



MEANINGFUL ASSESSMENT

A MANAGEABLE AND COOPERATIVE PROCESS

DAVID W. JOHNSON

ROGER T. JOHNSON

MEANINGFUL ASSESSMENT

**A Manageable
and Cooperative Process**

G420/W2

DAVID W. JOHNSON

University of Minnesota

ROGER T. JOHNSON

University of Minnesota

ALLYN AND BACON

Boston ■ London ■ Toronto ■ Sydney ■ Tokyo ■ Singapore

Series Editor: *Arnis E Burvikous*
Series Editorial Assistant: *Lauren Finn*
Marketing Manager: *Kathleen Morgan*
Editorial-Production Service: *Omegatype Typography, Inc*
Composition and Prepress Buyer: *Linda Cox*
Manufacturing Buyer: *Julie McNeill*
Cover Administrator: *Kristina Mose-Libon*
Electronic Composition: *Omegatype Typography, Inc*



Copyright © 2002 by Allyn & Bacon
A Pearson Education Company
75 Arlington Street
Boston, MA 02116

Internet www.ablongman.com

All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the copyright owner.

ISBN 0-205-32762-1

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1 06 05 04 03 02 01

The purpose of this book is to provide you with a practical guide to (a) make your assessments *more meaningful and manageable* and (b) help you use cooperative learning as an inherent part of the assessment process. Read this book carefully and apply its content immediately and often in the classes you teach.

The call for increased accountability of schools has placed an emphasis on assessment. This book presents a wide range of procedures for assessment in a meaningful and practical format that makes them easy to understand. Most of the more powerful and interesting assessment procedures require considerable time and effort to implement and use. Teachers simply do not have the time and energy to use them. Cooperative learning groups provide the setting in which new assessment procedures can be integrated with instruction so that students provide the assistance teachers need. In cooperative learning you can link what is taught with what is measured. The more skillfully instruction and assessment are *interwoven in cooperative learning* groups, the more students can learn and the more successful the teacher can be.

This book will be most useful when read with one or more colleagues. In reading and discussing this book with colleagues, you are then in a position to help each other implement with real fidelity new assessment procedures in your classrooms. Implementing new assessment procedures, as with all teaching, is like being in love—it always goes better with two.

NATURE OF THIS BOOK AND HOW TO USE IT

This book invites you to improve the quality of your assessments. Acceptance of this invitation consists of two parts:

1. Increasing your understanding of the assessment process and assessment procedures
2. Enhancing your ability to perform assessments

This book contains resources, tools, ideas, hints, and suggestions to enable you to improve the quality of your assessments. If increasing the quality of your assessments seems, at times, overwhelming, use one procedure at a time until it becomes integrated into your instructional routines. Small successes can add up to major gains if you persevere and keep striving to improve.

The purpose of this book is to bring together the theory on assessment and the practical procedures that have proved to be useful to teachers and students. This book focuses on making classroom and school assessments more meaningful and more manageable. Each chapter in this book has a specific purpose and focuses on specific, essential assessment procedures. Assessment begins with a goal-setting conference. Once students' goals are set, students participate in the instructional program. The quality and quantity of academic learning, level of reasoning, skills and competencies, attitudes, and work habits may be assessed by standardized and teacher-made tests, compositions and presentations, individual and group projects, portfolios, questionnaires, and learning logs and journals. The assessment data is used as part of a total, quality learning procedure emphasizing continuous improvement. Teachers participate in collegial teaching teams to ensure assessments are fair

and complete. Finally, periodically teachers use the assessment data to determine students' grades.

This is not a book that you can read with detachment. It is written to involve you in its content. Reading this book will enable you not only to learn the theoretical and empirical knowledge now available on assessment, but also to apply this knowledge in practical ways. As you participate in the activities, use diagnostic procedures for assessing your current practices and skills, and discuss relevant theory and research, you bridge the gap between theory and practice.

To use this book you should diagnose your present knowledge and skills in the areas that are covered, read the chapters carefully, actively participate in the activities, reflect on your experiences, and integrate the information and experiences into action theories related to assessment. You should then plan how to implement the assessment procedures and continue your skill- and knowledge-building activities after you have finished reading the book.

ACKNOWLEDGMENTS

We would like to thank Linda Johnson for developing the graphics for this book and Catherine Mulholland and Laurie Stevahn for their help in editing. Their creativity and hard work are deeply appreciated.

