques to assist you in evaluating written assignments.

Evaluation Context

Written assignments are powerful instructional methods. Evaluating plans prepared in advance and communicated to students, can provide structure to the whole exercise, as well as indicate to the student your criteria for assessing the quality of the work.

There is a wide range of student activities that fall under the category of written assignments: essays, laboratory reports, short-response questions, journal entries, letters, articles, poetry, written dialogue, the written solution to a mathematical puzzle, and research. Major projects often have a written component. Learning logs and journals can also be considered under the heading of written assignments.

- Describe your overall expectations for the written assignment in as much detail as possible. A student's first assignment should be more tightly structured; whereas, later ones can be left more in the student's control. The more structure you provide, the more comparable the assignments will be.

- If the assignment has a number of development stages, construct evaluation criteria for each segment of the written assignment. For example, if your students are doing a project on how local government operates, they may:
  - interview council members.
  - research the stories from the local newspaper.
  - trace the path of a local issue through the stages from initial submission to council to the final decision.
  - prepare a display or presentation for their classmates.
  - hand in a final report to you.

  Each of these segments can have its own evaluation scheme developed by you or by the student. (Refer to Self- and Peer-assessment.) By designing the evaluation pattern in this way, you can help the student divert his or her efforts appropriately.

Guidelines for Use

- Schedule regular consultations with students. During these times, you can reinforce the evaluation criteria and adjust them if necessary (for example, if certain segments of the project become unworkable).

- If you allow students to work in groups, you have introduced another variable into your evaluation. Three students working in a group may not produce a project or report that is three times as good as a single student's. Maintaining the group integrity can take an appreciable amount of effort. This will need to be factored into your evaluation scheme.

- If you use an outsider as a judge, remember that only part of the report, usually the final display, will be involved. The other segments must not be neglected in your overall evaluation.

- Use a variety of techniques, matching each technique to the objective of that segment of the assignment that is under consideration. Observation checklists and rating scales offer potential.

A Framework for Marking a Project or a Written Assignment

Student Name: _____

Date or Time Period of Assessment: _____

Topic or Project Description: _____

A. Organizational Features	Yes	No	Comments
1. Student understood the objectives of the assignment.			
2. Student understood the specific terms/requirements of the assignment.			
3. Student understood the timeline and due date for the assignment.			
4. Student understood the method/ procedure/criteria by which the assignment would be marked.			
5. Student had an opportunity to discuss the assignment topic and have input into the assignment direction.			
6. The assignment is within the capabilities of the student.			
7. Consultation has occurred with the student throughout the stages of development of the assignment.			

... continued

B. Student Learning	Yes	No	Comments
1. Student formulated her/his own questions and found answers to them.			
2. Student showed evidence of individual initiative.			
3. Student exchanged ideas with other students in developing the assignments.			
4. Student brought in references to learning prior to this experience or from other areas that relate to this experience.			
5. Student worked in a methodical manner to produce the assignment.			
6. Evidence exists in the assignment of the following. • planning • organization • interpretation • inference • analysis • application • synthesis • hypothesis • prediction • evaluation			
7. Technical aspects of the assignment reflect accuracy and suitability of the following. • sentence structure • vocabulary • grammar and punctuation • spelling • handwriting • information included in assignment			

Presentations

Definition

Presentations involve students in a variety of activities that are both process- and product-oriented. Students collect information and organize it. They analyze what is needed for a specific purpose and bring together various elements into a whole. They record the material in a manner they have chosen that will best display their learning process. They communicate to an audience what they have learned through visual, audio, and/or kinesthetic means. In becoming involved with a presentation, students interact with the material they are learning.

Evaluation Context

Presentations are extraordinarily rich in possibilities for assessing student progress. Knowledge, skills, attitudes, and processes all become evident throughout the stages of development. A presentation may be used as a summative assessment activity at the end of a unit or course. It may also be used formatively to assess student progress while the unit or course is proceeding. A presentation may accompany a written report as part of a major project. If you are wanting to improve your students' actual presentation style, having them become involved in a presentation can serve a diagnostic function as well. Suggestions for improvement can be made based on their performance.

There are many possibilities for using presentations within your student evaluation program. Presentations can be as flexible as you wish to make them. Students may present to the class individually, or to each other in small groups. Such a situation is conducive to peer-assessment. You could assess more globally on the presentations as you circulate among the groups, gathering more general student information such as attentiveness, listening behaviors, and active involvement with the topic through questioning.

If presentations are on a broad topic, the topic may be divided into sections with groups within your class presenting each section. You could then use group evaluations with the added benefit that the students would be teaching each other at the same time. For instance, if your students are to present the broad topic of 'pollution', several sub-topics could be constructed, giving each group their own area of 'expertise'. Some examples of sub-topics are deterioration of nonrenewable resources, Canada's legislation related to pollution, priority listing of pollution concerns to be addressed by Canada at present, provincial comparisons on pollution and efforts to alleviate it, what major companies with polluting by-products are doing to combat the problem, and how individuals may get involved in the fight against pollution.

A third possibility is to have students individually present on a topic to you and to the class on an ongoing basis. If the content of the presentations is secondary to the processes and skills you wish to assess, your students could take turns over the course of the year presenting on a topic of interest to them. Students may choose their topics or they may be related to ongoing units of work. For example, teachers may suggest students use current events as sources of information for reports and they may ask students to relate the significance of the events to Canada, Saskatchewan, and themselves. The structure would then remain the same for each student, allowing for comparisons, but the topics would change from student to student.

Guidelines for Use

- Students come with varying experiential backgrounds in conceptualizing, organizing, and delivering a presentation. To use presentations as a diagnostic assessment technique, have the students use what they currently know. To use presentations in formative or summative assessment may require teaching how to 'do' a presentation effectively.

- As with all other assessment activities, students must know how they will be assessed – what you are looking for and what standard of performance is expected.

- Not all students have the self-confidence necessary to stand up in front of their peers and teachers to give a presentation. Consider some of the following questions prior to assigning a presentation to your students.

  - Have I established an atmosphere of acceptance in my classroom so students will feel confident that what they present will be well received?

  - Do I have students who have disabilities that would hamper their ability to give a presentation? If I do, what modifications can be made so that they can present to their best ability?

  - Have I established expectations about how and why these presentations will be assessed?

  - Have I thought through how I will help or modify the situation for students who might find this activity extremely stressful?

Performance Assessments

Definition

Performance within the context of ongoing student activities refers to assessing student learning progress in tasks that require students to be actively engaged in some activity such as manipulating materials, demonstrating a skill, solving a multi-stage problem, or participating in a debate.

Evaluation Context

Assessing student performance can occur over a wide range of ongoing student activities. It has value in formative evaluation where information is gathered that will help determine further emphasis in instruction as well as in summative evaluation where students' performances are evaluated at the end of a unit, term, or course. The main element of performance assessment focuses on the consideration of what is being assessed. As students are involved in performing an assessment task that requires interaction, performance assessment provides teachers with the opportunity to gather student information on the processes that students use in addressing the tasks. You are basically looking for evidence of student learning through what your students do.

Guidelines for Use

The objectives you are teaching toward will guide your decisions concerning the type of student performance to assess. The new curricula, with an emphasis on interactive and experiential teaching and learning, offer unlimited potential for assessing student performance. Some suggestions to simplify the process follow.