CONTENTS

Preface	xi
---------	----

CHAPTER ONE

Making Assessment Manageable and Meaningful	1
WHAT IS ASSESSMENT?	1
ASSESSMENT AND EVALUATION	2
ASSESSMENT ISSUES	3
MEANINGFUL ASSESSMENTS	5
MAKING ASSESSMENTS MEANINGFUL	12
MAKING ASSESSMENT MANAGEABLE	14
TYPES OF LEARNING GROUPS	19
/ UNDERSTANDING COOPERATIVE LEARNING	20
STANDARDS AND TESTING MOVEMENT	24
SUMMARY	27

CHAPTER TWO

Goal-Setting Conference	35
A FABLE WITH A SAD ENDING	35
WHY GOALS ARE IMPORTANT	35
CONFERENCING WITH STUDENTS	37
GOAL-SETTING CONFERENCES	38
/ THE THREE PHASES OF GOAL SETTING	40
STEPS OF TEACHER-STUDENT GOAL-SETTING CONFERENCE	40
CONFERENCING WITH COOPERATIVE LEARNING GROUPS	41
COOPERATIVE LEARNING GROUPS CONFERENCING WITH THEIR MEMBERS	42
COOPERATIVE LEARNING GROUPS CONFERENCING WITH ANOTHER GROUP	44
SUMMARY	44

CHAPTER THREE

Standardized Tests	53
WHAT ARE STANDARDIZED TESTS?	53
ADVANTAGES OF STANDARDIZED TESTS	54

DISADVANTAGES OF STANDARDIZED TESTS	56
HOW TO HELP YOUR STUDENTS DO BETTER ON STANDARDIZED TESTS	58
SUMMARY	59

CHAPTER FOUR

Teacher-Made Tests 62

TESTING STUDENTS	62
OBJECTIVE TESTS	62
TYPES OF OBJECTIVE TEST ITEMS	62
ESSAY TESTS	66
TEST BLUEPRINTS	67
COOPERATIVE LEARNING AND TEACHER-MADE TESTS	68
ACADEMIC TOURNAMENT	73
SUMMARY	76

CHAPTER FIVE

Compositions and Presentations 79

STUDENT PERFORMANCES AND COOPERATIVE LEARNING	79
COOPERATIVE WRITING AND EDITING PAIRS	80
WRITING TOGETHER	81
PRESENTING TOGETHER	84
PREPARATION PAPERS AND PRESENTATIONS	85
SUMMARY	87

CHAPTER SIX

Projects 95

NATURE OF PROJECTS	95
WHY USE PROJECTS?	95
HOW TO ASSIGN PROJECTS	95
INDIVIDUAL ACCOUNTABILITY	98
SUMMARY	99

CHAPTER SEVEN

Student Portfolios 103

WHAT IS A PORTFOLIO?	103
CONTENTS OF PORTFOLIOS	104

WHY USE PORTFOLIOS?	106
HOW TO USE STUDENT PORTFOLIOS	108
SUMMARY	113

CHAPTER EIGHT

Observing Students 117

ASSESSMENT THROUGH OBSERVING STUDENTS LEARN	117
THE BASICS OF OBSERVING	118
PREPARING FOR OBSERVING	124
BEING AN OBSERVER	126
SUMMARIZING OBSERVATIONS, GIVING FEEDBACK, FACILITATING ANALYSIS	131
SUMMARY	136

CHAPTER NINE

Assessing Social Skills 147

WHAT ARE SOCIAL SKILLS?	147
WHY TEACH AND ASSESS SOCIAL SKILLS?	148
HOW TO ASSESS SOCIAL SKILLS	150
TEACHING SOCIAL SKILLS	151
CREATING COOPERATIVE SITUATIONS IN WHICH SOCIAL SKILLS CAN BE USED	156
INTERVENING TO IMPROVE USE OF SOCIAL SKILLS	157
ASSESSING KNOWLEDGE OF SOCIAL SKILLS	160
SELF-ASSESSMENT OF SOCIAL SKILLS MASTERY	160
SETTING GOALS FOR CONTINUOUS IMPROVEMENT	160
REPORTING ON STUDENTS' SOCIAL SKILLS	162
SUMMARY	162

CHAPTER TEN

Assessing Student Attitudes 168

IMPORTANCE OF STUDENT ATTITUDES	168
ASSESSING STUDENT ATTITUDES	169
DECIDING WHICH ATTITUDES TO MEASURE	171
CONSTRUCTING YOUR OWN QUESTIONNAIRE	171
HOW GOOD ARE YOUR QUESTIONS?	172
DECIDING ON TYPES OF RESPONSES TO QUESTIONS	173

DECIDING ON QUESTION CONTENT	173
DECIDING ON QUESTION SEQUENCE	174
DECIDING ON PHYSICAL LAYOUT OF QUESTIONNAIRE	176
DECIDING ON OVERALL FORMAT OF QUESTIONNAIRE	176
STANDARDIZED ATTITUDE MEASURES: CLASSROOM LIFE	176
MAKING DECISIONS ON THE BASIS OF ATTITUDES	177
SUMMARY	178

CHAPTER ELEVEN

Interviewing Students 192

WHAT IS AN INTERVIEW?	192
WHY INTERVIEW STUDENTS?	193
HOW TO INTERVIEW STUDENTS	194
TYPES OF INTERVIEW QUESTIONS TO ASK STUDENTS	195
ANALYZING STUDENTS' RESPONSES	196
SUMMARY	196

CHAPTER TWELVE

Learning Logs and Journals 201

WHAT ARE LEARNING LOGS AND JOURNALS?	201
WHY USE LOGS AND JOURNALS?	201
HOW TO USE LOGS AND JOURNALS	203
HOW TO ASSESS LOGS AND JOURNALS	203
ACTION THEORIES AND JOURNALS	204
LOGS AND INFORMAL COOPERATIVE LEARNING	207
SELF- AND OTHERS' RATINGS	209
SUMMARY	210

CHAPTER THIRTEEN

Total Quality Learning and Student Management Teams 214

CONTINUOUS IMPROVEMENT OF QUALITY OF LEARNING	214
CONTINUOUS IMPROVEMENT PROCEDURE	215
STEP 1: FORM TEAMS	216
STEP 2: ANALYZE ASSIGNMENT AND SELECT A LEARNING PROCESS FOR IMPROVEMENT	216

STEP 3: DEFINE THE PROCESS	216
STEP 4: ENGAGE IN THE PROCESS	218
STEP 5: GATHER INFORMATION ABOUT THE PROCESS	218
STEP 6: PLAN FOR IMPROVEMENT	222
STEP 7: REPEAT LEARNING PROCESS IN A MODIFIED WAY	223
STEP 8: INSTITUTIONALIZE CHANGES	223
STUDENT MANAGEMENT TEAMS	223
SUMMARY	225

CHAPTER FOURTEEN

Teaching Teams and Assessment	227
COLLEAGIAL TEACHING TEAMS	227
CONDUCTING THE ASSESSMENT AND REPORTING PROCESS	228
CONTINUOUS IMPROVEMENT OF INSTRUCTION, ASSESSMENT, AND REPORTING	234
ASSESSMENT TEAMS	236
SUMMARY	238

CHAPTER FIFTEEN

Giving Grades	243
WHAT IS GRADING?	243
WHY GRADES MUST BE FAIR	243
SUBJECTIVE NATURE OF GRADING	246
TYPES OF GRADING SYSTEMS	246
STANDARDIZING YOUR SCORING SYSTEM	247
HOW TO GRADE	249
CHECKLISTS AND NARRATIVES	250
GIVING STUDENTS GRADES IN COOPERATIVE LEARNING	251
SUMMARY	254

CHAPTER SIXTEEN

Involving Students in Assessment	258
WHY INVOLVE STUDENTS?	258
HOW TO INVOLVE STUDENTS IN CREATING CRITERIA AND RUBRICS	259
STUDENT-LED CONFERENCES	260
SUMMARY	263

CHAPTER SEVENTEEN

Reflections 267

CONDUCTING ASSESSMENTS 267

CONFERENCING WITH STUDENTS 271

ASSESSMENT PROCEDURES 272

TOTAL QUALITY LEARNING 275

TEACHING TEAMS AND ASSESSMENT 276

GIVING GRADES 276

LOOKING FORWARD 276

Glossary 278

References 284

Index 287



MAKING ASSESSMENT MANAGEABLE AND MEANINGFUL

WHAT IS ASSESSMENT?

Education is not filling a pail. It is lighting a fire.