- Identify the student performance you wish to assess – for example, students' performance in a group. You may be looking for evidence of attentiveness, sharing of ideas, and contribution of ideas. Perhaps the performance may be in the area of kinesthetic skills. You may be looking for technical skills in a particular sport through a regular physical education class situation. Or, you may be looking for attitudinal indicators like willingness to participate, a demonstration of effort, involvement in the activity, or the encouragement of others.

- Specify the criteria you will use in determining the performance level of your students. To extend the previous example, if you wish to assess your students' performance in a group, one of the things you may look for is the sharing of ideas. The next step is to specify what 'sharing of ideas' actually means in terms of student behavior. Does it mean extending another person's idea with thoughts of your own, relating the current ideas to previously learned concepts, putting ideas into real-life context, or giving an opinion regarding the topic? Once you begin to consider these broader categories of student behavior, you will find constructing lists of criteria much easier.

- Decide how you will record the information you gather on student performance. Will you use a rating scale? a checklist? or anecdotal records?

- Share your evaluation plan with the students. Students must know not only **that** you are assessing their performance, but also **what** you are assessing and **how** you will be doing it.

Using the Information for Student Evaluation

The information you gather on students' performance will prove invaluable in providing a more balanced and comprehensive view of progress. It is information that is easily communicated to both students and parents/guardians as it describes the observable actions of the students.

Variants

Performance assessment of ongoing student activities is applicable to all students. This type of assessment and evaluation is well suited to documenting the progress of special needs students. Specific criteria of what is expected provide a range of information that can be used diagnostically to initiate instruction, formatively to guide instruction, and summatively to assess the degree of progress.

Homework

Definition

Homework refers to assigned work that students are asked to complete during time that is outside of the regular class period.

Evaluation Context

Homework can provide teachers with a further source of valuable student learning information. What is learned about student progress depends upon the purpose for the homework.

Homework as an assessment technique can take many forms. When students do not complete assigned work within the class period, teachers may have students do the work as homework. This homework can be assessed for student understanding, quality of work, task commitment, or other indicators of student willingness to keep up with the assigned work. This type of assessment may be best recorded in the form of anecdotal records.

If students are required to gather information prior to class, this can be classified as homework. The task might include reading assigned passages, researching a certain item, or bringing certain materials to class. A checklist could be used to assess whether or not the students did the assignment.

Students in need of extra practice of certain skills prior to learning further concepts may have additional practice assigned as homework. Evidence of this additional practice may be gathered at the classroom level and may be assessed through observation of the student using anecdotal records. If a teacher asks students to use the knowledge, skills, and processes learned to generate a novel or a creative solution to a problem, this too may be homework. Once again, assessment data may be collected on such homework items.

Students may be asked to take the knowledge, skills, and processes learned and practiced in the classroom and apply them to a different life situation as a form of homework. Such assignments are actually asking students to extend what they currently know. Assessments of such homework may be in the form of rating scales or checklists that specify particular criteria.

Guidelines for Use

When assigning tasks to students for homework, there are some general principles to follow:

- Students should receive instruction on the task prior to assigning it as homework.
- Instructions to students must be clear, unambiguous, and in written form, if possible.
- Students should be provided with guidelines or a structure concerning expectations related to the completion of the task and how it will be assessed.
- The length of time given for the completion of the homework assignment must be reasonable and take into consideration the many other school-related tasks students often have assigned at the same time.
- The resources or materials required for students to complete the homework assignment must be taken into consideration.
- Collect the homework assignments on the date specified, correct them, and return them promptly to the students.
- Be consistent about how the homework assignments are assessed and provide comments for students regarding their work.

Using the Information for Student Evaluation

The product of the homework assignment is not the only assessment information that a teacher may glean from such student activity. By looking carefully at how the students arrived at the product, conferencing with the students regarding their thought processes in completing the task, and noting the technical development evident, information concerning knowledge, processes, skills, and attitudes may be gathered. A self-assessment instrument completed by students can aid in revealing information about student attitudes and values. Work/study habits and independence in task completion may also be assessed.

Hints

- Never assign homework as punishment.
- Do not use homework as a way of regaining lost instructional or work time due to interruptions or faulty timing.
- Try to assign tasks that are of interest to the students.

Quizzes and Tests

This category includes those assessment techniques that are used in situations structured to allow students to demonstrate what they know. Tests have traditionally been seen as an important part of a teacher's repertoire of assessment techniques. They are useful in assessing student knowledge of subject matter, and, depending on the quality of the test items, they may be used to assess processes, skills, and attitudes.

After addressing general issues in test construction, this section will deal with descriptions of the following test item types and specific test construction issues. Several books on test construction are listed in the Bibliography.

- **Oral Assessment Items**
- **Performance Test Items**
- **Extended Open-Response Items**
- **Short-Answer Items**
- **Matching Items**
- **Multiple-Choice Items**
- **True/False Items**

Making Quality Tests

The *Student Evaluation Handbook* (Saskatchewan Education, 1983) drew upon Gronlund's checklist of questions that should be asked about teacher-made tests. These questions are still valid.

- **Does each test item measure an important learning outcome?**
  The key word here is 'important'. Be ruthless in judging your test items on this criterion.

  Don't be swayed by items that are attractive for their own sake but are off the point.

  Don't use items that concern themselves with arcane or trivial knowledge on the grounds that these are for the smart students or these are needed to bring down the overall mark. Students should feel that if they address the main objectives thoroughly, their knowledge and skills will be fairly measured.

- **Is each item type appropriate for the particular learning outcome to be measured?**
  The type of test item you use will depend on the type of student learning you want to assess. Each type of item has its own strengths and can be used effectively for the right purpose. To determine which items may be the best, you will need to consider carefully the learning objectives and the instructional strategies you have used. For example, if you are interested in measuring students' recall of previously taught content, objective questions such as multiple-choice, short-answer, or matching would be appropriate. If you wish to assess how well your students are able to synthesize what they know and extend from what they know, an open-response question would be appropriate.

- **Does each item present a clearly formulated task?**
  Students should not have to decode what it is that you want them to do.

- **Is the item stated in simple, clear language?**
  Again, this is essential if you want to focus your assessment on what the student knows rather than how well he or she can interpret your language.

- **Is the item free from extraneous clues?**
  Some types of items suffer more from this problem than others. It is important that items test what they are designed to test and not the students' ability to construct the answer from clues you never intended to offer them.

- **Is the difficulty of the item appropriate for the students who are to be tested?**
  The aim should be to develop an item that allows the student who is in command of the material to show this, and the student who isn't, to show that fact also. It follows that items shouldn't be either too difficult or too easy.

- **Is each test item independent and are the items, as a group, free from overlap?**
  Occasionally you may find that if a student answered one question in the test correctly, that same answer may enable them to answer other questions as well. Also, the wording of particular questions may inadvertently hold the answer required for another question in the test. Check to be sure there are no overlapping items.

- **Do the items to be included in the test provide adequate coverage of questioning?** You will find that some aspects of your courses offer more opportunities for developing test items than others. For those aspects that are not as conducive to testing, check to ensure you are using some other assessment technique. You want to ensure a balance between collecting student information through ongoing student activities and quizzes and tests.

- **Are your test items free of gender, class, and racial bias?** This issue was discussed in Chapter 2, in 'Fairness and Equity'. Teachers and test developers have become very aware of biases that can creep into test items. For example, you may find that your math or science items portray situations such as hockey or football that are more familiar to the majority of boys than to the majority of girls. Research has found that boys will, in general, do better on such items than girls. Either choose your examples from the typical worlds of both girls and boys, or choose examples equally unfamiliar to all children. The same considerations apply to items that may reflect class and race bias.