— W. B. Yeats

Aesop tells of two travelers who were walking along the seashore. Far out they saw something riding on the waves. “Look,” said one, “a great ship rides in from distant lands, bearing rich treasures!” As the object came closer, the other said, “That is not a great treasure ship. It is a fisherman’s skiff, with the day’s catch of savory fish!” Still nearer came the object and the waves washed it up on shore. “It’s a chest of gold lost from some wreck,” they cried. Both travelers rushed to the beach, but there they found nothing but a water-soaked log. The moral of the story is, *before you reach a conclusion, do a careful assessment.* ■

ACTIVITY 1.1

Demonstrate your understanding of the following concepts by matching the definitions with the appropriate concept. Check your answers with your partner and explain why you believe your answers are correct.

CONCEPT	DEFINITION
_____ 1. instruction	a. Change within a student that is brought about by instruction
_____ 2. learning	b. Judging the merit, value, or desirability of a measured performance
_____ 3. assessment	c. Structuring situations in ways that help students change, through learning
_____ 4. evaluation	d. Collecting information about the quality or quantity of change in a student, group, teacher, or administrator

(Answers: 1. c, 2. a, 3. d, 4. b)

Doing careful assessments is an inherent responsibility of being an educator. Instruction, learning, assessment, and evaluation are all interrelated. Teachers are responsible for instructing students to create learning, which is assessed to (a) verify learning is taking place and (b) improve the effectiveness of instruction. Periodically, assessment is used to judge the quality and quantity of learning and to award grades. Instruction, learning, assessment, and evaluation are so intertwined that it is hard to separate them. In Activity 1.1, match the definition with the appropriate concept. Compare your answers with the answers of a partner, and then explain to him or her how instruction, learning, assessment, and evaluation are interrelated.

ASSESSMENT AND EVALUATION

You can have assessment without evaluation, but you cannot have evaluation without assessment. Ideally, you assess continually whereas you evaluate only occasionally. You can use the information provided by assessments to evaluate

1. **Students.** Grades, honors (such as for National Honor Society, honor's lists, valedictorian), and graduation based on exit criteria (the knowledge and skills students need to be graduated from a program, grade, or school) can be awarded based on assessment data.
2. **Teachers.** Instructional programs can be assessed to determine whether they are effective and whether teachers deserve recognition and merit salary increases.
3. **Schools and districts.** To determine the effectiveness of schools and districts, comparisons must be made to other schools, districts, states, and countries. To make such comparisons, schools have to use the same assessment procedures.

The quality of the assessment largely determines the quality of the evaluation. If the assessment is faulty, the evaluation will be faulty. A valid judgment can only be made if an accurate and complete assessment has taken place.

Assessment, therefore, involves collecting information about the quality or quantity of a change in a student, group, class, school, teacher, or administrator. The effectiveness of an assessment depends on the use of minimal resources to

1. **Achieve the goals of the assessment.** Generally, the goals are to obtain valid and reliable information about the assessee's level of performance. **Valid assessments** actually assess what they were designed to assess, all of what they were designed to assess, and nothing but what they were designed to assess. **Reliable assessments** occur when a student's performance remains the same on repeated measurements.
2. **Maintain effective working relationships among assessors, assessees, and all other relevant stakeholders.** This is an often-neglected aspect of assessment. High-quality assessments result from collaboration among the individuals conducting the assessment, the individuals whose performances are being assessed, and the individuals who have a stake in a valid and reliable assessment taking place. If any aspect of the assessment process damages the relationships involved, the long-term effectiveness of the assessment program is decreased.
3. **Increase the motivation of all involved parties to participate in future assessments.** Ideally, the assessment experience should be such that all participants look forward to the next assessment opportunity. To conduct high-quality assessments, both the assessor and the assessee have to be motivated to ensure that the assessment has valid and reliable results. If any aspect of the assessment process decreases the willingness of the participants to engage in future assessments, the as-

assessment is ineffective. The greater the indifference or resistance to the assessment is, the lower the quality of assessment and the ease of conducting the assessment are.

The effectiveness of an assessment is decreased anytime something interferes with (a) achieving the goals of the assessment, (b) maintaining effective working relationship among assessors, assessees, and other stakeholders, and (c) motivating participation in future assessments.

ASSESSMENT ISSUES

Two central issues in conducting assessments are how to make assessments meaningful and how to make them manageable. To be *meaningful*, assessments have to

1. Be perceived by major stakeholders (such as students and teachers) as having a significant purpose. Significant purposes are tied to the motivation to have the assessment take place. The more significant the assessment seems, the more motivated the assessor and assessees will be to facilitate the assessment.
2. Consist of procedures that are clearly understood. The more clearly participants understand the procedures, criteria, and rubrics used in the assessment process, the more able and willing they will be to facilitate the assessment process and ensure that high-quality assessments take place.
3. Provide a clear direction for increasing the quality of learning and instruction. The more useful the results are expected to be in providing direction to future learning and instruction, the more motivated individuals will be to engage in the assessment.

Unless the purpose is perceived to be significant, the procedures are clearly understood, and the results are perceived to be useful and relevant, the individuals whose performances are being assessed will not do their best and will not facilitate the assessment process. Even high-stakes assessments can be resisted when they are perceived to be meaningless or unmanageable. Yet low-stakes assessments can be entered into with great enthusiasm and effort when they are perceived to be meaningful and easily manageable. (See Figure 1.1.) To be *manageable*, assessments have to provide useful information with the expenditure of minimal resources. Manageability includes whether

1. The available resources are adequate for the requirements of the assessment procedure. Each assessment procedure requires certain resources, such as time and materials. The more resources required, the harder the assessment is to manage. If the required resources are beyond the capacity of the teacher, the assessment is unmanageable unless, of course, the resources of colleagues and/or students are enlisted to help with the assessment.
2. The value of the information obtained is worth the expenditure of the resources. The value of the information resulting from the assessment must balance the resources required to obtain the information.

Manageability depends on the percentage of the available resources needed to conduct the assessment. Available resources have to be allocated to instruction, general classroom management (record keeping, relationships with parents), general school management (faculty meetings, committees), and so forth. From the total amount of resources available for assessment, the amount that each assessment procedure takes determines the likelihood that the procedure is used.

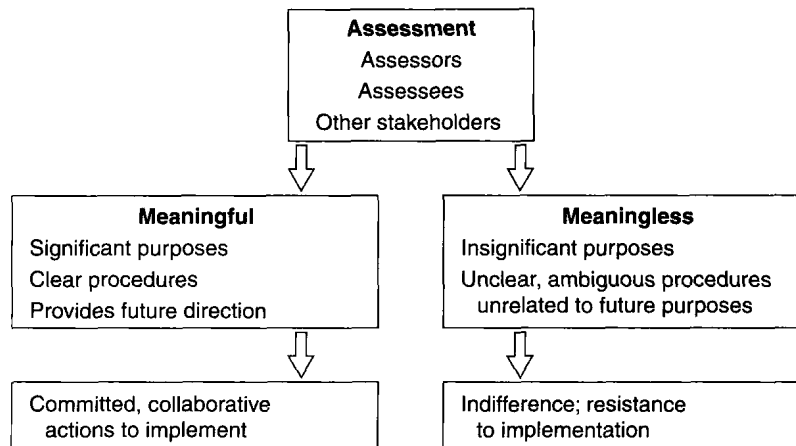


FIGURE 1.1 Meaningful Assessment

Power of Involvement

There are a number of reasons for involving students in assessment decisions (Johnson & F. Johnson, 2000). First, involvement tends to increase the quality of decisions by utilizing the resources of students as well as the teacher. In general, high involvement in decision making increases the use of available resources, which in turn increases the quality of the decision. The more students participate in making a decision, the more resources that are available and, consequently, the higher is the quality of the decision about assessment. Students may be interesting resources for planning, conducting, and reporting assessments because they have developed a unique perspective from many, many experiences of having been assessed and should, therefore, be especially involved in making a decision.

Second, involvement tends to increase members' commitment to implement assessment in a high-quality way. Compared with the teacher explaining the assessment procedures and having a student committee help plan the assessment, direct involvement of all students in planning the assessment results in stronger commitment to implement the procedures.

Third, involvement tends to reduce students' resistance to feedback and the need to change. To change in constructive ways, students need timely and specific feedback about their learning progress and their strengths and weaknesses. For many students, teacher-conducted assessments are threatening. Defensiveness by the students can result in resistance to the feedback and rejection of the implications. Teacher feedback can be distorted by the psychological defense mechanisms an individual uses to maintain a positive self-image. If students are involved in planning and conducting assessments, they will be less resistant to receiving and using feedback to decrease weaknesses and to increase strengths.

Fourth, involvement tends to increase student achievement. Assessing classmates' work and giving them feedback on the quality of their efforts has numerous positive effects on achievement. Participating in assessments directs students' attention toward the intended outcomes of instruction. It increases students' understanding of the criteria and rubrics being used. It requires students to learn at the levels of understanding, application, and interpretation (as opposed to just knowledge), thereby increasing their retention and transfer of what is being taught. Explaining feedback to classmates enhances students' understanding of what is being taught. Participating in assessments complements students' learning efforts and increases the likelihood that students learn, retain, and transfer what is being taught.