Evaluating the Assessment Instrument

It is important that you have confidence that your test is representing your students' achievements as accurately as possible. You will want to work at improving and refining your tests and your test writing skills. The research literature is full of studies of teacher tests showing that many of them contravene some of the criteria in the preceding section. Monitoring your tests should be an integral part of your student evaluation program.

- Before administering a test, check that it meets the criteria previously established. As teachers, we may be tempted to reuse tests from earlier occasions without checking to see if they still fit the objectives in our courses.

- As you grade your students' test papers, also grade the test itself. If, for example, you are finding that one of the short-answer items is consistently being answered incorrectly, even by your best students, ask yourself why. The answer may be obvious, or your students' responses may give you a clue as to why they are having difficulty. If the item is salvageable, make the correction on the original. If you are still puzzled as to where the problem is, then make a note to remove the item altogether from your item bank.

- Sacrifice a few items each time in order to check the perceptions of your students. When you return the test to the students, select a couple of items for investigation and ask your students to tell you what they thought you were expecting in the way of an answer. It will be time well spent. You may be very surprised at how the students interpret items that appear crystal clear to you. In a recent survey of Canadian Grade 12 students quite a few of them interpreted a question on 'social and political climate' in terms of Canada's weather. Use the student feedback to construct better items for the next version, but be sure to 'rest' the checked items for a cycle or two. By emphasizing them in your debriefing, you are guaranteeing that these will be the items passed on through the grapevine to the next class of students.

- Develop a feeling for how well your items differentiate between those students who have attained the objective for which you are testing and those who have not. Here is a simple but powerful method.

  - Photocopy your class list and paste it onto grid paper so that the sheet looks like an attendance record or a mark book. In the place where you would normally write the attendance date, write the number of the test item.

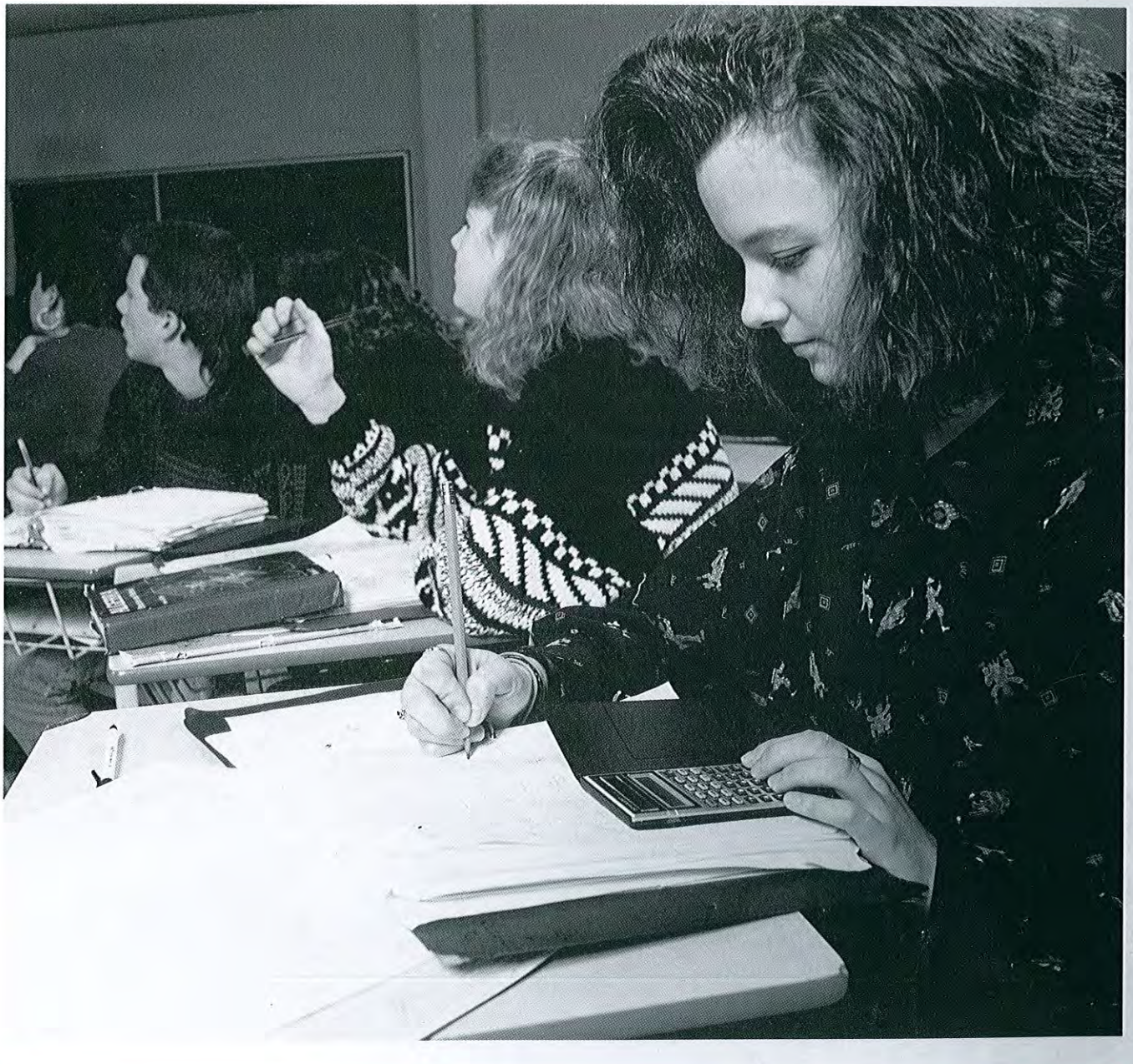
  - Let us take a twenty-item multiple-choice test as an example. Write the numbers 1 to 20 across the page. When you have finished marking the test, you or your students may use a check or a cross to record whether each item was answered correctly or incorrectly.

  - When the grid is complete, examine each of the columns in turn. If Item 5, has all check-marks, then you know that it is very easy. A good test needs some very easy items, but not too many. If another item has all crosses, then you know it is too difficult. There are other patterns that could indicate problems with individual items. If most of your average students are getting the item right but the very best students are not, then you may have a wording problem or a subtle ambiguity that is confusing the best students. If students from one particular cultural group are performing more poorly than you expected, then the item may be culturally biased. If the pattern of responses shows no relationship to your understanding of your students' abilities, then the students may be responding by guessing.

- These conditions may indicate that you either rework the item or submit it to validation through student perception.

- Good items are valuable. If you intend to reuse your items, make sure that you arrange for the items to be secure. For example, issue the exact number of test papers as there are students, and keep the completed papers under lock and key.

- Check each time you use the test items to ensure they are still appropriate for assessing the learning objectives. If they are not, either modify them or consign them to an item bank for future use.



Oral Assessment Items

Description

Oral assessment occurs when the student responds to an assessment item by speaking rather than by writing.

Evaluation Context

There are two distinct types of situations in which oral assessment of student work is used. First, oral assessment may take the place of written assessment tasks when written responses are not feasible.

Second, oral assessments can be used in situations where the attributes being tested are **best** accessed through oral responses, such as the ability to think on one's feet, the ability to use the spoken word correctly, the ability to speak a second language, or the ability to debate. More information relating to this particular aspect of oral assessment can be found in the descriptions of performance assessment in the section Ongoing Student Activities and in the descriptions of rating scales and checklists in the section Methods of Data Recording.

Oral testing situations follow the procedures for their written counterparts with some modifications. For example, a short-answer question could be read to the student instead of providing a question paper, and he or she could respond orally instead of writing the answer. You would record either the student's words in answering (as in writing the answer verbatim) or noting specific elements in the student's answer (using a checklist or a rating scale). There are situations in which oral assessment may be preferable to any other option depending on the objectives and instructional methods used.

Guidelines for Use

- Oral examinations can be stressful for a student when this approach is first used. This stress can be reduced significantly if the testing is done privately or if the testing is conducted within an atmosphere of acceptance.

- Depending on the student's rate of speech or complicating disability, oral examinations may cover less content. Attention must be focused on selecting the most important areas to be examined. Make the questions as clear as possible so that time is not spent on clarifying the questions.

- Oral examinations are a more intimate form of communication than written ones. Consequently, you may be tempted to 'fill in the blanks' in what the student says with the result that you feel that the student has said or explained more than she or he actually has. Your body language can also provide the student with clues that are not available in the written situation. It is important that you concentrate on what is actually being said and the student's reactions.

- Oral examinations, being interactive in nature, accentuate any cultural or gender differences. Adolescents, in particular, may feel uneasy or tongue-tied in the presence of an adult of the opposite sex. Children from various cultures may react differently in teacher-student situations. Be alert to such influences, try to mitigate them, and take them into account in your evaluation. In extreme cases, consider enlisting the help of a colleague whom the student would find more compatible.

- If you are examining some of your students orally due to a physical handicap such as blindness or motor paralysis while the rest are being assessed by written tests, you should verify that the test content and procedures are reasonably equivalent.

- To keep the time requirements for oral assessment to a minimum, make sure that the task you will ask the students to perform is one that is truly inaccessible in other ways. By knowing exactly what you want to assess you can ensure that your techniques are appropriate. For example, if you wish to assess how well your students can express themselves in French, you can engage them in a conversation or have them converse in paired groups.

Hints

- Arrange for a quiet place for the examination.

- Ensure that the examination period is long enough to provide you with adequate information to make your assessment.

- If the student is a good reader, consider combining written instructions with oral responses such as cue cards.

- Be consistent about what you record. Consult the sections on the techniques of observation checklists and rating scales for assistance.

Performance Test Items

Description

Performance test items help you assess how well a student performs a practiced behavior, the attainment of which is the primary goal of the teaching. This is a limited definition of performance. If your use of the term extends to include process skills such as working cooperatively, then there are techniques in Ongoing Student Activities that will provide more information.

Evaluation Context

Performance test items are used in those situations where the student is required to demonstrate competence directly such as playing a musical instrument, driving a car, solving a mathematical puzzle, demonstrating skill with technology, giving a speech, or identifying and repairing a fault in a piece of machinery.

They are also used in simulation situations. Two examples are using a driving simulator or practicing a tennis serve in slow motion without the ball. In simulation situations, the emphasis is upon mastery of the fundamentals of a performance skill.

Guidelines for Use

Performance tests, as with other test formats, have to be thoroughly prepared. Some points to remember are:

- The manner in which the performance test is constructed and administered should be equivalent for all students. Otherwise, it is impossible to claim that the same assessment has been conducted for all the students. For example, have all candidates in a music examination play the same piece on the same piano. There are other variables such as the order of playing that may affect both the performer and the evaluator. Careful preparation can help you control many external variables.

- Give the students clear information on what will be required of them. As with any assessment technique, students should be informed well ahead of the time of the assessment.

- The information to students should include a list of the performance attributes that you will be assessing and the criteria you will be using. For example, "the student will hem a skirt of cotton material so that the hem is straight, the material is not gathered, and the ends of the stitching are neat." These detailed criteria can be incorporated into a rating scale, an anecdotal record, or an observation checklist that will guide your assessment of the performance. The criteria should, where appropriate, include elements from both the **process** and the **product**. In the example above, the finished hem represents the product and the correct preparation and use of the sewing machine represents the process.

Using the Information for Student Evaluation

The information from the various data-gathering and recording techniques can be converted into a mark, grade, or qualitative evaluation statement.

Variants

Performance tests are frequently organized in assessment stations. More than one station can be set up in a series to test a variety of skills.

In designing a performance task, here is a framework for design you may find useful in thinking through the process. For each of the headings, attempt to be as specific as possible.

- the objective of the task
- the design of the task
- previous knowledge students need in order to complete the task
- knowledge directly related to current in-class work with which students need to have a reasonable level of familiarity or skill in order to complete the task
- processes involved in completing the task
- attitudes that may be observed during the students' interaction with the task
- technical skills students need to complete the task
- materials that the student would use to complete the task
- the location of the performance of the task
- number of students working at the task at the same time
- assessment instruments used to record information
- method of communicating evaluation information to the students

By completing this framework, a basic plan for the assessment task will be in place.

Extended Open-Response Items

Description

An extended open-response item is a testing exercise that requires a student to respond comprehensively in written form to an assigned topic.

Evaluation Context

Extended open-response items give students the freedom to respond to a question in ways that each one of them feels is appropriate.

Extended open-response items are effective in the assessment of students' powers of argument, evaluation, and synthesis. They are also important in allowing students to present their beliefs and value positions on a wide variety of issues. Some appropriate situations for using extended open-response items include when:

- you wish to assess a student's ability to communicate through writing.
- you wish to encourage a student to express him- or herself personally and uniquely.
- students need the opportunity to synthesize a broad base of information at the end of a unit.

Guidelines for Use

- **Developing the open-response questions**
  - Keep the learning objective for which you are preparing the extended open-response item in mind. This will help you sharpen the intent of the question.
  - Ensure that the question identifies exactly what the student will need to do. For example, instead of "Discuss the repatriation of the constitution" try "Imagine that you are preparing a speech for a politician who is in favour of the repatriation of the constitution. What would you write?"
  - Indicate the criteria that you will use in evaluating the open-response item. For example, for the above item, you might say "Pay special attention to the accuracy of any facts you mention, the clarity of your writing, and the persuasiveness of the argument."
- **Selecting the items**
  - In most test situations, it is advisable to avoid providing students with a choice of extended open-response topics. Often, if you allow choice, you cannot know whether all students have taken a test of equal difficulty.
  - Use extended open-response items on occasions when you want to be able to collect student data on a broader and more in-depth scale. If you wish to see how your students can describe, contrast, compare, explain, discuss, develop, summarize, or evaluate, then an open-response question should be used.
- **Marking the responses**
  - Write a model answer to the question to help you develop your marking criteria. This is the best way to understand any inherent difficulties with the item, such as unreasonable length to answer the item fully or ambiguities in the wording.
  - Grade all the responses to one question at the same time.

Using the Information for Student Evaluation

There are two ways you can grade the open-response item. You can use either **holistic scoring** or **analytic scoring**.

For **holistic scoring**, you would need to outline a list of attributes you would expect in student responses. One method for doing this is to write out a response to the item yourself. Having done so, you are in a better position to be able to list the elements specific to the item that you wish to assess in the students' work.

An example of a list of attributes for an extended open-response item may be the following.

- degree of clarity in communicating the objective of the writing
- the choice of ideas incorporated into the writing
- the range and effectiveness of vocabulary chosen to convey the intent of the writing
- the organization of the writing (opening, middle, sequence of details, ending)
- skill in using sentence structure to convey meaning
- the accuracy of the technical aspects of the writing (spelling, punctuation, grammar)

Using this list of attributes, you can then read the student responses, form impressions as to the quality demonstrated for each of the attributes, and award a mark.