Fifth, involvement tends to result in greater motivation to learn and more positive attitudes toward learning and assessment. Numerous studies indicate that if you want to change people's behaviors and attitudes, you should involve them in group discussions that lead to (a) public commitment to the new behaviors and attitudes and (b) the perception that all members of the group support the new behaviors and attitudes. Involving students in planning and conducting assessments tends to result in public commitment to complete assignments at a high level of quality and the awareness that classmates are making the same commitment. The result tends to be greater motivation to learn and more positive attitudes toward learning and assessment.

Sixth, involvement tends to increase self-assessment. Assessing the work of classmates helps students gain insight into the quality of their own work, the degree of skill they have in various areas, and any misconceptions they have that need correction. Such self-assessments tend to provide students with short-term goals, to clarify the steps to be taken to complete assignments, and to provide feedback concerning their learning progress.

MEANINGFUL ASSESSMENTS

To plan, conduct, and manage meaningful assessments, you need to answer the following questions:

1. What student performances may be assessed?
2. What assessment procedures may be used?
3. What is the purpose of the assessment?
4. What is the focus of the assessment?
5. In what setting will the assessment be conducted?
6. Who are the stakeholders in the assessment?
7. What evaluation procedure should be used?

In understanding what is to be assessed, you must select the student performances that you want to assess and the procedures you will use. In doing so, you must understand the purpose of the assessment, its focus, the setting in which the assessment will take place, what is at stake, who are the relevant stakeholders, and the evaluation procedure.

Student Achievement Assessed

There is an old saying, "What gets measured gets done." What teachers assess may be the single most powerful message as to what teachers value and wish to accomplish. There are so many indices of student learning that all cannot be discussed in any one book. Given in the following list, however, are some of the most common indices of student learning:

1. **Academic learning.** What students know, understand, and retain over time
2. **Reasoning.** The quality of students' reasoning, conceptual frameworks, use of the scientific method and problem-solving, and construction of academic arguments
3. **Skills and competencies.** Examples are oral and written communication skills, teamwork skills, research skills, skills in organizing and analyzing information, technology skills, skills in coping with stress and adversity, conflict resolution skills
4. **Attitudes.** The attitudes students develop, such as a love of learning, commitment to being a responsible citizen, desire to read, liking scientific reasoning,

self-respect, liking diversity, commitment to making the world a better place, and many others

5. **Work Habits.** The work habits students develop, such as completing work on time, using time wisely, meeting responsibilities, striving for quality work, continually improving one's work, striving to add value to each job one does, and so forth

Assessment is collecting information about the quality or quantity of a change in a student, group, teacher, or administrator. **Performance assessment** is collecting information about demonstrations of achievement involving actually performing a task or set of tasks, such as conducting an experiment, giving a speech, writing a story, or operating a machine. After the intended outcomes of instruction are defined, the procedures used to determine whether they were achieved must be selected.

Assessment Procedures

After deciding which student achievements to assess, you need to decide which procedures to use to determine the extent to which students are achieving the intended learning outcomes of instruction. The procedures you can use include

Goal-setting conferences	Simulations
Standardized tests	Questionnaires
Teacher-made tests, quizzes, exams	Interviews
Written compositions	Learning logs and journals
Oral presentations	Student management teams
Projects, experiments, portfolios	Total quality learning procedures
Observations	Teacher assessment teams
Record keeping (attendance, participation, homework, extra-credit)	Student-led parent conferences

Each of the above procedures is discussed in some detail in this book. Each chapter introduces one or more tools to assess students' learning and addresses the questions:

1. What is the procedure/tool?
2. Why should you use it?
3. How should you use it?
4. How do you adapt (customize) it to your needs?

To decide which student performances are to be assessed by which procedures, you should clarify the purpose of your assessment, whether it focuses on processes or outcomes, the setting in which the assessment takes place, and whether the assessment is of high or low stakes to which stakeholders. Examples of these considerations are listed in Table 1.1.

Purpose of Assessment

To achieve your purposes, you match the student performances you can assess with the appropriate assessment method. The purposes for assessing may be to (a) diagnose students' present level of knowledge and skills, (b) monitor progress toward learning goals to help form the instructional program, and (c) provide data to judge the final level of students' learning.