If you are concerned about whether you are marking consistently, one way of checking is to redo the first few essays in order to check your impressions and your grading. When your reread marks are comparable to the original marks, you have finished the task.

For **analytic scoring**, prepare a list of attributes that you feel the open response should contain and assign a proportion of the available marks to each. As you read the responses, identify the attributes as they occur and award the marks accordingly.

Holistic scoring has the disadvantage of having less detail for the justification of the final mark. By breaking an open-response item down into constituent parts (analytic scoring), there is a dilution of the power of this type of question to allow students to synthesize a wide variety of ideas in an individual and creative way. Apart from that, there seems to be little difference in the reliability of the two methods.

Short-Answer Items

Description

Short-answer items require students to supply an answer to a specific question. How specific the question is in scope depends on the purpose of the assessment.

Evaluation Context

Short-answer items are most often used for testing students' ability to recall knowledge. This type of item usually is of the completion type where one word or a phrase is required for the answer. Short-answer questions can also be used to test higher levels of thinking or to assess attitude. To do this a sentence or two may be required, but the format would still correspond to the category of short answer.

Short-answer items are relatively easy to develop. They are useful when you wish to assess how well students have internalized content, but they should be complemented with other techniques that assess other aspects of student progress.

Guidelines for Use

- Short-answer items can range from one-word answers to paragraph answers. Arrange for a variety of items in your test.
- If your short-answer question will be of the completion type, try not to simply leave out words from sentences taken from the resource material used for instruction. For example, if you want to see whether your students can recall the term 'alliteration' when they see an example of it, develop your item: "The figure of speech exemplified by 'lovely, laughing lilacs' is _____." The response from your students is then a one-word item that is either correct or incorrect.
- Make sure that enough detail is provided so that the item is unambiguous. For example, "Fluorine was first isolated in ____." is ambiguous. The answer could be the location or the year of the experiment. Try: "Fluorine was first isolated in the year ____."
- If the question is in the form of filling in the blank, arrange for the blank to come at the end of the item. This allows the student answering to absorb all the information before being faced with the unknown. For example, instead of "In the year ____, Saskatchewan became a province of Canada" try "Saskatchewan became a province of Canada in ____."
- For completion items, tell your students whether the length of the blank reflects the length of the intended answer. The item is somewhat easier when the length of the blank does reflect the length of the intended item.
- If your item requires the students to write sentences rather than fill in a blank, tell them how much you want them to write – for example, "Give three important reasons why some western premiers advocate the Triple E Senate. Write one sentence for each reason."

Example

An example of a short-answer question being used to assess higher levels of thinking would be as follows.

> If you are teaching a unit on safety to your elementary school class, you may wish to construct a short-answer item that would describe a fictional child's activity in a situation that the students would recognize as dangerous. The students would be asked, in their short-answer response, to write down what words they would call to this child to persuade him or her to move away from the situation. The words would have to fit the following categories: what, why, and how. Through the short responses of your students, you would be able to assess a variety of thinking levels. Some examples are recall or recognition of what had been covered in the unit to do with safety in situations such as this; analysis of the situation in order to make a response; prediction of what would happen based upon what they know; synthesis of what they know in order to form a response; and evaluation of the importance and effect of the words in order to include them on the list. Such a question format would then give you the key words that you would be able to use as a criteria base for assessing the students' learning. You may wish to use a checklist or a rating scale to record the student information.

Using the Information for Student Evaluation

The simplest way is to assign the same number of marks for each question and use the total, or some predetermined fraction of it, as the score. However, short-answer items often vary in complexity and significance. You may wish to assign different marks to different items. If you do, indicate the number of available marks beside each item.

Variants

Multiple-choice items or true/false items can be turned into short-answer items by requiring the students to select the correct response and to write an answer justifying their choice. When marking the answer, you will have to decide what weight to give to the correctness of the response and to the quality of the written justification.

Matching Items

Description

Matching-item questions consist of a set of problems or questions (known as 'premises'), aligned in one column, and a set of possible responses aligned in another column.

Evaluation Context

Matching-item questions are most commonly used to test the recall of factual information. They can provide broad coverage of related facts, associations, and relationships in a quick and efficient manner. Matching items are most effective when used in conjunction with other types of items. Too many matching exercises on one test can result in student fatigue.

Guidelines for Use

- Develop groups of facts that you wish to include. Members of a group should be closely related. If members are widely different, students will be able to use common sense to answer the question.

- Develop parallel lists of 'premises' and 'responses' for the facts in the group. For example, for 'fruits' you might have the following premises.

  1. has furry skin and no central stone
  2. grows in clumps of a hundred or more
  3. has furry skin and a central stone
  4. is produced one per plant

The responses may include the following

  A. grape
  B. nectarine
  C. peach
  D. kiwi
  E. tomato
  F. pineapple

Notice that there are a few more responses than premises. This arrangement reduces success due to guessing.

Hints

- Make sure the directions are clear and provide all the information necessary.

- Keep the lists of premises and responses manageable. Overly long lists cause confusion and waste time through scanning of the lists.

- Arrange list items arbitrarily – for example, by length of word or alphabetically by initial letter. This jumbles the lists satisfactorily. Notice that in the example the last response matches the last premise, probably because the writer thought of them at the same time. Re-ordering will eliminate that clue.

- Make sure that the material in each matching exercise is homogeneous in nature. Information that is unrelated does not serve as a plausible distractor.

- Ensure that the entire matching question is included on one page. To have the question at the bottom of the page where there is not enough room causes a split in the question that alters the nature of your question. You don't want half of one question on one page and the other half on the next page.

- While this technique is usually used for assessment purposes, you can use it during instruction by having the students develop lists of premises and responses as part of their review of the unit. You can then use the lists to develop items for the subsequent test.

Multiple-Choice Items

Description

In a multiple-choice item, a direct question or complete statement (the stem) is presented and then followed by a number of possible answers, one of which is correct.

Evaluation Context

Multiple-choice items are used most often to test student recall and recognition. If carefully constructed, they are also capable of testing higher-order thinking skills.

With multiple-choice items being versatile and easy to mark, sometimes teachers are tempted to make whole tests of them. However, they are best used in conjunction with other types of items so that a wider range of student learning can be assessed and students have a chance to respond to different types of format.

Guidelines for Use

- A good stem should be straightforward and contain enough information to set the context for the item.

- The stem should be phrased as a question which demands a specific answer: "Which of the following is a metal?" Sometimes statements rather than questions are used as stems, but it is believed that questions help the respondent focus more quickly and sharply on the item. Where possible, the stem should be written in the positive. Negatives tend to be confusing. If a negative must be used, make sure that the negative word is stressed: "Which of the following is **not** a compound?"

- Avoid nonessential detail in the stem. In the following example, the first sentence is unnecessary. "Metals are very useful for our industry. Which of the following is a metal?" You want to make your stems as short and concise as possible, but you also want to state the problem as completely as necessary.

- The response options to the stem should be equivalent, of the same number, form and length, and equally plausible to the uninformed respondent.

Equally plausible responses:
a) sulphur
b) silver
c) bromine
d) oxygen

Obviously incorrect response:
a) sulphur
b) silver
c) bromine
d) elephant tusk

Clearly, 'elephant tusk' will be identified as being outside the general set of the other choices. The acid test is whether the respondent must read and consider **every** choice.

- The position of the correct response should be randomized. It is tempting to put the correct response as b) or c).

- Ensure that there are no grammatical or substantive clues that serve to indicate the correct response. Here is an example of each.

Grammatical: Which of the following cause food poisoning?

a) virus
b) excitement
c) bacteria
d) depression

The stem calls for a plural as the correct choice. Only 'bacteria' satisfies this requirement and so must be correct.

Substantive: Which of the following is a property of all metals?

a) coloured
b) solid at room temperature
c) unreactive with water
d) metallic luster

Since d) contains the word 'metallic', it could be identified as the probable choice.

- Be wary of using 'all of the above' or 'none of the above' as responses. Often they are used because it is difficult to find four or five plausible distractors. Unfortunately, they cause confusion for respondents. Finding distractors that share enough characteristics to be able to say 'all of the above' with certainty is difficult. The same applies to 'none of the above'.

- Make sure that the answer to one item is not contained in the stem of another item in the same test.

- Be prepared to accept legitimate answers, even when they come as a surprise to you. "Which one of the following authors should not be included in this list?"

  a) Margaret Atwood
  b) Northrop Frye
  c) Robertson Davies
  d) Jack Hodgins

  The teacher may have been expecting d), because Hodgins is the only West Coast writer. However, b) may be correct if the students identified Frye as the only writer who specialized in non-fiction writing, or a) if the students saw that Atwood was the only female writer on the list. In subsequent versions of this item, you should clarify the nature of the distinction you wish the students to make. For example, "Geographically speaking, which one of the following authors should not be included in this list?"

- Explore a variety of designs for the answer:
  - Select the one **correct** answer.
    This is by far the most common design.

  - Select the one **incorrect** answer.
    Sometimes it is easier to construct an item where the incorrect answer is required. If you use items of this sort, be sure to emphasize that you are expecting something different (as can be done by using **bold type**).

  - Select the **best** answer.
    This format allows you to construct more difficult items where shades of meaning are more important than absolute right or wrong answers. These items can be very effective but must be thoroughly tested to ensure that students are making the desired distinctions between the possibilities.

Using the Information for Student Evaluation

The simplest and probably the most appropriate strategy is simply to award the same number of points for each correct answer and award no points for incorrect ones. Various correction formulae designed to account for guessing do exist, but these are probably not appropriate for classroom tests. Do **not** award different numbers of marks for different items (e.g., two marks rather than one mark for numbers 5, 7, and 13 because they are more difficult). This will distract students by requiring them to make decisions about how they use their answering time and efforts.

Hints

Keep the language simple. The item should not be a test of reading skill.

True/False Items

Description

True/false items require the student to indicate whether a given statement is true or false.

Evaluation Context

True/false items are used mainly to assess student knowledge of content. However, with careful attention to the items' construction, a true/false test can measure abilities in a broad range of thinking levels.

For instance, should you wish to test students' recall of information, questions could be constructed that would ask students to establish whether or not a rule, a principle, or a definition is correct. Should you wish to assess students' ability to use a definition of a concept, questions could be constructed to ask students to classify statements as examples or non-examples of that concept. To involve students in evaluating material, questions could be constructed that would require students to agree or disagree with evaluative statements concerning the material.

True/false items are best used in conjunction with other types of items so that students have the opportunity to respond to a variety of testing formats.

Guidelines for Use

- **Developing the items**
  Make a list of the ideas you wish to include in the true/false items. By going through resource material, you can often identify the key ideas in a sentence, paragraph, or longer section. In order to develop natural-sounding items, use your own words to express the ideas. Do **not** use the wording of the resource material.

  Arrange for more false items than true ones. Guessers tend to guess true more often than false.

  Arrange for at least some false items to look correct. For example, "A volcano can**not** exist under the oceans because the water would put it out." (F) This item may appear plausible to an uninformed student. This type of item is to be distinguished from a 'trick' question. A 'trick' question fools both students who know the answer and students who do not. A plausible item fools only the students who do not know the answer.

- **Checking the items**
  Use language that is **simple** and **clear**. Avoid sentences that have complex sentence structures.

  Check that the item is grammatically correct and unambiguous. Words like **more**, **few**, **large**, or **good** are confusing. They are not definite enough.

  Check that only **one** idea is contained in each item. This is very important. You can easily have statements that contain more than one idea, with one part being true and the other being false.

  Check that negatives are used sparingly, if at all. Check that the negatives are clearly underlined or emphasized.

  The items you develop should prove a challenge to your students. They should **not** trick them.

- **Marking the items**
  You can count up the correct answers and use that as the mark. This is the easiest approach. You could also subtract the number of wrong answers from a previously established mark. This approach is generally used with large numbers of true/false items and should never result in a negative mark.

Example

Here is an example of a key idea: "The potato famine in Ireland in the 19th century."

Write **pairs** of items for each idea — one True (T) and one False (F). If you cannot write a pair of items, then the original idea was probably too fuzzy to lead to a good item. For example, "Both the peasants and the landlords suffered from starvation during the Irish potato famine." (F) "The landlords had enough food for themselves for survival during the Irish potato famine." (T)

Select one of the pairs as the test item and discard the other. Superficial plausibility may be a factor in your choice. For example, the first variant may appear to be the better item.

Hints

Provide two parallel sets of boxes where the students will check off either true or false. You can use them as a template for quick marking.

Variants

Sometimes you might ask the students to go beyond indicating True or False. You might ask them to explain their choice. This is now no longer the same testing situation and is much more akin to the short-answer type of item.

Time Management Suggestions

As you work through the process of reflecting on your present student evaluation program and move toward expanding your range of assessment techniques, the issue of time management becomes crucial. As teachers begin to work together to develop consistent approaches to student evaluation, consideration must be given to enabling teachers to find time to plan for assessment, to develop instruments, to collect student progress information, and to reflect on their practices. Although much of the issue of time management is outside the realm of this handbook, the following suggestions may help.

- Collaboration with colleagues is of tremendous value. It can reduce the time required to develop items such as rating scales and checklists and also target proven assessment techniques in your subject area. Examples of collaborative activities include the following.
  - Teachers of students requiring adaptations to curriculum content, instructional practices, learning environment, and assessment techniques can share valuable insights based on their own experiences.
  - Teachers teaching in the same subject area or across subject areas can work together to develop curriculum-based assessment instruments, whether they are tests, rating scales, checklists, or formats for anecdotal records. These instruments, developed over a period of time, could become a resource for the school division. This process could be ongoing for each of the new curricula with different groups of teachers contributing assessment examples to the school division's resources on student evaluation.
  - Teachers at the same grade level can share ideas concerning standards of performance. This will enhance the consistency in reporting student learning progress.
- It is important to establish student evaluation priorities. Using worksheets and charts such as the ones in this handbook is one way to do this. Integrating student learning outcomes, instructional strategies, and assessment techniques during unit planning will save you time.
- Peter Drucker, in his book *The Effective Executive*, warns that 79% of what we do is dictated by habit, not by need. According to Drucker, two time-wasting habits that, once eliminated, can free up time are perfectionism and inconsistency. Reflect on your current assessment techniques and ones you intend to use to see if the habits of perfectionism and inconsistency are present. Keep the following points in mind.
  - **appropriate frequency** (What assessment activities can be handled on a regular schedule?)
  - **value** (How much does this particular assessment instrument or activity contribute?)
  - **standardization** (Can I create master copies of assessment formats that can be completed as needed?)
  - **quiet time** (Is there a time of the day that can be set aside consistently to be used for the creating, organizing, and recording of assessment information?)
- Share the task of evaluating student progress with your students. Include your students in defining specific criteria for judging their work and their interactions with peers. Involve them in making formative assessments of their own learning progress. Having them keep an ongoing record of their progress gives the students part-ownership in determining the extent of their progress. As well, it gives them an awareness of what is important in assessing progress and provides them with some insights into their summative evaluation. A standard self-assessment procedure for students across subject areas makes this process easier.
- Varying your assessment techniques can save time. For example, marking essay items frequently places high time demands on a teacher. Collecting assessment information using a wider range of assessment techniques such as checklists and rating scales provides similar student assessment information with data collection spread over a longer time period.
- Banks of test items or assignments that you have found valuable for a particular curriculum can be constructed and saved. Good test items take time to construct. Over the course of a year you will acquire a number of good items. To store these items you may wish to utilize a computer or you may wish to use index cards filed according to topic. Coding that indicates the cognitive level and item type may be added to the top of the card.

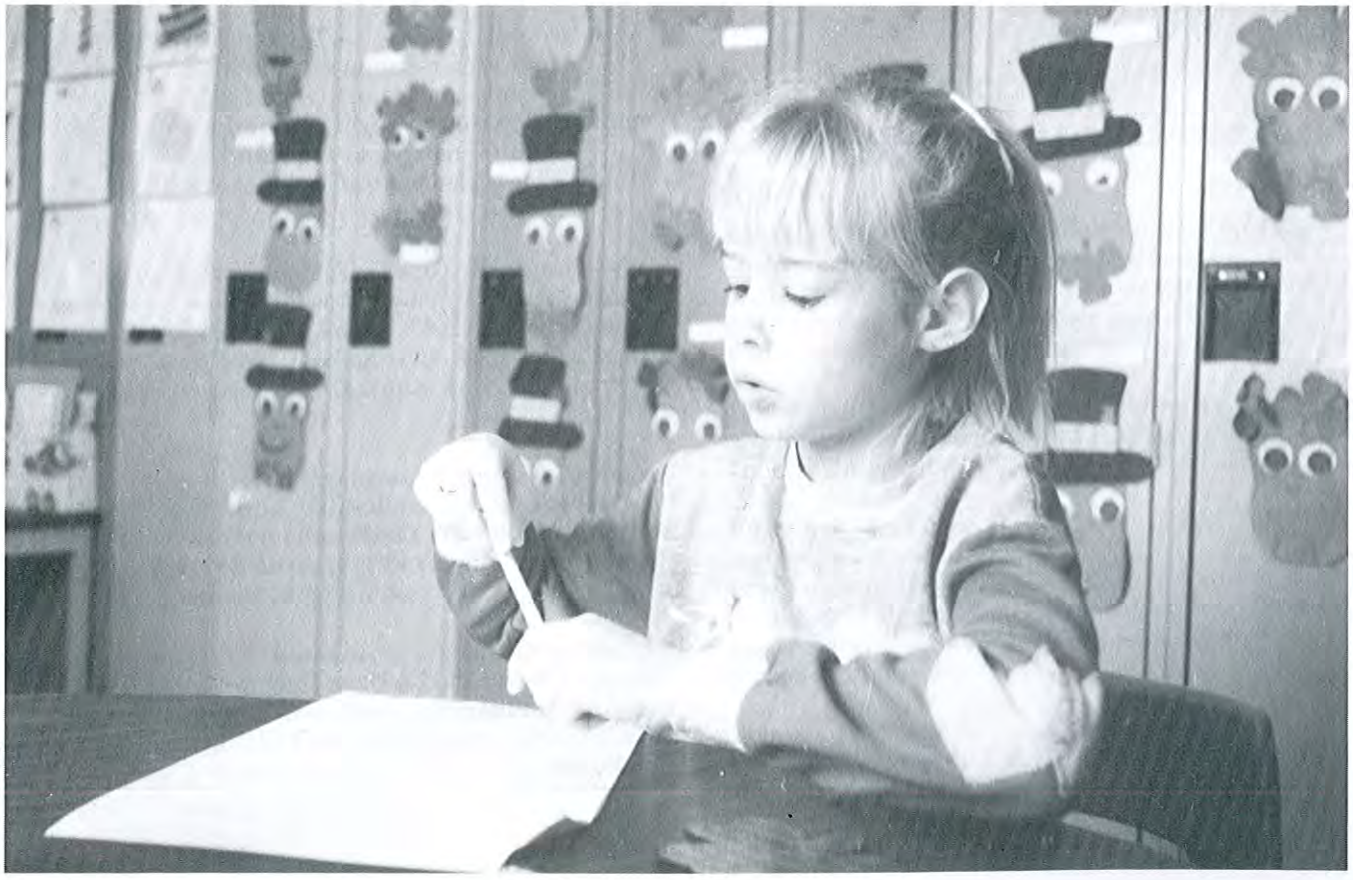
- Planning efficient methods of storing collected data is also an important time management issue.

  - Anecdotal records can be maintained on individual index cards and arranged in alphabetical order. Storage can be simplified by keeping the cards in a file box similar to one used for recipes. Anecdotal records can also be kept on adhesive memo strips and attached to the inside of a student folder. The teacher can carry a block of removable self-stick notes with him or her and, as the opportunity arises, record observations on an aspect of students' performance. These notes should be dated and labelled with the students' names so the teacher can transfer them to a folder in which such student data are kept.

  - Portfolios may take the form of envelopes, file folders, or binders. Teachers may file work samples for students, or students themselves may be involved in entering the selected work samples into whatever organizer the teacher uses. Introducing students to the organizational procedure you use increases their own repertoire of organizational skills.

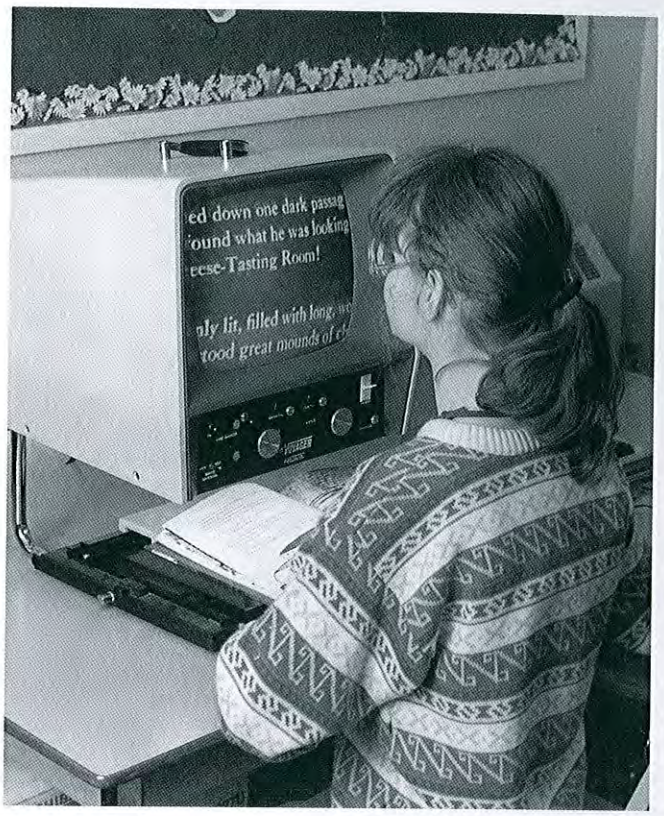
  - Keeping track of which students you have observed and recorded data on can take time. One suggestion that may help is to use the seating plan of your class(es). Make multiple copies of the plan. Be sure to record the date on the copy you are using. If in a particular week you target a group of students that you wish to observe, mark their names off on the seating plan. The following week you can target another group of students. Continue through the class and then begin the process again with a new copy of the seating plan. A variation of this method involves using removable self-stick notes on the original seating plan.

These are only a few suggestions for managing the pressures of time requirements during teaching activities. Keep in mind that change is a **process** that occurs over time. While you may have many ideas about how to enrich your student evaluation program, try to set reasonable objectives for yourself. Choose one or two assessment techniques that suit the learning objectives and instructional methods of a curriculum and become efficient at using them. Teachers sometimes feel they must change immediately. Remember, the most lasting and effective change occurs over time.



Conclusion

This handbook has guided you through the processes of taking stock of your own student evaluation practices, of exploring options for enriching your current usage of assessment techniques, and of considering the advantages of working with your colleagues on evaluation planning. The handbook has also described a range of assessment techniques to help you make evaluation-related choices that reflect your own particular teaching situation. The structure of the handbook reflects the underlying message of the principles of student evaluation that assessing and evaluating student progress is a process. In working through this document, you were involved in a process that involved planning, assessing, evaluating, and reflecting on your current evaluating practices.



It is recognized that, while this handbook is a tool that can assist in teachers' professional development in the area of student evaluation, it has limitations. It is important that teachers take the knowledge and skills developed through the handbook and put them to practical use within the context of their classrooms and schools. As with any developing skill, time and practice determine the level of proficiency. Continued development and refinement of expertise is fostered through an attitude of lifelong learning.

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Glossary

Adaptive Dimension
the concept of making adjustments in approved educational programs to accommodate diversity in student learning needs; includes those practices the teacher undertakes to make curriculum, instruction, and the learning environment meaningful and appropriate for each student

Accountability
preparation and ability to account to the public for the performance of the educational system

Affective Domain
a major area within the taxonomy of educational objectives pertaining to the hierarchical pattern of classification characteristics of attitudes, interests, and appreciation and valuing

Anecdotal Records
refer to written descriptions of student progress that a teacher keeps on a day-to-day basis

Appropriate Frequency of Assessment
appropriate balance between assessment and evaluation activities and instructional processes

Assessment
collection of information for the purpose of making judgments about student learning progress

Assessment Stations
areas designated by the teacher for student activities that are specifically used for assessment purposes

Bias
the treatment of students unequally by virtue of their gender, race, culture, socioeconomic status, or any other stereotyped bases

Cognitive Domain
a major area within the taxonomy of educational objectives pertaining to the hierarchical pattern of classification characteristics of knowledge outcomes and intellectual abilities and skills

Common Essential Learnings
a set of six interrelated areas containing understandings, values, skills, and processes that are considered important as foundations for learning in all school subjects: communication, numeracy, critical and creative thinking, personal and social values and skills, independent learning, and technological literacy.

Contract
agreement between a student or a group of students and a teacher regarding what will be done, who will do it, how it will be done, when it will be completed, and how it will be evaluated

Core Curriculum
Saskatchewan framework for curriculum that comprises learnings necessary for all students including Required Areas of Study, the Common Essential Learnings, and the Adaptive Dimension

Criterion
standard against which something is compared

Criterion-referenced
comparing students' results to the standard of what was taught

Curriculum
translation of educational goals into an organized set of intended learning outcomes and instructional plans

Diagnostic Evaluation
designated to identify the level of students' skills and knowledge so that appropriate instruction can be provided

Direct Instruction
an instructional strategy; highly teacher directed; includes methods such as lecture, didactic questioning, explicit teaching, practice and drill, and demonstrations

Evaluation
comparing assessment information against some standard such as curriculum learning objectives to make a judgment or a decision

Experiential Learning
an instructional strategy; inductive, learner-centered and activity-oriented

Extended Open-Response
a testing exercise that requires a student to respond comprehensively to an assigned topic

Formal Assessment
structured assessment procedures with specific guidelines for administration, scoring and interpretation of results

Formative Evaluation
designed for use during instruction to stimulate, guide, and evaluate learning in specific units of instruction

Group Assessments
assessments that focus on or account for the progress of a group

Halo Effect
the tendency to rate students with pleasing personalities and good 'track record' in class more highly than other students regardless of their actual performance on the tasks being rated

Holistic Rating Scale
a type of rating scale that combines global and analytic scoring methodologies

Independent Study
an instructional strategy; instructional methods that purposefully foster the development of individual student initiative, self-reliance, and self-improvement

Indirect Instruction
an instructional strategy; mainly student-centered; associated with methods such as inquiry, induction, problem solving, and discovery

Individual Assessments
assessments that focus on individual student progress; constructed by the teacher; completed individually by the students

Inference
an indicator of the extent to which the teacher is the instrument that evaluates whether a student attains a desired objective

Informal Assessment
a variety of procedures used to determine performance, student progress and/or direct instructional changes; less structured than or structured differently from standardized tests; results are relevant to instruction

Instructional Strategies
approaches teachers may take to achieve learning objectives; classification includes Direct Instruction, Indirect Instruction, Experiential Learning, Interactive Instruction, and Independent Study

Interactive Instruction
an instructional strategy; relies on discussion and sharing among participants

Kinesthetic
having to do with the sensation of position, movement, tension, etc. of the parts of the body

Learning Outcomes
includes Facts and Information; Concepts; Learning Generalizations; Step-by-Step Psychomotor Skills; Step-by-Step Cognitive Skills; Thinking Skills; Critical Thinking, Problem Solving, and Decision-Making Processes; Creative Thinking and Performance; Interpersonal and Social Skills; Attitudes, Appreciations, and Values

Norm-referenced
comparing students' results to results obtained from the group on which the test was normed

Observation Checklists
an assessment instrument or data recording device that records the presence or absence of attainment of desired concepts, skills, processes, or attitudes

Performance Assessments
assessment techniques that provide information on student learning in tasks that require students to actively engage in their learning through activities such as manipulating materials, demonstrating skills, solving multi-stage problems, or participating in debates

Performance Tests
assessment instruments that test how well a student performs a practiced behavior, the attainment of which is the primary goal of the teaching

Note: This is a limited definition of performance. If your use of the term is broader, (e.g., you think of performance in terms of process skills such as working cooperatively), then there are techniques in Ongoing Student Activities that will provide more information

Portfolios
method of organizing and storing of student-produced materials assembled over an extended period of time that allow the teacher to evaluate student growth and overall learning progress during that period of time

Program Evaluation
a formal process of gathering and analyzing information about some aspect of a school program in order to make a decision or to communicate the merits of the aspect to other decision makers or appropriate groups

Psychomotor Domain
a major area within the taxonomy of educational objectives pertaining to the hierarchical pattern of classification characteristics of motor skills, abilities, and dexterity

Rating Scales
data recording devices that allow the teacher to represent the extent to which specific concepts, skills, processes, or attitudes are attained by students

Required Areas of Study
seven areas of study required for all students within the context of the Saskatchewan Core Curriculum: language arts, mathematics, arts education, health education, physical education, science, and social studies

Self-referenced
comparing students' assessment results to her/his development over time

Summative Evaluation
designed to be used at the end of instruction; measures the extent of student learning progress relative to the learning outcomes of the course of instruction

Systematic
a factor of consideration for the timing and scheduling of assessment and evaluation processes through a given course of study

Weighting
assigning the relative importance or value to a single item or elements within a list of related items

Teacher Notes: