Assessment for Learning

Hong Kong Teacher Education

Rita Berry

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General Series Editor: Kerry J. Kennedy, The Hong Kong Institute of Education

The volumes in the series set out to provide contextualized reflections on issues that most teachers come across. Each volume will delve into discussions that will enhance and improve teaching skills. The series covers a wide range of topics including curriculum and assessment, understanding and managing diversity, guidance and counselling, and human development.

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Foreword

Teachers play a fundamental role in the social and economic development of any society. Their preparation as professionals to meet the challenges of post-modern living is a key priority for both governments and universities. Many changes have taken place in teacher education since the establishment of formal institutions of teaching training in Hong Kong over one hundred years ago. Today, the Hong Kong government is committed to an "all graduate, all trained" profession and university level institutions are now responsible for all teacher education across early childhood, primary and secondary education. It is against this background that the Hong Kong Teacher Education Series has been developed.

The incentive behind the series is simple: the need for resources that reflect local values, professional contexts and cultures. The market for resources is dominated by Western materials that are either embedded in non-local contexts or that assume there is a general context that is relevant across cultural boundaries. Such resources, of course, can be useful but they do not help Hong Kong's future teachers appreciate and understand the unique contexts that characterize Hong Kong's schools. Thus the Hong Kong Teacher Education Series will provide culturally relevant resources that embed both theory and practice in local classroom contexts.

Hong Kong's aspirations to be a bilingual triliterate society will be reflected in the Hong Kong Teacher Education Series. Dual-language versions of the resource material will be produced for use in either Chinese or English teacher education contexts. This is recognition of the centrality of language in the lives of Hong Kong people. It places value on both English and Chinese in the teaching/learning process and will ensure that the resources are accessible to all teacher education students in Hong Kong.

The initial titles that have been selected for this series reflect the needs of future teachers in Hong Kong's classroom: classroom management, assessment for learning, managing and understanding diversity. Subsequent titles will deal with curriculum, human development, and school guidance and counselling. These professional areas will introduce teacher education students directly to the concepts, ideas and practices they will need as young professionals in Hong Kong's classroom. Case studies of actual school practice will bring the text to life as students engage with the realities of actual teachers and classrooms. This will help to prepare them in a realistic and practical way so that they are well prepared for their own students and classrooms.

As important as the focus on practice is in this series, it does not mean that theory has been neglected. Concepts, ideas and issues are located in broader theoretical and cultural contexts but not in an abstract way. For teachers, classrooms and students provide the ultimate context against with theories can be tested and cultures can be better understood. In these challenging and demanding times, teachers need to be fully equipped with the latest thinking and ideas based on research and advances in understanding. Yet these must always be tested in the laboratory of practice so that teachers are not only knowledgeable but they also know how to translate this knowledge into action that can benefit students.

In developing this series, I have been grateful for the dedication of my colleagues at the Hong Kong Institute of Education. They have taken up the challenge of writing and shown great commitment in providing meaningful and relevant resources for their students. I am also grateful to Senior Management at the Hong Kong Institute of Education since they supported this endeavour from the very beginning. I have also been encouraged by Hong Kong University Press which has seen the value of the series and the need to support Hong Kong's future teachers. As is so often the case in educational matters, collaboration and cooperation can produce great outcomes, and I believe such has been the case in this instance.

Hong Kong's future is in no small way linked to the quality of its teachers and their capacity to support the learning of young people throughout this new century. Hopefully, the Hong Kong Teacher Education Series will contribute to this important objective.

Kerry J. Kennedy
General Series Editor
The Hong Kong Teacher Education Series

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Introduction

For many students and teachers, the idea of tests, examinations, and evaluations can carry negative emotions. Tests, examinations, and evaluations may evoke bad memories of being anxious, fearing failure, and worrying about what others may think of us based on our performance. This is unfortunate, because learning depends on assessment, as learning cannot occur in the absence of the feedback which assessment provides. Equally importantly, learning cannot take place without getting students engaged in their learning. The bad experiences that some students have had with tests and examinations turn them away from learning in school. Research tells us that many of our traditional testing and marking practices are associated with reduced student motivation to learn. This applies to both high- and low-achieving students. The way traditional assessment is practised can result in students adopting performance goals to achieve approval or avoid disapproval. Worse still, these traditional assessment practices may encourage students to abandon learning goals, in which the sense of achievement and accomplishment come with successful mastery of new skills and knowledge. Such washback has negative effects on both teaching and learning. The good news is that it does not have to be that way. Positive washback effects can be achieved when assessment is used as the vehicle for enhancing student motivation to learn, and for making acquiring and mastering new knowledge and skills important goals for students.

A cornerstone of assessment for learning is that the decisions that matter most in the classroom are those made by the students themselves. To make good decisions, students need continuous information about their learning, information that describes what they are succeeding at, where they should pitch their efforts to make improvements in their current level of performance, and what strategies they may need to consider in moving their learning forward. When students have clear learning targets to aim for, and receive useful information about their progress toward their targets, they become important partners in their own learning and can take greater responsibility for that learning. More importantly, when students see evidence of their learning successes, their motivation for future learning rises, and they become more resilient to early difficulties along the way to eventual success. Ultimately, it is the students who must decide how successful they can be. They must decide what risks they are willing to

take in effecting their learning, and what effort they are willing to expend in taking on new learning challenges. The role of teachers is to make assessment something that supports student learning and does not discourage students. By making assessment an integral part of the teaching and learning experience, teachers can help all learners to experience success.

Organization of the Book

This book is about assessment for learning. It informs teachers of the latest developments and understanding of assessment and provides teachers with important tools for integrating assessment for learning in the classroom. There are ten chapters in this book.

Chapter 1 discusses the key issues related to assessment. It explains what assessment is by detailing its meaning, distinguishing it from other assessment-related terms, clarifying its functions and roles, and offering tips for ensuring the quality of assessment practices. To give teachers some background on the changing views of assessment over time, some influential learning theories are discussed, including behaviourism, constructivism, and cognitive science. These three major learning theories are linked with three different assessment approaches, presented in detail in Chapter 3. Attention is then given to ten assessment guiding principles for teachers to follow while bringing the concepts of assessment for learning to classroom use.

Chapter 2 focuses on the assessment practices in Hong Kong. It gives an overview of the historical assessment system in Hong Kong. In recent years, there has been a call from the Hong Kong SAR government for schools to focus not only on measuring learning outcomes but also on using assessment to support learning. This chapter presents the assessment reform initiated by the government, including Basic Competency Assessment and School-based Assessment and other related issues. Some discussion has been on the challenges of assessment reform, the roles of teachers in assessment, and the types of actions teachers need to take to link assessment with learning.

Chapter 3 presents three assessment approaches (assessment of learning, assessment for learning, and assessment as learning), a number of assessment types, and how assessment can be integrated into instruction. This chapter points out that, although the three approaches are characteristically different, they can all contribute to student learning. A connection has then been made between the three approaches and different types of assessment. To integrate assessment into instruction, ideas are offered regarding the way lessons are planned. Examples are given to elaborate on this.

Chapter 4 discusses one traditional form of assessment — paper-and-pencil tests. The chapter first provides an overview of the characteristics and functions of this kind

of assessment. Some step-by-step procedures are given for developing a test. Although this form of assessment is restricted to testing students cognitively, tests can be constructed in such a way that allows for assessment of a broad range of learning outcomes. Some examples for constructing test items are given and some construction guidelines are provided to assist teachers in developing test items.

Chapter 5 introduces alternative assessment and explains how it supports learning. While explaining the meaning of alternative assessment, other terms which can cause confusion are also clarified. Special attention is given to self and peer assessment, as they can be used with many different types of assessment strategies. A number of assessment strategies related to alternative assessment and commonly used in the classroom are discussed, including portfolio, concept map, learning contract, project, exhibition, interview, and observation. To help teachers make good decisions, a number of principles for selecting assessment strategies are presented.

Chapter 6 addresses the many diverse needs students may present in the classroom and provides information about the kind of diversity currently found in common classrooms. To identify the types of diversity in a class, a number of ideas are offered. Suggestions are made for using assessment strategies and differentiating assessment tasks to cater for classroom diversity as well as accommodating students with disabilities.

Chapter 7 explains the meaning of marking and grading, presents a number of grading methods, and discusses some marking issues, including fairness and moderation. Teachers are made aware that grading and marking are in fact a kind of feedback. This chapter presents several types of feedback that teachers can use for helping their students learn, and illustrates these types with examples. Some guiding principles for giving quality feedback are presented.

Chapter 8 focuses on the linkage between recording and learning. It explains the meaning of recording from educational perspectives and presents the methods commonly used for recording learning outcomes. A number of guiding principles are listed for supporting teachers in selecting the methods to use, and ideas are offered to support teachers in interpreting results.

Chapter 9 explains the roles reporting plays in learning, and points out that communication is the essence of reporting. Teachers are made aware of the different audiences of reporting and the need for different strategies for reporting. To support teachers' reporting practices, some principles for reporting are offered, and a number of methods of reporting are illustrated with examples.

Chapter 10 uses three school cases to help teachers deepen their understanding of assessment for learning. There are two main parts in this chapter. The first part presents the assessment practices of the three project schools, followed by a deep thinking section for teachers to link theory to practice. The second part describes the assessment practice of three teachers working at the three different project schools. In this part, a learning and assessment plan is presented, and six lessons associated with task one of

the plan are used to highlight assessment for learning practices. After this, the assessment practices of the three teachers are presented. As with part one, both sections of part two are followed by a deep thinking section.

There are a number of review questions at the end of each chapter, designed to encourage a deeper understanding of assessment for learning.

1

Basic Concepts of Assessment

Objectives

By the end of this chapter, you should be able to:

- understand what assessment refers to, and differentiate among various assessment-related terms;
- describe the context within which many of the assessment traditions evolved, and critically examine the impact of those traditional practices on learning;
- compare and contrast three views of learning (behaviourism, constructivism, and cognitive science), and describe how each leads to a different vision of assessment;
- explain how the quality of assessments (validity and reliability) can be judged, and describe steps teachers can take to enhance the quality of their assessments;
- describe and distinguish among the various roles and functions assessments take;
- recognize the key principles underlying assessment, and explain their significance to bring about effective assessment practice;
- explain the interconnected nature of teaching, learning and assessment, and the importance of assessment to support teaching and learning.

Assessment has to be seen as an interconnected part of teaching and learning. The conception of assessment is one that focuses on describing student learning, identifying where each student is in his or her personal learning progression, diagnosing any difficulties students may be having in their learning, and providing direction to the teacher and the student in the steps to be taken to enhance learning. This focus on the use of assessment to support learning, rather than to document achievement, has come to be referred to as "assessment for learning". To bring the concept of assessment for learning to fruition in the classroom, assessment activities have to be designed and conducted with the purpose of learning in mind. If teachers are to embrace this new philosophy of assessment, they need to understand how assessment for learning works.

Conceptualizing Assessment

Assessment is about gathering information. The information gathered is based on the purpose of the assessment. An assessment can be as simple as an exercise in which a teacher gathers information from students, interprets it, and makes judgements about their performance. When assessment is for learning, it takes on a larger meaning. Assessment for learning involves social interaction between teacher and student (and among students), who have a shared vision of learning. In this vein, assessment is a deliberate and planned collection of the full range of information from the students that helps them understand their knowledge, skills, and abilities, including strengths and weaknesses, values, and attitudes. Most importantly, assessment is a natural part of the teaching and learning process and is undertaken to support learning. In the assessment for learning classroom, teachers use a full range of assessment activities and strategies, to gain a comprehensive picture of how their students learn. The teachers analyze and interpret the information and use it for monitoring and adjusting instruction, as well as giving feedback to students. Students are active information providers. Not only do they engage in the teaching and learning activities, but they also use assessment information to set goals, make learning decisions related to their own improvement, and develop an understanding of what quality work looks like. They assess their own learning as well as the learning of their peers, communicate their status and progress towards established learning goals, and seek feedback from their peers and teachers about their learning. Assessment, as the term is used here, is defined as:

> Conscious and systematic activities used by teachers and students for gathering information, analysing and interpreting it, drawing inferences, making wise decisions, and taking appropriate actions in the service of improving teaching and learning.

There are diverse views on the interpretation of assessment terminology in the literature, and this may cause confusion. Very often, terms such as "measurement", "assessment", "evaluation", and "test" have been used interchangeably. The confusion could result from the fact that they are interrelated. A *test* often results in numbers (*measurement*), although not always. *Assessment* can include a variety of strategies, including *tests*, as sources of information about student learning. *Evaluation* is the value interpretation and judgement of outcomes of the data collection process in a decision-making context. It is based on information that may be the result of *assessment*, including *tests*. An example can be used to elaborate the close relationship among these terms. A teacher needs to know if her students can hear well in class. So, she has their hearing *tested*, using a procedure that *measures* their hearing acuity. Based on the results of the *test*, she *assesses* their need for some accommodation (a hearing aid in severe cases, or rearranging the seating in class for less severe cases). Finally, she *evaluates* the

effectiveness of her rearrangement, by *assessing* the degree to which students now are able to hear and understand instruction, and judging whether the accommodations have been effective. Table 1.1 further clarifies the meaning of these common assessment-related terms.

Table 1.1 Definitions of common assessment-related terms

Terminology	Meaning
Assessment	**Purposeful gathering of information, usually from multiple sources, to describe specific characteristics of people, objects, etc.** (in addition to the definition given previously)
Measurement	**Any procedure that allows us to attach numbers to characteristics of people, objects, etc. according to a set rule.** Measurement is the quantitative description of particular characteristics of a class of people, objects, systems, or events. These tend to conjure up visions of traditional, standardized achievement tests, for example, the comparative study of the performance in numeracy and literacy of 15-year-old students across countries as in Programme for International Student Assessment (PISA).
Test	**Any systematic procedure for sampling behaviour, skills, knowledge, etc.** A widespread understanding of a test is that it is a formal and systematic, usually paper-and-pencil procedure, in which a sample of an examinee's performance is scored and subsequently judged using a standardized process. However, it does not have to be formal, standardized, or even paper and pencil. For example, a vision test samples a person's visual acuity, and a driving test samples driving skills, neither of which is paper and pencil, standardized, or necessarily formal.
Evaluation	**Making a judgement of the value or worth or meaning of an activity, event, or body of information.** Evaluation is the value interpretation and judgement of outcomes of the data-collection process in a decision-making context; for example, deciding on whether the style for instructions for a dash jump is correct or whether the curriculum design is appropriate for a school.

Understanding the Changing Views of Assessment

Assessment, in the broadest sense of the term, has a long history in both the Eastern and Western worlds. Over the centuries, assessment has been mainly used for selection purposes. For example, since 1027–771 BC (the Western Zhou dynasty in China), a regular performance examination system for selecting government officials has been used by different dynasties with only a few minor interruptions. Many areas of the Eastern world share this purpose of assessment, including Taiwan, Japan, Singapore, Malaysia, and Korea. In the Western world, assessment can trace its roots to the eighteenth century, when the patronage or nomination system for hiring employees was dominant. In the nineteenth century, an industrial capitalist economy flourished. This type of economy created an increasing need for trained workers, which could not

be satisfied by the traditional methods of the nomination system alone (Sutherland, 1991). It was believed that a standardized examination system would make a good alternative, because it allowed talented people to come through from different social and cultural backgrounds. Today, there are a multitude of purposes for tests and assessments, including streaming to different classes, certification and awarding of diplomas, consideration for promotion, allocation of funds to schools and school districts, etc. Because of its selective purpose, this kind of assessment system has a great impact on people's academic and upward career movements and is therefore labelled a high-stakes assessment system.

The introduction of formal assessment into the education landscape was originally to ensure fairness. Many, however, including Lambert and Lines (2000) and Stobart and Gipps (1997), question the trustworthiness of examinations. In the examination process, all kinds of errors can happen including marking and arithmetic mistakes as well as misinterpretations in candidates' performances. More importantly, examinations tend to focus almost exclusively on a narrow range of the cognitive skills of students, leaving many other important areas of achievement, attitudes, and other non-cognitive attributes unaccounted for.

One of the most serious perceived problems of high-stakes examinations is the possible negative "backwash" effects on teaching and learning. Students are often "taught to the test". This practice is especially troubling when tests focus on only a narrow range of important learning outcomes. In these cases, the emphasis given during instruction to those subjects and topics not addressed on the examinations will be diminished.

Another related problem is that if the examination focuses on retention of knowledge rather than on demonstration of reasoning and thinking skills, then instructional practices in the classroom may mirror this focus. Because the stakes for success are high, teaching tends to focus solely on assisting students to pass the exams and on helping schools to get a good reputation. This kind of teaching often entails drills and rote memorization of factual knowledge rather than focusing on helping learners master important skills and develop deep understanding. The classroom assessments in such circumstances are typically focused on measuring the retention of the same factual information as is emphasized on the standardized exams, and the drills and in-class tests are often repetitive and excessive.

The exacting standards associated with the stakes involved in these exams compel students to strive for high scores by doing exercises repeatedly and memorizing the model answers. Rote learning is difficult to retain in the long term. Learning and teaching to the tests is not only unhelpful to learning but also can place great pressure on the students, as well as on the teachers. They depress students' initiative and stifle creativity.

The Influence of Behavioural Views of Learning on Assessment

Behaviourism is a broad set of theories and practices that emphasize concepts such as reinforcement, stimulus-response association, and operant learning. The key tenets are that what is learned is behaviour (however complex that behaviour might be) and that behaviour is shaped by the consequences that follow the behaviour (positive consequence leads to an increase in the behaviour; negative consequence leads to a decrease in the behaviour). Learners are regarded as passive respondents to stimuli in the environment (Watson, 1924; Skinner, 1957). One implication of behaviourism is that complex behaviours can be broken down into simpler elements and these elements can be learned through reinforcement. Behaviourism has no explicit role for such non-behavioural constructs as thinking or reasoning. However, behaviourism has had a significant influence on classroom and school practices for many years and continues to exert an influence today. Behaviourism's influence on assessment is seen in such practices as measuring individual "facts" or skills in isolation from one another, expressing the level of knowledge or learning by the total number of individual items answered correctly on an examination, and in ranking learners based on "how much" learning is evidenced in their test results.

Assessment associated with behaviourist views of learning aims to check whether the learners have met the requirements as set. A judgement will be made by comparing the predetermined learning targets and the ultimate performance of the learner. This view of assessment places a major focus on the product of learning. This kind of assessment represents Assessment OF Learning (AoL).

The Influence of Constructivism on Assessment

Behaviourism has been criticized because it ignores other contributing factors of learning such as those related to cognitive and psychological aspects (internal factors). The shortcomings of these early behaviourist theories for learning propelled some theorists to look for alternatives. In contrast to behaviourists, constructivists acknowledge the learner's active role and suggest that learners are able to determine their own learning. The "construction" of meaning from experience is how constructivism defines learning. Human beings are compared to scientists who constantly carry out their own personal experiments, construct hypotheses and actively seek to confirm or disprove them in the process of seeking knowledge. Gradually, they build up their own concepts about the world which they come into contact with, and create their own understanding of things (Berry, 1998).

The underlying principle of constructivism is that knowledge is actively constructed by the learners themselves from their own experiences. Recent constructivist movements also pay a considerable amount of attention to social interaction. Since this is a social world, direct or indirect encounters with others are almost daily happenings. Consequently, children do not go out into the world on their own in constructing knowledge but are constantly interacting and negotiating with others to construct their personal meanings. It is through interacting with others that children develop and readjust their own unique set of concepts. Nevertheless, Glaserfeld (1995: 2) points out that "the subject cannot transcend the limits of individual experience. This condition, however, by no means eliminates the influence and the shaping effects of social interaction." Constructivism, in this sense, can/should be viewed as social constructivism (Burr, 1995; Kozulin, 1998; Lantolf, 2000; Williams and Burden, 1997). Social constructivists believe that constructing knowledge must involve social interaction, and people with whom the learners come into contact will play a certain role in shaping their experiences. Consequently, the teacher's role has been drawn into play (Berry, 1998). Teachers take on an important role of facilitating student learning through assessment. These form the focus of the assessment for learning approach.

> Assessment associated with constructivist views of learning aims to understand how the learner learns, what the learner can do or cannot do, and makes some deliberations and decisions on how to help the learner learn. This view, which is more closely linked to contemporary theories of learning, places more emphasis on the process of learning. Theorists usually call this kind of assessment Assessment FOR Learning (AfL).

The Influence of Cognitive Science on Assessment

Recent efforts in the area of cognitive science have led to attention being given to metacognition as an important component of assessment. Metacognition is a term used in information-processing theory to indicate an executive function (Brown, 1994). The theory compares human learning to the ways that computers process information. This entails a four-stage encoding process of selecting, comprehending, storing and retrieving information. Metacognitive strategies involve planning, monitoring and evaluation in the learning processes. They are the measures that learners use to organize and manage their learning. Metacognitive strategies also include an awareness of what one is doing and the strategies one is employing (Berry, 2002). In other words, learners

will have to have metacognitive knowledge to recognize the demands of a particular task and to identify which strategies are most appropriate during any given tasks. This demands self-regulation on the part of the learners. Learners will have to self-monitor, self-evaluate, and self-assess their learning during and after the learning process. They think backward and forward and make plans for their learning. Learners become engaged users of the information that assessment can produce. They can use assessment to take responsibility for and improve their own learning. In this sense, self-assessment is part of the learning process. It should be noted that metacognitive skills must be developed, and many learners will not develop these skills without explicit guidance from teachers. Cognitive science, as informed by Snow and Lohman (1993), provides a powerful tool to understand mental processes underlying good or bad performance. Besides its relevance to assessment as learning, it is relevant to the approach of assessment for learning.

> Assessment associated with metacognition aims to enable learners to become autonomous learners. It requires that learners be aware of what is required from them and monitor and assess their own learning during the learning process. With the information obtained, they can regulate their learning to meet the goals they set earlier. This view of assessment stresses the learner's active role in learning. This kind of assessment is referred to as Assessment AS Learning (AaL).

The three approaches to assessment (AoL, AfL, and AaL) accentuate different focuses of learning conceptions or paradigms. AoL, being closer to behaviourism, represents the "assessment as measurement" paradigm. In this paradigm, judgements of performances are taken at the end of learning. Both AfL and AaL have a strong connection with constructivism and cognitive science. They both treat learning as an internal event, both emphasize the importance of feedback to learning, and both focus on formative assessment as key to learning. Where they differ is their primary focus. For AfL, the focus is largely on the role the teacher plays in promoting learning, and could be said to reflect an "assessment in support of learning" paradigm. AaL places special emphasis on the role of the learner and highlights the use of assessment to increase learners' ability to control their own learning. AaL could be said to be an "assessment as learning to learn paradigm". Although the three assessment paradigms have their own distinctive characteristics, they should be viewed as complimentary to one another in carrying out the educational purposes. The three assessment approaches are revisited in fuller detail in Chapter 3.

Ensuring the Quality of Assessment Practices

Teaching and learning are about decisions. The decisions teachers and students make to judge the quality of work, to guide and promote learning, and to identify the next steps to be taken, must be **informed** decisions. The information gathered through assessment must be of sufficient quality to ensure that good decisions follow. There are two aspects of quality of assessment information that must be considered: validity and reliability. Stiggins (2005) describes validity according to **fidelity** (of the assessment to the intended learning outcome), and reliability as being a matter of **sufficiency** (is there sufficient information from the assessment to support the decision to be made?).

Validity hinges on whether our assessment properly reflects the intended learning target. Assessing learning is different from measuring students' heights, because we cannot directly observe learning. Instead, we make **inferences** about learning, based upon what we observe (performance on a test or task, or communication in an interview). This **sample** of behaviour may be affected by factors other than learning. The instructions for the task may have been misunderstood, or the student may have left out some important point he or she knows. In such instances the teacher would come to an erroneous conclusion about the true extent of the student's learning. Many of the strategies offered in this textbook for developing and using assessments have the goal of ensuring the validity of the information produced by the assessment.

Related to validity is the concept of reliability. Reliability reflects the **consistency** or dependability of assessments. This is like a bathroom scale for weighing yourself. The accuracy of the scale is judged by the consistency with which it reports your weight (if you obtained substantially different readings on consecutive weightings, you would doubt the accuracy of the scale). With summative assessments, especially, we need to be assured that the scores produced are dependable as indicators of student learning. Assuring the reliability of paper-and-pencil tests often involves having a sufficient number of items of appropriate difficulty. Reliability for any assessment comes down to using enough assessment tasks to ensure a sound basis for drawing any conclusions from that information.

Another aspect of reliability that applies when the teacher makes a **judgement** of the learner's skill (through an essay exercise or the performance of a skill) is **comparability**. Would another rater, using the same criteria, arrive at the same judgement regarding the degree of learning or skill evidenced?

Reliability and validity are related, and finding an acceptable balance between the two is important (Harlen and James, 1977). An assessment can produce reliable information without necessarily producing valid information. This can happen if the assessment reflects the wrong outcomes. For example, students are given a short written test of their maths skills, using word problems. Some students have difficulty with the language of the problems. Their scores are influenced by their language skills, in

addition to their maths skills. Their performance cannot be validly interpreted as evidence of their maths skills. But, the scores they received on that set of tasks would likely be reliable in the sense that the test would produce the same result if administered again.

Assessment for learning focuses primarily on classroom teachers' assessment practices and their use of formative assessment tasks to gather information on student learning. In the classroom, validity is a very important concern.

Multiple Roles and Functions of Assessment

Assessment is often used for more than one function. There are many different ways of categorizing the functions of assessment. The functions are mainly twofold: (1) for making judgements of the performance of individuals or the effectiveness of the system and (2) for improving learning. These basic functions can be further extended to selection and placement, accountability, diagnosis, and support of learning, as presented in Table 1.2.

Table 1.2 Functions of assessment

Assessment Function	Description
Selection and Placement	Test or examination is used to determine who will be selected to university, or is used to place students into school bands.
Accountability	Assessments are used to determine if students have achieved learning outcomes appropriate for their grade level, and are used to judge the effectiveness of teachers, schools, etc. in helping learners achieve the intended learning outcomes.
Diagnosis	Assessment is used to identify underlying sources of learning difficulties.
Support of learning	Assessments (especially at the classroom level) are used to monitor the progress of learning; to provide learners with feedback on their learning, to help them improve; to assist teachers in identifying changes to be made in their teaching; to enhance student motivation and confidence by demonstrating progress.

Guiding Principles for Making Assessment Effective

The concept of assessment for learning gives a general direction of where assessment should go. However, given the strongly entrenched views and practices of classroom teachers and school leaders regarding the proper role of assessment, a great deal of additional work will be needed to move from the general outline of an assessment for

learning environment to the reality of all classrooms operating on this basis. Ten assessment principles for assessment for learning have consequently been developed, presented within the framework of AoL, AfL, and AaL (see Figure 1.1). The highlights of AoL, AfL, and AaL are their specific emphases, respectively, on product of learning, process of learning, and learner taking control. These are all related to learning in one way or another. Teachers, students, and system can all contribute to making assessment effective. The ten guiding principles will be of help when actions are being considered.

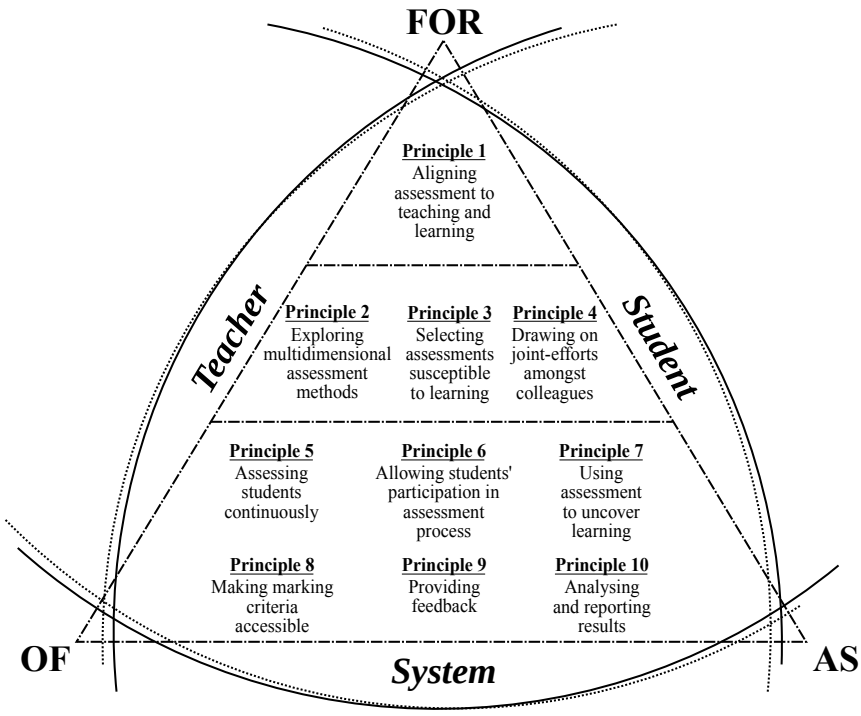

Figure 1.1 Ten assessment principles and the AoL, AfL, AaL framework
(The basic structure of AoL, AfL, AaL is adapted from the Blueprint for Government Schools, State of Victoria, Department of Education and Training, Australia (2002)

1. Aligning assessment to teaching and learning

In a typical classroom, assessment is an everyday activity. Assessment must be consistent with the objectives of the course and what is taught and learned. The assessment methods employed should reflect the variety of subject and course goals.

Basically, what to assess should reflect the teaching content, and the assessment tasks that are set should reflect the skills that students will need in their studies. With reference to the set criteria and through various means, teachers can observe, collect, record and analyze students' performances, and then diagnose and estimate their learning condition and capability. Teachers give students effective feedback and then adjust teaching, as a means of focusing on continuous improvement in both teaching and learning. Teachers use the information obtained from their assessments to help them understand the learning progress of the students. With the insights gained, teachers can modify teaching and learning activities to suit students' needs.

2. Exploring the use of multidimensional assessment methods

Assessment can be varied in form, depth or breadth, to reflect different facets of learning. A variety in types of assessment allows a range of different learning outcomes to be assessed. It also keeps students interested, especially when assessment tasks are authentic. There are two special benefits arising from the use of multidimensional assessment methods in the improvement of quality learning. First, it conveys to the student the important message that learning is complex, and that important learning outcomes can take many different forms and can require many different skills to demonstrate. Multidimensional assessment methods also help to ensure that the learning of students with less traditional or commonplace talents and ways of learning is properly acknowledged and credited.

3. Selecting those assessment methods which are susceptible to learning

The less effective forms of assessment inhibit or narrow learning opportunities and should therefore be reduced to a minimum. The "right" forms, accordingly, provide learners with plenty of learning opportunities. Using varied assessment strategies such as portfolios, observations, experiments, projects, simulations, interviews, performances, presentations, concept maps, word association and linking etc. allows a deeper understanding of students' learning in different perspectives.

4. Considering drawing on joint efforts among colleagues

In education contexts, students' learning is the result of concerted efforts from different parties. This should also be applicable to assessment. Collaborative actions support discussion on assessment matters and understanding of students learning from different

perspectives. This kind of professional collaboration is very important to the setting of rating criteria, for example, when several raters will be involved in judging students' work against the same standards. Teachers can work together to set different sets of rating standard, including various kinds of skill and content. This helps in setting assessment plans of different levels.

5. Assessing students continuously throughout the learning processes

Progressively assess students' learning so that assistance can be given to students when they first need it, and before more serious learning difficulties arise. Students can be given a series of smaller, appropriately valued assessment tasks spread through the term. What is important to bear in mind about continuous assessment is that the purpose is to identify potential problems, monitor satisfactory progress toward significant learner goals, and to provide feedback and encouragement along the way. For that reason, assessments based on initial attempts on the part of students to demonstrate new skills should not be heavily weighted toward the final judgement of student proficiency in a new skill area, at the end of the term.These assessments can be based on observation, judgement, encouragement, guidance, and corrections.

On a cautionary note, many teachers will initially view continuous assessment as an unrealistic goal, as they envision a never-ending stream of student work to be reviewed and returned. There is a need to balance the amount and types of assessment being conducted, to avoid student and staff assessment exhaustion. The secret to successful continuous assessment is to integrate the assessment activities with the instructional activities, so that, as instruction takes place, naturally occurring opportunities for gathering information on student understanding and progress are built into the process. For that reason, it is useful to have an assessment plan integrated into the teaching and learning plan.

6. Allowing students to take part in the assessment process

Assessment does not have to be conducted solely by the teachers (and in fact it is not, and should not be). Students themselves can contribute towards their own learning through assessing themselves and their peers. Students should be regarded as insiders instead of outsiders when it comes to assessment and learning matters.They should be involved in making judgements about their own work, monitoring their own progress, learning to set goals for themselves, and presenting themselves and their work to others. Well-constructed self-assessment and peer assessment exercises have the potential to provide valuable learning experiences and encourage lifelong learning.Assessment is

composed of three processes: setting criteria for assessment, selecting evidence to match those criteria, and judging the match between the evidence and the criteria. There are many teaching-learning contexts in which it is appropriate for students to be involved in one or all of these assessment processes.

7. Using assessment to uncover students' learning

Assessment should be "informative" as well as formative, revealing what sorts of learning have been achieved and what learning is still to be attained. The methods used should be able to assess a wide range of learning outcomes. Depending on a single assessment method such as examination has to be discouraged.

The main objective of assessment is improving students' learning behaviour, not for getting the result by the end of the term. End-of-term decisions can, and should, be based on multiple sources of evidence of student learning, such as projects they have completed, papers they have written, assignments they have turned in, tests or quizzes administered at the end of a learning cycle, and anything that represents the students' state of knowledge following appropriate opportunities to achieve mastery of the intended learning outcomes. What is *not* advisable is to base end-of-term decisions about learning on a single source of evidence, or even type of evidence, *and* that information gathered primarily for formative purposes *not* serve as the basis for judging end-of-term status. Therefore, it is better to use multidimensional methods to assess students' performance. For example, a teacher should adopt summative assessment strategies to summarize students' quality of learning by the end of the school term for deciding whether they pass or not, or should be promoted to the next level. The objective in this case is to prove learning. In addition to the summative assessment techniques, the teacher should use formative assessment methods to diagnose learning difficulties and monitor student progress, while promoting greater learning. The objective is to improve learning. These two kinds of assessment can be used simultaneously. The formative assessment is able to provide timely and regular feedback, while summative assessment usually presents the final results.

8. Making marking criteria accessible for students

Students need to understand clearly what is expected of them in assessed tasks. Each assessment task is to be accompanied by clear assessment criteria that are effectively communicated to students and markers. Teachers have to develop an assessment plan before teaching a learning programme and should let students know clearly at the start of the term what the goals of the learning programme are, and how students will be

expected to demonstrate the mastery of those goals. Criteria for assessment should be detailed, transparent and justifiable. Teachers can get students involved in discussing the criteria or even in setting the criteria.

9. Providing feedback to facilitate students' learning

Feedback is fundamental to the learning process. It is important to provide students with timely and comprehensive feedback on the extent to which they are achieving the goals and objecti ves of their learning. F ormative assessment is v ery ef fective in monitoring and supporting the students' learning progress during instruction. The objective is to provide teachers and students with feedback on the learning results for promoting students' learning, improving content arrangement in the curriculum and exploring better modes of teaching. Its fundamental spirit is to tally assessments with the detailed tar get beha viour so as to form an interacti ve cycle. From time to time, students should be made aware of their achievements and those aspects they need to improve on for their future development. Students should also be given opportunities to act upon the useful suggestions made by the teachers, their peers, or ones they make themselves.

10. Analyzing and reporting students' results

Systematic analysis of students' performance on assessment tasks can help identify areas of the curriculum that need improvement. This enlightens teaching and eventually benefits students' learning. When reporting students' results, teachers can consider using the form of a qualitative profile rather than a single score or other quantification. The qualitati ve pr ofile includes rele vant data about ef fort, attitude, personality and achievement etc. The advantage is that the focus of the information being reported is the student, his or her le vel of achie vement, the ef fort being sho wn, and the characteristics of the student as a learner, characteristics that may be aiding or impeding the student in his or her learning. By focusing the information thus, it is possible to reduce comparisons between students by parents, and give teachers a better opportunity to communicate with parents those essential matters regarding their student and his or her learning.

A Vision to Share

The fundamental principle of assessment for learning is making a strong connection between assessment and learning. In the assessment for learning model, assessment should be used to promote, induce, and reinforce learning. Within the parameters of assessment for learning, students' involvement in the assessment activities is taken seriously, as they are the main players of learning.Teaching, learning, and assessment have to come together and work together if we are to raise students' standards of achievements.

Summary

- Assessment is a natural part of the teaching and learning process. Both teachers and learners should be involved in the assessment, teaching, and teaching processes.
- Assessment can serve a much broader purpose than measuring success defined simply as acquisition of factual knowledge. Instead of using it merely as a tool to measure student success, assessment should be treated as a catalyst to learning.
- Although Assessment of Learning (AoL), Assessment for Learning (AfL) and Assessment as Learning (AaL) have their own distinctive features, they are complementary with rather than contending to one another. An appropriate combined use of the three will help improve teaching and learning.
- There are many ways of classifying the functions of assessment. One simple way is to subsume the functions into two main categories: making a judgement of performance and improving learning.
- Ten guiding assessment principles can be used to help make teaching and learning more effective.

Review Questions

1. How should assessment be interpreted to reflect the improving of learning characteristics?
2. What are the problems of high-stakes testing?
3. How do different learning theories impact on conceptions of assessment?
4. How can teachers ensure the quality of assessment practices?
5. What are the functions of assessment?
6. What are the guiding principles for making assessment effective?

Suggested Tutorial Activities

1. Discussion:
   Why does the culture of AfL need to be established? How can the AfL culture be established?

2. Scenarios analysis:
   Form groups of three to four. Choose one of the scenarios provided and suggest how you may use the guiding assessment principles to help improve the situation.

Scenario 1	On Parents' Day, a parent reflected that her son performed rather poorly in his homework. However, he could not work out how his work could be improved, although he very much wanted to do so.
Scenario 2	On the same Parents' Day, one other parent said that her daughter's total aggregate for the exam was 90%, which was 5% lower than on the last exam. She wanted to know why and how the teachers could help her daughter score higher next time.
Scenario 3	During the lessons, your students are either very passive in learning or active in doing things unrelated to learning.
Scenario 4	You are a teacher (or a senior teacher/the school head) new to a school. The school has a good reputation for their students' academic performance. However, it has long tradition of teaching to tests. More often than not, there is at least one test per subject each week. Students are not interested in activities unrelated to tests.

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2

Assessment in Hong Kong

Objectives

By the end of this chapter, you should be able to:

- understand the historical development of assessment in Hong Kong;
- account for the rationale for the assessment reform in Hong Kong and the vision of the Hong Kong SAR government in assessment in relation to education;
- link Basic Competency Assessment (BCA) and School-basedAssessment (SBA) with assessment reform in Hong Kong;
- recognize the challenges of assessment reform;
- be familiar with teachers' roles in assessment and the types of actions for teachers to take in realizing assessment for learning in teaching and learning.

For decades, high-stakes examinations have been used to assess students in Hong Kong for decisions about education and jobs. In recent years, there is an awareness that assessment can also be used for helping students learn. This awareness has led to a number of assessment initiatives and plans being proposed and eventually implemented in the education sectors in Hong Kong. It is important for teachers to keep abreast of these initiatives and plans so that they will be able to play a part in the current assessment reform. It is also important for teachers to understand their roles in assessment and the actions to take in connecting assessment with learning.

Hong Kong Assessment System

As in other parts of the world, Hong Kong has a long history of an exam-driven education system. Modern Western school education was introduced in Hong Kong around the mid-nineteenth century, and a three-step structure (primary secondary, and tertiary) has been the basic design for the Hong Kong education system. Following similar assessment practices in the Western world, a formal written examination gradually came to shape education in Hong Kong. Since 1914, a number of examination initiatives have been in place (see Table 2.1).

The year 1914 saw the implementation of the Matriculation and Junior Local Examinations of the University of Hong Kong. In 1937, The Hong Kong School Certificate Examination (HKCE) was established. This examination was taken by pupils in Class 2. Its purpose was to test candidates' ability to enter general employment, most commonly in business or in the civil service. Those who were considered suitable for an academic career proceeded to Class 1, where they sat the matriculation examination conducted by the University of Hong Kong (Sweeting, 1990: 354). The Hong Kong Examination Authority (the former of Hong Kong Examination and Assessment Authority), founded in 1977, took over the matriculation examinations of the Chinese University of Hong Kong and the University of Hong Kong in 1978 and 1979, respectively, renaming the former the Hong Kong Higher Level Examination and the latter the Hong Kong Advanced Level Examination (Sweeting, 2004: 271). The Hong Kong Higher Level Examination was conducted for the last time in 1992, as a result of all sixth-form students following two-year courses with effect from September 1992. Advanced supplementary level subjects were introduced at the same time. These were examined for the first time in the 1994 Hong Kong Advanced Level Examination (HKAL) (HKEAA, n.d.: 1). The latest initiative is to combine the two high-stakes examinations (HKCE and HKAL) into one in 2012 — The Hong Kong Diploma of Secondary Education (HKDSE) — to suit the new structure of six years of secondary schooling.

Around 1949, the civil war in China caused many people flee their homes there to live in Hong Kong. Suddenly, Hong Kong saw a fifty percent increase in population, thus putting a lot of pressure on the education system. Because of limited places in secondary schools, the first Joint Primary 6 Exam (JP6E) was introduced for selection purposes. JP6E, a standardized test, consisted of four subjects: Chinese language, English language, mathematics, and general studies. This exam barred most primary school students from receiving further education. Only about twenty percent of the candidates could get a place in the government-funded secondary schools. In 1962, JP6E was replaced by the Secondary School Entrance Exam (SSEE). In this new exam, students needed to sit for only three papers: English language, Chinese language, and mathematics. On the introduction of nine-year compulsory education in 1978, SSEE ceased to exist. The Secondary School Placement Allocation (SSPA) was used instead. SSPA determined the "band" of ability into which a child was allocated, which in turn determined the length and quality of secondary education that a child received (Sweeting, 2004).

Starting from 1981, at the end of the nine-year compulsory education, students had to sit for the Junior Secondary Examination Allocation (JSEA) for a decision on whether they were allowed to further their education in Secondary 4 and 5. Education beyond this point would be decided by the HKCE at the end of Secondary 5 and Advanced Level Exam (AL) at Secondary 6 for Chinese schools or Secondary 7 at

Table 2.1 Historical development of assessment in Hong Kong

Year	Assessment Events
1914	• Matriculation and Junior Local Examinations of the University of Hong Kong.
1937	• Hong Kong Certificate Exam (HKCEE) was first administrated at the end of Secondary 5 schooling for Anglo-Chinese secondary schools.
1949	• Joint Primary 6 Exam (JP6E) was introduced for selecting students to secondary schools.
1952	• Hong Kong Certificate Exam (HKCE) was first implemented at the end of Secondary 6 for Chinese secondary schools.
1953	• Hong Kong Advanced Level Exam (HKAL), an entrance exam for the University of Hong Kong, was introduced.
1962	• Secondary School Entrance Exam (SSEE) replaced JP6E.
1964	• First Chinese University Matriculation Examination as the entrance exam for Chinese University was implemented.
1970s	• Curriculum Development Council (CDC) was established.
1977	• Hong Kong Examination Authority was founded.
1978	• SSEE was replaced by the Secondary School Places Allocation (SSPA) which used the Academic Aptitude Test (AAT) as the vehicle for selection. • Nine years of free compulsory education was enforced.
1981	• Junior Secondary Examination Allocation (JSEA) was implemented at the end of Secondary 3.
1987	• JSEA was abolished, replaced by Mean Eligibility Rate (MER).
1988	• School-based curriculum was introduced.
1994	• Hong Kong Higher Level Examination was abolished in the 1992–93 academic year. Chinese secondary schools followed the same assessment system as the Anglo-Chinese schools, adopting a 5+2 system. • Candidates took Hong Kong Advanced Level Examination (HKAL) instead.
2000–01	• Curriculum Reform. • Abolition of AAT in SSPA. • Advocacy of AfL and linking AfL with School-based Assessment (SBA) and Basic Competency Assessment (BCA).
2002	• Curriculum guidelines ready for the public. • Assessment guidelines ready for the public.
2012	• The Hong Kong Diploma of Secondary Education (HKDSE) will replace the two high-stakes public examinations, HKCE and AL. A certain percentage of the results of SBA will be counted towards the final results of HKDSE. (Please refer to Tables 2.3 and 2.4 for details.)

Anglo-Chinese schools. Under this stringent screening system, there was a large drop-out rate at the secondary level, only about thirty percent of the age group moving on to Secondary 6 and Secondary 7, the last two years of secondary school. Only about twenty-five percent moved on to post-secondary studies (Biggs, 1998).

Before the curriculum reform (2000) in particular, the assessment system that was used largely emphasized the selection function of assessment with very little notice of its other function, assessment for learning. The exact standards associated with the stakes involved in these exams compelled students to strive for high scores by doing exercises repeatedly and memorizing the model answers. This stifled creativity in some students and minimized their opportunities to show true insight into their learning. Cheng (2002), a Chinese scholar, pointed that examinations can depress students' initiative, assertiveness, and innovation, all of which should be exhibited in their thinking process. Under such assessment systems, students become "robots" whose only function is to take examinations, without any meaningful opportunity for the development of other aspects of their academic lives, including critical thinking and problem solving. Stobart and Gipps (1997) point out that rote learning is difficult to retain in the long term and that there is little evidence that the introduction of mandated testing raises "standards". Teaching to the test is usually narrowing.

Assessment Initiatives from the Hong Kong Government

Some response has been made to address this problem. The SSEE, previously administered at the end of primary schooling, was replaced by the SSPA mechanism, to avoid unnecessary drilling, which was viewed as having a distorting effect on student learning. Allocation of students to schools is now based on the results of the student's internal assessment, conducted at the school level, in Primary 5 and 6. The results are moderated by the overall school performance in the Chinese verbal and mathematical aptitude tests conducted by the government, to account for variations in assessments across schools. These examinations were still regarded as "high stakes" because students were under a lot of pressure to do well on them. The Target-Oriented Curriculum (TOC) experience conducted in the nineties was a large-scale attempt to reform learning and assessment practices. TOC was a form of outcome-based education in which students progressed towards specified learning targets through carrying out tasks and experimenting different assessment practices (Morris, 2002). These somehow got hooked into a detailed record of learning outcomes which teachers did not have time, the skills, or any support in feedback this data from record-keeping into the classroom (Carless, 2005). The formative assessment initiatives of TOC were unfortunately not well received by the teachers and proved to be unsuccessful in the TOC implementation.

From 2000 onwards, Hong Kong has pushed ahead with curriculum reform effort in which assessment is highlighted as key for learning. The official document from the government (CDC, 2002) that addressed this reform initiative reiterates that assessment should be incorporated into classroom teaching throughout the semester or year. In other words, assessment should not be treated merely as an end-of-learning activity

with the single purpose of finding out whether the set learning outcomes have been met. Assessment should also be used to help students learn during the teaching and learning processes. Teachers are expected to provide quality feedback and specific advice to students, so that they know how to improve their learning. Chappuis and Stiggins (2002) point out that giving specific, descriptive, and immediate feedback is essential to the improvement of student work. In addition to giving feedback, students can be helped to generate their own descriptive feedback by comparing their work with teacher-provided exemplars or posted samples.

There should also be good connections between curriculum and assessment. Curriculum should be set out in a way that the learning targets are clear to students. The assessment methods should be designed so that they assess what students are expected to learn (i.e. learning targets and content). The CDC (2002) highlights in its school policy on assessment document that:

> All schools should review their current assessment practices and put more emphasis on assessment for learning. The latter is a process in which teachers seek to identify and diagnose student learning problems, and provide quality feedback for students on how to improve their work. Different modes of assessment are to be used whenever appropriate for a more comprehensive understanding of student learning in various aspects. (1)

Concerns from Different Parties

Three years into the curriculum reform, in 2003, a report was released by IBM Business Consulting Services (IBM, 2003), expressing concern that Hong Kong was still very exam-oriented, and assessment had not been used to enhance student learning. IBM was commissioned by the Hong Kong government to review the Hong Kong Examination and Assessments Authority (HKEAA). The report states that "Hong Kong has been struggling to combat the entrenched paradigm of rote learning of factual content that is driven by high-stakes tests and examinations". Some assessment studies recently conducted in Hong Kong support with additional evidence the comments made in the IBM report, pointing out that assessment has not been widely used as a means to improve learning. In a study conducted by Bryant, Timmins, Berry, Fok, and Ngan (Berry, 2003a), it was found that teachers were not using assessment for the purpose of enhancing student learning. Rather, in the view of the teachers studied, it was their task to know the subject and explain it clearly, and the learner's task to receive the information accurately. For the teachers, determining how accurately the

student had received the information was the task of assessment. Findings from studies conducted by Berry (2003b, 2005) accentuate the above-mentioned observations. Pong and Chow (2002) noted that "an examination-oriented culture is firmly embedded in Hong Kong". The authors went on to explain that with the pragmatic justification that norm-referenced HKEA examinations require the inculcation of test strategy (which, as Morris [1985] found, is the top priority of most teachers), many of the teachers they studied were found to cull previous papers for commonly recurring questions, and to train the students to learn model answers by rote. In these studies, it was found that many schools in Hong Kong were rather traditional in their assessment practices and that the potential of AfL had not been fully utilized in the educational frontlines in Hong Kong.

Assessment Reform in Hong Kong

Through its adopted policies and reports, the government is making it clear that it is determined to make a comprehensive change in the education system, hoping to create an atmosphere that can facilitate the blossoming of AfL. In its government document, Learning for Life, Learning through Life, Education Commission (2000), the government stresses that:

> . . . we must address the inadequacies within the existing education system to enable the majority of Hong Kong people to achieve lifelong learning and all-round education. All in all, despite the huge resources put into education and the heavy workload endured by teachers, learning effectiveness of students remains not very promising, learning is still examinations-driven and scant attention is paid to "learning-to-learn". (4)

To combat the adverse effects of exams, policymakers and educators are focusing on SBA. In Hong Kong, SBA is the assessment conducted in schools which contributes to the certification system in Hong Kong. The government sees many benefits in SBA. The notion of SBA is perceived as one useful way to reduce the risks inherent in a "one-shot" public examination (HKEAA, 2005). SBA has the strength of providing ground for more valid and reliable judgements to be made about students' work. It collects information about student achievements over a long time and gives students opportunities to demonstrate their capacities, skills, and capabilities in more authentic

ways than traditional examinations do. With a better understanding of where students stand, teachers will be in a better position to help them improve. They can offer students feedback or adjust the curriculum to suit students' needs. In this respect, SBA is in line with the concept of AfL. If used appropriately, SBA should enhance teaching and learning. According to Hill (2005), SBA would bring about educational benefits to teachers as well as students in both teaching and learning. Not only does it help improve validity and reliability of assessment, but it also brings about a positive backwash effect on teaching. In addition, it helps reduce examination pressure, thus imposing positive motivation effects on students.

SBA is not new in Hong Kong. It used currently used in the HKCE and HKAL, where it is referred to as the Teacher Assessment Scheme (TAS). TAS was designed initially to be an alternative to a practical examination in laboratory subjects such as chemistry. TAS following current CDC/HKEA policy and its procedures are considered part of the "external" examination process. The exam conditions are closely specified by the HKEA and the weightings are determined by HKEA subject committees. The results obtained from TAS are statistically moderated by the results of the written paper of the same subject. The final mark or grade for a particular student is a combination of the written paper and theTAS marks and is presented as a single score on the certificate.

The message of the SBA initiatives is that assessment should be seen as an integral part of the learning and teaching cycle rather than a separate stage at the end of teaching. In practice, there should be a de-emphasizing of the summative tests, in favour of the practice of formative assessment, which is supported by the diversification of assessment modes, parties and strategies, the provision of quality feedback from teachers as well as the active involvement of students in the assessment process (CDC, 2002). Under this reform initiative, teachers would use assessment to promote learning and teaching. Formative assessment would become a routine part of daily classroom practices and would be treated as an integral part of the learning and teaching cycle. Assessment results would be used to support better understanding of students' performances and progress, to diagnose students' problems, to provide effective feedback and to review teaching effectiveness. Through effective use of formative assessment practices, teachers will be better able to adjust their programmes and improve their teaching strategies for meeting the needs of the students (CDC, 2002). Some structural changes have been or will be made in the Hong Kong education system as a result of the reform initiatives, including the BCA and the new Hong Kong Diploma of Secondary Education (HKDSE). HKDSE, administered at the end of six-year secondary schooling in the new 3+3+4 education system, will replace the two high-stakes public examinations, HKCE and HKAL, currently used in Hong Kong, in 2012.

Basic Competency Assessment (BCA) to Promote Assessment for Learning

Basic Competencies (BC) are the essential knowledge and skills acquired by students in relation to the learning targets and objectives set out in the curriculum for each key stage. BC focus on knowledge and skills that students should master at a key stage so that they can progress to the next, higher stage without meeting any serious difficulty. They embrace only the basic and essential elements of the curriculum and represent just part of the curriculum requirement. The Assessment for Learning Resource Bank now covers more curriculum topics and the related competencies required than merely BC, as stated in the original plan. BCA, covering three subjects — Chinese language, English language, and mathematics — has two components, the Student Assessment and the Territory-wide System Assessment. The features are presented in Table 2.2.

Table 2.2 Basic Competency Assessment: Student Assessment and Territory-wide System Assessment

Student Assessment	Territory-wide System Assessment
A centralized Web-based resource bank assessed by computer	Conducted mostly on paper and with pen
Conducted by teachers	Co-ordinated and administered by the government
Integrated with daily teaching	Conducted on specified dates and locations
Provides individual student information	Provides territory-wide information
Identifies students' learning needs and gives them relevant support	Provides feedback to schools to increase effectiveness in learning and teaching
Stores information within schools to be used by teachers as reference	Stores information centrally to be used as reference for policymaking
Not compulsory	Compulsory
Introduced to all primary schools in June 2003	Commenced at P3 in June 2004

(Hong Kong Education Bureau, 2007)

Student Assessment is a resource bank pro vided through the Internet for the purpose of assisting teachers in developing and selecting the appropriate tasks for their students. Teachers are expected to use these tasks to diagnose the strengths and weaknesses of students studying in the three key stages (Primary 1–3, Primary 4–6, and Secondary 1–3) so they can help improve student learning. Chinese language focuses on assessing students' ability in the four language skills of reading, writing, listening, and speaking. English language shares these assessment focuses but in addition relates the four language skills to knowledge, experience, and interpersonal dimensions. Reading and listening are marked online; speaking and writing are marked

by the teachers. Mathematics aims at assessing the basic mathematical knowledge and skills of the students, is Web-based and marked by the computer. After an assessment is completed, a student report will be generated showing the student's performance in each item and the overall performance. In addition, a class report will be generated in the form of a table consisting of all students' responses.

System Assessment is conducted by the government at the territory-wide level. This assessment mainly takes the paper-and-pencil mode and is administered only at the Primary 3, Primary 6, and Secondary 3 levels. There is an oral assessment component for the English and Chinese languages, and only a random sample of students from the schools is involved in the oral assessment. The aim of the System Assessment is to provide feedback to schools about their students' standards in Chinese language, English language, and mathematics compared to other students of the same age group. With the results obtained, individual schools can draw up plans to increase effectiveness in learning and teaching. The territory-wide data also help the government to review policies and to provide focused support to schools. Because of this purpose, no individual student results will be reported. The government reiterates that the System Assessment is low stake, although schools, teachers, and parents might think otherwise. More information on BCA can be obtained by the Weblink provided in the reference section at the end of this chapter.

SBA in the New 3+3+4 Curriculum

SBA has been adopted by many major examination bodies such as those in the UK and Australia over the last twenty years. The balance between public exams and SBA varies from place to place. It ranges from a 100 percent as in Queensland in Australia and Ontario in Canada, to fifty-fifty systems as in South Australia and New Zealand, to systems that work somewhere between twenty and fifty percent. The ROPES Report in Hong Kong (Review of Public Examination System in Hong Kong) (Hong Kong Baptist University, and Hong Kong Examinations Authority, 1998: 81) point out that, internationally, there is a pronounced shift in responsibility for assessment of student achievement to a blending of the information available from both sources. Hong Kong's current assessment policy follows this prevailing trend and positions itself at the more conservative end of the SBA spectrum. In Hong Kong, SBA is treated as a part of the public examination system and is incorporated into the current certification and selection system. The contribution to the summative measurement varies from subject to subject, from fifteen to thirty percent currently, with certain subjects such as visual arts having an even higher percentage assigned to the SBA component.

SBA has already been used in a number of instructional content areas to assess key outcomes and is being extended to more HKCEE subjects and HKALE subjects over the years. Building on local experience and on the more extensive experience of

examining authorities overseas, more systematic use will be made of SBA in all subjects. By 2007, twelve HKCEE subjects and fourteen HKALE subjects will have an SBA component (see Table 2.3). In time, SBA will become a major component of all the new twenty-four subjects of the Hong Kong Diploma of Secondary Education (HKDSE). Table 2.3 shows the SBA implementation in Hong Kong in the past two decades of SBA. Table 2.4 shows the latest plans of SBA implementation in Hong Kong. In the new 3+3+4 education structure, weighting of the SBA has been reduced for many subjects in response to teacher concerns, and there will be a phased implementation of SBA over several years. To iron out possible difference among schools in marking standards, statistical moderation of SBA marks will be carried out using public exam results. Moderation is revisited in chapter 7 in this book.

Challenges of Assessment Reform in Hong Kong

There are potential problems associated with the current assessment reform, which need to be addressed. Problems often discussed in the literature include comparability of assessments across schools (in particular SBA), a narrow range of assessment tasks prepared by teachers, limited use made of the internal assessments for diagnostic purposes, ambiguous statements of attainment, and authenticity of work submitted by students (Cheung, 2001: 110). Yu, Kennedy, Fok, and Chan (2006) point out the problem of BCA is that the centrally administered System Assessment has posed some threats to many primary schools. The schools speculate that, despite Education Bureau (EdB) denial, the results are mainly used for policy decisions such as closing down schools.

There is a general concern about the reliability, validity and trustworthiness of SBA results. All sorts of error could happen during the information-gathering procedures. SBA encourages collecting information from different sources, including tests and exams, class work and homework, as well as authentic tasks. Doubts have been raised about how fairly these marks are given and how they will be compared across schools. Suggestions have been made, including initially giving a relatively modest weighting to SBA and that the introduction of SBA proceed incrementally (Education Commission, 2000). Other suggestions have been made by IBM (2003) that some form of statistical moderation or professional teachers' meetings could be used to compare and grade student performance.

Workload (for teachers and students) is another issue. Many teachers see SBA as an increase in their workload, because it may involve additional collecting and recording of information through giving students a large number of assessment activities. Students can perceive SBA as creating much more work for them too. Cheung (2001), with reference to literature from Hong Kong and other areas, asserts that SBA has brought about a tense learning atmosphere in assessment lessons and difficulties in motivating students to complete tasks that were not part of the SBA component. The solution to

Table 2.3 A summary of subjects with school-based assessment in HKALE/HKCEE (1978–2007)

	Subjects	Year Implemented	Mode of Assessment	Weighting
HKALE	A Chemistry	1978	Practical skills	20%
	A Government and Public Affairs	1988	Project	22.5%
	AS Chemistry	1994	Practical skills	20%
	AS Chinese Language and Culture	1994	Reading programme	10%
	AS Liberal Studies	1994	Project	20%
	A Biology	1995	Practical skills	20%
	AS Electronics	1999	Project	20%
	AS Computer Applications	2000	Core skills assessment/Project	30%
	A/AS Physics	2004	Practical skills	15%
	A/AS Visual Arts	2004	Portfolio	25% (A) /35% (AS)
	A Chinese Literature	2005	Creative writing/ Reading report	25%
	A Computer Studies	2007	Core skills assessment/Project	20%
HKCEE	Design and Technology	1980	Project	331/3%
	Electronics and Electricity	1980	Project	30%
	Fashion and Clothing	1989	Project	30%
	Design and Technology (Alt. Syl.)	2002	Project	30%
	Graphical Communication	2002	Project	30%
	Technological Studies	2002	Project	30%
	Computer and Information Technology	2005	Project	20%
	Integrated Humanities	2005	Course assignment/ Course performance/ Internal tests and exams	20%
	Science and Technology	2005	Independent study	20%
	Visual Arts	2005	Portfolio	50%
	Chinese History	2006	Essay and report/ Internal tests and exams	20%
	History	2006	Course assignment/ Course performance/ Internal tests and exams	20%
	Chinese Language	2007	Reading activities/ Course work and other language activities	15%
	English Language	2007	Oral assessment	15%

(HKEAA, 2007a)

Table 2.4 SBA implementation in the 24 subjects in the 3+3+4 education system

Subjects	SBA%	Full Implementation Timeline	Descriptions
Chinese Language	20%	2012	• Marks submission: 5 entries
English Language	15%	2012	• Marks submission: 3 entries
Mathematics	No SBA	Will reconsider only after 2012	
Liberal Studies	20%	2012	• Independent Enquiry Study (IES) is adopted as the mode of SBA in Liberal Studies. Student can carry out an enquiry-based project, and the main body of the project can be in written or non-written form. The latter should be accompanied by a short written description of the project and student reflection. • Marks collection duration: S4–S6
Economics	15%	2014	• Tab-based assessment: assessment based on students' performance in the tasks of news commentaries or essay/reports • Three entries of marks • Marks collection duration: S5–6 (at least 1 in S5 and 1 in S6)
Geography	15%	2014	• An individual fieldwork report which takes the form of a geographical enquiry. • Duration: S5–6, but only submitted in S6 before the public examination.
Chinese History	20%	2012	• A learning and assessment plan reflecting at least twelve weeks of study with three clear stages of progression and one entry of marks from each stage.
Ethics and Religious Studies (ERS)	20%	2014	• Two tasks, one on submitting a proposal for the SBA activities (5%) and the other on reporting on the SBA activities (10%). • Teacher assessment of the overall performance (5%)
History	20%	2012	• A two-task course assignment related to the candidate's selected electives. Task 1 is presentation of study outline (10%); task 2 is a study report (10%)

(continued on p. 35)

(Table 2.4 continued)

Tourism and Hospitality Studies (THS)	30%	2014	• Task (20%): An in-depth study of a chosen Elective Part, S5–S6. • Course assignments (10%): two course assignments on the Compulsory Part
Biology	20%	2014	• Practical related tasks (0.7 SBA) • Non-practical related tasks (0.3 SBA)
Chemistry	20%	2014	• Practical related tasks (0.8 SBA) = Basic Chemical Analysis (0.2 SBA) + Experiment (0.3) + Investigative Study (0.3 SBA) • Non-practical related tasks (0.2 of total SBA) — Assignment
Physics	20%	2014	• Include practical related and non-practical related tasks • Experiment (0.6 SBA) + Investigative Study (0.3 SBA) + Assignment (0.1 SBA)
Combined Science	20%	2014	• Includes practical related and non-practical related tasks • Any two subjects from the choice of physics, biology, and chemistry • 10% per subject
Integrated Science	20%	2014	• Assessment of practical related tasks (0.6 SBA) and non-practical related tasks (0.4 SBA) • A minimum of five practical related tasks in S5 and a minimum of three in S6
Business, Accounting and Financial Studies (BAFS)	15%	2016	• Students required to analyze and present business issues with respect to one authentic or simulated business scenario • Written presentation and oral presentation • Task starts in the second term of S5
Design and Applied Technology (DAT)	40%	2012	• Design Project: A project list is provided to candidates in January during S5 • Two stages: 1st stage: Students submit artifacts/models and the portfolio (mid-January in S6); 2nd stage: School teachers submit score sheet of students' work on data collection, design sketches and proposals (mid-October in S6)

(continued on p. 36)

(Table 2.4 continued)

Health Management and Social Care (HMSC)	30%	2014	• S5: Field Learning Task (10%) — Fieldwork + Reflective Journal • S5 and S6: Project for Electives (20%) — Report (Audio visual task +oral presentation)
Information and Communication Technology (ICT)	20%	2012	• Core skills assessment incorporated into project work
Technology and Living (TandL)	30%	2014	• Prescribed task with components of experiment and practical skills (15%) • Project/Design folio on local and global issues on the related strand (15%) • Assessment of the operationalization of four dimensions: conceptual, procedural, societal, and technical
Chinese Literature	35%	2014	• Compulsory part (15%): four creative writing pieces plus two reading reports. Elective part (20%): three units with two entries of marks submission from each unit (one formative and one summative)
Literature in English	20%	2014	• The SBA component of this subject involves the preparation of a portfolio comprising of two pieces of work: an extended essay (12%); either a review of a film/ play/performance or a piece of creative work (8%)
Music	20%	2015	• Sing or play two or more pieces individually in contrasting styles in a recital (12%) + a viva voce (2%); perform one piece in an instrumental or vocal ensemble (4%); and sing at sight a tonal melody of 8–12 bars (2%).
Visual Arts	50%	2012	• Submission of two portfolios consisting of (1) research workbook: presentations on art appreciation and criticism in context in relation to art making/ critical studies, and research process (20%); and (2) Artwork/ Critical studies: three pieces of work in each portfolio of a theme (30%)
Physical Education (PE)	30%	2014	• Two physical activities and one fitness assessment

(HKEAA, 2007b, 2007c)

these problems is that the emphasis on assessment should be on quality rather than quantity, and that assessment should be taken as part of the normal teaching and learning. In this respect, SBA results should be readily available, not resulting from "add-on" activities (Education Commission, 2000; IBM, 2003).

Teacher readiness for the assessment reform should not be overlooked. Teachers' beliefs and their actions are of paramount importance in the implementation of SBA. The underlying concerns of teachers should not be neglected, since they tend to have a strong influence on whether the teachers will use the new ideas (Yung, 2001). In addition, teachers will need to have the expertise including knowledge, skills, and techniques in undertaking assessment activities (Hong Kong Baptist University, and Hong Kong Examinations Authority, 1998). It is suggested that, for assessment practices to be most efficient and valuable, many teachers may need support to develop their skills. This support can be provided by a variety of means, including in-service education, an evolutionary path in which assessment practices develop gradually, or by using very tight and specifically defined criteria (IBM, 2003). Support will also be needed from the school and the system, so that space can be created for teachers to try out new ideas. Some principles and clear guidance given out by the assessment policymakers, school-based support by the assessment governance, as well as a SBA plan worked out collaboratively within the school should be useful (Berry, 2005).

The Roles of Teachers in Assessment

There is no definite consensus about the roles of teachers in assessment (Torrance and Pryor, 1998: 8). Wyatt-Smith and Ludwig (1998) classify teachers' roles in assessment into four main categories: cohort testing, survey sampling, progress mapping, and school-based assessment. Both cohort testing and survey sampling involve students taking a common test or responding to common assessment tasks, which teachers have comparatively less control over. When using progress mapping, teachers map individual students' progress against what is considered to be typical or expected at a particular grade level. This role has a focus on matching performances with intended outcomes and is therefore more outcome-driven in approach. By nature, SBA is closer to the notion of AfL because it involves, as Brady and Kennedy (2005) observe, teachers taking responsibility for both course development and the assessment of students' outcomes. In this line of reasoning, the main role of teachers in assessment is to collect information regarding students' learning in everyday teaching and use it to improve teaching and learning.

Mok (2004) lists eleven roles and relates them to three groups of school personnel: school management and administrators, teacher leaders, and assessment reformers (see Figure 2.1). Whether part of these groups or not, teachers often need to take up at least some of the roles as listed and other roles more directly related to their everyday

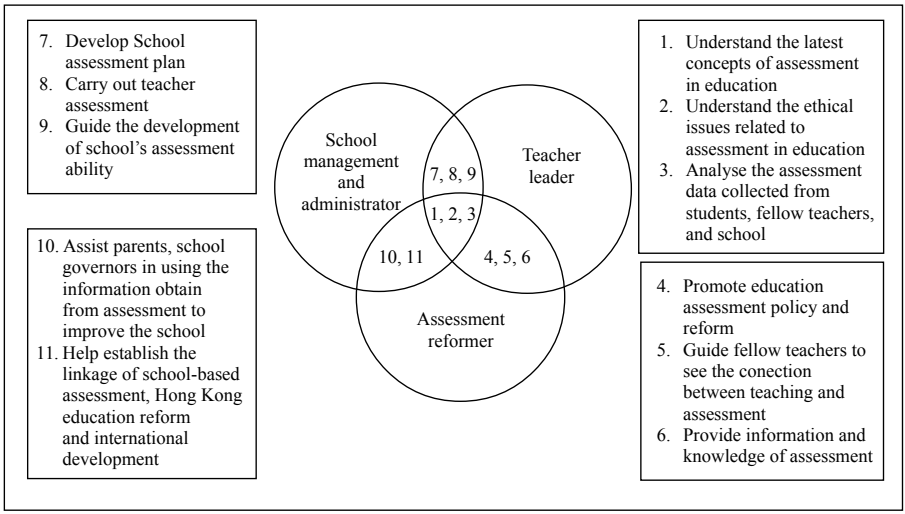

Figure 2.1 The roles of school personnel in assessment
(Mok, 2004, adapted from Arter, Stiggens, Duke and Sagor, 1993)

teaching. They certainly need to carry out teacher assessment and provide information to their students, parents, and the school. They will have to understand assessment in education, know the connection between assessment and learning, and carry out teacher assessment. They should be involved in developing school assessment plans and in the analysis of assessment data collected to improve the school as well as teaching and learning.

Types of Actions Teachers Take to Link Assessment with Learning

Whether learning is happening is largely governed by what teachers and students do in the classroom. Black and Wiliam (1998) hold the view that the standards of learning rest heavily on the work of teachers. Teachers should see assessment as a tool to promote greater student achievement in the classroom context. Segers, Dochy, and Cascallar (2003) point out that the proper aim of assessment lies at the heart of promoting students' achievement and that assessment should be used as an instruction tool to promote learning rather than an event designed solely for the purpose of evaluating and assigning grades. There are some actions particularly related to teachers' roles in assessment for learning, presented in Table 2.5.

Table 2.5 Types of actions for teachers to link assessment with learning

Actions	Descriptions	Examples
Involving students in their learning	Teachers supervise, promote and facilitate students' efforts to cultivate knowledge.	Examples of these sorts of teacher roles include: • involving students in the open assessment of a thematic study; • staging a public debate for stimulating students' learning initiatives; • providing interactive evaluation models and learning methods that allow for a high degree of engagement between teachers and students; • getting students to self-assess their work.
Modelling quality	Modelling quality is a method of facilitating students' understanding of quality work.	Examples of these sorts of teacher roles include: • clearly communicating intended learning outcomes with students; • showing students examples of good work for learning purposes; • letting students know what makes a performance less desirable so they can avoid the pitfalls of repeating their errors; • getting a student to show the teacher how she or he has gone about something so the teacher can diagnose errors; • getting a student to suggest ways something can be improved.
Monitoring students' work	By monitoring students' learning progress, teachers can focus on students' application of knowledge, attitude to learning, learning process, and see if the learning targets have been met.	Teachers can check students' progress through: • tests, class work and homework, dictations; • authentic tasks including games; • observation and raising questions in the class; • project work, etc.
Diagnosing students' work	This involves determining the strengths and weaknesses of students' work. As students' learning needs are becoming increasing diverse, it is necessary to understand the learning characteristics of the students.	The assessment used should be qualitative and quantitative. Teachers can use: • conventional assessment methods such as tests and exams; or • portfolios, group and individual projects, interviews and oral presentations, experiential and applied student work, and journals and other reflective formats.
Giving feedback	In an assessment for learning environment, feedback is used for advancing learning and assisting students in taking more responsibility for their learning.	Examples of these sorts of teacher roles include: • expressing approval or disapproval on students' work; • telling students what they have or have not achieved; • specifying a better or different way of doing something.

Calling for Action

The Hong Kong Education Reform calls for a realignment of assessment practices. This addresses the new concepts of assessment which advocates making a close connection between assessment and learning. To make the connection as teachers, it is necessary to understand teachers' roles in assessment in education and the types of actions which could help them translate assessment theory into practice.

Summary

- The assessment system in Hong Kong has been highly examination oriented. High-stakes examinations were used for screening students for further education and selecting government officials and staff in the private sector.
- High-stakes exams tend to encourage rote learning, which is not helpful for whole-person development. Being aware of this, the Hong Kong SAR government pushed ahead the curriculum reform in 2000 and now emphasizes the usefulness of assessment in assisting students to learn.
- Two major initiatives were brought forward to help promote assessment for learning at schools, School-based Assessment (SBA) and Basic Competency Assessment (BCA).
- There are some widely recognized challenges for the success of assessment reform. Among many others, the major issues are fairness, workload, and teacher readiness.
- There are a number of roles that teachers can play in assessment. To realize assessment for learning, teachers can makes use of some actions including involving students in their learning, modelling quality, monitoring students' work, diagnosing students' work, and giving feedback.

Review Questions

1. How do you account for Hong Kong's assessment system?
2. What is the rationale for assessment reform in Hong Kong?
3. How might SBA and BCA help promote assessment for learning?
4. What roles can teachers play to realize assessment for learning in the classroom?
5. What are the challenges of assessment reform? What possible solutions can be made to meet the challenges?

Suggested Tutorial Activities

1. Debate:
   Can a culture of "assessment for learning" be developed and fostered while maintaining the use of high-stakes tests for selection to secondary school and university? Take a pro or con position, and justify your position with evidence and reasoning.

2. Role-play:
   Students, teachers, school administrators (e.g. the principal, middle management team members such as subject panel chairpersons), and parents often have their own views and concerns about the implementation of assessment reform. Form groups of four. Each participant can take up the role of student, teacher, school administrator, or parent. First write down your views, concerns, and anticipated problems and then suggest possible solutions to the problems and concerns. Role-play the part you took up.

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3

Assessment Approaches

Objectives

By the end of this chapter, you should be able to:

- recognize the different purposes of the three major approaches of assessment of/for/as learning;
- understand different types of assessment and how they connect with the three approaches;
- recognize the importance of assessment planning and its connection to instructional planning;
- understand the connection between various types of assessment and assessment activities and the assessment approaches they are associated with;
- understand the importance of connecting assessment and instruction in planning to support learning;
- develop effective assessment plans.

There are three widely recognized assessment approaches: Assessment of Learning (AoL), Assessment for Learning (AfL) and Assessment as Learning (AaL). AoL is mostly used for making summative judgement of students' performances. The other two approaches are more formative. During the learning process, information of students' performance is collected using various types of assessment. With the information collected, teachers will give feedback to students and adjust their teaching for the benefit of the students.To make assessment useful for helping student learning, more emphasis should be put on the formative aspects of the approaches. In this respect, AfL and AaL can and should more directly define the routine assessment functions in the classroom. However, AoL can be made more formative if the summative information obtained from students is used to inform curriculum development and to make teaching plans. If used appropriately, all three assessment approaches (AoL, AfL, AaL), can take on the purpose of helping students learn. Assessment can take many forms and there are a number of assessment types. Depending on how they are used, these assessment types can be in the service of the three different approaches. To make teaching more effective, teachers can integrate the element of AfL into their teaching plans. There are many ways to do this, as demonstrated by the examples given in this chapter.

Fostering Deep Learning Using the Three Assessment Approaches

In recent years, there has been a much wider recognition of the usefulness of assessment in helping students learn. Different schools of thought on assessment have been developed regarding the three approaches of assessment: Assessment *of* Learning (AoL), Assessment *for* Learning (AfL), and Assessment *as* Learning (AaL).

AoL, commonly associated with external exams and internal formal tests, is assessment which collects evidence for summative judgement of students' performance. AoL occurs when teachers use evidence of student learning to make judgements on student achievement against goals and standards, or through comparison to norms. The feedback to students usually comes in the form of marks or grades, which usually represent only the proportion of items answered correctly, or a judgement of the level of the work compared against some standard. Typically, there is little direction or advice for improvement. For many students, and parents and schools, the message this sends is that the purpose of learning is meeting the test requirements and getting good grades. Too often, tests and exams are set so that the challenge is focused on checking whether students can reproduce the learning bits based on memorization. This kind of learning does not need much deep thinking and accordingly falls into the category of surface learning. While testing is still a dominant mode in most education systems worldwide, the question should be raised about what can be done to make the AoL approach more useful for teaching and learning. From the perspectives of curriculum, AoL usually refers to assessment strategies (e.g. tests and exams) designed to confirm what students know, demonstrate whether or not they have met curriculum outcomes or the goals of their individualized programmes, or to certify proficiency and make decisions about students' future programmes or placements (Manitoba Education, Citizenship and Youth, 2006).

It is, however, possible to use the information collected from summative tests for formative uses. The results of the students' performances could be used for curriculum modification and curriculum planning. Questions in the tests could be set so that students' higher order thinking will be challenged. For example, in the US, most large-scale assessments feature multiple-choice test items that focus on student understanding, reasoning and application of knowledge. These assessments are increasingly being aligned with state-adopted content standards, and the results of the assessments are shared with school personnel and teachers, allowing them to identify areas where improvements in instructional emphasis may be needed. For places which take tests and exams very seriously, this way of setting exam papers could produce a positive washback effect. To meet this new exam requirement, attention will have to be given

to developing students' deep learning. The issue of how test papers can be designed to arouse deep learning is revisited in Chapter 4.

AfL opens more opportunities for deep learning than does AoL. It shifts the emphasis from summative to formative assessment, from making judgements to creating descriptions that can be used in the service of the next stage of learning (Earl, 2003). Teachers give quality feedback to students and students are expected to take learning on board. They need to think through the feedback and make relevant changes. AfL holds the key to good teaching. It offers an alternative or additional perspective to traditional assessment in schools. It is usually informal but can be formal, embedded in all aspects of teaching and learning, and conducted by different teachers as part of their own diverse and individual teaching styles. It happens in the middle of learning, often more than once, rather than at the end. The learning and assessment process is interactive, teachers providing assistance as part of the assessment. It helps teachers provide the feedback to scaffold next steps (Black et al., 2003; Earl, 2003). AfL can assist curriculum planning. During teaching, teachers collect a wide range of information through different assessment means. The information collected will shed some light on their short-term planning. Teachers will then modify their teaching, for example, by making alterations to the current materials and instructional activities.

AaL gives the responsibility for learning to the students and encourages and demands deep learning on the part of the students. This approach emphasizes assessment as a process of metacognition for students. Students are their own assessors and they personally monitor and critically review what they are learning. With this monitoring and critical review, they make adjustments, adaptations, and even major changes to what they understand. They may alter their current learning goals and make plans for the new targets of learning. Even though AaL puts students right under the spotlight of learning, teachers can play an important role in making this approach work. Teaching plans will have to allow opportunities for students to self-assess and peer-assess, which can be used optionally with teacher-led assessment and types of assessment used by the school. Gradually, students will grasp the art of monitoring and reflecting on their own learning, as well as being more able to plan for new learning actions for their own benefit.

Each of the three assessment approaches has its own specific contribution to student learning. Keeping abreast of their strengths will certainly help inform instruction (see Table 3.1 for more information on the three approaches). It is important to know that the three approaches are not in direct conflict with one another. Each has specific functions. With a well-thought-out assessment plan, the three approaches can certainly work harmoniously to help students learn. Assessment planning is discussed later in this chapter.

Table 3.1 Comparison of the characteristics of the three assessment approaches: AoL, AfL, and AaL

	AoL	AfL	AaL
General description	• This approach collects evidence at the end of learning for the purpose of making judgements on student achievements against goals and standards.	• This approach collects information during learning for the purpose of making decisions on what kinds of actions are needed to help improve teaching and learning.	• This approach gets students to collect information about their own learning. Students reflect on their learning and make plans to improve it.
Validity and reliability	• This approach usually involves formal types of assessment such as standardized tests and exams. Information obtained from this one single source of information is not able to provide a full picture of how students learn, and in this sense, it is less valid. Standardized tests, however, are quite reliable for comparing student performance.	• This approach can take both formal and informal types of assessment. The information collected from various types of assessment describes student learning from different perspectives. Well-designed assessment tasks will provide valid and reliable judgements of student performance.	• The assessment methods are usually informal, such as self and peer assessment. Information is directly provided by the students. Well-conducted self and peer assessment can draw on valid information from students. However, assessment connected with this approach involves subjective judgement of performance and therefore can be less reliable.
Functions	• Measures learning outcomes • Checks progress against standards • Compares students by their performance • Makes summative decisions • Can have formative use for providing evidence to inform long-term planning • Certification	• Understands how students learn by monitoring their progress during the learning process • Makes instructional decisions using the information collected continuously • Helps improve student learning through giving quality feedback	• Helps students understand the standards expected of them • Develops students' abilities to self-monitor, self-assess, self-evaluate, and self-correct • Enables students to develop their own learning plans
Focuses of assessment	• The extent to which students can apply the key concepts, knowledge, skills, and attitudes related to the curricular outcomes, e.g. end of secondary school public exam	• Students' progress and learning needs in relation to the curricular outcomes, e.g. a quiz for analyzing students strengths and weaknesses	• Students' thinking about their learning and the strategies they use to improve their learning, e.g. students self-reflect on what part of their work needs to be improved on

Classifying Assessment Types

Assessment can take many forms, both in the classroom and at higher levels. The nature and characteristics of these assessments are determined by their purposes, which may include whether they are primarily intended as aspects of assessment of learning, for learning or as learning. However, it would be an oversimplification to suggest that some types of assessment are only appropriate when employed in the service of one or another of the approaches. Thus, while it is almost always the case that the public examinations administered by HKEAA are primarily conducted for an AoL purpose, there are possibilities for AfL relevant uses for information generated by BCA and SBA exams, for example to promote student learning and improve instruction, by revealing areas of student strengths and weaknesses. What is more productive is to consider some of the important ways we can classify assessments.

One common way of classifying assessment is using **formative** and **summative assessment**. The term formative assessment does not have a tightly defined and widely accepted meaning (Black and Wiliam, 1998). Generally speaking, formative assessment implies a series of actions conducted by the teachers and students during the learning processes with the purpose of improving student learning. The numerous interim outcomes resulting from the actions will provide information for a modification of the teaching and learning activities in which students are engaged (Berry 2005). Summative assessment is conducted at the end of the learning process. The assessment is used for judging learning success and is often used for comparison and selection purposes. The kinds of strategies associated with this type of assessment are usually tests and exams but can be of any kind such as assessing the product of a project or a portfolio.

To interpret the results of the assessment, we can use a **norm-referenced** interpretation, in which case we make sense of each student's performance by comparisons to some "norm" for students of that grade level and subject area. This norm would ordinarily be based on the past performance of similar students. This allows us to "rank" students' performances against one another and to judge individual performances as to whether they are above average for their group, or below average (and by how much). Unfortunately, what norm-referenced interpretations do not tell us much about is what the actual level of learning might be that produced a given ranking or comparison to other students. The alternative to norm-referenced interpretations is **criterion-referenced** interpretation (sometimes also referred to as standards-based interpretation). Rather than compare a student's performance on an assessment to those of other students, a criterion-referenced assessment compares the performance of the student to an established criterion (specification of the target competency) to provide an indication of the student's level of proficiency, when judged against the standard for the grade level. Because both of these interpretation approaches tend to emphasize the use of assessment to judge the outcomes of learning, we might associate them with assessment of learning most of the time. However, a well-designed

assessment meant to be interpreted in a criterion-referenced manner would be more likely (than would one designed for a norm-referenced interpretation) to yield information about student learning that could be used diagnostically, and so used in support of future learning. Examples of this type of assessment include in the past TTRA (Target and Target Related Assessment), the assessment used for the Target-Oriented Curriculum and in the future HKDSE (2012) (see Chapter 2), in which Levels 1–5** (criteria to be developed) will be used to differentiate performances.

Another way of classifying assessments is whether they employ **traditional** formats (such as paper-and-pencil tests) or **alternative** formats (such as student projects). Again, there is no simple correspondence between assessment approaches and these two ways of classifying assessments. When student assessment involves extended project work, as an example, there will be more opportunities for the provision of constructive feedback to the student (which is a key characteristic of assessment for learning), and more opportunities for students to reflect on their learning and assess the effectiveness of their learning strategies (associated with assessment as learning).

Yet another way assessments can be classified is how students respond to the tasks posed in the assessment. On one end of this continuum is **selected-response** assessments, in which students select from pre-arranged alternatives. The other end is **constructed-response** assessments, in which students are presented open-ended tasks (usually) for which they supply a response. Selected response assessments can offer the advantages of efficiency and objectivity of scoring but can constrain students' opportunities to express their learning in ways most effective for them. Constructed-response assessments are much better for gauging students' understanding, and can provide unique opportunities for highly specific feedback. However, they can also be more time-consuming and place additional responsibility on the teacher to be consistent (when using these assessments for assessment of learning purposes).

We sometimes encounter a distinction between **formal** assessments and **informal** assessments. Formal assessments tend to refer to those occasions when we want to make the conditions of assessment sufficiently standardized to allow for comparisons of performances across students. Informal assessments would then be those that can be posed without great regard to the conditions of assessment, and for which variations in the conditions would have little impact on the usability of the resulting information. Therefore, we might think of an end-of-course exam as a formal assessment, while we might think of in-class questioning as an example of informal assessment. It is probably fair to say that, when the intent is assessment of learning, the need for a formal assessment approach is greatest. Likewise, it would probably be appropriate to suggest that much, although certainly not all, of what is done as part of an assessment for learning purposes might be of a less formal nature, and the same could probably be said for assessment as learning.

Another set of assessment terms that can refer to different types of assessment include: **authentic assessments, performance assessments, project-based**

assessments, and **problem-based assessment**. There tends to be a great deal of overlap among these four terms. Educators started referring to authentic assessments a number of years ago to emphasize the importance of making assessments resemble real tasks that real people engage in (rather than artificial tasks such as selecting the correct response on a multiple-choice test item). It was felt that such authentic assessment tasks could define both assessment and instruction in the classroom, as the nature of the tasks would provide opportunities to teach and learn as work on the assessment unfolded. Performance assessments (which can take the form of true performances such as in a musical recital, or products, as in the form of a science project) place the same premium as does authentic assessment on having students engage in assessment tasks that are complex and involve the production of something that requires an application of key, learned skills and knowledge. The key distinction is that not all performance assessments need be "authentic" in the way authentic assessments are often described. Project-based assessment and problem-based assessment (with a focus on solving problems) are really just another manifestation of both authentic assessment and performance assessment, as they involve students in long-term projects, often of an authentic nature, designed to both foster learning as well as to provide evidence of learning and of learning progress. However we describe these types of assessment, there are some important features that make them good candidates for inclusion in the classroom. They offer great flexibility of purpose, providing much valuable information upon which assessment of learning decisions can be founded, while also providing many meaningful opportunities for interaction with students about their learning and giving them feedback to support and further their learning. These types of assessment can be used together with **online assessment**, as the computer will generate answers and analytical reports for students and teachers to understand what has gone wrong, such as those in the BCA Student Assessment component.

Rationale for Integrating Assessment into Instruction

Teachers are familiar with the need to plan their teaching but not so familiar with the need to plan assessment. However, plans for teaching are incomplete unless they contain plans for assessment. Also, curriculum needs clear assessment arrangements (Nitko, 2004). Assessment and teaching have to be aligned, as they share common learning intentions. Assessment provides teachers with the information they must have to determine whether the learning intentions have been met by students. The teachers will know whether there is a need to modify the current teaching plan and make plans in respect to the needs of the students. With good planning, assessment will become a natural part of teaching, which will make it effective for assisting students to learn. The consultation document that set out the British National Curriculum Framework in 1987 stated that "A national curriculum backed by clear assessment arrangements will

help to raise standards of attainment" (para 8). CDC (2001) urges that assessment should be an important component of the teaching and learning cycle. The council recommends that "there should be a change in assessment practices and schools should put more emphasis on AfL as an integral part of the learning, teaching, and assessment cycle".

Making Plans to Support AfL

Assessment planning occurs on many levels. All teachers are involved in assessment planning at the classroom level, some teachers participate in planning at the school level, and a very few engage in the kind of planning at system or national levels. Assessment planning at the classroom level is no less important than at other levels, because the results of the planning have a direct impact on the students. Although teachers are more involved in doing assessment planning directly related to their everyday teaching, it is useful for them to know how their assessment plans fit into the bigger picture of the assessment plans of other subjects, for example of the same year group or other groups at the school. In this respect, teachers could extend their solitary assessment planning to group undertaking at team, grade, and school levels.

To make good AfL assessment plans, some insights can be drawn from Clarke (2001) and Gronlund (2006). These authors feel that good assessment should have a clear picture of all target learning outcomes and the outcomes should be closely linked to the assessment procedures. There will be criteria for judging performance and support for student learning through giving feedback. With the students for whom they are specifically responsible in mind, the teachers in a team, given grade, or particular department are called on to make decisions on assessment planning. The decisions may include those presented in Table 3.2.

While preparing an assessment plan, a few issues have to be addressed. Learning intentions, which reflect the learning needs of the students, have to be made very clear right from the beginning of the planning stage. This is critical for effective planning, because a less well-defined plan can lead to poor assessment and in turn to ineffective teaching. The learning intentions can then be translated into some objectives workable for day-to-day teaching. The next consideration will be the coverage of content to be assessed. Are judgements made based on students' understanding of the subject knowledge, or their competence in other aspects such as collaboration skills? What are the criteria for the judgements? Other issues will include the allocation of assessment throughout the teaching time, choice of assessment type (e.g. formative or summative, formal or informal, teacher or student self-assessment) and the details of assessment procedures (e.g. duration, the assessors). Most importantly, all the above will lead to the question, "How do we improve student learning?" Teachers will have to interpret the information collected by the assessment strategies, and spot the areas which students

Table 3.2 Assessment plan framework

Focus	Details
Why this plan	• Learning intentions • Objectives of the assessment plan
What to assess	Coverage of content • A term, a unit, a topic, etc. • Subject-based and/or across subjects • Dimensions including knowledge, reasoning skills, social (e.g. communication and collaboration skills), or affective (e.g. motivation, attitudes)
When to assess	Time frame • Within class time and/or outside class time • During teaching and/or end of teaching • Frequency (how many times) and intensity (what sort of challenge)
How to assess	Assessment strategies, including: • Assessment methods and/or activities • Sequence of assessment activities • Assessment criteria • Administration • Assessment procedures
Who to assess	• Teachers • Students • Others
How to improve student learning	• Interpreting results • Giving quality feedback • Adjusting/Setting teaching plans

will need to improve in. They then decide on the kind of feedback to give to students and make/adjust teaching plans based on the newly obtained information. Three examples of assessment plans are presented in Tables 3.3, 3.4, and 3.5 (see pp. 54,55, 56).

Overall Deliberation

It is important to identify the strengths of different assessment approaches and make them work in helping students learn. If used appropriately, all three approaches can help students achieve deep learning. Making good assessment plans can help translate the key concepts of the three approaches into classroom practice.The examples given in this chapter demonstrate some of the ways that assessment plans can be prepared and how AfL can be accomplished in a teaching plan and in everyday teaching.

Table 3.3 Example of a single-subject learning and assessment plan

XXX Primary School					
Term: 1 / 2 / 3		**Month: _____**		**Week: _____**	
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Learning intentions	To understand the different uses of percentage				
Teacher oral presentation	Meaning and change of percentage	Percentage estimation	Test given to students	Converting fractions into practice	Buying and selling problem
Whole class	Basic definition; simple percentage calculation	Use of percentage estimation	Take the test	Focused teaching of fraction percentage conversion	Understand the use of percentage change
Activities	Examples from daily life using percentage	Class work	Short test on meaning, changes and estimation of percentage	Extended authentic activity: Use percentage in simulated environment	Practical cases in shopping and reporting
Assessment	• Calculation of simple percentage in simulated real-life situation • Teacher immediate feedback	• Self assessment • Peer feedback • Teacher feedback	• Test on simple calculation • Teacher skims through the test papers and sees that students have problems in converting fractions into percentage		• Authentic assessment: buying and selling activity in a supermarket • Peer assessment

Table 3.4 Example of a multi-subject learning and assessment plan

AAA Secondary School			
Term: 1 / 2 / 3 **Month: _____** **Week: _____**			
Learning intention	**Activities**	**Assessment for individual subjects**	**Assessment for all subjects**
English To know the use of prepositions	Game: Where is it?	Multiple-choice quiz	Possible choices: • Project-based learning and assessment • Problem-based learning and assessment • Self-assessment • Online assessment (for peer assessment) • Teacher assessment to give feedback and make summative judgement of students' work
Mathematics To know the basic concept of measurement	Measure length, volume, weight, and time with different tools – ruler – speaker – scale – time watch	Demonstrate the uses of the tools	
Science To understand living things on the Earth	Take photos of living things – animals – plants	List the properties of living things, animals and plants	
Social Studies To understand the food supply of Hong Kong	Field trip: visit organic farming greenhouse	Compare the sources of different types of food	
Information Technology To facilitate word processing	Functions of MS Word(®) – tables – drawings – pictures	Write a journal article	

Table 3.5 Example of an assessment-oriented learning and assessment plan

More Formative in Nature → ← More Summative in Nature

Assessment Techniques	Description of Assessment Purpose, Activity, and Follow-up Action					
Pretest	About a week before beginning this unit, I will give a very brief pretest to get a sense of students' attitudes, experiences, knowledge, and beliefs about pollution. *Action*: I will use this information to help me develop discussions in class, to develop lessons concerning pollution and to build on what students already know.					
	Lesson 1 Introduce the types of pollution	**Lesson 2** Discuss the causes and sources of pollution	**Lesson 3** Investigate the negative impacts of human activities on environment	**Lesson 4** Suggest ways to improve the environment	**Lesson 5** Collect data on one type of pollution in the local environment	**Lesson 6** Use the data to suggest practical solutions to tackle the pollution
Observation and oral questioning	In every lesson, I will observe students and ask questions during the lesson to assess how well they are responding to the material, how well they seem to understand the daily activities and assignments, and whether they have any misconceptions about the concepts of pollution we are studying. *Action*: From students' homework, I will note for each student how accurately and fluently the student uses scientific language to discuss pollution. I will reteach the materials to those who get lost in the unit. I will work individually if only a few students have difficulty.					
Homework	Homework activities will focus on observing and discovering real-world examples of the pollution we learn about in class. Students need to investigate the causes of the pollution in the examples. *Action*: I will evaluate students' homework to see whether they understand the concept I taught in class. Meeting with individual students may be necessary for those who have serious misconceptions.					
Quizzes	**Quiz 1** (covers Lessons 1 and 2): Multiple-choice questions and matching, testing the causes and sources of corresponding types of pollution *Action*: Students who do not master the relationships will be retaught.		**Quiz 2** (covers Lessons 3 and 4): Long-answer questions asking students to state the impact of pollution in case studies and to provide solutions *Action*: Interactive discussion of the cases with students, when explaining the quiz			
Independent investigation (performance assessment)	**Investigating the environment** (starts at the end of Lesson 4, and includes Lessons 5 and 6): The performance assessment requires students to look into their local environment and find the causes of one type of pollution. They also have to suggest solutions to the problem. This performance assessment will help me evaluate students' understanding of the relationships between the causes and the ways of improvement. *Action*: This is a summative assessment. The exercise will help me know how students master the concepts.					
End-of-unit test	**Unit Test** (covers all lessons): This will come at the end of all lessons. It will be a paper-and-pencil test given in class. It will be comprehensive and cover most of the important learning targets in the unit. *Action*: The results of the test will be used along with the results of other assignments to give a grade to students for the unit.					

Adapted from Nikto (2004: 106)

Summary

- Different schools of thought of assessment have been developed over time. Three assessment approaches have received more widespread recognition. AoL is usually linked with summative judgement of student performances, whereas both AfL and AaL are more focused on helping students learn. However, if used appropriately, all three approaches are useful for helping learners achieve deep learning.
- There are many types of assessment and ways of classifying assessments. Depending on their purposes, these assessments can show different characteristics and be in the service of all three approaches.
- There is a need to integrate assessment into instruction, as teaching (curriculum in broad sense), backed by clear assessment arrangements, will help to raise standards of attainment. Emphasis should be given to make AfL an integral part of the teaching, learning, and assessment cycle.
- Plans have to be made to integrate AfL into teaching, learning, and assessment. Good assessment plans will have clear learning intentions, which are closely related to a variety of assessment procedures. There will be criteria for judging performances and support for student learning through giving feedback and through reporting procedures.

Review Questions

1. In what ways are the three assessment approaches similar? In what ways are they different from one another? How does a teacher take advantage of the characteristics of each approach?
2. Identify some examples of the different assessment types. For each example, explain how it could be used to produce information in support of each assessment approach.
3. What are some of the benefits you see that would come from ensuring a close alignment between learning intentions, instructional activities, and assessment activities?
4. In what ways are good teaching plans and good assessment plans similar? What are the keys to developing effective assessment plans?

Suggested Tutorial Activities

1. Discussion:
   Discuss the influence of the assessment approaches on assessment planning.
2. Oral presentation:
   In groups, choose a teaching and learning plan pro vided in this chapter . Add details to the assessment types. Present your ideas and draw on peer and teacher feedback.

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4

Traditional Assessment: Paper-and-Pencil Tests

Objectives

By the end of this chapter, you should be able to:

- understand the characteristics and functions of paper-and-pencil tests;
- plan the steps in preparing a paper-and-pencil test;
- prepare a set of specifications for a test;
- describe the strengths and limitations of each item type;
- make appropriate selection of what test items to use;
- construct items of each type that are well stated and relevant to important learning intentions.

Paper-and-pencil tests have a long history in assessing student performance and are therefore labelled as traditional assessment. To write a good test, it is necessary to plan well. Understanding the steps for developing a test plan should mean a good start. The next steps would be knowing how to prepare specification grids and writing good test items. Because of their nature, paper-and-pencil tests are more restricted to assessing students cognitively and tend to challenge "recall" of factual knowledge. Within the cognitive parameter, test papers can in fact be designed so that higher mental abilities can be assessed. Knowing what each type of test item can offer helps make good decisions on the selection of test items for use. Knowing the guidelines for writing test items should help raise the quality of paper-and-pencil tests.

Understanding Paper-and-Pencil Tests

Paper-and-pencil tests are commonly labelled a traditional form of assessment, as these tests have long been used as the main method for judging student performance. As the term implies, paper-and-pencil tests require students to respond in writing in a standardized test environment where the content of the test papers, administration procedures, and marking criteria are same for every candidate. To some people, paper-

and-pencil tests have many merits. Since everything is so standardized, it is easy to make objective judgements of students' performance based on the scores they obtain. This makes comparison and selection easy and makes decisions easily defensible. Another argument offered in support of objectively scorable paper-and-pencil tests in the classroom is that they allow the teacher to collect a large sample of student responses in a fairly efficient fashion. Others may hold different views, thinking that paper-and-pencil tests are not desirable as a means of assessment. Paper-and-pencil tests are able to assess a somewhat narrow range of learning outcomes and, if care is not taken, can focus largely on the retrieval of factual information. Some important skills and learner outcomes do not lend themselves to being measured using traditional test items but require more direct assessment of the skill than a paper-and-pencil exercise will permit.

Teachers do not often plan their assessment to include paper-and-pencil tests. Some teachers may depend on existing test papers made available to them by other teachers, while other teachers may make use of test materials provided with the textbooks used in their classes. Most schools have a pool of past test papers filed for teachers' reference. No doubt the experience from other sources gives some good indications of how test papers could be set for the new cohort of students. However, each individual year group has its own learning characteristics. Each year, adjustments have to be made to the teaching content, teaching and assessment strategies to suit new needs. To make the tests appropriate for use, there is a need to have good planning. Careful planning of the test or assessment helps teachers build validity into their assessment, because good planning ensures that the test measures what it is intended to measure. A usual way of developing a test plan starts with deciding on the objectives of the assessment, and then considering the coverage of the content, aligning the content with the objectives, followed by setting test items, assessment criteria, and administrative procedures. To make a test plan closer to the heart of AfL, it can be developed in an alternative way with the following three major elements.

- Identifying the learning outcomes/intentions/targets/objectives
- Preparing test specifications that represent a broad range of learning
- Constructing test items that challenge deep learning

Identifying the Learning Outcomes

Good assessment is linked to the instructional focus, and the "glue" that binds assessment to instruction is the common set of instructional objectives used to plan each. A test plan can start with identifying the general desired learning outcomes of the students. To make the learning outcomes teachable and testable, general learning outcomes are further defined into specific learning outcomes. For example, if the general learning outcome is "knowing different kinds of sports", the specific learning outcomes may be (1) identifying a number of common sports, (2) distinguishing between sports on basis of their characteristics, and (3) describing the rules for playing those sports.

As discussed in Chapter 3, it is important to link assessment with teaching and learning. As the outcomes have a bearing on the instructional and assessment objectives, learning outcomes have to be carefully selected if we want a good linkage between assessment, teaching, and learning. The instructional objectives should be related to the cognitive domain, including "recall of knowledge" and other forms of "intellectual abilities and skills". Within this cognitive domain parameter, tests can still be designed so that deeper learning can be assessed. Learning intentions and teaching objectives should include higher-order thinking skills such as "application of knowledge" or "creating new meaning". To make tests work for AfL, paper-and-pencil tests should measure a broad band of learning outcomes in a balanced manner. They should not be restricted to measuring factual knowledge but include more complex outcomes. Bloom (1956) differentiates learning outcomes in the cognitive domain into a taxonomy of six classes: knowledge, comprehension, application, analysis, synthesis, and evaluation (see Table 4.1 for details).

The categories of Bloom's Taxonomy in the cognitive domain are arranged in a hierarchy of increasing cognitive complexity, with the implication that success at more complex levels requires some degree of success at simpler (e.g. knowledge) levels. The strength of this system of classification is that a spectrum of learning outcomes is clearly defined and therefore easy for teachers to refer to when setting the test papers and designing instruction. Undoubtedly, Bloom (1956) has made great contributions in assessment by developing a taxonomy based on learners' cognitive behaviours. Since the taxonomy was developed, learning theories have evolved dramatically from relying heavily on behaviourism to having a stronger focus on constructivism and cognitive science. A number of points have to be raised and should warrant attention, including:

1. whether the cognitive categories are strictly hierarchical
2. whether there are clear distinctions between and among the categories
3. whether some of the levels can be combined
4. whether there are levels not yet included
5. whether there are other ways of classifying learning intentions

Scholars such as Anderson and Krathwohl (2001), Marzano (2001) and Stiggins (2005) offer some alternatives to categorizing learning intentions. Their suggestions all help resolve, one way or another, the questions raised. Anderson and Krathwohl identify six levels of learning intentions: remember, understand, apply, analyze, evaluate, and create. This new way of categorization is influential and is revisited in the next section. Marzano classifies mental processing into six levels: retrieval, comprehension, analysis, knowledge utilization, metacognition, and self-system thinking. His classification acknowledges learners' roles, which is in line with constructivist views of learning. As discussed in chapters 1 and 3, learners should be given more responsibility by self-reflecting their learning and thinking through their learning plans.

Table 4.1 Bloom's taxonomy: Classification of cognitive learning goals

Classes of learning outcomes	Descriptions	Sample action verbs to assess students
1. Knowledge	• **Remembering, either by recognition or recall, of ideas, materials, or phenomena** • For example: In the learning situation the student is expected to store in mind certain information, and the behaviour expected in the test is the recall or recognition of this information.	Define, describe, identify, list, match, name, outline, select
2. Comprehension	• **Understanding, grasping the meaning** • Probably the largest general class of intellectual abilities and skills emphasized in schools and colleges • For example, an understanding of the literal message contained in a piece of communication either in written or verbal forms.	Classify, convert, distinguish between, explain, predict, summarize
3. Application	• **Correct use of concepts, principles, and rules in new situations** • For example, given a problem new to the student, she or he will apply the appropriate abstraction without having to be prompted or shown how to use it in that situation.	Arrange, compute, demonstrate, modify, operate, relate, solve
4. Analysis	• **The breakdown of information and detection of the relationships of the various parts of the information** • For example, to note that one idea relates to another in a science experiment, to distinguish main ideas from subordinate ideas or themes in a story.	Diagram, differentiate, estimate, infer, order, separate, subdivide
5. Synthesis	• **The putting together of elements and parts so as to form a whole** • For example, recombination of parts with new materials, reconstructed into a new and more or less well-integrated whole. The students are expected to work within the limits set by particular problems, materials, or some theoretical and methodological framework.	Combine, compose, construct, create, design, formulate, rearrange, revise
6. Evaluation	• **Judgements, either quantitative or qualitative, made about the ideas, methods, work, etc. It involves the use of criteria as well as standards for appraising the extent to which particulars are accurate, effective, economical, or satisfying.** • For example, the students compare the use of different methods to solve a problem and decide on the best method to do so	Compare, conclude, contrast, criticize, discriminate, judge, justify, support

Stiggins (2005:59) offers a list of five achievement targets: know and understand (e.g. science facts and concepts), reason (e.g. hypotheses testing; classifying species), performance skills (manipulate lab apparatus), products (written lab reports), and dispositions (student says "science is worth understanding"). Stiggins' classification addresses some of the points raised previously and includes an affective aspect. It is worth noting that the classifications are not restricted to setting paper-and-pencil tests but should be taken to a wider interpretation for designing and selecting assessment strategies, including traditional and alternative forms. Alternative assessment is discussed in detail in Chapter 5.

Preparing Test Specifications That Represent a Broad Range of Learning

Test specifications are the basic guidelines for setting test papers. Some test specifications are very comprehensive, especially those set for high-stakes tests. These kinds of specifications can include guidelines, syllabus, test formats, and any other items related to the test development. It is rather unlikely that teachers will need to develop specifications in such detail for tests developed for a class or a year group. For most classroom purposes, a simple table based on the important learner outcomes to be assessed will be sufficient. In most cases, tables of specifications begin with two dimensions: cognitive skills to be assessed and content domain to be covered. After decisions are arrived at about those dimensions, planning turns to the selection and number of item types best suited to assess each "cell" of the resulting two-way table. For some situations, it may be sufficient to list the objectives, and indicate the number and types of items that will be included on an assessment for each objective. A more detailed approach will take into consideration:

1. Objectives: State the objectives in such a way that it will enable achievements to be assessed (i.e. What levels of learning are being aimed at?).
2. Content: List the areas (topics) taught over the teaching period (i.e. How long was the teaching period? What is the coverage of the content?).
3. Test types (assessment tasks): Identify the types of item or task that will provide the best evidence that the objective has been achieved (i.e. What kinds of test type should be used to find out whether the objectives have been attained? How many items are there for each level of learning? What is the weighting for different levels of learning and of the items?).

Several examples can help make clearer how the planning of tests is carried out. Tables 4.2, 4.3, and 4.4 present how specification grids are prepared for assessing three different subjects: English language, mathematics, and science. The grids take on three different interpretations of Bloom's Taxonomy. The first one, developed for

Table 4.2 An example of a specification grid (English)

Subject Area	Objectives			
	Knowledge (15%)	**Comprehension (45%)**	**Application (40%)**	**Total (100%)**
Listening (25%)	4 (4%)	12 (12%)	9 (9%)	25 (25%)
Speaking (25%)	5 (5%)	7 (7%)	13 (13%)	25 (25%)
Reading (25%)	3 (3%)	17 (17%)	5 (5%)	25 (25%)
Writing (25%)	3 (3%)	9 (9%)	13 (13%)	25 (25%)
Total (100%)	15(15%)	45 (45%)	40 (40%)	100(100%)

assessing students' English language, combines Bloom's last four cognitive levels into "application". Some teachers may find this kind of classification simple and straightforward (others may find it oversimplified). In this grid, the four language skills have been given equal weighting (twenty-five percent), reflecting the amount of time allocated to teaching. The marks allocation for cognitive levels is, however, different from level to level. More marks have been given to those levels representing higher intellectual abilities, comprehension and application. As Bloom (1956) points out that comprehension is probably the largest general class of intellectual abilities and skills emphasized in schools and colleges, the overall percentage allocation for comprehension is slightly higher than for the other levels in the cognitive domain.

Table 4.3 (see p. 67) presents a different way of preparing the specification grid for testing mathematics. This grid maintains the first three levels suggested by Bloom's Taxonomy but combines Bloom's last three levels into "critical thinking". The numbers in the cells stand for the numbers of items written for that type of test item.

Table 4.4 (see p. 68) shows a more recent or non-traditional approach of developing specification grids. Among the many suggestions offered by different scholars, Anderson and Krathwohl's model (a revision of Bloom's) has gained more widespread acceptance especially in recent years. The scholars pinpoint two dimensions — the "Cognitive Process Dimension" and the "Knowledge Dimension"— in preparing specification grids. In the Cognitive Process Dimension, they identify six levels: (1) remember, (2) understand, (3) apply, (4) analyze, (5) evaluate, and (6) create. In the Knowledge Dimension, they list four other levels: (1) factual knowledge, (2) conceptual knowledge, (3) procedural knowledge, and (4) metacognition knowledge. This new arrangement allows the knowledge dimension to be explained in a more detailed fashion and makes the cognitive dimension more clearly defined. Basically, the cognitive dimension is represented by a continuum, from simple mental functions such as recalling knowledge to more complex mental functions such as constructing new knowledge. A well-balanced specification table will allow a broad range of learning outcomes to be challenged. Teachers have to make a decision about what sorts of challenge they would want their students to have in respect to different times of the year and different contexts of learning. Table 4.4 demonstrates how this revised model can be applied in practice.

Table 4.3 An example of a specification grid (Mathematics)

Content \ Objectives / Test items		Knowledge	Comprehension	Application	Critical Thinking	Total Marks
Rules for using fractions	Multiple choice	8 (4)	4 (2)			12
	Computation		2 (1)			2
	Question					0
	Sub-total	8	6			14
Adding and subtracting fractions	Multiple choice	4 (2)				4
	Computation	2 (1)	8 (4)			10
	Question		4 (1)	12 (3)	4 (1)	20
	Sub-total	6	12	12	4	34
Multiplying and dividing fractions	Multiple choice	4 (2)				4
	Computation		10 (5)			10
	Question		8 (2)	12 (3)	4 (1)	24
	Sub-total	4	18	12	4	38
Converting between fractions and decimals	Multiple choice	4 (2)	2 (1)			6
	Computation		4 (2)			4
	Question			4 (1)		4
	Sub-total	4	6	4		14
Total	Multiple choice	20 (10)	6 (3)			26
	Computation	2 (1)	24 (12)			26
	Question		12 (3)	28 (7)	8 (2)	48
	Sub-total	22	42	28	8	100

Construct Test Items That Challenge Deep Learning

Paper-and-pencil tests contain test items which, as Haladyna (1997) explains, are instructions or questions that require a student response and a rule for scoring the response. There are two types of test item: select-response and supply-answer. In the former type, students are given a number of options to choose from as the answer. The items are developed so that only one predetermined correct answer can be found in the options. Examples of this kind of item type include multiple choice, true-false, and matching. The latter type is open to different kinds of response. Examples of this kind of test item include fill-in-the-blanks, completing an unfinished sentence, short question, and essay. Because of different strengths (also weaknesses) in the test items, most exams use a combination. Based on individual needs, teachers can mix and match the types of test item to design the tests they want their students to have. The advantages and disadvantages of six major types of test item are listed in Table 4.5.

Table 4.4 An example of a specification table
(Computer and Information Technology)

Content \ Objectives / Test items		Remember	Understand	Apply	Analyze	Evaluate	Create	Total Marks
Computer concepts (2 lessons)	True-False	3 (3)						3
	Multiple choice							0
	Matching		6 (3)					6
	Fill-in-the blanks	4 (2)						4
	Real-life problem							0
	Sub-total	7	6					13
Computer applications (5 lessons)	True-False							0
	Multiple choice			6 (6)				6
	Matching		6 (3)					6
	Fill-in-the blanks				8 (4)			8
	Real-life problem					8 (2)	4 (1)	12
	Sub-total		6	6	8	8	4	32
Effects of computers on society (3 lessons)	True-False		3 (3)					3
	Multiple choice				4 (4)			4
	Matching							0
	Fill-in-the blanks				2 (1)			2
	Real-life problem				5 (1)	5 (1)		10
	Sub-total		3		11	5		19
Text processing (3 lessons)	True-False							0
	Multiple choice							0
	Matching				4 (2)			4
	Fill-in-the blanks			6 (3)				6
	Real-life problem						8 (2)	8
	Sub-total			6	4		8	18
Graphics handling (3 lessons)	True-False							0
	Multiple choice							0
	Matching		4 (2)					4
	Fill-in-the blanks			4 (2)				4
	Real-life problem						10 (2)	10
	Sub-total		4	4			10	18
Total (16 lessons)	True-False	3(3)	3(3)					6(6)
	Multiple choice			6(6)	4(4)			10(10)
	Matching		16(8)		4(2)			20(10)
	Fill-in-the blanks	4(2)		10(5)	10(5)			24(12)
	Real-life problem				5(1)	8(2)+5(1)	12(3) +10(2)	40(9)
	Total	7	19	16	23	13	22	100

Note: Numbers in parentheses are the numbers of test items.

Table 4.5 Advantages and disadvantages of different types of test item

Item type	Advantages	Disadvantages
Multiple choice	Can assess learning at higher levels of complexity. Highly reliable and objective. Assesses fairly large knowledge base in a short time. Easy to score. Analysis of incorrect responses can provide diagnostic information about student errors.	Inclined to assess recall of knowledge. Difficult to write. Somewhat subject to guessing.
True-False	Assesses the most facts in the shortest time. Easy to score. Assesses recognition of facts. Objective.	Difficult to measure complex learning. Subject to guessing. Many important factual statements are not absolutely true or absolutely false.
Matching	Excellent for assessing associations and recognition of facts. Objective.	Subject to process of elimination. Limited to measuring factual knowledge of relationships between things.
Short answer	Can assess many facts in a short time. Fairly easy to score. Excellent format for maths. Requires recall of knowledge.	Often ambiguous because a response can be technically correct without being the response the teacher hopes to elicit as evidence of learning.
Essay	Can assess complex learning (especially writing, organization and communication skills). Requires students to compose and express their own responses.	Uses a great deal of testing time. Scoring is subjective. Students may "bluff" when they do not have the necessary understanding to answer appropriately. Limited range of content coverage.
Interpretive exercise	Can assess complex learning (especially the interpretation of written passages, charts, tables, etc.). Assesses integrative and interpretive outcomes. Scoring is usually quick and objective.	Difficult to construct (requires appropriate source material to be interpreted). Dependent on students' reading ability.

To assess whether students achieve different levels of complex learning, test papers should contain items that show the students' abilities in skills associated with reasoning. Reasoning is a kind of mental operation that is more than recall, comprehension, or simple application. These test items can be connected with tasks such as problem-solving, decision-making, drawing inferences, creative thinking, hypothesizing, generalizing and learning strategies including analyzing, drawing inferences, comparing, recombination, grouping, and association (Berry, 1998; McMillan, 2007).

Multiple-choice (MC) items. There are two main types of MC item: discrete items and item sets. The discrete item has a statement as the *stem* and the answer choices as the *options* or *response alternatives*. The stem can take the form of a question (Example 1), complete or incomplete statements (Example 2). There are usually four or five options, one of which is the key and others are distractors. The first two demonstrate two common ways of writing stems for an MC item (question and completion item). These two MC examples demonstrate how the ability of "recall" or "remembering" is assessed. MC items can be written to assess more complex intellectual abilities (Examples 3–6). Item sets have two or more items based on common materials, for example, a graph, a chart, or a short piece of text. Most MC items found on standardized achievement tests that do assess more complex reasoning are the end result of much technical work in development, a circumstance most teachers are not in a position to emulate. For day-to-day use, teachers might consider other kinds of test item instead, such as essay or interpretation items, to challenge students' complex learning, for example reasoning, problem-solving, and critical thinking.

Guidelines for constructing MC items:

1. Language for writing the stems and alternatives should be clear. Use simple language and avoid using negatives and non-function words. Make sure the alternatives are grammatically consistent with the stem.
2. To avoid confusion on the part of the test takers, the stem should pose a clear, definite, explicit, and singular problem.
3. The alternatives should be presented in systematic order. For example, place events in chronological order.
4. Alternatives should be homogeneous. For example, all alternatives are about fruit, or about descriptions of personality, etc.
5. Response alternatives should be mutually exclusive.
6. Verbal clues in the stem should not lead students into selecting the correct answer.
7. Responses should not follow a pattern, for example ABCD, AAA, BBB, CCC, DDD.
8. Choices such as "all of the above" and "none of the above" should be used sparingly as distractors, as students may get the answers because they are confused by the distractors. Students can also get the correct answer by applying the elimination rule.

Example 1: (Recall) Discrete item — Question
Which river is the longest in China?

a. Yellow River
b. Pearl River
c. Yangtze River *
d. Songhua River

Example 2: (Recall) Discrete item — Completion items

The longest river in China is the _____

a. Yellow River
b. Pearl River
c. Yangtze River *
d. Songhua River

Example 3: (Analysis) City A is along the coastline of South East Asia and is near the Equator. The city enjoys a lot of sunshine. There are times of heavy rain but normally they do not last. Occasionally there are storms from the sea. During such times, winds will get very strong and the waves big. Which type of renewable resource could City A develop with the highest efficiency?

A. Hydro-electric power (H.E.P.)
B. Solar power*
C. Wave power
D. Wind power

Example 4: (Prediction) Weather was good last summer. There was plenty of sunshine, some rain, but no typhoons. These are favourable conditions for growing vegetables. Which of the following would be the result of the good weather if the demand of vegetables remains unchanged?

A. The price of vegetables would increase.
B. The price of vegetables would remain unchanged.
C. The price of vegetables would decrease.*
D. The price of vegetables would multiply.

Example 5: (Application) Jenny has $3000. She would like to buy three things, but the money she has enables her to b uy only one of the follo wing items. The items are arranged according to the degree she likes them. Item 1 is the one she wants to buy the most:

1. Mobile phone
2. MP3 player
3. DVD player

Finally she has decided to b uy a new mobile phone. Which of the following options represents the opportunity cost of buying a mobile phone?

A. MP3 player*
B. DVD player
C. MP3 player and DVD player
D. None of the above

Example 6: (Comparison) One way in which organic food is different from genetically modified food is that:

A. Genetically modified food is more nutritious than organic food.
B. Genetically modified food involves biotechnology to get new characteristics.
C. Organic food is free from toxic chemicals like pesticides or chemical fertilizers.*
D. Genetically modified food will not be used in the form of processed food.

True-False (T-F) Items: This kind of item forces candidates to choose one of the two responses provided. Guessing may be a problem, since the chance of getting the answer right by guessing is fifty-fifty. Even though most students will not guess "blindly" on most test items (they use what information or knowledge they have to make "educated" guesses based on partial knowledge), in this item format the effects of guessing will be more pronounced. The basic format is simply a declarative statement that the student must judge "True" or "False". Alternative types can be "Yes/No", "Agree/Disagree", "Right/Wrong", and the like. To add some challenge to the item, if the answer is false, teachers could ask students to provide a word or phrase which would make the statement correct (Lee and Law, 1988). Teachers could also design the test so that higher mental ability will be required for T-F items that test understanding of relationships between concepts. This can be illustrated by the following example. "If fruit is allowed to sit in a covered jar for a lengthy period, fermentation will cause the sugars to convert to alcohol." Similar to MC, it is open to teachers to decide whether it is necessary to use T-F to challenge high intellectual abilities.

Guidelines for writing T-F items (with examples):

1. Try to construct absolute true or false statements. Avoid assessing opinions, because it is subjective. If the opinion is part of the challenge, identify the source of the opinion as part of the stem. For example, "According to specialists in childhood obesity, fast food restaurants should stop marketing high-fat foods to children".
2. Write clear statements. Double-negative statements are confusing and should be avoided. For example, "It is not appropriate not to say thank you when receiving a gift". Keep true-false statements approximately the same length.
3. Check the pattern of response to make sure that it does not form a pattern easily detectable by students. For example, avoid TTTFFF, or TFTFTF.
4. Avoid copying straight from students' reading materials, for example the textbook. More often than not, the statements selected from the textbook will not represent the intended learning outcomes identified at the beginning of the instructional period, and thus will not necessarily reflect anything students would have had reason to focus their attention on during instruction.
5. Do not include two separate parts to the statement that could each be independently judged as true or false. For example, "Smoking is not advisable, nor is it healthy. " An improved item can be "Smoking is bad for health."

6. Avoid using "specific determiners" such as always and never. Since it is rare for something to be true "always" or "never", students choose false without necessary know the underlying fact being tested. For example, "Australians never celebrate Christmas in cold weather." This may not be absolutely true. People may have a different interpretation of "cold"Also, it is unlikely that every Australian celebrates Christmas. An improved item can be: "Australians have Christmas in summer."

Matching items: Matching is a space-saving and objective way to assess a number of important learning intentions. Matching assesses students' ability to identify associations or relationships between two sets of things. The matching format consists of a series of stems, called *premises*, and a series of alternative answers, called *responses*. They are usually arranged in two lists or columns, which usually do not have the same number of premises and responses. Directions are given to the rules for matching.

Guidelines for writing matching items:
1. Maintain homogeneity in all matching items. For example, the premises in Column A are all "characteristics", and the responses in Column B are all different "types of animal".
2. Give clear directions to the test takers about what they are expected to do. Examples can be given to help the test takers if necessary.
3. It is possible to use a larger or smaller number of responses than premises.Then, directions have to state that the responses can be used more than once.
4. Arrange the two columns parallel to one another. Place the brief response on the right.
5. Place the responses in alphabetical order or numerical order.

Example:
For the following exercise, match the characteristic with the animal. Responses may be used more than once, or not at all.

Characteristics	Animals
1. Actually a colony of smaller animals (G)	A. Frog
2. An amphibian (A)	B. Snake
3. A mammal that lives in the water (D)	C. Fish
4. Undergoes physical transformation from earlier stage of development (A)	D. Porpoise
	E. Peacock
	F. Goat
	G. Jellyfish

Short-answer items: This type of test requires students to supply, rather than select, the answer. The items require the test tak ers to gi ve words, numbers, or symbols to answer a question or complete a statement.

Guidelines for writing short questions:

1. Always start with constructing a direct question. Only switch to an incomplete statement when greater conciseness is achieved otherwise.
2. Phrase the statement or question so that only one single, brief answer is correct. But, be prepared for alternative answers.
3. Avoid having more than one blank to complete in each item. Place the blank at the end of the statement.
4. Avoid clues to the answer (such as making the length of the blank match the length of the word to be supplied, or using several blanks when the correct answer is two words, or preceding the blank with "a" or "an", which can indicate the first letter of the correct response).

For example:
Which continent has the largest land mass? _____
How many legs does an arthropod have? _____

Essay question items: There are tw o main types of essay: structured response and extended response. It is not the length of the essay that determines the type of response. Structured response essays are bounded by the questions or focus set for the students. Extended response allows students to express themselves much more freely than does structured response. The most obvious advantage is that writing skills can be directly assessed, b ut more importantly , essays can be used to assess deep understanding, complex thinking, and reasoning skills. They assess the abilities to communicate, to link ideas together, and to show creativity. It should be noted that, while essay items do have the capacity to assess more complex reasoning, they have to be carefully constructed to elicit those types of responses. Often, it is found that teachers use essay items to assess command of knowledge, knowledge of grammar and syntax, and vocabulary, none of which is the best use of the item type. It also has to be bor ne in mind that the essay format has limitations and therefore should be used in ways that reflect its strength and minimize its limitations. The major limitation is the reliability problem (subjective scoring, limited sampling of learning outcomes, and ambiguity in the task of the item), so the item should not be used when other items would serve the purpose better (such as surveying students' knowledge of the content covered during instruction).

Guidelines for writing essay items:

1. Match the learning intentions with the essay questions.
2. Focus on measuring higher mental abilities.

3. Make it clear what tasks are expected in the questions and the criteria that will be used to judge the quality of the response.
4. Set time appropriate to the degree of challenge.

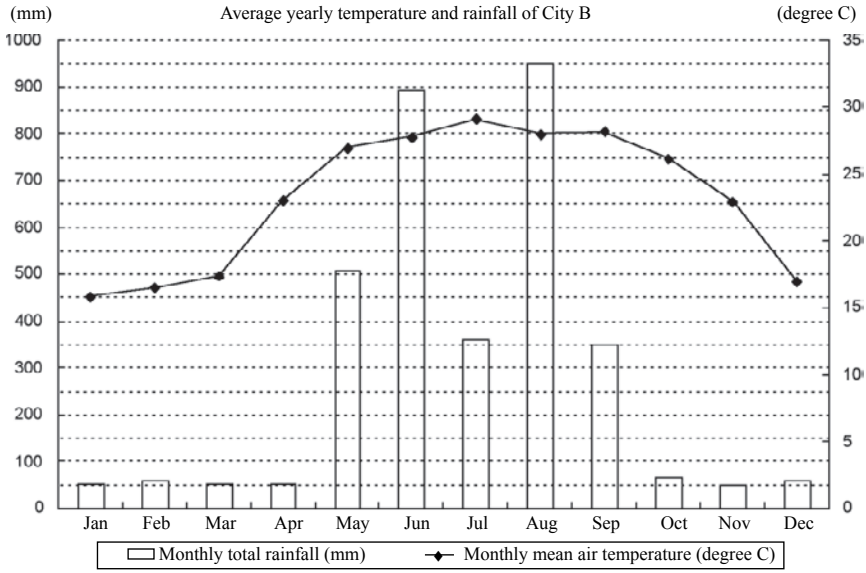
Example: Structured response essay item
Identify the three factors responsible for growth in plants. Briefly (in one sentence each) explain the way each influences plant growth.

Example: Extended response essay item
It is argued that, in times of conflict, it may be necessary to restrict the rights and liberties of citizens in order to secure peace. In an extended essay, take a position either supporting or opposing the restriction of rights and liberties during times of conflict. Provide sound rationale for your position, based on the ideas presented in this unit. Be sure that you address the key arguments in favour of your position, as well as the key arguments in favour of the opposite position. Identify the strengths and weaknesses of both arguments. Your response will be judged on the extent to which you provide a clear and well-reasoned argument in favour of your position, the extent to which you provide a clear presentation of the opposing point of view, and the extent to which your response demonstrates a deep understanding of the issues of rights and liberties versus order and social well-being. Other factors that will be taken into account in scoring your response include the organization of your response and the quality of your writing (spelling, grammar, syntax).

Interpretation exercise items: An interpretative exercise allows complex learning to be measured using item formats that are objectively scorable. This type of item is usually composed of two sets of materials: the introductory material and a set of items. The introductory material may be a graph, a picture, a paragraph, a table, or a map. The test items that follow the introductory material may be designed to call forth any type of intellectual ability or skills that can be measured. The item shown in the short answer section is "a paragraph" type of an interpretative exercise. The examples presented below illustrate how interpretative exercise can be constructed in different ways.

Guidelines for constructing interpretative exercise items:
1. Use clear language for writing the introductory material and the test items. Pay attention to the age and developmental level of the learners.
2. Match the introductory material with the learning intentions to be measured. Avoid using materials that students have used. The materials should be brief and easily understandable.
3. Decide on the types of item best suited to the introductory material. The real criterion for the types of item is the type of cognitive skill you want the exercise to assess.

4. Check whether the test items measure the type of performance specified in the learning intentions.
5. Follow the same guidelines for constructing the test items as would apply in other uses (i.e. if test items are T-F, follow the appropriate guidelines).



Example: Climate

The following is City B's record of monthly total rainfall (in mm) for one year. It is represented by bars. The monthly mean temperature is in degrees C/°C, which is represented by solid lines with diamond shapes.

For each of the following statements, indicate whether it is (1) correct and can be inferred from the chart, (2) correct, but cannot be inferred from the chart, or (3) is incorrect.

A. Temperature and rainfall are largely unrelated.
B. Rainfall tends to be heaviest in the months that have the warmest temperatures.
C. Rainfall affects the average daily temperature.
D. Temperature affects the average monthly rainfall.

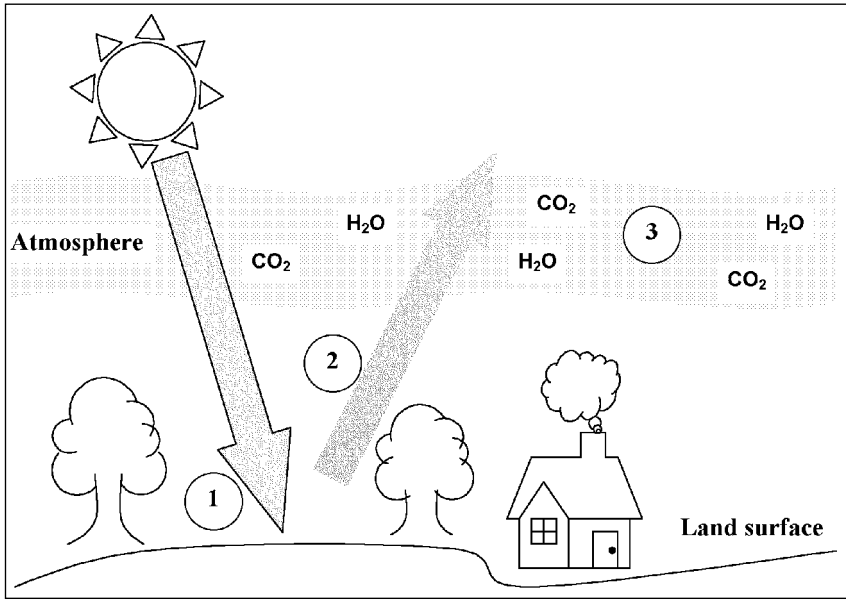
Example: Reading comprehension

Marco had just arrived at King Peter's School in the UK with a limited command of English. He was eight years old and was therefore placed in King Peter's Junior Boys' School. All of a sudden, he found himself in a "Chinese-free zone" with only a few people sharing a similar heritage. These included his brother John, who was in his final year of the junior school, and an older cousin, Ted, who was also studying at the junior school at that time. Ted had a longer exposure to English and had started at the school one year earlier than him. After school, they often got together and met a group of Chinese students, including Paul, Tom, and Annie. Paul and Tom were born and raised in the UK. Annie was just like Marco; she had just arrived in the UK. She was one year younger than Marco. However, she felt quite comfortable using English to talk with people.

1. Who was the youngest? _____ (Annie).
2. Who was the oldest? _____ (John).
3. Who was John's cousin? _____ (Ted).
4. Whose English was probably the least fluent? _____ (Marco).

Example: Greenhouse Effect

The picture below shows the formation of the Greenhouse Effect.



Look at the picture. On the lines provided, write how the Greenhouse Effect happens.

(1) The land surface _____
and the temperature of the Earth _____.
(2) The heat energy is then _____.
(3) In the atmosphere, gases like carbon dioxide and water vapour
_____.

Seeing Strengths within Their Own Capacity

Paper-and-pencil tests have often been used for making objective judgements at the end of student learning. This form of assessment strategy challenges students' cognitive abilities, in particular memorization of facts. If carefully designed, paper-and-pencil tests can also challenge students' higher mental abilities. This can be achieved by having a well-thought-out test plan and by making good use of the strengths of different test items to challenge deep learning.

Summary

- Paper-and-pencil tests, mainly used for summative purposes, are commonly regarded as a traditional form of assessment.
- Objective decisions can be made by comparing the results of the students to proficiency standards for their grade and subject.
- Paper-and-pencil tests tend to encourage rote memorization of factual knowledge. However, they can be written so that higher mental abilities can be assessed.
- A good test needs some good planning. Issues such as objectives, content, test items, assessment criteria, and administrative procedures have to be taken into consideration.
- To challenge deep learning, paper-and-pencil tests can focus on three aspects: identifying the learning intentions, preparing test specifications that represent a broad range of learning, and constructing test items that challenge deep learning.
- As learning outcomes have a bearing on the instructional and assessment objectives, they have to be carefully selected to suit the purpose of learning.
- Test specifications should take three major aspects into consideration: objectives, content, and test types.
- Test items have different strengths. Teachers have to make decisions on what test items to use to best suit the purpose of the tests.
- If the tests are to challenge higher intellectual ability, the test items should be developed using this as the goal. Test items such as essays or interpretation exercises serve this purpose better than other forms such as MC or matching.

Review Questions

1. What are paper-and-pencil tests? What strengths do you see in these tests?
2. How do you plan a paper-and-pencil test?
3. What kind of test plans align with AfL?
4. How do you develop a specification grid for assessing students?
5. How do you ensure that the test items are well written?

Suggested Tutorial Activities

1. Independent learning followed by class discussion:
   (Group work) Through negotiation, each group decides on one type of test item to study. The group researches how to improve poorly written items and presents the results in the tutorial session. This is followed by peer feedback and teacher feedback.
2. Secure a copy of a test paper you used in the past or a test paper provided by the tutor. Transform the items into a specification grid. Then discuss how you could improve the test.

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5

Alternative Assessment

Objectives

By the end of this chapter, you should be able to:

- understand what alternative assessment is and how it supports learning;
- enumerate a broad range of assessment strategies, indicating their characteristics, assessment procedures, and how they assist students in learning;
- highlight the significance of self and peer assessment and demonstrate how they are used with alternative assessment strategies;
- know how to use rubrics for helping teachers make judgements of students' performance.

In many educational contexts, assessment is largely used for measuring learning outcomes at the end of learning. This kind of assessment tends to have less direct effect on students' learning. Assessment is most effective for student growth when it reflects, supports, and advances learning. Alternative assessment is designed to stimulate students' abilities to create and apply a wide range of knowledge rather than simply engage in acts of memorization and basic skill development. Alternative assessment provides a tool for students to see ways to improve their higher-order learning. By integrating different forms of alternative assessment strategies in their instruction, such as portfolios, observations, experiments, projects, simulations, interviews, performances, presentations, peer assessment, and self assessment, teachers can achieve a deeper understanding of students' learning and promote deeper learning on the part of the learners.

Understanding Alternative Assessment

In recent years, there has been growing dissatisfaction with traditional test-based assessment. There is a heightened awareness that it is necessary to collect information

about student learning through different sources. The result is an explosion of interest in diversification in what has become known as alternative forms of assessment. From the late twentieth to the twenty-first centuries, writers of curriculum documents and designers of assessment have attempted to put more demanding tasks involving investigation, problem-solving, report writing and applying skills into the curriculum. These experts stressed that it was necessary to move beyond paper-and-pencil tests of the recall (memorization) of knowledge, towards more extended and open-ended forms of assessment, including assignments, projects and practical activities.

The term *alternative assessment* has been used to refer to a number of related concepts. Sometimes, it is used interchangeably with authentic assessment, performance assessment, performance-based assessment, or productive assessment. However, it should be noted that each of these distinct terms addresses its own important dimension of assessment. For example, authentic assessment reflects some characteristics of alternative assessment but has its own distinctive "real" personality. Authentic assessment is normally interpreted as a form of alternative assessment that engages students in real-world tasks (Brady and Kennedy, 2005: 3). One common feature of all of the above-listed categories of assessments is that they represent "alternatives" to the more traditional test formats found in so many classrooms. A very simple but useful way to define this kind of assessment is that alternative assessment is any method that differs from conventional paper-and-pencil tests, most particularly objective tests (McMillan, 2007; Shohamy, 2001). Alternative assessment does not have to be a replacement of tests. The information collected can be used to support evidence collected from tests, notwithstanding that it can be used independently for understanding student learning.

Most forms of alternative assessments, such as portfolios, projects, and learning journals, lend themselves effectively to the "assessment for learning" philosophy, with its emphasis on supporting learning. In this form, assessment is an ongoing process during which teachers diagnose learning problems, monitor student learning and help them through giving quality feedback, as well as adjust teaching with reference to learning outcomes. This kind of assessment intends to make assessment an integral part of the learning experience. It can motivate students by embedding some authentic assessment activities in the learning processes. When students work on tasks and assignments that are "authentic", it makes the acquisition of knowledge and learning of skills more natural and more meaningful. In contrast, when learning is shaped by the nature of the tasks, and students have some latitude in how their response to the task may come out, care must be taken to ensure that important learning in support of the task is in fact taking place. These activities stimulate students' abilities to create and apply a wide range of knowledge rather than simply engaging in acts of memorization and basic skill development (Berry, 2003). Alternative assessment also motivates students to take more responsibility for their own learning. Students can be given opportunities to reflect on their own learning and make plans for their learning

needs. Alternative assessment provides a broad view of student learning across time, engages students in the learning process, and offers students continuous feedback.

Alternative assessment can reflect student performance in different aspects and domains of achievement. When learning outcomes are complex, and even situation-specific, it can be very difficult to effectively assess these types of outcome using traditional assessment methods. An alternative assessment strategy, such as a project, however, can more easily provide for the complexity of the learning, the interrelationship among skills, and the need for a more authentic basis for judging student learning. Students can be assessed on the basis of their achievements in real or simulated situations, for example authentic representations of their understanding of the subject matter or application of the knowledge gained from the course to real situations. One "virtue" of alternative assessment is that it allows students to represent their learning in ways that best suit them. Different students may approach the same general task in altogether distinctive ways, something that is not possible with assessment approaches that set the task in such a way as to require all students to respond in the same way. Alternative assessment offers multiple representations of students' learning in ways that give maximum voice and visibility to their diverse activities and accomplishments (Hargreaves, Earl, and Schmidt, 2002).

Alternative Assessment Strategies

It is impossible to make a complete list of alternative assessment strategies. As long as the strategy informs student learning and is not traditional test-based assessment, this book will regard it as alternative assessment. Examples of alternative assessment strategies include portfolios, journals, observations, exhibitions, oral presentations, experiments, interviews, and projects. It is possible, though, to group alternative assessment strategies into broad categories according to their most distinctive characteristics. By their nature, alternative assessments can be classified into "product" and "performance", since in any instance the learning outcome being assessed will take the form of either a product, such as a research paper or a science report, or a performance, such as an oral presentation or a demonstration of a procedure in the lab. In contrast, an assignment or assessment task designed to elicit evidence of complex learning outcomes may well include both product and performance components. The following describes the characteristics of product assessment and performance assessment.

Alternative assessment strategies which are more product-oriented require students to produce or create something to demonstrate their understanding of the learning intentions. The outcome of the leaming process is usually referred to as the "product" of learning. Foster and Masters (1996a) define product as the "items which students make" (1). This puts the student at the centre in the product assessment category.

Brady and Kennedy (2005) point out that "it is important to understand, however, that some products may be the means for assessing aspects of process, or skills deemed to be more important than the product itself" (60). Common examples of assessment strategies such as portfolios, projects and journals, generate an outcome which requires students to organize, gather, analyze and synthesize information in addition to making the product. The product of a learning process could reflect the extent to which students are able to make use of their skills to plan, locate resources as well as gaining a deeper understanding of the students' practical or aesthetic ability through monitoring the process and the end product.

Alternative assessment strategies which are more performance oriented require the assessee (or test taker or performer or student) to perform some kinds of task which are judged against some pre-established criteria. In its most literal sense, performance assessment requires the student to "perform" a learned skill in an appropriate context. Some skills, such as those associated with music, dance and physical movement, require direct observation of the student engaged in a demonstration of the skill, in order to assess it properly. Other skills, such as those involved in carrying out a scientific investigation or completing a mathematical computation, could also be assessed as a performance, although in these instances there is also a "product" of the application of the skill that can be assessed. The strategies are dynamic processes which call for learners' active participation and involve their personal experience in the process. In the context of assessing student learning, a closer measure of a performance task is one that requires actual performance that is relevant to the student. There are various forms of performance assessment modes and practices. A performance assessment can be as simple as reading a short poem to as complex as organizing an inter-school debate. Different subjects tend to emphasize different expectations, normally expressed in the form of performance indicators, and therefore place different weightings on evaluating students' learning outcomes. The strategies used for assessment of students' performances are often observation, with an understanding that other strategies can also be used. There are many strategies teachers could use to assess their students. This chapter discusses only those which are more frequently used in school settings, including portfolios, learning journals, concept maps, learning contracts, projects, exhibitions, interviews, and observations. These are discussed in detail later in this section.

Whether it is product-based or performance-based, alternative assessment has a direct impact on learning, as the assessees need to consider the body of knowledge that they have acquired and discriminate among all that is there to select the appropriate concepts, principles and procedures to make that product or performance. This involves higher-order thinking and a deeper engagement in learning. Because of the nature of this particular form of assessment, students are usually more motivated to learn (Khattri, Kane and Reeve, 1995). Self and peer assessment work very nicely with alternative assessment and are further elaborated in the next section.

Self and Peer Assessment

Self assessment and peer assessment are interrelated and therefore should not be discussed in isolation (Berry, 2005). Neither type of assessment has to be an isolated activity but can be integrated with teacher assessment. TenBrink (2003) points out that self and peer assessment processes are vital, whatever assessment approach is used. Self and peer assessment, which highlights assessment as learning (AaL), require students to reflect on their own learning and anticipate what should be done to improve it. Through these kinds of assessment, students can develop their metacognitive abilities, including monitoring their own learning, developing the ability to judge and evaluating their own and their peers' work, as well as making appropriate decisions about what to do next (Berry, 2005). Self assessment improves students' self-esteem (the significance of self-esteem in student learning is discussed in detail in chapter 6). Teachers need to equip their students with the desire and the capacity to take charge of their learning through developing the skills of self assessment (Assessment Reform Group, 2002). When assessing self and peer assessment, teachers can refer to the following guidelines:

Guidelines for conducting self and peer assessment:

- Explain to students the significance to learning of self- and peer assessment. Point out the benefits of becoming involved in assessment. Help students see the value of being actively involved in thinking about how and why they came to the answer they did, as well as in making plans to improve their own work.
- Introduce self and peer assessment slowly, simply and in a non-threatening way. To make these assessments work, self and peer assessment should be easily doable. You can integrate self and peer assessment into instruction, making it a natural part of classroom practice. Brief students and other tutors thoroughly before introducing the processes, making it quite clear in advance what is expected of them. Consider providing opportunities for rehearsal of the process in stress-free contexts, especially in situations where marks are to be issued. Things such as choice of partner for peer assessment or the sorts of comment allowed can be a source of threat. Teachers may need to take these into consideration while organizing peer assessment for their students.
- Make sure that students are working with explicit criteria for success. The criteria can be either provided by tutors or the outcome of negotiation between the teacher and the students. Ensure that, whenever students are evaluating work, they provide appropriate evidence for the comments (or marks or awards) given, based upon the agreed criteria.
- To begin with, consider collaborating with colleagues who have already used self and peer assessment. Then, keep monitoring the assessment process while it is being implemented, to learn from the experience.

Examples of how self and peer assessment can be integrated into instructions have been discussed in the assessment plan section in chapter 3 and are further illustrated with a case in chapter 10. Figures 5.1 and 5.2 show two examples of how self-assessments can be done. An example of peer assessment and self assessment are presented together with project work in the later part of this chapter. It should be borne in mind that the examples given are not the only ways self and peer assessment can be used in the classroom.

Experiment Report

Student Name: _____ Date: _____

Teacher: _____

I am able to (Put a √ to indicate):

	Yes, I am mastery on this	Not really able to do this	Still have long way on handling this	My plan to improve
Explain the purpose of experiment				
Search relevant literature				
Use equipments to conduct experiment				
Describe the observed change				
Analyse the result and give insights				

Figure 5.1 An example of self-assess form

What do I think about the task?

1. What have I done well in this task?

2. Which parts am I not satisfied with?

3. What do I need to work on?

4. What should I do to help myself improve?

Figure 5.2 An example of self-assess questionnaire

Portfolio

Portfolios are emerging as a prominent type of alternative assessment (McMillan, 2007). A portfolio is defined as a purposeful, integrated collection of student work showing effort, progress, or a degree of proficiency (Butler and McMunn, 2006). Portfolios can include a wide variety of student work, ranging from writing samples, to lab reports, to observational checklists from in-class demonstrations, to reflective journal passages, depending on the way the portfolio is intended to be used. Forster and Masters (1996a) point out that there is no one "portfolio"; there are many portfolios for different educational contexts and purposes. Of the many kinds, two are particularly linked to learning: "best work portfolios" and "learning portfolios". A best work portfolio is a careful selection of a student's work, designed to provide the opportunity to serve a specific kind of assessment purpose. Although "best work" portfolios are usually more summative, they can be used for formative purposes as they are being constructed. The most representative work at each stage of student learning is selected and filed into the portfolios specifically for making summative judgements. Depending on individual teachers, the best work portfolios can also be used as a basis for identifying "next steps" for students to undertake to advance their learning. Best work portfolios contain the final product of student work but can also include evidence of the processes that students use to develop those products. Judgement about the quality of this kind of portfolio can be geared towards the evidence of progress as well as the evidence of learning outcomes.

The learning portfolio is ordinarily used to monitor the progress of student learning over time. There will ordinarily be a record of learning that focuses on the student's work and his or her reflection on that work. An indication of progress towards the intended learning outcomes will be made available through teacher and student interaction and comments. The portfolios become a key curriculum and formative assessment tool through which feedback will be given and new plans of learning will be negotiated. Learning portfolios are typically used for formative purposes but can be used for making summative judgements of the student's work as well. The way such a process can be used to guide and assess learning is highlighted in the flow chart in Figure 5.3.

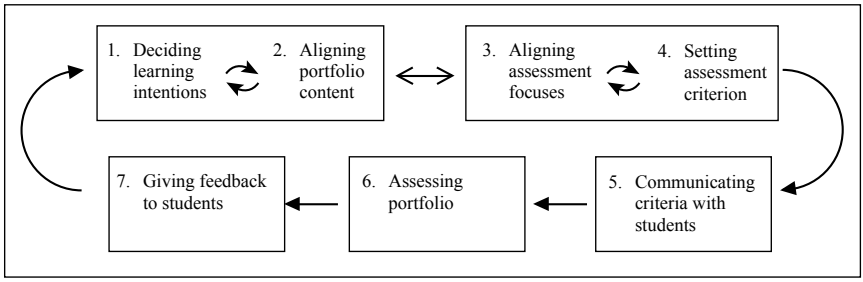

Figure 5.3 Steps for using portfolios as an assessment tool

Assessing the student work found in a portfolio will follow the same rules set earlier in this book for good assessment. Intended learning outcomes associated with each item in the portfolio must be clear and explicit. Criteria against which the student's work will be judged must be established (and communicated to the student). Levels of proficiency associated with each criterion must be established. Care must be taken when applying the criteria and judging the work against the criteria that judgements are as accurate and objective as possible, and quality feedback should result from the assessment process. Sometimes, teachers can use ratings to do the assessment. Figure 5.4 shows one way of assessing a portfolio.

Using portfolios either as a method of showcasing "best work" or of monitoring learning requires a substantial rethinking of the ways in which classrooms operate, and a redefinition of the roles of teachers and learners in the learning and assessment process. Much of the learning in the classroom occurs as the student creates work samples of increasing quality, guided by the feedback provided by the teacher. Many of the decisions regarding what forms the evidence of learning will take, and how learning will be assessed, are negotiated between the teacher and the learner.

Portfolio Ratings of Student Improvement

Directions: Rate each of the following items by circling the appropriate number.
The numbers represent the following values: 4 = outstanding progress; 3 = good progress; 2 = satisfactory progress; 1 = unsatisfactory progress.

To what extent does the student show improvement in:

4	3	2	1	Understanding of concepts
4	3	2	1	Application of information
4	3	2	1	Reasoning ability
4	3	2	1	Writing skills
4	3	2	1	Speaking skills
4	3	2	1	Problem-solving skills
4	3	2	1	Performance skills
4	3	2	1	Computational skills
4	3	2	1	Computer skills
4	3	2	1	Self-assessments
4	3	2	1	Reflection skills
4	3	2	1	Work-study skills
4	3	2	1	Independent learning

Teachers' comments:

Student's action plan:

(Adapted from Groundlund, 2006: 164)

Figure 5.4 An example of how a portfolio is assessed

Learning journal

Journals are a personal and unstructured form of reflecti ve writing. They provide a record of things that happened, the writers' thoughts, and their own feelings derived from the e vent. Journals tak e man y different forms, for e xample, logs, diaries, professional journals and reflective journals. A log is a record of happenings. A diary contains personal feelings in additional to happeningsA professional journal carries a specific purpose — professional growth. Reflective journals take deliberative thoughts and analysis as the focus of writing. Journals used for enhancing student learning are called learning journals. There are a number of advantages associated with the use of learning journals. Students become the teacher and the learner at the same time (Holly 1989). Students make choices about what to include in the journal.They keep track of their personal development, clarify their own thinking throughout the process, and discover links between experience and knowledge in the past and present (Bolton,

2001). Learning journals can help students build up their confidence. Expressing themselves becomes less daunting, as they can write about things familiar to them (Peyton, 1990).

Teachers can make the learning journal a dialogue between individual students and themselves. To make the journal an assessment strategy useful for learning, teachers can identify aspects of their learning about which they would like to give students feedback. Bolton (2001) suggests that, when students prepare their journal, they need to question, explore and analyze their learning and their experiences in the learning process. The focus of the assessment is therefore to see:

- if students are keeping a record of their experiences useful for their learning;
- if they are able to analyze what has happened;
- if they have learned from their self-questioning; and
- if they can self-explore to find the answers to their own questions.

Concept map

A concept map is a way for students to represent their understanding of the connections between and among important concepts they encounter in their learning. Concept mapping has good potential in improving teaching and promoting meaningful learning (Ausubel, 1978; Novak and Gowin, 1984). Concept maps offer users the opportunity to think reflectively. They can serve as a metalearning strategy that helps users learn how to learn, which is central in constructivism (see Chapter 1). It can also help users to organize and understand more clearly new information to be learned. Using a concept map, students link their new knowledge with their own existing knowledge. New conceptual structures are thus formed and realized (Arnaudin, Mintzes, Dunn, and Shafer, 1984; Beyerbach and Smith, 1990; Novak, 1990). Students derive new concepts based on the connections and relations of one concept with other concepts. Students can then actively link their own relevant concepts with the new concepts. A concept map is usually presented as a graph comprising nodes and lines with labels. It represents a person's structural knowledge about a certain concept or subject. The function of the line is to show a relationship between the nodes (concepts). A proposition could be formed by combining the nodes and the line with a label. Novak and Gowin (1984) suggest focusing on the following while making judgements of student performance using a concept map. An example is used to illustrate the scoring method they suggest (Figure 5.5).

Focuses for scoring a concept map (Novak and Gowin, 1984):

1. Proposition: To see whether the relationship between concepts and the linking line with the label is meaningful and valid.
2. Hierarchy: To see whether the user is able to incorporate hierarchy into the structure.

3. Cross-links: To see whether one segment of the concept is meaningfully connected with the other segment of the concept hierarchy.
4. Examples: To see whether the labels of concepts appropriately link to rele vant examples.
5. Comparison: A criterion/master concept map (i.e. a template) which represents the essential knowledge a student should acquire will be constructed and used as a basis for scoring students' concept maps.

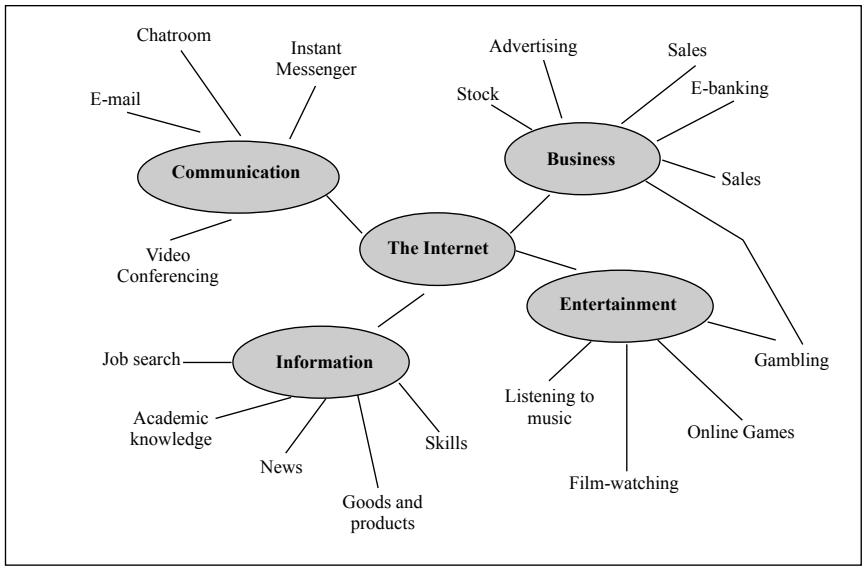

Figure 5.5 An example of scoring a concept map

Number of:

Relationships (if valid)	=	23
Hierarchy	=	3
Cross-link (if valid and significant)	=	1
Examples (if valid)	=	18

Teachers can assign different values for each count of the above categories
e.g. 5 points x count of hierarchical level = 5 x 3 = 15 points
10 points x count of cross-valid and significant cross-links = 10 x 1= 10 points

Learning contract

A learning contract is a written agreement between the student and the teacher about what the student will learn and how that learning will be assessed (Boak, 1998). It is

actually a learning plan which allows specific actions to be taken to suit a student's needs. It is flexible, allowing negotiation between the teacher and the student regarding learning goals and the procedures to achieve the goals. The learning contract is not a legally binding document. The metaphor of a contract is used to allude to the serious commitment that participants will make to work towards the goal specified in the agreement (Clark, 1996). Sometimes, the content and signing of the contract involves a third party, for example the parent of the student or a mentor. According to Anderson, Boud, and Sampson (1996), the items to be listed in a learning contract include:

- a number of learning objectives agreed to be achieved by the student,
- agreed assessment criteria,
- possible and available resources to help the student achieve the objectives,
- period of commitment, and
- signatures of the parties involved.

Assessment of the learning contract is highly dependent upon what is expressed as the assessment criteria agreed in the contract. Since the learning contract emphasizes learning progress, assessment should look for evidence of improvement during the learning process. The assessor involved will bear the responsibility in offering feedback to the student when learning is not evident. Figure 5.6 (p. 93) is an example of a learning contract.

Project

Projects are widely used by teachers as a teaching and learning activity. They provide useful information about students' understanding and knowledge of particular learning areas, about abilities to apply that knowledge in particular investigations, and about abilities to communicate subject-specific information clearly (Forster and Masters, 1996b). Most projects require students to undertake an enquiry process in which they work in groups or individually to select a topic, plan a data collection procedure, analyze and organize the information collected and then present the results. When learning and assessment are focused on carrying out a project, the knowledge and skills required are a natural element of the needs of the project, learning is embedded in the "doing" of the project, and assessment takes the form of "consulting" with the students at designated intervals to determine:

- how well they are progressing,
- how well they understand and can articulate key concepts and principles related to their project,
- how well they are planning and executing the project,
- how well they are able to identify and respond to challenges, and
- how well they adapt their efforts to new information.

Learning Contract

Date: _____

Student/s: _____

Teacher: _____

Others (e.g. parent): _____

Learning objectives:

(1) _____

(2) _____

(3) _____

Plans to achieve the objectives:

Plan details	Date of completion

What to assess:

Assessment criteria:

Signatures of all parties:

_____ _____ _____

(Student) (Teacher) (Others, if any)

Figure 5.6 An example of a learning contract

The assessment of a project can focus on the process, the product or both. The broad assessment focuses of a project include the plan, data collection procedure, data analysis, data organization, and presentation of the project. The assessment focuses can be turned into rubrics or checklists. Table 5.1 lists Chard's (1998: 49) details for focuses of project assessment. Students can be involved in the assessment process by assessing their own work (e.g. Figure 5.7, see p. 95). Students can assess the quality of one another's work, focused on the evidence of learning (e.g. Figure 5.8, see p. 96). While we value peer assessment as a useful method of gathering information about

Table 5.1 Basis for assessing a project

Assessment focuses	Details
1. Initial idea	• What is the potential for the students' learning? • How clear is it? • What is the scale of the idea? (too big or too small) • How complex is it, and what resources will be needed? • How original and imaginative is it? • How appropriate is it for this project?
2. Planning	• What sequence of stages will the work progress through? • How detailed is the list of resources required? • How clear an idea do the students have of the work involved? • How detailed are the sketches (e.g. concept map) in the plans? • What research do the students anticipate doing? • How well suited to the students' abilities is the plan?
3. Doing and recording	• How does the work progress? • What questions are raised? • What research is done, in books or through consultation? • How are research findings incorporated into the work? • How is the progress of the work being recorded? • How is the student applying basic academic skills in this work?
4. Discussion	• What is the purpose of the discussion engaged in? (Decision-making? Exploration of ideas? Consultation? Advice?)
5. Final product	• How does the final product reflect the original plan? • How clearly are the ideas presented? • How imaginative and original are the ideas incorporated in it? • How does it reflect the development of the students' thinking?

collaboration, it should be borne in mind that the example given is not the only way peer assessment can be used in the classroom. This applies to self assessment of one's project.

Exhibition

Exhibits are the product of a topic studied in depth. Producing the exhibit demands effort and time as well as deep understanding of the subject matter. Exhibitions provide both teachers and students a chance to gain a better view of what students are learning and accomplishing (Klenowski, 2000). Brady and Kennedy (2005: 65) describe the exhibition this way: "The exhibition typically takes place in the classroom on an advertised day, and parents are invited to attend. Assessment may involve the teacher, other teachers, and peers." Assessment can focus on considering a student's research efforts and written work along with his or her oral presentation to the attendees to the exhibition (McDonald, 1991). The Australian National School Network (ANSN) (2002)

Student/s: _____ Date: _____

Teacher: _____

Communication skills in group discussion

Communication skills	I seldom do this → Improvement needed	I sometimes do this → Try to do more in discussion	I always do this → Keep on doing this
I have eye contact with group members			
I share my ideas in discussions			
I let others express their opinions			
I pay attention to others' viewpoints			

What are you most pleased with about your communication skills in the group discussion?

What do you need more help with in your communication skills in the group discussion?

What do you plan to do to improve your communication skills?

Figure 5.7 Project: An example of self assessment (group discussion)

developed an assessment rubric focusing on four elements representing students' efforts in the learning process and the exhibit as the learning product:

- Student as researcher (how the student collects, analyzes and interprets data, and organizes ideas and information)
- Student as active learner (how the student sets goals, implements plans, accesses resources, and works independently and in a team)
- Student as reflective learner (how the student reflects on learning, evaluates own progress, and transfers understanding to other areas)
- Student as presenter (how the student communicates the exhibition)

Name: _____

Student ID: _____ Group number: _____

Secondary 3B Geography: Project on Environmental Protection
Peer assessment form for group project

I. Please indicate your preference in the following table:

1. Did not contribute in this aspect
2. Made little effort to contribute to this aspect
3. Contributed in this aspect but at an average standard
4. Willing and made an effort to contribute in this aspect
5. Made extra effort to contribute to this aspect

	Name of group members			
Aspects of the project	( )	( )	( )	( )
1. Planning of the project				
2. Searching related resource				
3. Carrying out data collection				
4. Analyzing data				
5. Writing the report				

II. General comments:

End of evaluation

Figure 5.8 Project: An example of peer assessment

Interview/questioning

The interview is an assessment strategy that teachers use to elicit information from students through oral interaction. Although labour-intensive and involving a high level of subjectivity, interviews can provide a means to probe for understanding, feelings, opinions and perceptions (Freiberg and Driscoll, 2000). Not only do interviews provide access to private thoughts, emotions and beliefs, but they but also provide information for teachers to understand and predict behaviour (Chatterji, 2003). In a formal interview-based assessment environment, students respond in either a one-to-one conference

setting or group setting. In the interviews, students are called upon to demonstrate the mastery of skills or abilities valued in the curriculum, through their responses to interview questions posed by the teacher. The assessment strategy is used with a set of questions. When the stem questions do not lead to complete answers, follow-up questions will be asked. Questions are then used to gather further information, obtain clarification, determine positions, reconcile differences and probe for motivation (Guerin and Maier, 1983).

Questioning

The role of question in learning is essential (Sweeting, 1994). The technique of questioning is used by teachers frequently and extensively in class. It is central to the interaction between students and teachers in classroom. Theorists have identified two main types of question (Walsh and Sattes, 2005: 25; Clarke, 2001: 87). At the lower level, teachers ask questions that only require students to recall facts or knowledge previously learned, with a pre-defined answer. At the higher level, teachers ask questions that demand students make use of their own knowledge to actively think of an answer. It has been shown that questioning is no longer a tool merely for probing an answer but essentially an instrument to help students to think beyond the answers (Walsh and Sattes, 2005: 9). Riner (2000: 270) also pointed out that, through responding to questions, students are able to organize and self-develop information into concepts. Students are able to take an active role to think about as well as produce knowledge (Hunkins, 1995: 4). This is very much in line with constructivism.

Borich (1996: 343–4) suggests a number of benefits to using questioning in class. Questions can arouse students' interest in certain topics as well as elicit their curiosity in searching for the answer. Students will be more focused on what the teachers are saying. Asking questions of students can prompt them to ask questions of teachers, other students, and even themselves, resulting in students being more engaged in the lesson. Asking higher-level questions requires students to actively think about what they know, and extend their understanding to new levels. Teachers can also make use of questions to review information previously taught. Through asking questions and monitoring the students' replies, specific learning difficulties can be identified and appropriate aid can be given.

Questioning allows teachers to get useful insights into the ideas of students on a certain topic, and their responses often indicate their level of understanding as well as their strengths and weaknesses. For questions that are novel to students, teachers can also assess students' social enquiry skills as well as to what extent they can apply their own knowledge and concepts to appropriately come up with an answer to the question. Also, as questioning is flexible, teachers can question students on a wide range of topics; the students' understanding of the topics as well as their values can be investigated. There are some techniques that teachers can use for questioning. After a

question has been raised, time should be given to allow students to think and organize their thoughts. Sometimes, teachers can get students to discuss responses in small groups before answering the questions.Teachers can use a series of questions embedded with prompts and cues as a means of scaffolding. Following Sweeting (1994), there are a number of question types that can be used. Figure 5.9 shows how three types can be used in the classroom.

- Reinforcement: Teachers can signal acknowledgement to ensure that students have grasped important information and ideas, and to "reinforce" those ideas by having students respond to questions about them.
- Probing: Teachers use a series of questions to extend, deepen and refine students' understanding.
- Deductive questions: Teachers can use questions to encourage students to make new, larger, connections between/among facts, ideas, etc. that they already possess knowledge of. Teachers can lead students to the learning targets by questions.

An integrated science class in a primary school

[A series of deductive questions has been used]
Teacher: Class, can you name some examples of insects?
Jane: Ant!
Howard: Bee!
Stella: Spider!
Brian: Dragonfly!
Sally: Grasshopper!
Teacher: Very good! You have come up with many examples!
[Reinforcement]. But Jane, can you tell me a characteristic of insects?
[Probing]
Jane: um . . . They have many legs!
Teachers: You're right **[Reinforcement]**! How many legs does an ant have?
[Probing]
Brian: Six!
Teacher: What about a bee? **[Probing]**
Howard: Also six!
Teacher: And a spider? **[Probing]**
Stella: Oh! A spider has eight legs!!!
Teacher: Yes, you're right! **[Reinforcement]** You can see that spider is different from other insects. So, do you think that spider is an insect?
[Probing]
Jane: In the book it says that all insects have six legs. A spider has eight legs. So a spider is not an insect!
Teacher: Well done! **[Reinforcement]**

Figure 5.9 An example of using reinforcement, probing and deductive questioning

Observation

Observation is an assessment strategy that allows the recording and description of behaviour as it occurs (Johnson, Johnson, and Holubec, 1998). Information collected is used for drawing inferences or interpretation of the performance of the students, which can subsequently be used to inform teaching and guide student lear ning. Two kinds of data collection approach can be used: quantitative and qualitative. Systematic observation is a quantitative approach to observation that categorizes classroom behaviour in an observation schedule (Croll, 1986). The qualitative approach focuses on a description of school events while acknowledging the context and social meaning (Shortland, 2004). Oosterhof (2001) describes observation as an efficient and adaptable means of assessment. Ho wever, one major pitf all of observ ation is that it can only allow assessment of naturally occurring performance that students displayed in class. Failure to perform a certain task or demonstrate a skill might not necessarily reflect students' lack of the skill in completing the task. The types of scoring method commonly associated with this type of assessment strategy are checklist, rating scale, and anecdotal record (see Chapter 8). While all of these can be used to mak e more systematic the information obtained from observation of performances, it is worth noting that they can all also be used in conjunction with the judgement of products, projects and most other sorts of assessment activity, not just observation.

Principles for Selecting Assessment Strategies

There are some guiding principles for selecting assessment strategies. In addition to what has been suggested in the assessment plan section in Chapter 3, the suggestions given by Herman, Aschbacher, and Winters (1992) should be considered while selecting assessment strategies for use. The assessment strategy should:

1. match the specific instructional outcome which the strategy is designed to measure,
2. represent the content and skills that the teacher expects students to attain adequately,
3. enable students to demonstrate their progress and capabilities,
4. be authentic and related to real-life experience of students,
5. lend itself to an interdisciplinary approach, and
6. be structured to provide measures of learning goals.

Integrating Alternative Assessment into Instruction to Facilitate Learning

AfL should help students to learn. The purpose of assessment is to encourage, direct, and reinforce learning. Alternative assessment is by nature intertwined with teaching and learning processes. This form of assessment is aimed at obtaining different aspects and domains of achievements, as it is assumed that achievements can be exemplified differently in different contexts and situations. Students are evaluated on the basis of their achievements in real or simulated situations. In recent years, there has been a growing use of alternative assessment methods including portfolios, observations, experiments, projects, simulations, interviews, peer assessment and self assessment. These varied ways of assessing performances allow a deeper understanding of students' learning in different perspectives. They provide more valid information about students' learning and will undoubtedly shed some light on teaching.

Summary

- Alternative assessments provide teachers with ways to assess important learner outcomes that are difficult to assess using traditional methods.
- Though it can be used for summative purposes, alternative assessment is well suited to formative purposes, as it collects student information during the learning process. With the information collected, teachers can give feedback to students to assist them in their learning.
- Some assessment strategies have a direct link with alternative assessment. The more frequently used alternative assessment strategies in schools include portfolio, learning journal, learning contract, project, exhibition, observation, interview, and concept map.
- Self and peer assessment works well with alternative assessment strategies.
- One common way to classify alternative assessment strategies is to group the strategies under two broad categories: product and performance. Product assessment requires students to create something (e.g. a portfolio) and performance assessment requires students to demonstrate their knowledge at application or creation levels (e.g. observation of an experiment, or a dance).
- Rubrics are commonly used for assisting teachers in making judgements of the information collected through alternative assessment strategies.
- Alternative assessment should be integrated into everyday teaching and learning.

Review Questions

1. What makes alternative assessment different from traditional paper-and-pencil tests? What contributions can alternative assessment make to student learning?
2. How can alternative assessment accurately determine the level of student performance?
3. What are the characteristics of individual alternative assessment strategies? How are they used to assess students?
4. How do teachers make alternative assessment strategies useful for student learning?

Suggested Tutorial Activities

1. Discussion:
   In groups, conduct an in-depth study of one alternative assessment strategy of your choice. The focus of the study will include understanding the strengths and weaknesses of the strategy and how it can be used in classroom situations to support student learning. Upload the information from the e-learn two days before the tutorial and lead a class discussion in the tutorial.

2. Cases:
   Read each of the following classroom situations. First decide what assessment strategy you would use to assess your students, and then write down why you chose this strategy. Compare your answers with those of your peers, and then discuss what else you could do to support student learning.
   a. You teach science, and your students are conducting an experiment in the laboratory. You want to know whether they can manage the steps of the experiment.
   b. You teach liberal studies, and you want your students to know the history of an old village. You want the students to enhance their collaboration skills and communication skills.
   c. You teach English as a second or foreign language. Your students are not proficient writers. You want them to develop their writing skills.

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6

Catering for Diversity

Objectives

By the end of this chapter, you should be able to:

- understand the common types of diversity found in the classroom;
- know how to use assessment to identify diverse needs;
- acknowledge the types of diversity that have greater impact in Hong Kong classrooms;
- use assessment to accommodate students with specific needs;
- realize the relationship between self-esteem and learning success, and know how assessment can help to raise self-esteem;
- use assessment strategies to cater for diversity, and differentiate assessment tasks to serve the same purpose.

Classrooms nowadays are exemplified by student diversity. Students differ in, for example, motivation, learning style, aptitude, cultural background, socio-economic status and past learning experience. As students' learning needs are becoming increasingly diverse, a new challenge is to look for ways to address their needs. Assessment is one useful way to help teachers deal with classroom diversity. Teachers can use assessment to size up diversity in the classroom and use assessment strategies to cater for classroom diversity. They can select or design differentiated assessment tasks to help students with diverse needs learn, including those who have disabilities.

Diversity in the Classroom

Diversity has drawn a great deal of attention in education sectors, especially in recent years. Ruddell (2005: 360) points out that more and more schools have students representing diverse needs. In what ways is diversity manifested in the classroom? What is meant by "diverse needs" of students? Many teachers focus only on the

academic and intellectual diversity of students when they consider issues of diversity in their classrooms (Berry, 2006). No doubt it is important to address students' different cognitive needs, because so much of the emphasis in schools is placed on academic achievement. There are, however, other needs which also warrant attention. In the classroom, diversity may manifest itself in many other ways, including race/ethnicity, sexual orientation, disability, socio-economic and cultural background. Students may also differ in motivation, learning style, learning strategies, aptitude, and past learning experience. Gunzenhauser (1996: 4) notes that, on the cognitive plane, students range in intellectual capacity, process capacity and learning orientation. Along the emotional/behaviour plane, students can differ in the degree of maturity, conformity, self-esteem and motivation. When extended to the social plane, the differences might include family issues or social engagement preferences. Students displaying different characteristics along one or more of these planes are not incapable of meeting the same learning intentions as other students; however, their differences do mean that instruction and assessment practices of teachers must take account of those differences. By understanding students' diverse needs, teachers can help them achieve their potential and have a sense of competence, self-esteem and wellness.

Self-esteem, Learning, and Assessment

One of the important dimensions along which learners differ and vary is their level of self-esteem. While self-esteem is influenced by many factors and experiences, there is a strong linkage between self-esteem and achievement. Margerison (2000) points out that "Low self-confidence or self-esteem is one of the most critical controlling elements of a child's ability to learn and behave appropriately and thus to achieve her/his potential" (84). Self-esteem, the feeling of self-worth, is a fundamental human motive. More able students believe in their abilities. They have positive self-images and aspirations. Less able students tend to think negatively about themselves. Very young learners typically view ability as an acquired trait, and assume that, if they fail initially, additional effort will eventually lead to success. Unfortunately, as learners get older, they begin to view ability as fixed, and if they initially fail at a new task, they may assume that they lack the necessary ability to succeed. Repeated experiences of failure reinforce this "innate" view of ability, causing these learners to give up when confronted with difficult learning tasks. Their sense of self-esteem associated with the areas of learning in which they experience constant failure is lowered, and to preserve their sense of self-worth, they minimize the importance of that area of learning in their lives. Self-esteem is not innate but can be established or destroyed. Success tends to increase, and failure tends to decrease, self-esteem. However, the relationship between

self-esteem, success, and failure is a complex one. Students with high self-esteem typically react to a failure experience as a temporary setback, and endeavour to overcome the setback through renewed effort and alternative learning strategies. Students with low self-esteem view failure as the "norm" and may not extend even a minimal effort when confronted with a new, difficult task, in order to buffer their already low sense of self-worth from additional threat. Students with low self-esteem may also view success, when they experience it, as transient, accidental and outside of their control. So, regular experiences of success typically lead to increased levels of self-esteem, and when self-esteem levels are high, students are more willing to take risks, try difficult tasks, and tolerate failure as a normal aspect of learning that will eventually give way to success. Similarly, regular experiences of failure lead to lowered levels of self-esteem, and when self-esteem levels are low, students are less willing to take risks, try difficult tasks, and so avoid situations in which they assume they will fail.

Because they are so pervasively associated with success or failure, school marks can have a dramatic impact on self-esteem (Rosenberg, Schooler, and Schoenbach, 1989). It is time to rethink the use of assessment. Are our assessments establishing students' self-esteem? What forms of assessment will get students more engaged in learning? Santrock (2001) makes some suggestions on how assessment can sustain students' motivation for learning. He says:

> Assessments that are challenging but fair should increase students' enthusiasm for learning. Assessments that are too difficult will lower students' self-esteem and self-efficacy, as well as raise their anxiety. Assessing students with measures that are too easy will bore them and not motivate them to study hard enough. (p. 498)

Assessment plays an important role in engagement and performance. Every classroom environment actually hosts a series of repeated assessment events. In each event, the teacher communicates with the student through assignments, activities and feedback (Brookhart, 2004). There are plenty of opportunities for teachers to help students establish self-esteem through assessment, and teachers should look for opportunities to do so in their everyday teaching. Every learner needs to experience success, and every learner is capable of achieving success. To ensure that learners experience success in their assessments, teachers must carefully plan those assessments to be challenging but achievable; they must communicate clearly and effectively the learning goals, criteria and standards of quality expected; they must make certain that assessments are aligned with the learning goals; and they must create in their classrooms an environment in which initial difficulties with a task are considered normal and expected.

Diversity in Hong Kong

Statistics from the Hong Kong 2001 population census reveal certain aspects of diversity in the society (see Table 6.1). Although most of the people were Chinese, some did not use Cantonese as the first language. Understandably, a minority (but no less significant) did not speak Cantonese at all. According to the Education Bureau (EdB), in 2002–03, 6,459 newly arrived students from China (NAS) were admitted to study in Hong Kong schools. Since then, there has been a steady growth of the number of NAS studying at different school levels. The year 2006–07 saw 16,052 NAS studying in various primary and secondary schools. Statistics about special education were also gathered. According to EdB, the number of students studying at special education schools in Hong Kong fell from 10,177 in 2003–04 to 7,734 in two consecutive years (2005–07). Special classes that could be found in ordinary schools dropped from ninety-five in 2003–04 to thirty-seven in both 2005–06 and 2006–07. To accommodate the students with special needs, the Hong Kong government has a new initiative, Whole-school Approach to Integrated Education. Since the 1970s, the education policy has aimed at helping students with disabilities to integrate into the mainstream as far as possible, so that they can receive appropriate education alongside their peers. Various support services are provided to the students with special educational needs in ordinary schools, e.g. special class, peripatetic support service and resource help service. The May 1995 White Paper on Rehabilitation, Equal Opportunities and Full Participation (EdB, 2005), reiterates the need to develop the potential of the students to the full so that they can grow up to be active and responsible members of the community. Schools are advised to try their best to improve their facilities, curriculum design, teaching strategies and assessment methods to cater for the diverse needs of students. EdB (n.d.) advises that:

> We have the conviction that all students can learn. To address the needs of students, teachers should provide them with a variety of learning opportunities for effective learning, such as using diversified resources rather than focusing only on textbooks, and making use of a spectrum of intelligences and multi-sensory experiences to tap the different potential of students. Schools can adopt different modes of assessment to find out the strengths and weaknesses of students before deciding on the appropriate curriculum, and learning and teaching strategies for them.

Sizing up Diversity in the Classroom

Every classroom has distinctive characteristics of diversity, demonstrated by a different mix of, for example, personalities, interests, learning styles, and abilities. All these elements make each class unlike any other class. According to Airasian (2001), it is

Table 6.1 Diversity in Hong Kong: An Overview

Categories	Updated year	Description
Gender	Mid-2007	Female = 52.5%, Male = 47.5%
Race and languages	Mid-2007	95% of the population were Chinese, 5% ethnic minorities (342,198 people), among which 32.9% were Filipino, 25.7% Indonesian, 10.6% Caucasian, 6.0% Indian, 5.3% Mixed, 4.7% Nepalese, 3.9% Japanese, 3.5% Thai, 3.2% Pakistani, 2.3% Other Asian, 1.4% Korean, and 0.6% Others. Although the usual language spoken in the population is Cantonese, some speak other languages as their first language.
Monthly income	2006 By-census	The median monthly income in 2006 was $10,000. The working population with monthly income below $4,000 increased to 11.7% from 9.9% in 1996. There was a widening in the employment income distribution between 1996 and 2006 between the high- and low- income groups.

(Census and Statistics Department, 2007)

NAS	2002/2003	6,459 students from mainland China were admitted to Hong Kong schools.
	2004/2005	Primary = 5,223, Secondary = 1,415; Total = 6,638
	2005/2006	Primary = 6,125, Secondary = 2,570
	2006/2007	Primary = 10,545, Secondary = 5,507

(EdB, 2007a, 2007b)

	2003/2004	2004/2005	2005/2006	2006/2007
Special school 10,082	10,082	8,468	7,697	7,697
Special classes in ordinary school	95	88	37	37
Total	10,177	8,556	7,734	7,734

(EdB, 2007c)

essential to "size up" the characteristics of each pupil and the class as a whole, so that the teacher will have some basis to group, teach, motivate, manage and reward students. Airasian (2001) warns that "If sizing-up assessment is not done well, a disorganized, disruptive, unresponsive classroom environment results, in which communication and learning are inhibited" (31).

Assessment for sizing-up purposes can be conducted f ormally or informally , usually with two specific focuses, academic capabilities and social and personal qualities. Teachers are in f act reasonably accurate judges of students' academic performance as measured by test scores (Airasian, 2001; Alexander, Entwise, and Dauber, 1993; Kellaghan, Madaus, andAirasian, 1982). However, according toAirasian (2001), they are less accurate in sizing up students' social and personal qualities such

as motivation, interest, self-concept and social adjustment. Studies conducted by Hawkes (1971) and Jenkins (1972) indicated that the accurac y of teachers' affective and social perceptions of their students was lower than their perceptions of students' cognitive and academic characteristics.

School records are a good source for beginning the sizing-up activities. Not only do school records contain students' background information, but they may also have teachers' comments and records of special incidences. Referring to these can give teachers insights into students' abilities, academic performance, attributes and home situations. One other common way to understand students' performance is through a "hearsay" approach. Teachers collect information through talking to other teachers or someone who knows the students. The danger of these methods is that teachers might prejudge the students based on their experience or the perceptions of others, which could be invalid or biased. For this reason, some teachers prefer to get to know students by meeting them, with no preconception of the students in mind. To get the benefits of both worlds, teachers can meet the students first and then refer to the school records and/or confirm their understanding with people who know the students.

Observation is a powerful means to help teachers in the sizing-up activities, in particular the social and personal qualities of students. Angelo and Cross (1993) note that, through close observation of students in the process of learning, classroom teachers can learn much about ho w students learn (3). K uhs, Johnson, Agruso and Monrad (2001: 8–9) point out that classroom observation provides the teacher with important information that can be used to:

- Record development progress for each students
- Evaluate each student's strengths and limitations
- Analyze specific problems
- Plan appropriate curriculum and instruction based on each student's needs
- Compile student records for study teams, conferences, and ongoing feedback to parents
- Improve teacher practices.

Observation can be conducted through formal or informal means, for example through meeting the students and/or observing students' behaviour in class. To make it particularly useful for the sizing-up assessment, observation should have a specific focus or a number of specific focuses. Focuses could be as detailed as, for example, student willingness to ask questions, student attentiveness, initiation of conversation with peers or sharing of material willingly, all of which could be assessed in a checklist. Teachers can use rating scales and anecdotal records as well, to help with systematic observation procedures.

To identify and help students with special needs, McLoughlin and Lewis (2005: 21) de veloped the Assessment Question Model. F or wider use for all learners, the

Assessment Question Model has been adapted (see Figure 6.1, p. 112). In answering the first question, "Is there a school performance problem?", teachers can employ different types of assessment strategy such as questioning or a quiz to elicit information about student performance. If the student is found to need specific attention, an in-depth assessment is used to identify critical strengths and weaknesses in school skills and other important areas. An individual educational plan will be developed to address the specific needs of the student. The instructional plan is then implemented. The student's progress is carefully monitored so that support will be given whenever it is deemed necessary. From time to time, the instructional plan will be modified to suit new needs throughout the learning process.

Assessment Strategies to Cater for Classroom Diversity

As student learning needs are being recognized, a new challenge is to look for ways that address their needs. Morris (1996), among others, points out that some types of assessment are more effective for assessing some competencies than others, and no single type is effective for assessing a wide range of competencies. Students are unique. Valencia (1997) says that "[i]ncluding a variety of types of assessments will ensure that students are provided with ample opportunities to demonstrate their abilities and that teachers have the information they need to construct a complete, balanced assessment of each student". For example, DeCastro-Ambrosetti and Cho (2005: 58–9) used a "synthesis of knowledge" project to transcend the traditional evaluation of course content (i.e. paper-and-pencil test). They found that the project allowed students to utilize their individual learning styles, which they came to realize were strengths. Chio and Forde (2002: 10) suggest that assessment must be qualitative as well as quantitative and that assessment methods must respond to students' different learning style preferences. In addition to conventional assessment methods, they recommend the use of portfolios, group and individual projects, interviews and oral presentations, experiential and applied student work, and journals and other reflective formats.

There are many forms of assessment strategy which could be used for providing individualized learning experiences. Carless (1999) suggests the use of supplementary work-cards, graded worksheets, and individualized questioning. Brimijoin, Marquissee, and Tomlinson (2003: 71–2) give an example of how a teacher used assessment to help her differentiate instructions to cater for the different needs of her students. To make sure that the students were appropriately challenged, she used paper-and-pencil or performance-based formative assessments, including objective tests, or quizzes, essays and open-ended problems, varying the type according to the content being studied. She used questioning and observation to differentiate instruction and ensure that her instruction was a good match for the varied needs of her students. She adjusted

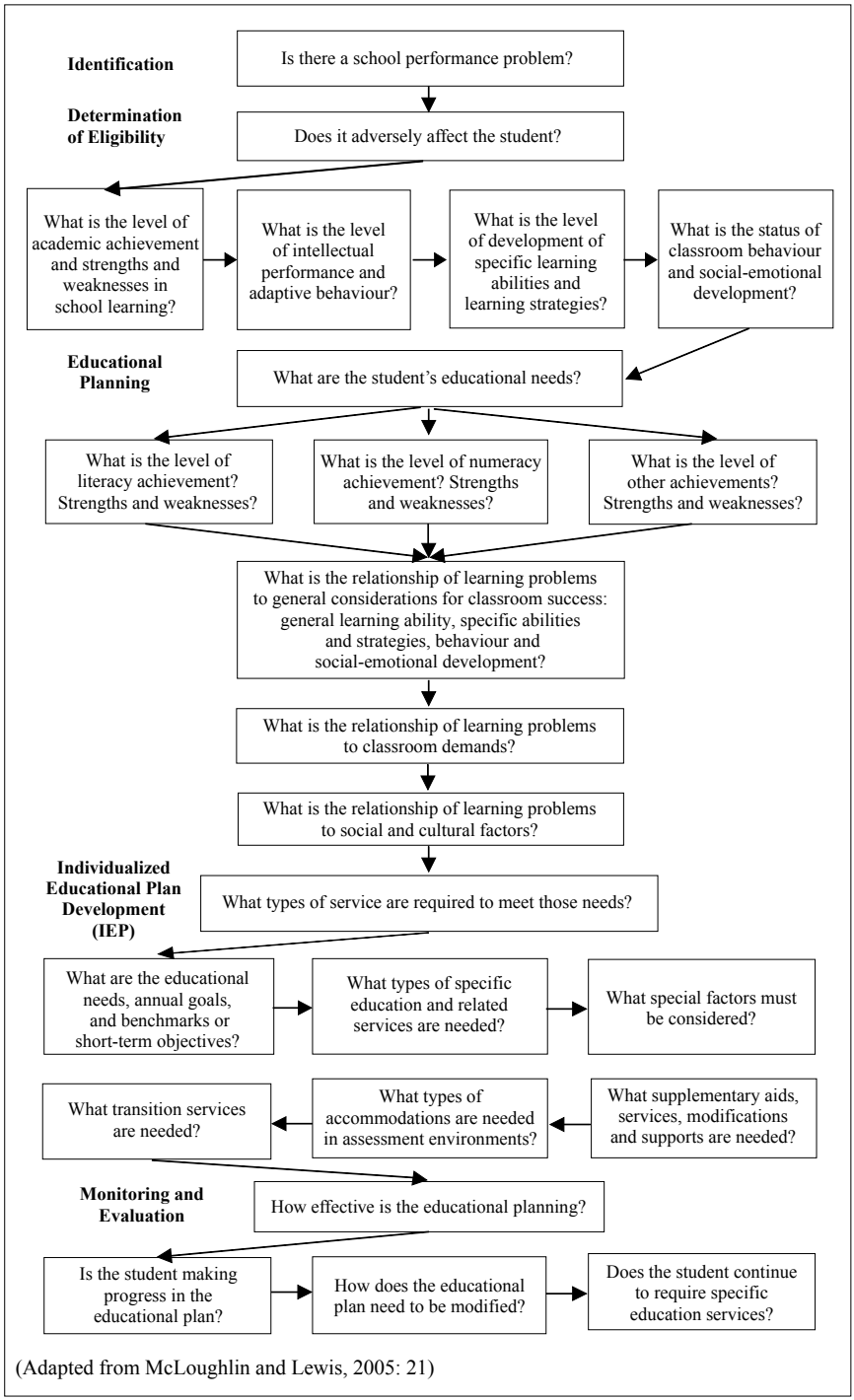

Figure 6.1 The Assessment Question Model

questions or performance tasks to be more structured for those who were struggling with a concept and more abstract for those who had mastered the concept. Rather than seeing assessment as an end-of-lesson or end-of-unit phenomenon, the teacher incorporated it at the beginning, at the end, and everywhere in between.

The assessment strategies discussed are by no means exhaustive. To cater for diverse needs, assessment should be made more flexible. Consideration should be given to the diverse range of, for example, abilities, social identities and experiences of their students. Making use of a wide range of assessment strategies can certainly allow a truer reflection of students' abilities.

Differentiation of Assessment Tasks to Meet Different Needs

An assessment task is a goal-directed assessment activity, demanding that the student use background knowledge and skills to achieve the learning targets as set. Assessment tasks are often smaller constituents of assessment strategies. For example, a portfolio (assessment strategy) may contain assessment tasks such as designing slogans and posters, discussion and oral presentation. Assessment tasks can stand alone to provide students a chance to demonstrate their learning progress and to give teachers opportunities to understand and help student learning. For example, students carry out a number of tasks for organizing an inter-class storytelling competition for the school open day (Figure 6.2).

Assessment tasks for a storytelling competition to be held on the School Open Day

Learning and assessment objectives:
- to identify and discuss ideas in spoken and written texts, form opinions and express them
- to give expression to one's experience through activities such as providing oral and written descriptions of feelings and events.

Task descriptions
Students organize an inter-class storytelling competition for the school open day.

Task 1	Discussion: Students brainstorm ideas about how to conduct the event. Students individually use a concept map to put down ideas generated. They can then draw on peer feedback and teacher feedback (informal peer and teacher assessment).
Task 2	Design a poster to advertise the event. A formal peer assessment can be arranged.
Task 3	Students write about the storytelling competition. The teacher assesses the story (teacher formal assessment).

Figure 6.2 An example of an assessment task

Morgan, Dunn, Parry, and O'Reilly (2004) suggest that, when designing assessment tasks, teachers should take the diversity of students into consideration. They stress that assessment tasks should be flexible to suit different needs. Teachers should consider student assessment load, frequency and value of assessment tasks in respect to students of different needs. Open Training and Education Network (OTEN) (2004) states that "[a] fair assessment will not disadvantage any person and will take into account the attributes of the person being assessed". To address diversity, Morgan et al. (2004: 48) suggest that a number of issues should be considered when designing assessment tasks:

- Know your students.
- Know your personal perspective. Consider the influences you might bring into your classroom including your race, gender, ethnicity, physical attributes and abilities.
- Account for diversity in your assessment. Considering the highly diversified nature of student populations, inclusive assessment ought to be a primary consideration in the development of assessment strategies and tasks. The issue is that each student has different circumstances, and there are no fixed categories of diversity.
- Consider the intended outcomes for the programme. It is important to note that the disciplinary culture, the focus of the overall academic programme and the subject-specific learning outcomes will all play a part in determining the relevance of any individual assessment task that you design.

An effective classroom should allow students to view each assessment activity as a way to highlight their strengths and needs so they can improve, extend and celebrate learning. In this way, each assessment will become a productive experience for students (Chapman and King, 2005). A number of instructional models have been proposed to incorporate differentiated assessments, including the curriculum compacting model, the contract model, the project model, and the problem-based model. The curriculum compacting model can be used for accelerated learning or remedial learning. The teaching content, learning activities, and assessment tasks are selected, adjusted, and paced to meet the students' needs. There will be different sets of tasks representing different challenges. Students can progress to a higher level when the learning targets have been met at each level. The contract model can be used in combination with this model. The curriculum can be project-based or problem-based. Self and peer assessment can easily be accommodated into these models. Figure 6.3 provides an example of how teachers can use an assessment task for their everyday teaching.

Assessment to Accommodate Students with Disabilities

Without accommodations for students' disabilities, an assessment may inaccurately measure what these students know and are able to do (Thurlow, Elliott, and Ysseldyke,

Task: Cubing

1. The teacher prepares 6 cubes representing 6 cognitive levels as stipulated by the improved version of Bloom's Taxonomy (Anderson and Krathwohl, 2001). For the details of the taxonomies, please refer to Chapter 4.
2. To cater for different learning needs, the missions can be, for example, language focused, science focused, etc.
3. On each side of the cubes, there is a mission written down for students to complete (6 missions per cube but there can be a few sets of 6).
4. Teachers can allow students to pick a level they feel comfortable at to start with. They keep monitoring the students' performance and negotiate adjustment with the students.
5. They throw the cube (like a dice) and complete the mission as required. Some of the missions can be:
   - Tell the teacher one thing you remember learning yesterday. Students can be asked to name a mathematical topic discussed (e.g. fraction) or some vocabulary items learnt in the English language class (e.g. different colours). (Remember level)
   - What do you know about _____ (e.g. an aeroplane)? (Understand level)
   - Instructions for the student to respond to. For example: Paper cutting. With the paper provided, cut a flower that has five petals. (Apply level)
   - Why is milk good for health? (Analyze level)
   - What makes sandals better shoes for going to the beach? (Evaluate level)
   - Draw five animals/insects with an S. (Create level)
6. If the tasks of one level are completed successfully, students can move on to the next level.
7. When all the tasks at the highest levels have been achieved, to further heighten the intellectual abilities of the students, teachers can set an authentic task (a real-world task) or a simulated task for students to complete. The task is set in a way so that a combined challenge of students' cognitive, social or even affective abilities is in place. Judgement of performance will be made by referring to the level of task completion (including sub-tasks) as set. This should be linked with learning objectives. An example of a task which stretches different abilities can be:
   - Real-world task: Organize a surprise birthday party for a friend.
   - Simulated task: Role-playing "In quest of the Pearl of Peace". The team will differentiate their roles, set the scenes, make plans for and carry out the mission. This task can be linked with the project model or problem-based model (discussed previously in this chapter).

Figure 6.3 An example of a differentiated assessment task

2003). To accommodate students with disabilities in a testing en vironment, teachers can be more flexible in:

- Test setting. For example, students who have auditory difficulties can be allowed to take the test in a separate room with fewer or no people present, rather than in a large auditorium. F or students w ho have visual dif ficulties, teachers can gi ve directions orally as well as in writing, or use lage-size print. Students can do the test on the computer so tha t the size of the print can be easily adjusted. They should be allowed to audio record their answers as an alternative to writing answers.

Teachers need to monitor closely the students who have special learning needs, to determine whether behaviour is preventing best work, so they can give students a chance to have a retest.

- Scheduling. For example, for students who need extra time to complete their work, tests can be administered during several sessions rather than one lengthy session. Teachers may provide them with test papers in large print or Braille.
- Modification of the test. For example, for students who have poor comprehension, teachers may set different types of task to obtain the appropriate evidence of learning. Irrelevant factors such as overly difficult vocabulary or sentence structure should be eliminated from tests.

Some of the problems arising in the assessment of students with special needs are a product of the assessment of learning, in which assessment is standardized and the goal of assessment is to tell us where students stand in reference to the learning targets. Judgement made by standardized tests can be misleading, as the results from this kind of assessment method can inform only one aspect of learning. Standardized tests are not very useful for helping students with special needs learn. In assessment for learning, because the emphasis is on supporting learning, teachers should employ non-standardized assessment approaches and find the best ways to gather evidence of learning that focuses as much on how students are learning as on how much they are learning. Teachers can certainly use alternative assessment strategies to accommodate students with special needs. One example is concept mapping, a good alternative for those who have difficulties in expressing themselves in words or writing. Portfolios are a good alternative to students who need individualized learning plans.

Teachers in Control

Students can differ tremendously in the cognitive, affective and social dimensions, which may directly or indirectly affect students' academic performance. It is necessary for teachers to know how to identify students' needs in all three dimensions. To cater for students' diverse needs, teachers should know how to select assessment strategies and differentiate assessment tasks for their everyday instructional needs.

Summary

- Many classrooms have students with diverse needs. Diversity is not equivalent to special needs, although disabilities can be a kind of classroom diversity.
- Teachers tend to be more concerned with the academic and intellectual diversity of students than with their level of self-esteem and motivation as well as their abilities in interacting with people.

- Hong Kong, similar to other parts of the world, sees different kinds of diversity in the classroom. The types of diversity that have greater impact on Hong Kong schools include the increased number of newly arrived students from mainland China (NAS) and the medium of instruction for some non-Cantonese speakers.
- To identify diversity in the classroom, teachers can refer to student records or employ different types of assessment strategy. They could use the Assessment Question Model to assist them in eliciting information.
- To cater for diversity, teachers can employ different types of assessment strategy. A variety of assessment strategies provides students with ample opportunities to demonstrate their abilities and allows teachers to acknowledge students' achievements in different perspectives.
- Differentiated assessment tasks help cater for diverse needs. Assessment should be designed and administered in a way that does not disadvantage any student, including those who have disabilities.
- Teachers who honour the principles of good assessment are likely to be addressing the diverse needs of their learners in their assessments, because those principles emphasize matters of validity, using multiple approaches to assessing student learning and the like.

Review Questions

1. What makes diversity in the classroom an issue for teachers?
2. What kinds of diversity require more attention in Hong Kong classrooms? How do you identify the kind of diversity that exists in the classroom?
3. How can assessment strategies be used to cater for diversity?
4. What kinds of assessment task will take diverse needs into account?
5. How can we measure fairly what students with disabilities know and are able to do?

Suggested Tutorial Activities

Problem-solving: How do you use assessment to help Peng?

Imagine that you are an English teacher in Hong Kong. Peng, a newly arrived student from mainland China, has just joined your class. Peng is a big boy, nearly two years older than the others in the Primary 3 class. Your colleagues tell you that when he arrived in Hong Kong, he had only been learning English for a few months so was put back two levels to Primary 2. Now, as your lesson unfolds to a communicative activity, it seems he has not really been listening and does not know how to do the activity.

Instead of asking for help or trying to join in the group activity, he speaks Chinese and distracts his classmates. A lot of your class time and energy is taken up with trying to involve him and motivate him. You are worried that not only will he do poorly in the coming exams but so will the children he distracts, so after class you try to help him with extra time and exercises. After getting to know him better, you find out that at his first school in Hong Kong, he tried hard, but he could not understand the English teacher. He does not think the activities and games played in class are good for his learning, and he is embarrassed about being older and yet well behind his classmates in understanding and pronunciation. So he prefers to talk to his classmates in Chinese, and distract them when he cannot understand.

As time goes on, in spite of the extra work and time you have given him, Peng has made disappointingly slow progress. He does not usually try to answer questions in class. He often does not understand his written exercises and homework, yet he does not ask how to do them. He does not seem to realize that he needs to do more for himself and that the activities in class are not just games but opportunities to develop communication skills. As teachers, we know that, from 2004, the Hong Kong English Language Syllabuses place greater emphasis on competency in meaningful communication tasks, and in-depth comprehension of texts, as measured by the Basic Competency in English tests (BCA). This means Peng may be selected to sit the BCA oral test, and your school's reputation will be affected by his results. How can busy teachers help students like Peng get more out of their lessons and take responsibility for their own learning, so that they can catch up? [Adapted from Berry, R. (2004). *Teacher's Handbook. The Learner Autonomy Approach: An English Language Learning Package for Newly Arrived Children in Hong Kong and Elementary ESL/EFL Learners.* Hong Kong: Quality Education Fund.]

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7

Grading, Marking, and Feedback

Objectives

By the end of this chapter, you should be able to:

- understand the significance of marks, grades, and feedback in learning;
- recognize the close relationship between marks, grades, and feedback;
- describe different types of grading method and their strengths and weaknesses in supporting learning;
- give feedback verbally and in writing and describe what quality feedback entails;
- be aware of fairness issues and understand how moderation can be used as a means to ensure marking quality;
- understand how grades are assigned, based on the evidence of student learning represented in their assessments.

Giving marks and grades to student work is teachers' everyday work. It is common practice that marks and grades are used for making summative judgements of learning outcomes. They have comparative value and are useful for making students understand their level of performance. Marks and grades are in fact a type of feedback. However, on their own they are less effective in helping students learn, because of their limited capacity in informing students about what and how to improve. To make grades and marks more useful for learning, they can be matched against a set of criteria and, as far as possible, supplemented with comments. Effective feedback keeps students motivated, helps them see what the strengths of their work are, and lets them know what they need to do to advance.

Marking

Giving marks and grades as a response to students' work is part of teachers' routine work. Marking refers to assigning marks or points to students' performance against a marking scheme set for a test or an assignment. A marking scheme contains a key to

the questions and the number of marks assigned to the answers. Teachers often associate marking with summative assessment. The marks generated help them make a value judgement of how students' performance compares at the end of a learning stage. A test usually contains different sections which represent different weighting of the total marks. For easy calculation, many teachers use 100 percent as the total aggregate of the marks. But, this does not have to be the absolute norm, since nowadays computers can manage many of the calculation chores.

There are two important issues which have to be addressed when developing marking schemes. The first is that marks should be weighed in a way so that different levels of learning outcomes can be reflected. In other words, more important learning outcomes should carry more weighting in a test, and less weighting of marks should be allocated to less important learning outcomes. The second issue is that, to ensure gaining a more accurate understanding of student performance, multiple sources of evidence should be collected over a period through different means, for example test papers, assignments and assessment tasks. In many countries, for example the US, marking is called scoring.

More often than not, marking and scoring are regarded as part of the normal practice of "grading." Brookhart (2004) defines grading as "scoring or rating individual assignments". Grading is different from scoring or marking, because neither of them necessarily has any evaluative element. Your score on a test is the number of items you answered correctly, but that does not say anything about whether the score is a "good" score or a "bad" score. Grading is going that next step and attaching a meaning to the score that tells us if the expectations have been exceeded, met or not met. Basically, no matter what it is called or how it is categorized, marking is a quantitative reflection of students' performance and should be regarded as a component of grading. In this book, grading is interpreted in a broad sense, including from very specific types such as letter grades to very open types such as narratives. These are presented and discussed later in this chapter.

Grading

Grading, as the concept implies, it is the aggregating of evidence of learning from multiple sources of assessment data over a period, in order to assign a final grade at the end of a learning stage. According to Walvoord and Anderson (1998: 1), grading is:

- the process by which a teacher assesses student learning through classroom tests and assignments,
- the context in which good teachers establish that process, and
- the dialogue that surrounds grades and defines their meaning to various audiences.

There are many reasons why grading is necessary. Grades that are especially relevant in an "assessment for learning" context are the ones based on improvement. There are at least three bases for assigning grades (in the sense of final grades for a grading period). One is a **standards-based approach**, in which the work of the student is interpreted in the context of established performance standards that describe what the student should know or be able to do. The second is a **norm-based (relative) approach**, in which the meaning of a student's work is interpreted in light of how it ranks or compares to the work of other students (possibly other students in that classroom, or possibly some larger cross-section of students). The **improvement approach** uses the student's initial level of proficiency, when instruction began, as the basis for determining how much improvement or progress was exhibited, and using that as the basis for assigning a grade or mark. The greatest weakness of this last approach is that you might have one student whose beginning status was very strong, and who made relatively little improvement (but was still performing at a very high level compared to external standards). In the improvement model, even though the second student's absolute level of proficiency might be less than the first student's, the improvement model would assign the higher grade to the second student, because that student showed the greater improvement. Unfortunately, the first student is going to feel "cheated" because his improvement may have been limited by his initially high level of proficiency on the skills being assessed. And it could be very difficult to communicate to the parents of the first student why his grade was lower than the second student's when the quality of the first student's work was actually higher. All of this is why assessment specialists, like Stiggins (2005), still recommend that final grades be assigned based on evidence of the attainment of the target outcomes, and not on comparisons among students, or even of students' later work with their earlier work.

Grading marks the outcome of learning, and at the same time it sheds light on what students can do to proceed in the learning quest. It reflects students' achievement. It provides a basis for understanding whether students have achieved the learning intentions, for comparing results and communicating results to relevant parties. For teachers, the outcome of student learning may signal the starting point of the next stage of teaching and learning plans. Grading can enhance learning. When students connect internal reasons for obtaining good grades, self-efficacy can be enhanced. With detailed feedback from teachers, students' motivation can be fostered because there is a clearer connection between their effort and their performance. Grading has the strongest effect on motivation when grades are given during the learning process rather than afterwards. As grades serve as formative feedback, students can monitor as well as reflect on their own progress, which promotes self-efficacy and intrinsic motivation.

There are certain drawbacks associated with grading which should not be overlooked. If students regard grading as a reward for learning, it undermines the value of the learning process and drives them to focus more on the outcome (Edwards

and Edwards, 1999). Grading alone fails to communicate other important aspects involved in learning (Strickland and Strickland, 1998). To make grading more useful for learning, teachers can match the grades, and marks, to well-developed performance criteria to monitor progress. They can then communicate the results with their students and relevant parties for the purpose of helping students to advance. From a psychological point of view, grading can be demotivating.

At least some of the research reported by Black and Wiliam (1998) suggests that assigning marks and grades to the work is an inhibiting influence on learning, because students are less likely to attend to the feedback in the form of corrective comments if they are offered in the presence of marks and grades. The problem is that grades become so powerful a source of motivation (positive and negative) that students end up depending on the grades as their only source of feedback on how they are doing, and grades become all they care about. Successful students work for grades and focus on their grades much more than on the learning the grades were supposed to merely be evidence of. For unsuccessful students, grades are a form of punishment, and to avoid the unpleasant consequences to their self-esteem of receiving bad grades, they stop making any effort to learn (if they have not tried; then the resulting low mark can be attributed to the lack of effort rather than to a lack of ability).

Grading Methods

Letter grades: This is a common type of grading method. Student's performances are given a letter grade (usually "A" for the best performance) according to the levels of achievement they attain on a test or an exam. Letter grades are convenient and simple to use. However, they only offer a general indication of level of performance students attain, without being able to communicate the strengths and weaknesses to the students. Also, it is possible that teachers might be biased by factors other than performance when they give grades on presentations or projects. It is often hard to determine and justify the cutoff points between grade categories, and often they are arbitrary. One of the important issues associated with the use of letter grades is the meaning assigned to the letters. The attraction of letter grades is that they seem to be very simple, and very effective, for communicating a great deal of information about student achie vement. However, that apparent simplicity can also present problems. F or some teachers and parents, a letter grade of "A" indicates "excellent". But then the question can be raised, "excellent in comparison to what standard?" Is it excellent compared to the other students in the class? Is it excellent compared to some established criteria for that grade and in that subject? The letter grade, by itself, cannot answer these questions. Another side to this problem is that dif ferent teachers may have different criteria for determining when a letter grade of "A" should be awarded. Some teachers will award this grade if all the work assigned has been completed "satisfactorily". Another teacher

may set very challenging exams and assignments, and reserve the letter grade of "A" for those students who exceed the expectations of the class by performing on the exams and assignments at a level far superior to the performance of other students. Teachers should be very clear and very consistent in their thinking about what the assigned letter grade is meant to convey about the student's achievement of the target outcomes.

Percentage correct: Students' percentage of correct answers is indicated with this method. It allows maximum discrimination among students' achievement and performance. Calculation and recording is easy. However, similar to letter grades, percentage correct only provides a general indication on how much students have achieved. And the percentage correct might not explain students' level of mastery. The main concern about percentage scores as grades is that they can convey the impression of far greater precision associated with the grade than is necessarily the case. So, for example, one student receives a grade of 92 percent and another student receives a grade of 90 percent. The apparent conclusion is that the first student has attained a superior outcome to that of the first. However, due to many of the inherent limitations to the accuracy in reliability and even validity of the sources of evidence that went into the calculation of the grade, the apparent difference could simply be the product of measurement error, and in any case these two students almost certainly have nearly comparable levels of proficiency in whatever subject area the grades were assigned. Letter grades protect us from making the mistake of attributing greater precision to our grades than they are capable of providing.

Pass-fail: This is essentially a dichotomous evaluation of students' performance. Teachers decide beforehand the minimum requirement of attaining a passing grade. Students who are able to achieve the level above this minimum requirement can get a Pass. If they are below the minimum requirement, they will receive a grade of Fail. This greatly reduces the effort teachers and students need to make for the grading process. Performance criteria would be easier to determine, since teachers only need to determine the cutoff point of pass-fail. Students and parents can easily gain a clear understanding of the level of performance. This method of grading might also enhance the reliability of grading, since it contains only two categories in grading.

However, since the judgement is dichotomous, it does not tell the level of mastery students attain. Pass-fail might be grouped with mastery learning as a category, because each is focused on using the grade to indicate whether the student has achieved the necessary state of mastery or not. Sometimes pass-fail will make "minimal mastery" the criterion for a pass, and in mastery learning mastery might be defined as something more demanding, like proficiency The "advantage" to pass-fail, or mastery, is that it eliminates the "grade" as a factor in the learning experience and so allows students to focus on learning, without being unduly concerned with "what grade" they are likely to receive.

And sometimes it actually works that way. In those cases, the teacher (possibly in collaboration with the students) will have defined the goals of instruction to set a clear, challenging and achievable expectation, and at the end of instruction students will be judged based on the evidence they can produce that they have achieved the goals. In practice, pass-fail tends not to work out, because students do think about grades even when there are not any. So, students begin to be concerned that they may work very hard and produce outstanding results, and still receive the same mark (pass) as another student who presumably has put in much less effort and has turned in work of lesser quality. Students are so habituated to the role of grades as a "ranking" device, that when they are not available, students can become preoccupied with the "fairness" of everyone who meets the same standard getting the same result, even if some think their work exceeds the standard.

From a related perspective, some critics of the pass-fail system argue that it can lead to mediocrity in the work habits of students, because students will only put in the work and effort required to "pass" the course, and no more. Interestingly, there is very little empirical evidence to support this criticism of the pass-fail system, and often the real failing is that teachers who use the system (usually in higher education) do not actually challenge students in the goals they set, do not always hold students accountable for achieving the standards that are set (they accept whatever work students turn in as "good enough") and do not always understand the philosophy behind pass-fail (they think it is only for courses that students will not take if the are afraid of receiving a low grade). Since students do not receive information on how much they achieve, it might be hard to keep up the standard, because students only need to pass the minimum requirement of the assessment criteria in order to obtain a passing grade.

Checklists and rating scales: A checklist of performance criteria is predetermined to measure to what degree students achieve the learning goal. Checklists vary in format. They can be dichotomous, measuring merely the presence or absence of performance, or they could be measured according to a scale so that the level of attainment could be measured. With the help of the checklist, students can take a closer look at their own performance and decide on further action. Checklists improve upon other forms of grading systems in that they are more specific about the particular skills and proficiencies students are expected to achieve. They can be more time-consuming for teachers to create and use. Some skills lend themselves to being reported as either "achieved" or "not achieved", but others are better reported along some sort of continuum from "limited evidence of proficiency" to "highly proficient" for example.

Standard-based/Criterion-based: The basis upon which grades are assigned is different from the way that grades are reported. Letter, percentage, pass-fail and checklists are ways to represent grades. Standards-based and norm-based are two ways that meaning can be assigned to grades. Students' performance is determined by matching the learning outcomes against a set of performance indicators. Teachers can use the indicators to decide whether students are able to master the increment levels of attainment in the course of study.

A basis for grading gives teachers a better picture of student performance. However, it is difficult to establish an appropriate level of specificity for the standard, because general standards convey little information on strengths and weaknesses of the students, while specific standards make marking a lengthy process which might become a burden for teachers. To solve the problem, teachers can make use of broader standards to be supplemented by more specific ones under each broad category. When deciding on descriptors that tell how much students have achieved, one widely used method of expressing levels of proficiency is "novice, progressing, proficient and exceptional". To show the frequency of behaviours, it is common to use "seldom, sometimes, frequently or consistently". With the specific indicators, the performance of students can be shown to interested parties as well as tracking progress over time.

Most assessment specialists endorse judging student achievement by comparing their current level of proficiency against standards developed for the purpose. The biggest problem is that someone has to set the performance standards (the expectations for student performances). When those performance standards are set for an entire grade level (by an external educational assessment agency for example), they may fail to take into account local considerations. If the performance standards are set locally, then comparability from one school to the next (or one teacher to the next) may be lost. The other challenge associated with using performance standards as the basis for judging student achievement is that they can be numerous and very detailed (when they are derived from content standards set for entire grade levels).

Written description/narratives: These are "open-ended, written descriptions of student achievement and performance prepared by teachers (Guskey and Bailey, 2001: 103). The written comments can be either general or specific. Teachers can give their comments in detail and extensively. This type of assessment pinpoints the strengths and weaknesses of individual students and helps them to focus on the points that the teachers deem important (McMillan, 2007). However, this requires teachers to put in extra time and work in grading students. Also, it is very difficult to transform the written comments into grades when writing report cards.

Mastery grading: John Carroll posited back in the 1950s, when he first described his idea of "mastery learning", that students varied along a continuum of ability, some prepared to acquire new knowledge quickly and others requiring more time to achieve mastery. He contended that all students were capable of achieving mastery, but that the time required to achieve mastery would vary, based on ability. This way of grading supports learning because it allows students to progress at their own pace. Teachers can offer help through giving feedback and providing students with enrichment learning activities. However, the drawback of this method is that it is time-consuming. It demands extra time and effort from teachers. It also raises the issue of fairness. As this mastery scale allows students to make several attempts, one may ask, "Who is a better language performer, the one who scores 600 in TOFEL after five attempts or the one who scores 550 on the first attempt?" But in the mastery learning framework, the more relevant

question is, "Has the student mastered the target skill?" If the answer is yes, then why should it matter how long it took, or how the mastery was attained? This is the fundamental difference between a mastery-attainment approach to learning and a more normative model, in which all the factors (instructional time and support, assessment methods and so on) are held constant, and the only variable is how students compare to one another when assessed. Technically, the answer to the question you pose, "Who is the better language performer?" is the first student, who has the 600, even if she or he took longer and required several tries.

Feedback

Marking, grading, and feedback are closely related. Nightingale et al. (1996) define feedback as the "information given to students on their progress in their course/unit". The information can be in the form of marks, grades, comments, model answers, suggestions for reading etc. Marks and grades can be regarded as a form of feedback. However, feedback based solely on grades or marks is not helpful for improving learning (Sadler, 1989; Taras, 2002; Gibbs and Simpson, 2004). Evaluation alone might not be beneficial to students, because little information is conveyed through the mark or grade, as it does not give direction on what students should do (Smith and Gorard, 2005). When students get poor grades, without an explanation of what can be done to improve performance, the effect can be detrimental. It can destroy the self-esteem of low-achievers, and there is a possibility that the students might drift into a cycle of failure (Aitken, 1999; Black, Harrison, Lee, and Wiliam, 2004). Unless the grades or marks are mapped against a set of performance indicators and/or complemented with comments, their feedback value is rather low (Berry, 2005). To make it more useful for learners, feedback in the form of a mark or grade should indicate the level of performance students have attained and should allow students to understand what they can do to improve.

Feedback can be found in various contexts but mainly occurs through teachers' comments on individuals' performance on tasks during the class; working together in a practical setting such as a workshop, laboratory or field trip; marks and written comments on homework and assignments; individual or small-group tutoring or supervision; or marks and comments on assessed work and exams (Squires, 2003: 40). To be effective, feedback should be meaningful to, understandable to, and acted upon by, students (Orsmond, Merry, and Reiling, 2005). Despite its usefulness to students' learning, there is variability in the forms of feedback, which results in different quality of feedback and thus affects students' learning in various ways. Students can also get feedback from parents. In addition, students obtain feedback in many informal ways, such as through comments teachers may make during conversations, the types of assignments teachers give and the things that teachers may emphasize instructionally

Students are constantly seeking feedback from a range of sources to help them judge the quality and effectiveness of their efforts.

Types of Feedback

Feedback can be given verbally, in writing, or both. It can be cognitive or ego focused. Chu, Jamieson-Noel, and Winne (2000) classify feedback into three main types: outcome, process and corrective. Outcome feedback, first proposed by Merrill (1987), refers to the information given to the students about the qualities of their final work. Process feedback is given when the work is proceeding. Corrective feedback is given when teachers provide feedback that is aimed at helping the student see errors and fix them. Teachers can assess the accuracy of the content as well as looking into the tactics students employ in the learning. Berry (2005) classifies feedback into three types: motivational, evaluative and learning, presented and discussed below.

Motivational feedback

Good grades or marks, positive comments, and rewards serve reasonably well in providing incentive for students to repeat the actions that led to the good results. Gwie's study (2005) showed that students felt happy about receiving positive comments and therefore carried on doing what they had done to obtain the same good feeling once again. Aware of this effect, many teachers like to give students a little reward for their good work. They sometimes give out a lovely chop (e.g. a picture of a rabbit to appreciate cleanliness), a sticker or a little prize. Comments to the students can be as simple as "Excellent" and "Well done" or those with some personal touch such as "Well done; you've really mastered this skill!" Some comments are for effort acknowledgement, for example "Hard work shown". The following is an example of a teacher using motivational feedback in a classroom.

Table 7.1 Excerpt 1: Motivational feedback in a classroom (verbal feedback)

Descriptions	Examples
Acknowledging achievement	T: I want someone to read the new words on the blackboard *S stood up and read the words. The student did well.* T [to the class]: Wow! Give her a big hand. *Class clapped.* T [to the student]: Let me give you a chop. Okay. [Teacher puts a chop on the student's handbook.] T [continuing, to the student with a smile]: Well done. It would be even better if you could read a bit louder next time.

Burnett (2002) says that speaking in a positive way or acknowledging effort may indirectly help students' learning. Burnett's study found that students who frequently got this sort of feedback tended to have more satisfaction with the classroom environment and have a more positive relationship with the teacher. However, Schunk (2003) warns that this kind of feedback, if used inappropriately, could be damaging to student learning. Just think of the following two scenarios: (1) a student receives positive effort feedback but actually has put very little effort into his or her work; (2) a student receives negative effort feedback but has put tremendous effort into his or her work. Both cases can generate a demotivating effect. A general comment about this kind of feedback is that it is unhelpful to student learning because it does not specify what students have done well and what they need to work on (Chappuis and Stiggins, 2001). Much research shows that, when learners are given external rewards for their learning (such as candy, money, and even grades and marks), their subsequent efforts become directed to obtaining the rewards rather than to learning. When the external rewards are removed, the incentive to do the work of learning is also removed for these students. What we want is to help learners internalize the reward system so that they in effect "praise" themselves when they see they have achieved a new learning objective. The optimal purpose is to transfer the short-term effect into a long-term gain in learning.

Evaluative feedback

This type of feedback is represented by giving a grade or mark to indicate the different performance of students' work so that they know where they stand in relation to other students. Feedback can be counter-productive when students compare their marks or grades. Assessment for learning is founded in part on the idea that students should be encouraged to view their current level of work by how it compares to their previous levels of work, to emphasize the progress and improvement shown in their current efforts. As with the motivational level, the evaluative level is considered unhelpful for improving the learning process, as there is not enough information provided to students on what they need to work on (Smith and Gorard, 2005). For the low achievers, the effect could even be detrimental. Giving a bad grade without explaining the reason(s) to students might harm the self-esteem of the low achievers and might bring the students into a cycle of failure (Black et al., 2004; Aitken, 1999). This does not help the high achievers either, because they would not know which particular part(s) of their work is good. When more information is provided, students will be able to develop further from where they are or at least maintain similar standards in their next piece of work.

Learning feedback

Feedback can be in a form that provides the students with information on how to improve their learning. This type of feedback focuses on students' achievements relative

to the defined learning targets. It explains to students why certain work is good and provides suggestions on how they can improve (Chappuis and Stiggins, 2001). This type of feedback is most consistent with the AfL model. Not only can it provide guidance for students to improve, but it can also bring students into active engagement in their learning, through involving them to think and to make their own decisions using the suggestions given (Cowie, 2005; Black et al., 2004). To make this type of feedback useful to students, it has to be presented in a positive way (Hyatt, 2005). Negative statements can harm teacher-student relations (Cowie, 2005; Burnett, 2002), which might negatively affect students' learning. Students would perceive themselves as incapable learners and might lose confidence in learning.

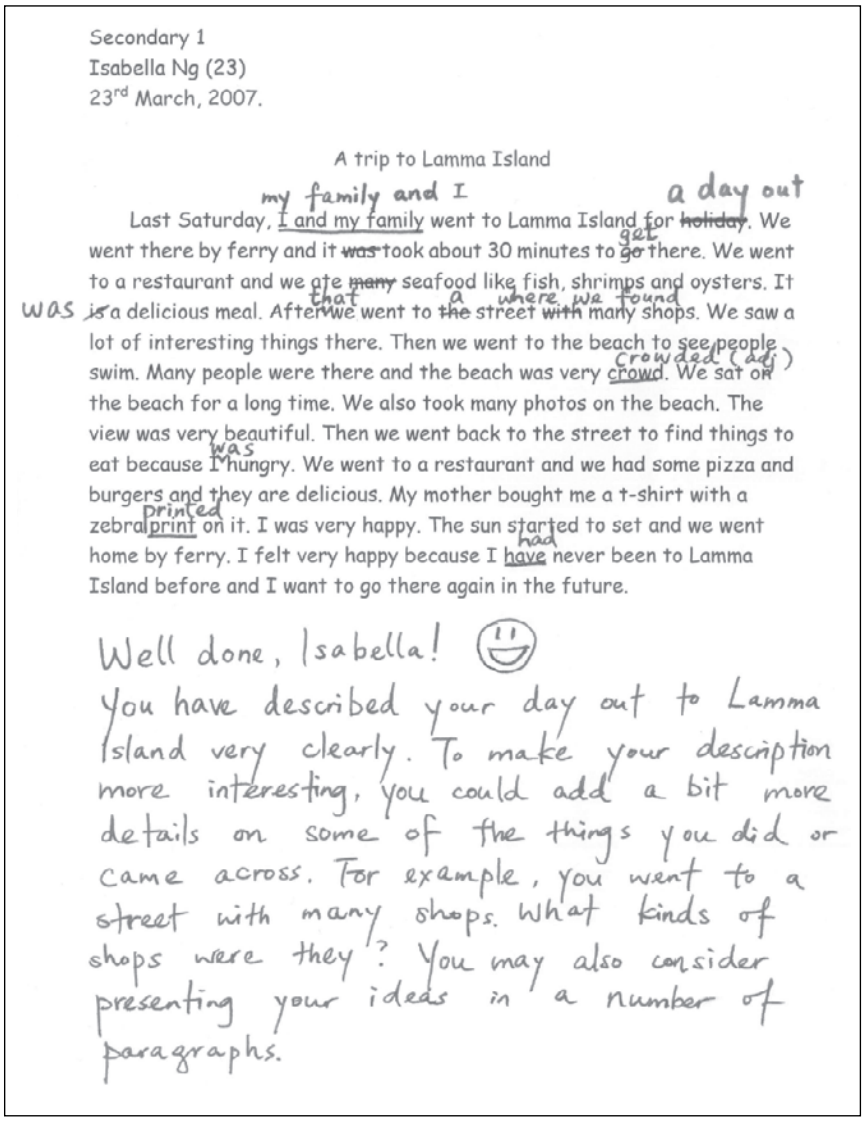
Feedback that assists students with their learning should be informative. There are various degrees of depth for giving information. In the following two scenarios (Table 7.2), both teachers told the students that they had done a good job. In the first one, the teacher simply let the student know how she felt. The second one was more elaborative. The teacher made some suggestions based on the answer of the student. This kind of feedback is more useful for students.

Table 7.2 Excerpt 2: Learning feedback in a classroom (verbal feedback)

Descriptions	Examples
1st scenario: Telling student how the teacher felt and why she felt that way.	T: So, are there any ways to help this person? S: He should not be greedy. He should try to make some new friends. T: I see. This is a good answer. Very constructive suggestions.
2nd scenario: why and how s/he did a good job and providing suggestions	T: You have done well. The information you collected is accurate and rich. Telling student You can do just a little more! You could be more focused, which means you collect only what is key. But, you have to make your own judgements about what you hear from the news. There are a lot of newspapers. You know there are a lot of successful people. Do you know what they do first thing in the morning? Correct. They read the newspaper. They won't read just one but several newspapers. When facing differences in information and perspectives, what would you do as a reader? Write it down. Judgement and criticism. *Writes on bb*. Okay. You cannot believe everything newspapers say . . . The groups have answered correctly. You have to see an issue from different perspectives. You have to have critical judgement. Don't believe everything you hear. Okay.

Figure 7.1 demonstrates how several types of feedback can be given to a piece of written work. The teacher used **correction feedback** to point out the mistakes that the student made. Then the teacher said "Well done!" plus a smiley face (**motivational feedback**) to acknowledge the student's good work. This is encouraging and possibly helps establish the student's self-esteem. The teacher also points out the strength of

the composition by saying "You have described your day out to Lamma Island v ery clearly. To make your description more inter esting, you could add more details on some of the things you did or came across. For example, you went to a street with many shops. What kinds of shops were they? You may also consider presenting your ideas in a number of paragraphs" **(learning feedback).**



Secondary 1
Isabella Ng (23)
23rd March, 2007.

A trip to Lamma Island

my family and I — a day out

Last Saturday, I and my family went to Lamma Island for ~~holiday~~. We went there by ferry and it ~~was~~ took about 30 minutes to ~~go~~ get there. We went to a restaurant and we ate ~~many~~ seafood like fish, shrimps and oysters. It was ~~is~~ a delicious meal. After that we went to ~~the~~ a street ~~with~~ where we found many shops. We saw a lot of interesting things there. Then we went to the beach to see people swim. Many people were there and the beach was very crowd (adj) crowded. We sat on the beach for a long time. We also took many photos on the beach. The view was very beautiful. Then we went back to the street to find things to eat because I was hungry. We went to a restaurant and we had some pizza and burgers and they are delicious. My mother bought me a t-shirt with a zebra print printed on it. I was very happy. The sun started to set and we went home by ferry. I felt very happy because I have had never been to Lamma Island before and I want to go there again in the future.

Well done, Isabella!

You have described your day out to Lamma Island very clearly. To make your description more interesting, you could add a bit more details on some of the things you did or came across. For example, you went to a street with many shops. What kinds of shops were they? You may also consider presenting your ideas in a number of paragraphs.

Figure 7.1 Mixed use of different kinds of feedback:
An example (written feedback)

Guiding principles for giving quality feedback

Effective feedback should help students reduce the discrepancies between their desired and actual levels of performance. It helps students make appropriate planning to achieve the desired performance, if they have not achieved it. There are some guiding principles for giving quality feedback:

1. Adequate detail
   Feedback needs to be sufficient with adequate and specific details. Feedback is more useful if it gives students directions on how they can improve their work. The wording of feedback should be easy to understand.

2. Appropriate timing
   Feedback should be given on a regular basis and as soon after the learning activity as possible. In normal circumstances, delayed feedback has less effect on improving students' learning because students may have already moved on to a new topic.

3. Focus on learning
   Feedback directed to the personal characteristics of students could be damaging to students' self-efficacy, which might negatively affect effort and persistence with task, as the self-efficacy is related to effort and persistence with tasks (Schunk, 1984, 1985). Self-efficacy also relates to academic achievement (Thomas, Iventosh, and Rohwer, 1987). Therefore, feedback should focus on the task and actions that students undertook that are deemed controllable by students, so that their self-efficacy would not be harmed.

4. Match assessment objectives with criteria
   It is important for students to know the assessment criteria. When the criteria are explained to students, feedback can help them to work more in order to succeed in doing the task. The importance of knowing the criteria and offering feedback according to the criteria is that this is how students discover the gaps and find strategies for closing them. Without the criteria, students' efforts to improve would be haphazard.

5. Require students' act on feedback
   Make sure that students act on the feedback given. Convey the message to the students that they are the ones who play a vital role in their own learning and that they are the ultimate decision-makers of their own learning.

6. Establish students' self and peer feedback ability
   Teachers are the usual people to give students feedback. However, helping students become effective assessors is as important. They should help students to develop the ability to give themselves and their peers feedback.

Issues of fairness and moderation

Fairness is often a concern for assigning marks and grades — an issue of reliability and accuracy. Some may complain that the test or assignments have been marked too rigidly or too negatively. Some may question the consistency of marks/grades given to different students. All sorts of error can come in while marking. Sometimes the source of error is internal and within one single teacher. There could be bias against one student based on the impression gathered during teaching. Other times, the error can be external, different teachers holding different standards in marking students' work. One important point to note is that there is no perfect method to achieve fairness. The most teachers can do is to be as fair as possible. Moderation is one of the way teachers can use to give a fairer judgement of students' performance.

Moderation is the process which ensures that the assessment activities undertaken in any education or training programmes are valid and consistent. In other words, they assess what they are designed to assess, and they give reliable and accurate results. Teachers need moderation to ensure consistency, fairness and transparency in assessment processes and outcomes. Moderation is necessary for producing valid, credible and publicly acceptable results (Queensland Studies Authority [QSA], 2004). Sadler (1995) warns that there may be some potential threats to comparability within an educational setting. These can be grouped under three headings:

a. the teachers' personal grading practices,
b. the design of the assessment programme, particularly in the matter of choice in assessment tasks, and
c. the approach taken by different teachers.

To ensure consistency of grading across classes, teachers can use moderation procedures. Teachers can design/select a set of criteria to provide the basis for discussion. Over a meeting, they discuss and agree on the marking standards with colleagues. They can trial mark some sample students' work either in the meeting or before it. The purpose of this pre-marking moderation is to allow teachers to negotiate and reach a consensus on the marking standards. Then, individually, teachers mark students work and select a number of scripts for marking discussion or double-marking.

Rethinking Marking and Grading

Teachers often unconsciously use marks and grades for comparing students, without realizing that they are actually a form of feedback. However, marks and grades alone are not informative enough to help students advance. Feedback should inform students about what they have achieved and what else they can do to improve. Giving quality feedback is central in assessment for learning.

Summary

- Marks and grades are often used for making summative judgements of student performance. Marks are quantitative representations of student performance. Marking is regarded as part of the normal practice of grading.
- Teachers can use moderation procedures to ensure quality of marking and grading.
- The evidence of student learning may serve as the basis for assigning grades.
- There are many types of grading methods, including letter grades, percentage correct, pass-fail, checklist, standard-based, written description/narratives and mastery grading.
- Marks and grades are actually a form of feedback which teachers need to present to students or interested parties.
- Feedback is essential to assessment for learning. Effective feedback helps establish self-esteem. It acknowledges students' achievement. By providing constructive feedback to students, students can understand what exactly they need to do to improve.

Review Questions

1. How can teachers ensure equity in marking?
2. Why is grading essential to learning?
3. What contribution can each type of grading method make in supporting teachers' everyday work?
4. What kind of feedback is more useful for helping students learn? Why?

Suggested Tutorial Activities

Marking, poster presentation, peer feedback and discussion

1. (Pair work) Students remark the composition of Isabella Ng (or bring a student script to class). They decide on the kinds of feedback they want to use and state the rationale behind them.
2. (Poster presentation) Students draw on peer and teacher feedback.
3. (Discussion) Teacher-led whole-class discussion.

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8

Recording

Objectives

By the end of this chapter, you should be able to:

- understand the meaning of recording from educational perspectives;
- see the linkage between recording and learning;
- be aware of the methods that teachers can use to record learning outcomes, know what these methods can offer to help teachers support learning, and make good decisions on which method(s) to choose;
- make sense of the data collected to inform educational decisions.

Teachers need to be accountable for the decisions they make about students. Record-keeping is how teachers document the basis upon which they arrive at decisions that may be reflected in grade reports, in recommendations for particular interventions for specific students and the like. Although teachers hold in their heads a lot of information about students, there is a need to record student learning systematically. Good records help teachers track student progress against standards, and identify trends in their learning and areas needing intervention. Decisions can subsequently be made on what to do next to provide better teaching. As the amount of student information teachers might potentially collect can be immense, it is sometimes hard for them to determine what to record and what not to record, what methods to use to collect information in one situation but not in another. Effective recording is easily manageable, is meaningful to teachers and students and engages teaching and learning.

Significance of Recording

Recording is a mechanism which assists the teacher in remembering significant events and interactions. Keeping records of student performance is an essential interface between assessment and reporting (Headington, 2003). Teachers obtain evidence of

student learning outcomes by many kinds of assessment methods that they regard as appropriate. Based on this evidence, a judgement will be reached about the standards of performances. It is that judgement which is recorded (Brady and Kennedy, 2005). Recording can be used to provide both summative and formative judgements. The records form the basis for comparison and contrast of the performance among students. Succinct and objective written records can be used to remind the teacher of the progress the student has made across the month, term or year, and to determine the extent to which learning targets were met. Recording that is formative reflects the continuous changes and improvement made by students.

Recording sheds light on teaching and learning. It enables the teacher to track the progress of individuals and groups to make formative decisions on, for example, what sort of feedback should be given to students and what should be included in the next phase of teaching. Wilson and Fehring (1995) remind teachers that collecting assessment data is only the first phase in improving student learning and teaching practice. Additionally, they must take time to reflect on the information of both individual-student and whole-class results, since assessments are purposeful and related to learning goals to decide future teaching directions. This is essentially assessment for learning (AfL), because teachers record pupils' learning outcomes and make sense of pupils' records for making teaching decisions in improving student learning.

Teachers should determine what sorts of purpose they want the record to serve. Any recording system should have a clear sense of purpose, to avoid the collection of information for its own sake rather than for educational objectives. Black and Wiliam (2002) make the criticism that many record-keeping systems still suffer from an absence of educational purpose and that the collection of marks to fill up records is often given a higher priority than the analysis of pupils' work to discern learning needs. What to record is determined by what is being monitored or assessed. Recording should focus upon pupils' learning in relation to the curriculum, both of what they learn and how they learn. There should be indications of students' progress in more general, social and behavioural areas.

Recording systems should support AfL. According to the Strategic Review of Hong Kong Examination and Assessment Authority (International Business Machines Corporation, 2003), schools in Hong Kong are reminded to internally assess their students more broadly and continuously in order to limit the effects of examination. Any forms of recording by teachers and schools should be designed to achieve this aim. Although there are no requirements about how or in what form records should be kept and there are no statutory requirements concerning record-keeping and the retention of evidence, schools are reminded that the decisions about how to mark work and record progress are always in the context of the needs of the students (QCA, 2000).

Before teachers record the information, Griffin and Nix (1991) suggest that they should try to answer the following questions:

1. How will the recorded information be used?
2. How often will information be recorded?
3. What type of information will be recorded?
4. Who will record the information?
5. Who will have access to the recorded information?
6. Who requires the recorded information?
7. Where will the recorded information be stored for accessibility at a later date?

Methods Commonly Used for Recording Learning Outcomes

Teachers routinely observe features of their pupils' learning, but much of this is not recorded. Information should be collected and recorded in a systematic fashion. To make recording more supportive of learning, students (also parents) can be involved in the recording their own performance. Students can self-assess their work and choose what they want to record. They can integrate recording into their everyday learning activity, for example, adding some self-reflection, and from what they have seen themselves, make plans to improve.

There are three main types of assessment information that teachers (sometimes also students) can collect for recording: statistical data, anecdotal data, and folio-type information. Statistical data include marks, grades, student welfare and biographical information and attendance records. Anecdotal data include reports of critical incidents, the reflections of both teachers and students, and notes from parents and other teachers. Folio-type information includes work samples, records of student work, and reports prepared by teachers in previous years. It can generate a large amount of information which may be difficult to manage and interpret. Taylor (2004) points out that recording is not simply collecting large amounts of data to put in a mark book or computer file. The work produced by the student should be selective, representing important learning outcomes.

Teachers have a wide range of options to record students' learning outcomes. Some methods commonly used by teachers include checklist, inventory, record of test results, rating scales, anecdotal record, record-keeping portfolio, record of achievement and computer-assisted recording. Teachers can make a choice of what recording methods to use based on the content being assessed, how the assessment is to be used, and the resources and time that are available for the assessment (Kuhs, Johnson, Agruso, and Monrad, 2001).

Checklist

A checklist is a written list of performance criteria. It is diagnostic, reusable and capable of charting pupil progress (Airasian,2005). Teachers decide on the performance criteria to be used and develop a list before the observation is conducted. During the observation, the scorer decides whether the students have achieved each of the performance criteria. Checklists are very useful when you are observing a performance and there is no time to make more deliberate judgements, just a checking off of whether what was supposed to occur did occur . They are also v ery good when a performance requires specif ic steps be carried out in a particular order. The checklist allows the assessor to make a record of whether the steps were in fact performed in the correct sequence. Basically, checklists are best when the performance can meaningfully be judged as "did it" or "didn't do it". The weakness is that the checklist ordinarily does not permit an y indication of degree of adequacy or correctness of the performance, or the steps in the performance. There is subjectivity, but that will be true with most of the methods of recording and judging performances and products. Figure 8.1 is an example of a checklist.

ABC School Elementary Science Class
Student's Checklist for Science Project Report — Junior Secondary

Name: _____ Group: _____ Date: _____

Background Research	❑	cited all resources used correctly
	❑	used only reliable resources
	❑	used most recent resources
	❑	used materials from Internet/scientific journals
Scientific Observation	❑	made observations highly related to the project
	❑	described the results in detail
	❑	explained the observations clearly
	❑	reported the results based on observed facts, not personal opinion
Experimental Research	❑	made hypotheses based on the background information
	❑	obtained some ideas to answer the hypotheses questions
	❑	performed the experiment and recorded the result
	❑	gathered relevant information in the report
Cooperative Groups	❑	worked well with other group members
	❑	distributed the workload equally
	❑	showed support for and respect to team members
	❑	listened to others' opinions

Figure 8.1 An example of a checklist

Inventory

An inventory is a more formal record of observation. It records a student's behaviour or performance in a school skill area.The standard of comparison is the curriculum. It examines how a student performs within a specific curriculum or with instructional material (McLoughlin and Lewis, 2005). Inventories assess a wide range of skills by including sample items of each skill that students are expected to master (Bigge, Stump, Spagna, and Silberman, 1999). Information gathered can provide an overall view of the skills the student possesses and those that are yet to be developed. It gives detailed information about whether a particular skill might not be developed at all, or it might not be well developed but there is evidence that it is at an early stage of development, or it might fully developed (Brady and Kennedy, 2005: 81). Figure 8.2 is an example of an inventory.

Rating scale

Rating scales allow the scorer to rate performance along a continuum. Similar to checklists, rating scales are designed with performance criteria to be measured.What distinguishes rating scales from checklists is that rating scales do not force scorers into making "either yes or no answers". Instead, the scales allow more options for scoring and more descriptive information to be obtained. When the performance can be judged along a continuum of correctness, or sufficiency, or quality, then something more discerning than a checklist will be needed. Rating scales allow us to establish meaningful, ranked, categories of the performance, or elements of the performance, against which the actual observed performance can be compared. Oosterhof (2001) suggests that rating scales can help teachers to represent the frequency or degree of proficiency that students demonstrate on the performance criteria. Rating scales provide an opportunity for detailed diagnostic information to be obtained. There are three main types of rating scale: numeric, graphic and descriptive. Figure 8.3 provides examples of these rating scales.

In the **numeric rating scale**, equidistant numbers are assigned to different positions on a continuum.Teachers often use this to measure frequency of student behaviours in class. The **graphic rating scale** is similar to the numeric rating scale. The major difference is that the numbers are replaced by categories of frequency, for example never, sometimes, often. Frequency of occurrence of a behaviour may be one example of the use of the graphic rating scale (or numeric rating scale), but that is not the only dimension of performance to which it can be applied. For example, the continuum could be from "very limited" to "very expansive" applied to the vocabulary aspect of an oral presentation. In the graphic rating scale, the rater is encouraged to place the

Name: _____ Date: _____

Grade: _____ Teacher: _____

Language Skills	Performance	Comments/Suggestions
Listening Skills		
Identify and discriminate sounds, stress and intonation 1. identify consonant blend sounds, and discriminate between different initial and final consonant blend sounds in words 2. identify long vowel sounds, and discriminate between different long vowel sounds in words 3. recognize the stress in connected speech		
Listen for explicit and implicit meaning 4. identify the gist or main ideas by recognizing the stress in connected speech 5. locate specific information in spoken texts 6. understand the connection between ideas supported by cohesive devices		
Speaking Skills		
Present information, ideas and feelings clearly and coherently 7. use appropriate registers when speaking to familiar interlocutors such as teachers and peers 8. connect ideas by using cohesive devices		
Participate effectively in oral interaction 9. open interaction by greeting someone in an appropriate manner 10. maintain interaction by asking and responding to others' opinions 11. close interaction by using appropriate formulaic expressions		

Figure 8.2 An example of an inventory

(Figure 8.2 continued)

Reading Skills		
Understand the basic conventions of written English 12. sight-read a wide range of common, phonically irregular words 13. use knowledge of basic letter-sound relationships to read aloud a variety of simple texts		
Construct meaning from texts 14. use known parts of words or word association to work out the meaning of unknown words 15. work out the meaning of an unknown word or expression by using visual clues, context and knowledge of the world		
Locate information and ideas 16. scan a text to locate specific information by using strategies such as looking at headings and repeated words 17. identify details that support the gist or main ideas		
Writing Skills		
Use the basic conventions of written English 18. use cursive script 19. use paragraphs, capitalization and conventional punctuation		
Present information, ideas and feelings clearly and coherently 20. gather and share information and ideas by using strategies such as brainstorming, questioning and interviewing 21. write paragraphs which develop main ideas 22. use appropriate cohesive devices		

Performance Keys:

Good	Average	Needs Improvement
The student always demonstrates the skills.	The student sometimes shows the skills.	The student rarely performs the skills.

Key learning areas indicators source: Curriculum Development Council (CDC). (2004). *English Language Education Key Learning Area: English Language Curriculum Guide (Primary 1–6).* Hong Kong: Hong Kong SAR Government.

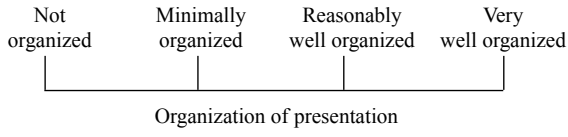
Numeric Rating Scale Example

Rate the student's performance in each of the following areas using the scale supplied. 1 represents the lowest level and 4 represents the highest level.

1. Presentation was well organized.	1	2	3	4
2. Information was appropriate.	1	2	3	4
3. Conclusions offered were based on the information.	1	2	3	4

Graphic Rating Scale Example

Using the scale provided, indicate where along the continuum you would place the student's performance.



Descriptive Rating Scale

Use the following rating scale to assess each element of the writing assignment

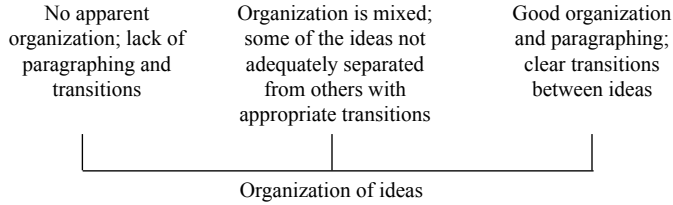


Figure 8.3 Rating scales examples

rating mark anywhere along the "graph" of the continuum, not just at one of the "anchor" points. **The descriptive rating** scale requires the scorer to mak e a decision along a continuum of choices, but the options on the continuum are predefined descriptions of the performance students might display during class. Scorers choose the option that best describes or comes closest to the actual performance of the students. Unlike in numeric or graphic rating scales, scorers need to refer to the descriptions rather than simply to a number or a category along the scale when scoring.

Anecdotal record

Anecdotal records are potentially a much richer source of feedback to students than ratings or checklists, because of the detailed information teachers can provide in an

extended written appraisal of an assignment, a performance, or whatever might be the focus of the assessment. An anecdotal record is often used to document student learning or a student's behaviour in detail, with the context specified (Oosterhof, 2001). Sometimes it also includes the teacher's interpretation of the behaviour and the possible action to be taken. It differs from the checklist and rating scale in that it is unstructured, and the observer chooses what to write down in the record. It is useful because, unlike checklists and rating scales that require planning before observation, it can serve as a means of assessment when unanticipated incidents occur. However, Airasian (2005) identified some of the possible drawbacks of the anecdotal record. It relies heavily on the subjective judgement of the observer. Also, different observers might select different details to write down, and it seems difficult to ensure reliability of the data. Furthermore, writing an anecdotal record for each student can be a time-consuming task, and the observer might easily forget the details of the incident if the record is not done soon after the behaviour occurs. Figures 8.4a and 8.4b demonstrate two types of anecdotal record: single incident and developmental.

Pupil: Christina Ng Date: 28 Jan. 2007

Observer: J. Shaw

Incident:

Christina Ng is a cheerful and helpful student. She is active in class and she has a history of good discipline and manner. Today during the integrated science lesson, she behaved in a way quite contradictory to her usual way. After the students were instructed to follow closely the procedures of conducting an experiment involving the use of a substance which needed to be handled with caution, she disturbed the student in her group who was responsible for carrying out the experimental procedures, by hiding the test tube clamp in her pencil case. The student came up to me and told me about it. I asked Christina the reason why she did it and she remained silent. When I raised my voice to ask her for the reason again, she cried and apologized. The group proceeded with the experiment and she remained well behaved until the end of the lesson.

Interpretation:

The reason for her behavior remained unknown because the information is insufficient.

Plan of action:

Talk to Christina and to the pupils in the group to get more information.

Figure 8.4a An example of an anecdotal record: Single incident

Name: Michelle Ng
Class: Secondary 1A
Subject: English Literature

Date	Comments
6/9/2006	Michelle is quiet in class. During discussion time, she barely voiced her opinion. When I asked her questions, she seemed unable to understand what I was talking about.
26/9/2006	Michelle got a low mark on her poem assignment. She was not able to apply what she learned in the last lesson to answer the question.
9/10/2006	I had a meeting with her after school. She said that she found all the materials taught in class too difficult to handle. She could not understand the textbook very well and often she could not keep up during lessons. She could not seek help from her family because her parents worked at night. I suggested that I spent some time before or after school with her to help her catch up.
16/10/2006	I had the first remedial lesson with her before school started. I tried to understand her difficulty when she read and studied the book and poem. The most pronounced problem was that she had never been exposed to literature and she found the vocabulary too hard to understand. Therefore, she could not understand what was presented in lessons and eventually could not keep up. I explained to her the part she did not understand. She agreed to have one extra lesson every week before the lesson so that I could briefly introduce what would be taught during class, for better understanding during lesson.
18/11/2006	After a month's effort, Michelle said that she was getting better in keeping up with the lesson. She spent time to check the dictionary for words she did not know and she prepared for class the night before. She was getting more confident in mastering the subject.
8/1/2007	Michelle managed to get a good grade in the essay-writing assignment. According to my observation, her improvement was obvious and she became enthusiastic in responding to my question in class. Since I thought that she was able to keep up with the class, she and I agreed that the extra lesson would end. She said that she would report to me if she encountered any difficulty again.

Figure 8.4b An example of an anecdotal record: Developmental

Record-keeping portfolio

This kind of portfolio is a systematic record of the history of a student's development. In Hong Kong, there is a much wider use of portfolios in the teaching, learning and assessment cycle. Most recently, this new initiative has been extended to early childhood education. The Curriculum Development Council (CDC) (2006: 65) indicates that:

> Children's growth and development is a continuous process. At different stages, there are important milestones marking their development. Therefore, it is necessary for parents and teachers to record important information as evidence of children's growth. A portfolio is a systematic record of such important information, not an assessment tool. The portfolio may be passed to new teachers for their reference and follow-up action when the children are promoted to higher grades, or handed over to parents for retention when the children leave kindergarten, so that it can serve as a reference for the primary school teachers if necessary.

To use portfolios for record keeping, teachers should recognize the concepts related to portfolios. A record-keeping portfolio contains samples of report cards, results of tests, and other such records. There is evidence of the student's work over time and the portfolio may include accomplishments, capability records, a history of a person's development, and critique of one's work by both student and teacher. Basically, what is included should authentically reflect what the student learned (Janesick, 2001).

Record of achievement

Records of achievement (ROA) share some similarities with record-keeping portfolios. The ROA of a student contains detailed developmental information about his or her school life. The record, which is maintained by the school and owned by the student, is like one's life history of schooling. Figure 8.5 (see p. 152) shows a student self-completed ROA, which will be used for teacher and student conferencing at a later stage. Griffin and Nix (1991: 125–6) list four basic purposes of ROA:

1. The recognition of achievement: Records and recording systems should recognize and give credit for what students have achieved, not just in public examinations but in other ways as well.
2. Motivation and personal development. They should contribute to pupils' personal development and progress by improving their motivation, providing encouragement and increasing their awareness of strengths, weaknesses and opportunities.
3. Curriculum and organization. The recording process should help schools to identify the all-round potential of their pupils and to consider how the curriculum, teaching process and organization enable pupils to develop the academic, practical and social skills required.
4. Document of record. Students who are leaving school or college should take with them short summary documents of records, which are recognized and valued by employers and institutions of further and higher education. Each document should provide a more rounded picture of a candidate for a job or course than can be

provided by a list of examination results, thus helping potential users of the document to decide how the candidate could be best employed and for which jobs, training schemes or courses the candidate is likely to be suitable.

Sunshine Secondary School
Record of Achievement
For
(Name of student)

The following statements have been prepared by the student in consultation with a teacher. They record positive achievements which have been attained during full-time education. The statements may be entered in the student's handwriting or in type.

1. Achievements and Experiences

2. Achievements in Education

3. Attendance and Punctuality Rate

4. Work Experience

5. Individual Action Plan

6. Personal Details

7. Personal Statements

This record was prepared in consultation between a teacher and the student on

Signature of student _____

Signature of teacher _____

Figure 8.5 An example of student's self-completed ROA for student-teacher conference

Computer-assisted record keeping

To record student performance, teachers often look for support from computers. Computer-assisted recording has a number of advantages. In addition to using computers to help with recording test results, teachers can use computers to create student learning profiles. A database can be created by electronic spreadsheet. The information in the database can include students' demographic data, academic information, and their other achievements inside and outside the school. Information stored in the computer can be updated from time to time and can be passed on from one teacher to another when the students have moved on to a higher grade. Information stored in the computer is easily retrieval. Teachers can readily keep track of student learning progress and provide timely support if deemed necessary. Students needing specific support can be noted in the record. When needed, the information can be printed out and made available to the parties concerned. There are increasing numbers of computer programs on the educational market designed to assist teachers with record keeping. Computers can aid in the process of grading (electronic grading). Teachers can set up their own grading system for recording, combining and reporting grades. Some programs allow students to get access to their grades and feedback in the electronic environment. This enables immediate feedback and direct dialogue among students and between the teacher and the students (e.g. student-student and/or teacher-student conferencing). Figure 8.6a (p. 154) shows an example of how students' profiles can be created in a Microsoft Excel environment. Figure 8.6b (p. 155) gives an example of how marks and grades can be recorded on the spreadsheets.

Principles for Selecting Recording Methods

In brief, records should be valid, reliable and useful for different kinds of planning, and support learning. Tanner, Jones, and Davies (2002) suggest that the records should be valid, in that they assess children against appropriate learning objectives. They should be reliable. The record gives the teacher a means of assembling a body of evidence from multiple sources collected over time upon which to base her judgements. They should be useful for communication with parents about student progress. O'Connor (1995) points out that effective recording should display the following characteristics:

- It is manageable and continuous.
- It is meaningful to all users of the records.
- It provides a range of information, including information about knowledge, skills and understanding, participation and attendance.
- It enables students to be involved in recording information about themselves.
- It allows both unanticipated and planned outcomes to be recorded.
- It provides comprehensive information about student achievement.

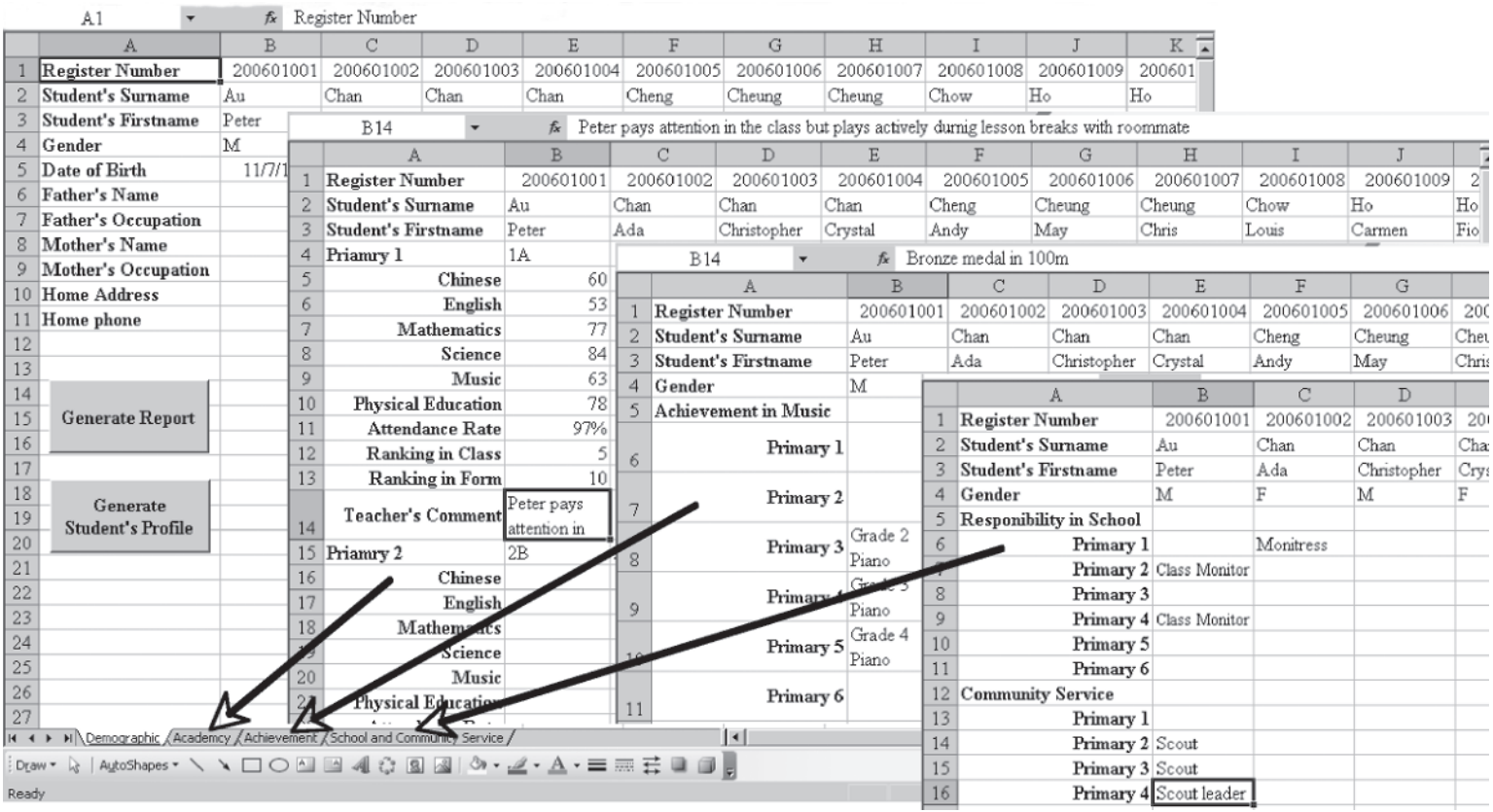
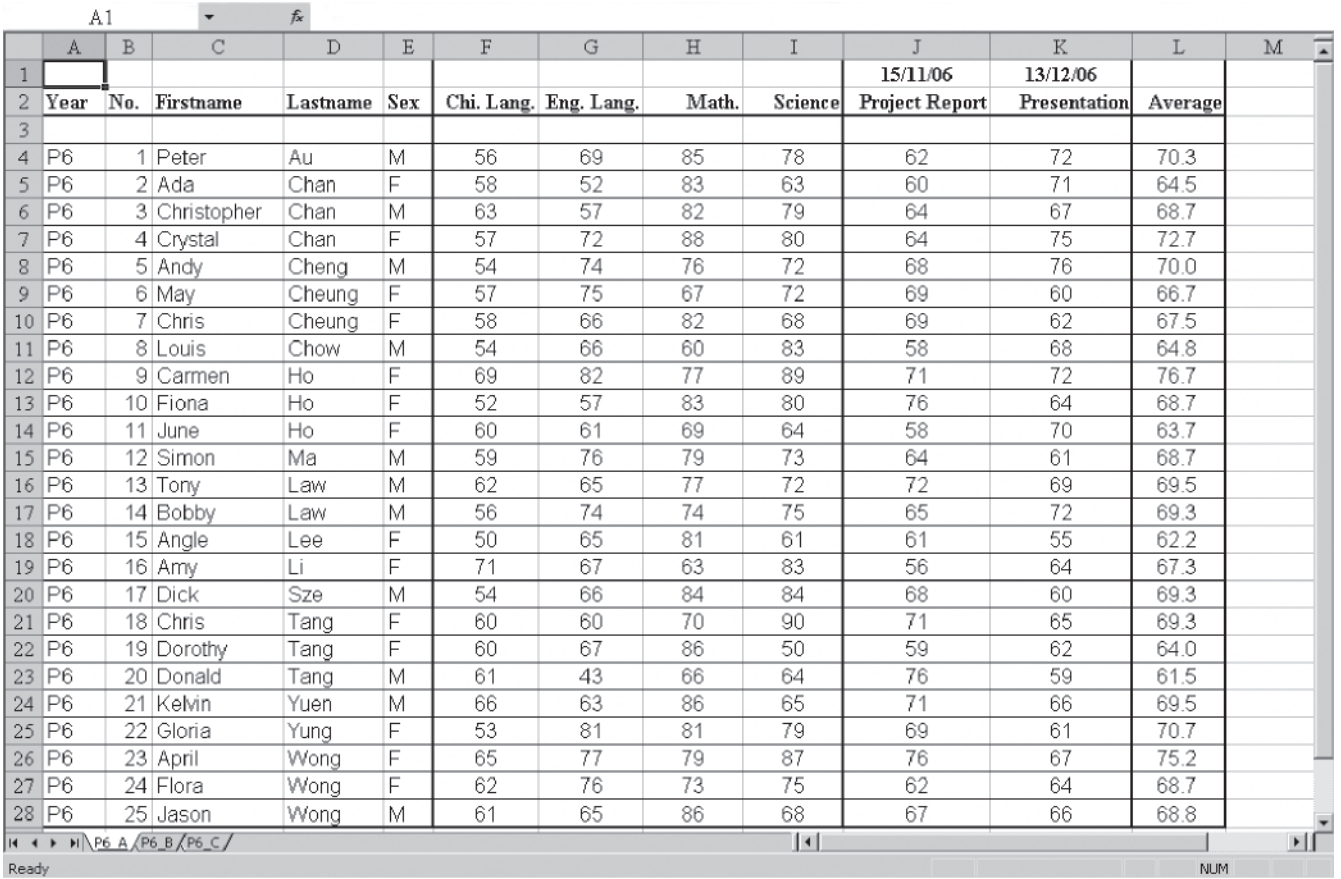


Figure 8.6a An example of ROA in a computer-assisted environment



	A	B	C	D	E	F	G	H	I	J	K	L	M
1										15/11/06	13/12/06		
2	Year	No.	Firstname	Lastname	Sex	Chi. Lang.	Eng. Lang.	Math.	Science	Project Report	Presentation	Average	
3													
4	P6	1	Peter	Au	M	56	69	85	78	62	72	70.3	
5	P6	2	Ada	Chan	F	58	52	83	63	60	71	64.5	
6	P6	3	Christopher	Chan	M	63	57	82	79	64	67	68.7	
7	P6	4	Crystal	Chan	F	57	72	88	80	64	75	72.7	
8	P6	5	Andy	Cheng	M	54	74	76	72	68	76	70.0	
9	P6	6	May	Cheung	F	57	75	67	72	69	60	66.7	
10	P6	7	Chris	Cheung	F	58	66	82	68	69	62	67.5	
11	P6	8	Louis	Chow	M	54	66	60	83	58	68	64.8	
12	P6	9	Carmen	Ho	F	69	82	77	89	71	72	76.7	
13	P6	10	Fiona	Ho	F	52	57	83	80	76	64	68.7	
14	P6	11	June	Ho	F	60	61	69	64	58	70	63.7	
15	P6	12	Simon	Ma	M	59	76	79	73	64	61	68.7	
16	P6	13	Tony	Law	M	62	65	77	72	72	69	69.5	
17	P6	14	Bobby	Law	M	56	74	74	75	65	72	69.3	
18	P6	15	Angle	Lee	F	50	65	81	61	61	55	62.2	
19	P6	16	Amy	Li	F	71	67	63	83	56	64	67.3	
20	P6	17	Dick	Sze	M	54	66	84	84	68	60	69.3	
21	P6	18	Chris	Tang	F	60	60	70	90	71	65	69.3	
22	P6	19	Dorothy	Tang	F	60	67	86	50	59	62	64.0	
23	P6	20	Donald	Tang	M	61	43	66	64	76	59	61.5	
24	P6	21	Kelvin	Yuen	M	66	63	86	65	71	66	69.5	
25	P6	22	Gloria	Yung	F	53	81	81	79	69	61	70.7	
26	P6	23	April	Wong	F	65	77	79	87	76	67	75.2	
27	P6	24	Flora	Wong	F	62	76	73	75	62	64	68.7	
28	P6	25	Jason	Wong	M	61	65	86	68	67	66	68.8	

Figure 8.6b An Example of recording student performance in a class

Interpreting Results

Learning outcomes collected through standar dized tests are usually numerical. The scores yielded are often interpreted in a norm-referenced manner, that is, in comparison with other students. For example, if a class average on a mathematics test was 80, and a student received 70, a norm-referenced interpretation would be that the student is below average. However, a score of 70 does not tell how much the student knew about the subject and what caused the comparative underperformance. Many of the important outcomes of learning are difficult to assess meaningfully, using quantitative approaches. The evidence of that learning (found in projects, assignments, journals, etc.) can be judged based on the way the student has addressed the key criteria associated with the learning outcome. The judgement takes the form of determining at what level or standard the student's work or performance would put him or her, and what is needed. Quantitative data can be linked with standards to make it more descriptive. Figure 8.7 elaborates on this.

Grade and Marks conversation Table
Essay Writing (Organization)

Grade	Global Grade Descriptors	Percentage Mark Range	Description
A	Excellent	16–20	Excellent clarity of overall structure. Well-organized introduction, very smooth between paragraphs using clear signalling, clear focus; meaningful concluding paragraph is evident
B	Good	13–15	Good clarity of overall structure. Well-organized introduction. Coherence between paragraphs, clear focus; concluding paragraph is evident.
C	Satisfactory	10–12	Satisfactory overall structure with some attempt to provide advance organizer of content and introduction; focus is somewhat unclear; ending is rather abrupt.
D	Need effort	9 or Below	Essay not fully developed; difficult to maintain focused rudimentary introduction, minimal attempt to signal transition between paragraphs, minimal closing remarks.

Figure 8.7 An example of grade percentile conversion which is linked with a set of descriptors

The example presented in Figure 8.7 is linked with a set of rubrics to detail what each level entails. Rubrics allow the teacher to assess the quality of a student's work against relevant criteria and express the quality of the work using standards that are usually obtained in written descriptions of what each level of quality looks like for each criterion. A rubric is a scoring tool that lists the criteria for a piece of work. The criteria are those elements that must be represented in the work sample being assessed, whereas the standards, or levels, represent the degree of proficiency associated with each criterion. A rubric articulates gradations of quality for each criterion, from low to high performances and what these performances mean. A good rubric can be used to accurately determine the level of quality of the assessment focuses. Rubrics can be used as a basis for giving feedback to students. Alternative assessment often involves the use of non-quantitative techniques for data collection and analysis. The following points offer some guidelines for writing good rubrics.

- Language is easily understandable. It is clear to everyone associated with its use.
- There are a number of levels, which are clearly indicated and are of equal distance on a continuum.
- Each level is accompanied by a descriptor which manifests the required performance of that level.
- The descriptors for individual levels clearly differentiate performance of one level from the others.
- The descriptors can be accompanied with examples, for clarity.

Most rubrics will take one of two forms, holistic or analytic. Holistic rubrics address everything included in a product, performance, or process as a whole (Rogers and Graham, 1997). Holistic rubrics make assigning marks faster, but are more susceptible to error and do not provide the learner with very much useful feedback. Analytic rubrics address the component parts or characteristics of a product, performance, or process separately. They inform different aspects of learning which can be used as the basis for giving feedback. Analytic rubrics require more time but produce more detailed feedback and tend to be more reliable. To get a clear picture of student learning, it is common to use both (Solomon, 1998). Figures 8.8 (p. 158) and 8.9 (p. 159) are examples of two kinds of rubrics. Figure 8.8 shows a set of holistic rubrics, and Figure 8.9 illustrates rubrics which have both holistic and analytic characteristics.

Grade/Level	Grade Descriptors
A/Level 5	*Distinction* The project exceeds the requirements of the assessment tasks. The work submitted is very well organized, contains many interesting ideas, and is highly relevant to the requirements stipulated in the criteria. There is evidence of high competency in language use, reflecting a high level of language accuracy and appropriateness.
B/Level 4	*Good* The project meets the requirements of the assessment tasks. The work submitted is well organized, contains some interesting ideas, and is relevant to the requirements stipulated in the criteria. Language use is good in general; occasional errors in accuracy and appropriateness.
C/Level 3	*Satisfactory* The project meets most of the requirements of the assessment tasks. The work submitted is in somewhat well organized, contains some good ideas, and reflects some understanding of the requirements stipulated in the criteria. Language is average. There is evidence of inaccuracy and inappropriateness in language use, although this does not impede understanding.
D/Level 2	*Needs more work* The project meets some requirements of the assessment tasks. The work submitted is rather disjointed in structure and demonstrates an inadequacy of ideas. There is little evidence in reflecting an understanding of the requirements stipulated in the criteria. Language use is inadequate, evidenced by frequent errors in language accuracy and appropriateness.
E/Level 1	*Needs a lot more work* The project does not meet many or any of the requirements of the tasks. The work submitted is poorly organized and demonstrates a lack of ideas. There is very little or no evidence of an understanding of the requirements stipulated in the criteria. Language is not clear to the audience, and this impedes understanding.

Figure 8.8 An example of holistic rubrics for assessing a project

Oral presentation descriptors (For senior secondary ESL students)

Rating / Criteria	A – Strong	B – Fairly good	C – Adequate adequate	D – Almost	E – Weak
Grammar	• Wide range of grammatical structures used almost always accurately.	• A range of grammatical structures, even complex ones, mostly correct.	• Grammatical structures generally accurate with occasional errors occurring with more complex structures.	• Grammatical errors are frequent. Few complex structures attempted.	• Most utterances contain grammatical errors. Basic structures clearly inadequate.
Word/Sound pronunciation	• Errors are lapses rather than systematic errors.	• May have isolated word errors and a few noticeable but minor L1 sound characteristics.	• Some word errors. • Pronunciation is unlikely to present comprehension problem for L2 learners.	• A number of errors in the pronunciation of words. Some strain for the listener.	• Frequent errors in sounds make communication difficult. Strain for the listener.
Voice projection/ Volume control	• Projection strong and sustains audience's attention.	• Good control of voice for expression.	• Voice control adequate. Occasional strain for listener.	• Voice control and projection generally weak. Needs reminder to project voice.	• Volume control very poor. Communication frequently impeded.
Overall communication	• Very clear delivery of message and no communication difficulty at all.	• Clear delivery of message with occasional need for clarification on isolated instances of errors.	• Generally clear delivery with some instances of unclear message or obtrusive errors.	• Delivery with a number of instances of unclear messages and frequently obtrusive errors.	• Poor delivery of message and little or no listener understanding.

Figure 8.9 An example of analytic and holistic rubrics

Focus on Learning

Recording is not simply documenting student learning outcomes without purpose. The facts collected and recorded should reflect different kinds of learning experiences and achievements in respect to learning intentions. To make the records more meaningful to both teachers and students, teachers should interpret the information, collected by formative and/or summative assessment, with which decisions have to be made on how the new understanding will inform teaching and learning. This is the spirit of assessment for learning.

Summary

- Recording is not just simply transferring information collected from students onto record sheets. It is about making a judgement of standards and recording of that judgement.
- Both summative and formative judgements of learning outcomes can be recorded. Recording information throughout students' learning process is particularly useful to help students learn.These records continuously inform teachers of how students perform so that adjustments in teaching can be made.
- Records should not be made in ad hoc fashion. They should be systematic and reflect educational objectives.
- There are many types of recording methods teachers can consider using. They display different characteristics and can help teachers in various ways. Teachers can match their needs to what the methods can offer while selecting the methods to use. There are a number of principles to help teachers make appropriate decisions.
- Standardized tests usually yield quantitative data, which does not adequately inform students (and parents) what the numbers entail in regards to student performance. One method to solve this problem is to match the percentile/marks against a set of levels/standards, which are subsequently tied with a set of rubrics detailing the standards.

Review Questions

1. How are recording and AfL related? What kinds of contribution can recording make to student learning?
2. What are the methods commonly used to record student learning in school? How do they support recording? What are the selection criteria?
3. How should the data that is displayed in the records be interpreted?
4. What are the next things for teachers to do when the recording is finished?

Suggested Tutorial Activities

1. Individual work, followed by discussion in different interest groups:
   Refer to the recording methods discussed in this chapter. Choose one (or more) recording method which you think relevant to your teaching focus(es). Explain why you made that choice and how you are going to use it for collecting data from your students.

2. Group work:
   Develop a set of rubrics for assessing an acti vity. Students form groups, decide on a learning activity for students and then develop a set of rubrics to assess performance. Post the rubrics in the e-learn for student-student, student-teacher conferencing.

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9

Reporting

Objectives

By the end of this chapter, you should be able to:

- describe the rationale for reporting, and associate reporting with learning;
- take the concerns of the audience into consideration when reporting;
- tell what good reporting entails, and describe the methods used for reporting;
- use report cards and conferencing for effectively communicating student learning outcomes.

From the perspective of education, reporting is the communication of the information collected from the students through different means of assessment to the students and their parents, the school itself and the wider community . The purpose of reporting should lie in enhancing student learning rather than merely informing people of the results of assessment. Reporting can be both formative and summative. Reporting carries a summative purpose when it communicates the students' level of attainment at the end of a learning stage. Reporting can serve a formative purpose when information is conveyed in a way that helps students, parents, teachers and others to see where improvement is possible and what "next steps" might lead to that improvement. The message conveyed should not be restricted to academic performance but should cover students' holistic development, including their achievements of various kinds and their potentials for future development. Reporting can be oral or written, using words, numbers, or any other forms which will help enhance communication about student learning.

Why Reporting?

Reporting is essentially a form of communication between students, parents, teachers, school, community and other stakeholders that contains the information about students'

development (The New South Wales Board of Studies, 1998). Good reporting on student achievement is an important part of monitoring both individual student progress and the success of any educational policy. Roeber (2005) states that reporting can "help build support for schools" as well as help educators to carry out the plans and policies intended, if they are reported properly. He warns that, if reporting is not carried out in an appropriate manner, it might give rise to incorrect interpretation, which might affect the students, teachers and the community. The messages conveyed help students understand what they have achieved and what they can do to learn better and achieve better. Reporting helps parents gain insights into the teaching and learning process from which most are distanced. They will know what kinds of achievement their children have made and what kind of support they can offer to assist teachers in helping their children to progress. The school personnel can use reports to track the learning profile of each student, a year group, or students of the whole school.

The data recorded and reported are of paramount importance to school. Schools need to be accountable for their students' performance. The information gathered can form the basis for the policy decisions of the school. Individual teachers can benefit from the shared information provided from the teachers who previously taught the students. With the information obtained, they can develop their teaching plans. Student reports enhance the continuity and quality of students' learning experience.

Reports help the people concerned (e.g. university admission directors) make placement decisions. While the wider community, including admissions officers, programme administrators and prospective employers, still depends rather heavily on the results of public exams for their selection decisions, many universities today consider not only the academic results from the public examinations but also take school internal reports into account as they review prospective candidates. When they select students, they look for evidence of all-round whole-person development and special talents, in addition to outstanding academic ability. For the education policymakers, the reports from schools serve as a means of communication between those working at the education frontline and those devising policies in government organizations. In a broader view, reporting should be beneficial to the different parties concerned. It could include providing information to different interested parties who want to know a student's achievement and progress, such as employers, universities and policymakers. Reporting provides a basis for them to retrieve the information they want at any time.

Principles for Reporting

There are a number of reporting principles suggested by different educators. Brady and Kennedy (2005) stress that **confidentiality** of the report content should be ensured. Reporting should reflect and relate to the curriculum regarding performance. Also, reports on students' performance should not be restricted to in-class activities. Rather,

other experience such as the **affective and psychomotor development should also be included** in the report, to provide a holistic picture of the students' attainment. Reports should include descriptions of student attainment in detail as well as in an explicit way so that the audience can gain more information from the report. Headington (2003) draws our attention to the quality of the report. When writing a report, teachers should include **evidence-based comments** rather than comments draw from speculation so that the subjective factors that might influence the report can be ruled out. They should base such judgements on solid and sufficient evidence of attainment of the target learning outcomes. Also, it is important to recognize the student as an individual rather than give general comments. **Clear and straightforward comments** make it easier for readers to understand the report. Also, it is important that comments focus on the performance rather than on personal qualities and other internal factors that are unlikely to change. Roeber, Donovan, and Cole (1980) stress that different parties have different understandings of assessment. Therefore, it is essential that teachers present the report in a way that could be **understood by different parties** who are interested in the report. The audience of the report, including "students, parents, other teachers, system", needs to be considered so that teachers can include relevant information to meet the needs of the different audience members. O'Connors (1995) directs teachers' attention to the language used in reports. The language used should be **free of special terminology or educational jargon** so that everyone can comprehend the report without assistance. Also, it would be better for the comments to **focus on areas achieved** rather than judging potential. All in all, teachers need to be clear about the **purpose** of the report, whether it is summative, formative or simply a chance to show the outcome of learning.

Methods of Reporting

Stiggins (2005) identifies three ways of reporting. The first one is **standard-based reporting**. This way basically includes the student's level of mastery of different competencies or achievement standards provided in a list. Another way is to design a continuum to show the level of achievement on each skill or subject. This way can provide more details about student achievement. In this type of report, collaboration among teachers is essential in developing criteria for achievement, designing the rating method and in considering how to communicate all this to different target audiences. However, teachers must make sure that ratings of student performance are reliable and dependable.

Another way of reporting is **narrative reporting**. It includes using narrative description to illustrate students' learning outcomes. When devising the narrative description, teachers can include criteria and standards used for determining achievement. This will give a better picture of the extent to which students are able to

attain particular learning outcomes. Preparing narrative reports can involve students so that their voices can also be heard. This enhances communication among parents and family, the student, and teachers. Narrative reporting demands time on the part of the teachers. Teachers often prefer standard-based reporting and use narrative reporting for specific incidents.

The third type of reporting is **continuous progress reporting**. It records the continuous development of students with definitions and progressively linked targets. The records represent profiles of students' learning. It includes indicators that are short descriptions showing level of attainment, and there are usually descriptions of different levels, arranged in order of difficulty. Using the profiles, students' performance can be recorded throughout a period of time. This type of reporting has a number of advantages. When the descriptors are clearly defined, teachers do not need to add in narratives by themselves, thus saving time in preparing report cards. Also, using the indicators, teachers can concentrate on commenting on the achievement criteria already stated rather than thinking of their own. This type of report gives rise to a comprehensive and cumulative report showing the student's level of attainment, which facilitates interpretation. With this type of record, students' progress can be recorded and traced across different grade levels. This method is more in line with the notion of assessment for learning.

Report Cards as a Means of Written Communication

Report cards are one of the most popular means used for communicating, particularly summative results. Teachers can certainly use other types of records suggested in chapter 8 to disseminate student learning outcomes. A report card is usually a printed report consisting of information selected by the school to establish communication to the parties concerned. It is a written form of reporting, often presented with a table divided into different sections illustrating a student's achievements and performance throughout the term or school year. Some schools give out report cards annually; some choose to distribute them at the end of each term.

The value of the report card is that it provides a more comprehensive picture of student learning and progress than is available to the student from individual reports of assessment results. The main audience for the report cards are students and parents. Restricted by its size in most cases, only a certain amount of information can be displayed on the card. A question to ask is that what makes a record card a good method of communication? To communicate with the audience, many schools use the quantitative method (marks or percentage) to present student learning outcomes. Others prefer using grades or a combination of both. To increase readers' understanding, performance indicators may be used to explain the meaning of the grades. Indicators

are usually simple, for example, A = Highly competent, B = Competent, C = Developing, D = Experiencing difficulty. There are no "correct" ways for learning outcomes to be presented in report cards. The information can be very simple, for example, containing a few numbers or percentage, letter grades, or comments. A comprehensive approach may entail filling in a lot of information, for example position in class, position in individual subjects, form position, attendance, conduct, personal achievements, brief notes from teachers. The styles used can vary. They can be in table format for putting grades or marks in, checklists for indicating different kinds of performance, lines of a continuum to show stages of progress, boxes for narrative comments, pictorial representation to give some visual effects etc.

It should be borne in mind that there are no perfect report cards. The focal point is on using the report cards as a communication tool. The design of the report card should therefore match the kind of message conveyed. A report contains only ratings for performance or teachers' comments on student performance and nothing else. The information presented can be used on its own to convey the message or used together with verbal comments to allow deeper understanding of an individual student's performance.

The following are some examples of report cards in which different messages can be conveyed. The report card presented in Figure 9.1 highlights teacher comments as the major means of communication. In addition to presenting the student's overall academic performance in different subjects by letter grade, there are boxes for teachers to put in their views. The small boxes do not leave much room for detailed comments, but the brief notes entered do not have to be "end-of-story" comments. They can serve as a basis for further communication when needed. Performance of the students in other aspects can be communicated through their participation in extracurricular activities. In the conduct section, there is space for teachers to write a few words, or a number (to show attendance). Again, these can be used as a basis for further communication. Teachers can list what activities the student took part in and how engaged she or he was in the activities, plus suggestions if deemed necessary. A box for giving general comments allows the class teacher to describe how the student's performance is perceived and to give constructive comments. For teachers who opt for using written comments as the means of communication, the boxes for comments can be enlarged and the categories for giving comments can be extended to cover a wider range of performances such as social and/or affective aspects. Figure 9.2 presents a report card which communicates students' learning growth. Continuums are used together with an evaluation key to indicate students' mastery levels. This graphical representation makes understanding easy. Figure 9.3 takes marks as one major focal point of reporting. Figure 9.4 is more focused on reporting different aspects of student development and allows students' and parents' involvement in preparing the report.

NEW WORLD SECONDARY SCHOOL
ACADEMIC REPORT 2006–2007

NAME: _____ CLASS: _____ DATE OF ISSUE: _____

SUBJECTS	GRADE	TEACHER'S REMARKS
ENGLISH		
CHINESE		
MATHEMATICS		
GEOGRAPHY		
HISTORY		
INTEGRATED SCIENCE		
COMPUTER		
ART		
MUSIC		
PHYSICAL EDUCATION		

EXTRA-CURRICULAR ACTIVITIES

GENERAL COMMENTS

ATTENDANCE
PRESENCE ____ ABSENCE ____ LATENESS ____

ASSESSMENT OF CONDUCT
DILIGENCE _____ COURTESY _____

RESPONSIBILITY _____ SERVICE _____

Evaluation Keys
A–Excellent B–Very Good C–Good D–Moderate E–Need Improvement

PRINCIPAL'S SIGNATURE _____ TEACHER'S SIGNATURE _____ PARENT'S SIGNATURE _____

Figure 9.1 Report card: Example 1

Sunrise School
Student Report

Name: _____ Class: _____ Issue Date: _____

Explanation of Coding Keys

Effort Key

I	**Improvement Needed** The student does not demonstrate behavior that leads to success in learning.	***O***	**Outstanding** The student demonstrates the behaviour of a superior learner.

Grade Level Key

N	**Not meeting the standard** The student does not show the mastery of the fundamental knowledge and skills.	***B***	**Basic** The student shows partial mastery of the fundamental knowledge and skills.
P	**Proficient** The student shows solid academic performance and regularly meets the standards.	***E***	**Excellent** The student shows superior academic performance and consistently meets the standard.

Note: A notation given on the line is to represent the mastery of the literacy and level of effort. Below is an example showing a student who has a mastery level between proficiency and excellence, and an outstanding effort in learning:

N B P E
↓ ↓ ↓ ↓

Effort

_____X_____ ***Improvement needed*** _____X_____ ***Outstanding***

English

Effort

Improvement needed _____ ***Outstanding***

N B P E
↓ ↓ ↓ ↓

Listening

_____ Recognizes the stress in connected speech.

_____ Recognizes differences in the use of intonation in expressing approval, disproval, queries and doubts.

_____ Uses audio clues (tone, volume) and contextual clues to work out the meaning of simple spoken texts.

Speaking

_____ Uses appropriate intonation and stress, and varies volume, tone of voice and speech to convey intended meanings and feelings.

_____ Maintains interaction by controlling participation in interaction or group activities.

Reading

_____ Identifies and discusses, refines or generates ideas from written materials.

_____ Skims a text to obtain a general impression and the gist or main ideas. Identifies details that support the gist or main ideas.

Writing

_____ Presents main and supporting ideas with elaboration.

_____ Uses appropriate formats, conventions and language features when writing a variety of text types.

Figure 9.2 Report card: Example 2

Mathematics

Effort

Improvement needed _____ ***Outstanding***

N ↓	*B* ↓	*P* ↓	*E* ↓	
				Numbers and Algebra
				Experiences rational and irrational numbers.
				Interprets simple algebraic relations from numerical, symbolic and graphical perspectives
				Develops various strategies in using numbers to formulate and solve problems.
				Measures, Shape and Space
				Explores and visualizes geometric properties of 2-D and 3-D objects intuitively.
				Applies a variety of techniques, tools and formulas for measurements and solving measurement problems.
				Inquires into geometric knowledge in 2-D space using trigonometric relations.
				Data Handling
				Understands the criteria for organizing discrete and continuous statistical data.
				Computes, interprets and selects the appropriate measure to describe the central tendency of a set of data.
				Judges the appropriateness of the methods used in handling statistical data.

Personal, Social and Humanities Education

Effort

Improvement needed _____ ***Outstanding***

N ↓	*B* ↓	*P* ↓	*E* ↓	
				Personal and Social Development
				Understands the importance of valuing oneself and others
				Understands the ways to cope with changes in interpersonal relationships
				Identifies positive and negative peer pressure and develops strategies to respond appropriately
				Culture and Heritage
				Knows the uniqueness of Chinese culture and makes comparison with other major cultures of the world
				Understands culture and heritage of major communities in the world
				Understands and is aware of the emergence of a "global culture"
				Time, Continuity and Change
				Understands the significant historical periods and patterns of change in national and world history.
				Understands the positive and negative impact of change brought about by historical events.
				Differentiates between fact and opinion to form a good understanding and interpretation of historical events.

Teacher's Signature: _____ Parent's Signature: _____

Key indicators source: The Curriculum Development Council, 2002a: 13; 2002b: 32–33; 2004: 71)

Springfield Scientific Secondary School
School Report 2006–2007

Name: _____ Grade: _____

Subjects (Proportion)	Semester 1		Semester 2		Overall Mark
	Daily (30%)	Examination (20%)	Daily (30%)	Examination (20%)	
English					
Listening (20%)					
Writing (25%)					
Reading (25%)					
Presentation (20%)					
Vocabulary (10%)					
Mathematics					
Calculation (20%)					
Geometry (20%)					
Statistics (20%)					
Application (40%)					
Science					
Biochemistry (25%)					
Biology (25%)					
Chemistry (25%)					
Physics (25%)					
Average Mark					

Awards and Achievements

Principal: _____ Class Teacher: _____

Date of issue: _____ Parent's Signature: _____

Figure 9.3 Report card: Example 3

Hong Kong Primary School
Student's Report 2006–2007

Name: _____ Class: _____

Subjects	Comment
Chinese Language Reading Composition	
English Language Reading Writing Oral Vocabulary	
Mathematics Calculations Reasoning	
General Studies Social Education Generic Science Health Education Art and Music Physical Education	

Personal and Social Development	
Perseverance and Interest ❑ always able to solve the problem ❑ willing to tackle the problem ❑ needs help when faced with problems	Cooperation ❑ always works harmoniously with other students ❑ cooperative and helpful ❑ needs more support in developing the skills
Independence ❑ can work well without much support ❑ growing in dependence ❑ needs guidance and support	Participation ❑ commits to class activities ❑ willing to be involved in class service ❑ needs to take more initiative in class activities

Awards and Achievements:

Teacher: _____ Principal: _____

Date of issue: _____

Figure 9.4 Report card: Example 4

(Figure 9.4 continued)

Student's Learning Goals

My target for semester 1:	Student's self-reflection: Can I achieve the goal? ☺ ☹ What improvement do I need?
Date: _____	Date: _____
Parent's comment/suggestion: (Does my child work on the target?)	Teacher's comment/suggestion: (Does the student work on the target?)
Parents: _____	Teacher: _____
My target for semester 2:	Student's self-reflection: Can I achieve the goal? ☺ ☹ What improvement do I need?
Date: _____	Date: _____
Parent's comment/suggestion: (Does my child work on the target?)	Teacher's comment/suggestion: (Does the student work on the target?)
Parents: _____	Teacher: _____

Audience of Reporting

The audience of reporting can be divided into two main groups: the school and the community. The most signif icant audience tha t needs infor mation on student achievement are students, parents, teachers, school management and community.

Reporting to students

Students need to know through reports the information regarding learning. Reporting serves the purpose of reflecting on students' performance so that they can make use of the information to establish new goals (Groundwater-Smith and White, 1995). From progress and achievement reports, students will be able to understand their level of mastery of knowledge and skills. They should also be able to identify the areas of learning to which they need to give more attention or effort. Basically, reporting to students is to inform them, to motivate them and to improve their learning

Reporting can be informal. Teachers can meet students to let them know their performance and then give them guidance.

Reporting to parents

Parents are eager to know more about their children's learning progress. Groundwater-Smith and White (1995) identify three needs of parents for reporting: cyclical, context and social. Cyclical need is time-based. At different times of the year, parents may want different kinds of information dispatched to them. At the beginning of the school year, parents would like to know whether their children are adapting well in the new year or in the new class. They also want to know whether their children are performing satisfactorily according to age and ability. When it comes to the middle of the year, having knowledge gained at the beginning of the school year, parents would like to have a more detailed and explicit description of their children's performance. Towards the end of the school year, parents would like to know more about their children's achievement as well as the plan for the following year. Issuing reports regularly throughout the year will satisfy parents' cyclical needs. The second need is contextual. Parents' needs and expectations may vary in different educational areas. For core subjects such as English language, parents may want a detailed description on how well their children are progressing in specific language skills. For subjects including music and physical education, many parents would prefer to have a letter grade. However, for a school which focuses on nurturing students' specific talents such as music, parents may look for a very detailed description on how their children perform, from different musical perspectives. To establish good communication, schools can determine parents' expectations, for example in parent-teacher meetings. The third need is social information. Sometimes a message might be influenced by the way it is presented through body language (so avoid negative messages, e.g. a frown). The wording of the information should be carefully chosen and the manner of presenting it should be positive and constructive.

Reporting to teachers

Teachers within a school share responsibility for the educational advancement of students and need to share information about the progress and achievement of the students they teach and factors affecting it. A shared pool of information will help facilitate communication among teachers teaching the same group and facilitate continued support when students have progressed to a higher form and will be taught by a new group of teachers.There should be different information provided to teachers from that provided to students, parents etc. With the information, teachers can make plans, including rethinking their current teaching strategies when matching them against the characteristics of the students. In addition, communication among teachers can play a vital role in identifying and supporting students with special learning needs and abilities. Concerted effort can then be made to develop strategies and materials to meet these needs.

Reporting to school management

Managers need appropriate information upon which to make judgements and base decisions. Information will often be provided in the form of reports from other staff members, particularly those in positions of responsibility, to aid different managerial activities within schools. School principals and other members of the school management team use information about the progress and achievement of their students to make decisions about the effectiveness of programmes, the allocation of resources, the establishment, continuation or abolition of teaching programmes, the deployment of staff and the provision of support services to student.

Reporting to community

Many parties, including employers, universities and policymakers, would want to know more about student performance. Formal reporting provides a basis for these people to retrieve the information they want at any time (e.g. a school report or a certified award). Information disseminated to the community may have a positive influence on the school image. First of all, the information can increase the community's understanding of the school. It can become a platform for further communication and establishing rapport. The Education Review Office (1996) stresses that reporting on student achievement can raise the profile of the school and emphasize the positive role it plays in the community.

Conferencing as a Verbal Communication Means

According to Brady and Kennedy (2005), teacher-parent conferencing enables parents to be involved in the assessment process, and through discussion, suggestions can be given to interested parties on how to help the student make further improvement. In a conference, Cuttance and Stokes (2000) note, parents usually want to be kept well informed about their children's progress; given information about achievement and progress in both academic and non-academic areas of learning; informed about both strengths and weaknesses of their children; and provided with pertinent and constructive advice about how they can support their children's learning. Brady and Kennedy (2005) propose some guidelines for teachers in preparing conference procedures, including: (1) be clear about the assessment criteria in assessing student learning, (2) gather evidence such as student's work or grades that indicate whether the student is able to meet the assessment criteria, (3) have conferences with students first so that they have an idea of what parents will be told about their learning progress during the conference, (4) carry out the conference with parents, (5) ask for feedback from parents.

There are some ways to conduct an effective conference with parents. Teachers should find a comfortable meeting place in advance so that parents can talk with teachers in a relaxed environment. Then teachers need to familiarize themselves with the students' achievement as well as strengths and weaknesses, by rereading the report and reviewing students' work so that they can be prepared for any questions raised by parents concerning the students. When meeting the parents, teachers should act in a polite manner, to make parents feel at ease. When discussing the students, positive statements should be used, to avoid arousing negative feelings in the parents. During discussion, teachers should bear in mind that the conference is two-way, that parents should be invited to contribute to the discussion. Time should be allowed for parents to look at the report and the children's work. In a conference, teachers can provide parents with information about the students' learning with the work as evidence so that parents get a better picture of their children's achievement (Gronlund, 2006).

Teachers should also try to avoid creating a negative impression by appropriately framing the comments during the interview. The following example shows how a negative description can be turned into one that is more positive.

Negative description:

Parent: How is John behaving in class?

Teacher: To be honest, Mrs Cheng, John is a troublemaker. He can be quite naughty in class. During the lesson, he often leaves his seat without permission, to talk to his classmates.

Positive description:

Parent: How is John behaving in class?

Teacher: John is by nature a very active person. Sometimes, he spends too much time on things which are not related to his learning. Things like leaving his seat to talk to his classmates occur rather often. Maybe we should give him more responsibility at school and at home. What do you think, Mrs Cheng?

Teachers can also conduct conferences only with students. During the meeting, teachers and students can discuss whether or not the students are able to meet the assessment criteria. Probing questions could also be asked to gain deeper understanding about the student's learning. Brady and Kennedy (2005) make some suggestions for teachers for conducting this kind of conference. Teachers should create an informal atmosphere so that students are able to express themselves freely rather than being intimidated by formality. Teachers should actively engage in the process by listening attentively while displaying verbal and non-verbal responses. Teachers should try to avoid disapproving, so as not to stir up negative emotions. When students do not know how to respond, teachers can pause to wait for students' response. Appropriate assistance should also be given when it is needed, provided that it does not influence students' responses. It is also important for teachers to show reassurance and sympathy to students while students are expressing themselves. In order to get relevant answers, teachers could try to phrase the questions accordingly. It should be noted that teachers should avoid sarcasm and derision, which might harm students' self-esteem. It would be better to separate the student from other students so that the process would not be affected. Maintaining confidentiality in conferences with students is a good practice no matter who the student is. Following is one example of a teacher-student conference.

Scenario:

Peter is an underachiever. He always fails in mathematics. English is not a strength, either. In the last term, Peter scored 32 percent in mathematics, and 53 percent in English overall. This term, Peter scored 45 percent in mathematics, and 56 percent in English. He is not too good in expressing himself in English. He failed his oral English both terms.

Conference:

Teacher: (Referring to the report record). Peter, you have made a lot of improvement in mathematics this term. English is improving too, except that your oral English may still need some work. I understand you didn't score very well in oral English. Can you think of some reasons why the oral English is giving you trouble?

Peter: (Thinking) Um . . .

Teacher: (Waiting patiently with a smile)

Peter: In the oral test, I w asn't sure about some of the w ords. I just mumbled along. I know I am not too good at expressing myself in English.

Teacher: (Nodding) I see. Well, de veloping fluenc y in oral English gi ves lots of students trouble at first. I think you've identified an important area to work on, though. Building your confidence in your spoken vocabulary could be a very good target for us to work on this term. You know, practising your oral English more might also be a good idea. Can you think of any ways you could spend more time practising?

Peter: I guess I can ask Sandy (a classmate) for help. She speaks good English. I can ask my English teacher to give me more ideas, too.

Teacher: That sounds like a good plan, Peter.

Good conferencing skills eng age learning. Although teachers are v ery keen on getting students to improve their performance, messages can usually be communicated in a more supportive manner. Words used should be supportive. It is good to start the conversation by acknowledging their achievements. In the case presented above, although Peter failed mathematics again, the teachers acknowledged his big improvement in mathematics (from 33 percent to 45 percent) and general improvement in English. To help the student improve further, the teacher got Peter focused on oral English, an area in which Peter had not made an y advancement. The manner used should be encouraging. Words of encouragement certainly help. Sometimes, a smile is more effective than a thousand w ords. Students should be encouraged to conduct student-led conferences. Students could use portfolios as the vehicle for the discussion (Stiggins, 2005). Conferencing can be conducted online to create more time and space for communication.

Communication Is the Essence of Reporting

Reporting should be re garded as an important acti vity of assessment. The learning outcomes of students need to be disseminated to interested parties. The question is: Do teachers report only for accountability reasons? A new direction of reporting is that, in addition to accountability, reporting should be used for communication. Through different means, messages should be made to relevant parties to achieve the paramount purpose of learning.

Summary

- Reporting should be regarded as one main activity of assessment. The learning outcomes of students will have to be communicated to interested parties, including the students themselves, their parents, teachers, the school and the wider community.
- The school and teachers have to be held accountable for student learning. Although reporting carries this important function of accountability, the mission of reporting is to monitor student progress and communicate the results to interested parties, so deliberation and planning can be made to help students learn better.
- There are a number of reporting principles for teachers to be based on. The major issues discussed include confidentiality, focus(es) of reporting, evidence for the comments made, accessibility of information (e.g. language use) and manner of reporting.
- Teachers can consider using standard-based reporting, narrative reporting, and continuous progress reporting, or a combination of these.
- Teachers can use different means to communicate, some means in written form and others in verbal. In school contexts, report cards are widely used for communicating with students and their parents. Report cards can be used with conferencing, in which conversation is the means of communication.
- To facilitate good communication at the conference, some issues need to be addressed, including preparation, the environment, language use for sensitive issues, suggestions for improvement and the manner to use.

Review Questions

1. What role does reporting play in learning? What are the guiding principles for effective reporting?
2. What can teachers do to ensure good communication among students, teachers, parents, school and the wider community? What are the reasons for communicating student learning outcomes to these people?
3. What sorts of method can teachers use to report learning outcomes to interested parties?
4. What makes a report card a good communication tool?
5. What are the best ways to conduct effective conferences, including teacher–parent conferencing, teacher-student conferencing, or one involving all three parties?

Suggested Tutorial Activities

1. Role-play followed by discussion: Teacher-student-parent conferencing

   Ms Chan, the teacher of a Form 3 class in a secondary school, is having a conference with a student in her class, Susanna, and her mother , Mrs Wong. Susanna is diligent and self-disciplined. Ho wever, her performance in English last year was not satisfactory. The conference is arranged to discuss what can be done to help her improve her English. In groups of three, play the roles of the teacher, the student, and the parent.

2. Discussion

   What makes conferencing successful? What other forms of reporting can teachers use for communication?

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10

Case Studies

Objectives

By the end of this chapter, you should be able to:

- understand how the assessment policy of individual schools may impact on the implementation of assessment for learning;
- appreciate how the concepts of AfL of individual teachers can influence their assessment practices;
- recognize through the case studies provided the ways that AfL can shape and be reflected in the instructional and assessment practices of classroom teachers;
- relate the concepts of assessment for learning to your own teaching.

In most educational contexts, assessment guidelines are stated and defined in the national curriculum or system for schools to refer to. In Hong Kong, the learning function of assessment has been brought to much wider attention than it has been in the past, especially in recent years. The message of assessment for learning has been conveyed very explicitly to schools in the basic curriculum guidelines as well as in many education occasions such as workshops and seminars offered by the government. However, because of different circumstances, the good intentions may not be easily transferred to classroom actions. This chapter shows that individual schools may have their own interpretation of the government assessment guidelines. Similarly, individual teachers may have variations in understanding assessment for learning and therefore implement the concept in their own way. The deep thinking and tutorial exercises in the three sections in this chapter will provide the first platform for deliberation and for putting the assessment for learning concepts into practice.

This chapter uses three schools and their three teachers as the focus of discussion. The information of the following case has been derived from an examination of the assessment practices in three secondary schools in Hong Kong. The information presented is based on the findings of a study conducted by the author of this book. It is worth noting that the information is fact-based with no added interpretation. The sources

of information include school documents, teacher interviews, teacher reflections, student interviews and student portfolios. The three schools represent three different levels of academic performance. School A is high, School B medium, and School C low. The chapter is divided into two parts. The first part presents the assessment practices of the three project schools and the three teachers from these schools. In the second part, a learning and assessment plan is presented in which various important assessment for learning concepts are showcased. The second part also presents how the three teachers used the learning and assessment plan for their teaching. At the end of part one and the two sections of part two, some deep thinking exercises about assessment for learning are provided. The review questions at the end of this chapter aim to take the understanding to an even deeper level.

Part 1: Three Project Schools

School A was a prestigious school. On the whole, the students were keen workers and outperformed their counterparts in many other schools in Hong Kong. In the 2006 school self-assessment report, School A stated that it saw assessment as a tool both to evaluate student performances and to reinforce learning. The assessment used included class work, home assignments, oral presentations, portfolio and project production, short quizzes, formal tests and examinations.

The school used summative assessment and increasingly used formative assessment. One formative assessment example the school gave was a secondary assessment task, social studies project. There were some learning tasks related to the project which students were required to submit. The tasks would be assessed by the teachers throughout the project time. In addition, the students were required to orally present the end product (the project itself), which would be given marks. The marks assigned to the oral presentation plus those given to the final product would be counted towards students' overall performance of the subject. In addition, to assist students with diverse learning needs, the school organized an English language bridging course and an English language enhancement course for those who recently joined the school and were seen to need further support in English language. For this academic year, from the data gathered, the school saw the need to give the new intake extra support in Chinese language and maths. Consequently, more teaching time was allocated for these two subjects in the Secondary 1 curriculum. There were, however, no descriptions of how the assessment was organized to match the diverse learning needs of the students. School A always maintained high academic performance and was a top band school.

School B emphasized academic performance. The school depended heavily on tests and exams, dictations, and homework to assess students. The purpose of using these assessment strategies was to motivate students to learn. Dictations and homework were treated as "formative assessment" by the school, based on the interpretation that

these assessment methods were given during the term. It was believed that the assessment strategies could create a washback effect and students would therefore "learn". Teaching methods tended to be traditional. Lecturing was the normal practice, and students had very little involvement in the learning process. The role of students was to complete the assignments as set and study hard for the tests and examinations. To help them pass the summative tests and examinations, students were given a large amount of homework and/or a number of tasks to do every day. The style of assignments was rather traditional, for example exercises usually found in the workbook or at the end of a chapter/unit. More often than not, the assignments were mechanical exercises which students could complete by looking in the book. Other times, students would be asked to memorize the spelling of some newly taught vocabulary items for the next day's dictation. School B used to be a popular school in the district area because it was perceived to be a high-performance school. However, recently, the students' academic performance had gone down, slipping from its position as a top band school.

School C moved to a new site only several years ago. It was a millennium school well equipped with a lot of learning facilities, including modern information technology and computer equipment. The students were mainly from the low-income group of the community. According to the teachers, many students experienced family problems, for example difficulty in being a child in a single-parent family. There were students who were physically disabled, and a few were identified as autistic. Teaching and learning were traditional. Teaching tended to cover the content of the textbook. Students in general were rather passive in learning and were very used to following the activities in the textbook. Assessment policies were also traditional. Although the school had a vision of acknowledging all achievements of students, the assessment was mainly focused on determining students' academic results in different subject areas. Standardized tests and examinations (paper-and-pencil tests) were employed as mechanisms to make students learn. For senior forms, the tests (daily marks) and exam (final marks) allocation was twenty percent and eighty percent. The assessment practice in junior forms basically resembled the senior form assessment practice. The only difference was that daily marks increased to thirty percent, ten percent of which were generated by projects, dictations and compositions. The school did make a note in its last year's report that, in addition to assessing students through tests and exams, students' performance in the class should be taken into consideration. Teachers could use projects to assess student learning from different perspectives. However, the results of the interviews with the schoolteachers revealed that the assessment practice of the school still relied heavily on evaluating results rather than using assessment to support learning. Tests and examinations were the standardized assessment practice and were used solely for summative purposes. The school had not mentioned how assessment was used for catering for the diverse needs of some of their students. School C was a low band school. There was no evidence to show that it was moving out of its current band bracket.

Deep thinking and tutorial activities:

1. Critically examine specific aspects of the assessment practice of the three schools. Look for what seemed well done, what might have been done differently or better, and what wasn't. Based on the assessment concepts discussed in the previous chapters, make suggestions on how to use assessment to help the students of the three project schools learn better.
2. Compare the assessment practices of the three project schools. Hold a debate on the topic: "Assessment practices are related to student performance".

Part 2: Three Teachers from the Three Project Schools

As part of the study, three teachers from three schools were invited to try out a learning and assessment plan, presented in Figure 10.1 (see p. 190). Some basic learning activities were provided to them, and ideas of assessment for learning were discussed between the teachers and the researcher (i.e. the author). The teachers were given a free hand to use the basic set of learning and assessment activities provided, with an understanding that more thought from them was needed, especially about their assessment strategy use.

The learning and assessment plan

The theme of the learning and assessment plan was charities. The plan used a task-based approach. The worksheets for the task sheets and related information would be kept in a portfolio, which would have to be submitted to the teacher for marking. Table 10.1 provides an overview of all three tasks of the plan. Task 1 in Table 10.2 (p. 189) will be used to further elaborate the learning and assessment activities encompassed in the plan. The task is used to highlight the learning objectives, learning activities, and assessment strategies of the plan. A detailed description of all six lessons is given as further elaboration of the assessment strategies and learning activities.

Lesson 1: Introduction of unit

Task 1 required students to look for information about charitable organizations in Hong Kong. Lesson 1 began with giving students a broad overview of the learning and assessment plan as well as a brief account description of the three tasks. After introducing the objectives and learning targets of the tasks, students were given a goal-setting record sheet to complete (Figure 10.1). There were twelve learning targets on the record sheet, reflecting language development of the four language skills: listening, speaking, reading, and writing. The goal-setting record sheet helped students understand the learning objectives of the whole plan. It was also be used as a **self-needs analysis**.

Table 10.1 The learning and assessment plan: An overview of all three tasks

Theme: Charities			
Task	**Learning Targets**	**Teaching Content**	**Assessment**
1. Find out information on various charitable organizations such as the SPCA	**Grammar** Reported statements in simple present tense Wh- questions, negations in sentences and phrases **Vocabulary** New words related to fundraising activities **Reading** Extract information from texts **Speaking** Make suggestions **Listening** Listen to peers' suggestions and make comments	L01 – Introduction of unit L02 – Concept mapping & schedule forming L03 – Stepping into mini research & schedule forming L04 – Interviewing & reporting to peers L05 – Skills forming & reflections L06 – Self-correction & consolidation	1. **Formal assessment** 2. **Informal peer assessment** 3. **Self assessment** 4. **Performance-based assessment** 5. **Teacher observation**
2. Designing leaflets for charitable organizations	**Reading** Referencing skills The use of pronouns **Writing** Writing leaflets **Speaking** Make suggestions and make learning plans **Listening** Listen to peers' suggestions and give comments on peers' writing of leaflets **Grammar** Function and usage of relative pronouns Defining and non-defining clauses **Vocabulary** Vocabulary items and their prefixes dis, in and un.	L07 – Introduction to writing leaflets L08 – Teaching of relative pronouns L09 – Teaching of defining and non-defining Qs L10 – Consolidation of previous lessons L11 – Writing leaflets L12 – Reflections and evaluation	1. **Formal assessment** 2. **Informal assessment** 3. **Self assessment** 4. **Teacher observation and assessment**
3. Writing a proposal to an organization for fundraising	**Recap** Revision of vocabulary items and skills **Writing** Writing of proposals **Listening** Note-taking and giving comments on peers' oral presentations **Speaking** Presentations of proposals in class	L13 – Introduction of task and role distribution L14 – Teaching of proposal writing L15 – Group discussion and consultation L16 – & 17 Presentations L18 – Final reflection	1. **Self assessment** Formal assessment Informal assessment 2. **Peer assessment** 3. **Teacher assessment**

Source: Internal Research Grant research project (Berry 2006–07)

Lesson 2: Concept mapping and schedule forming

At the beginning of the second lesson, the teacher introduced concept maps to the students. A number of concept maps were used to illustrate the characteristics of good concept maps. The students were then given a vocabulary sheet with twenty vocabulary items on it (Figure 10.2, see p. 191). The new words were related to the main theme, charity. Students were asked to clarify their understanding of the words. They could brainstorm or confirm the meaning with their peers (**informal peer assessment**), or refer to a dictionary or any other means they found useful. Then individually, students drew a concept map to show their understanding of the words and their perceived conceptual linkage among these words. Upon completion of the individual concept map, students gave each other feedback based on the pre-discussed concept maps characteristics (**peer assessment**). To further support the activity, the teacher had demonstrated how a conversation could be maintained. Students could ask for a copy of sample discussion dialogue only when they felt more support was needed. During the peer assessment, the students were encouraged to raise questions (**informal questioning**) and give comments on each other's work. Students should make a judgement on whether the suggestions were useful for them. If the suggestions were deemed useful, students would then make further adjustments of their concept map before submission to the teacher (**formal teacher assessment**). The teacher conducted observations by looking at students' competence in language use, their communication skills, and the degree of participation in pairs and group work in the whole lesson. The teacher then conducted a whole-class discussion and provided **feedback to students** to clarify some misunderstood meaning and concepts. With this new understanding, students drew a new concept map or added new ideas to the old one. An example of a final product of the concept map is shown in Figure 10.3 (see p. 191). The bubbles with dotted lines were pre-discussion concepts, and the ones with solid lines were added after the peer assessment and receiving feedback from the teacher.

Lesson 3: Stepping into mini research and schedule forming

In lesson three, students were provided with a leaflet of a charitable organization. They were asked to identify some information they thought useful, and then individually they wrote it down on the note sheet provided. The information could include a brief description of the organization, vision and mission, their service, donation methods etc. Then the teacher held a whole-class brainstorming session during which questions could be used for prompting answers (**questioning**). The questions would lead into setting a schedule for research information (Figure 10.4, see p. 192). Peer feedback could be invited (**informal peer assessment**). The teacher could give immediate feedback as well (**teacher informal assessment and feedback**). Students were asked to do some research on charity work and organization as homework. They would need to choose a charitable organization and design a leaflet by themselves, which would be marked by the teacher (**formal assessment**).

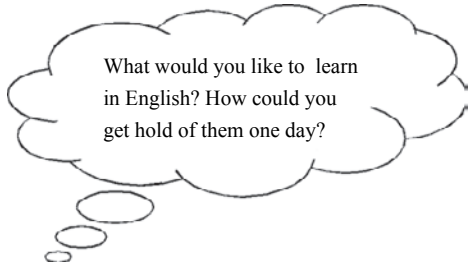
Table 10.2 The learning and assessment plan: Task 1

Theme: Charities			
Task	**Learning Targets**	**Teaching Content**	**Assessment**
1. Finding out information on various charitable organizations such as the SPCA	**Grammar** • Use reported speech to report an incident (simple present tense) • Wh- questions, negations in sentences and phrases for making suggestions **Vocabulary** • Learn some vocabulary items related to fundraising activities **Reading** • Extract information from written texts • Referencing skills **Speaking** Brainstorm ideas for the investigation and draft a concept map (Question formation) **Listening** • Listen to classmates' suggestions for the investigation and comment on classmates' concept maps	***Lesson 1*** INTRODUCTION OF UNIT • The teacher (T) introduces the objectives of the unit and gives an overview of the structure and content of the 18 lessons • T gives an example of concept map and asks students to brainstorm a concept map for the investigation ***Lesson 2*** CONCEPT MAPPING & SCHEDULE FORMING • In pairs, the students (Ss) brainstorm the focuses of investigation based on the leaflets provided. They then complete a note sheet with a concept map enclosed. • T helps Ss to identify some key content of the leaflets and brainstorm things need to do for the investigation. • Ss decide on their research plans ***Lesson 3*** STEPPING INTO MINI RESEARCH & SCHEDULE FORMING • T teaches the format of wh- questions • Ss do the listening task in the book • Ss choose a charity organization for research and completes a research schedule ***Lesson 4*** INTERVIEWING & REPORTING TO PEERS • Ss finish the interview note sheets • T conducts an information gap activity and introduces reported speech ***Lesson 5*** SKILLS FORMING & REFLECTIONS • T conducts a teaching activity. Ss reflect on their learning. Ss finish the worksheet on reported speech ***Lesson 6*** SELF-CORRECTION & CONSOLIDATION • Ss correct each other's worksheets and own mistakes • T gives instruction on self-assessment activity and gives guidance to Ss for writing reflective journals	**Formal assessment:** • Worksheets **Informal peer assessment:** • Mark and correct each other's worksheets • Peer feedback on the concept map **Self-assessment:** • Self-monitoring record • Self-assessment task **Performance-based assessment:** • Role-play **Teacher observation:** • Observe the communication skills, competence and the degree of participation the Ss in pair shown by work, group work, and role-play.

Source: Internal Research Grant research project (Berry 2006–07)

Name: _____ Date: _____

Expressing Wishes for Learning



Please write down what you would like to learn in each area if there is any.

In this unit, I am going to learn . . .	Ah!!! I would also like to learn . . .
1. New vocabulary about charity.	_____
2. The usage of reported speech.	_____
3. The usage of relative pronouns, e.g. who, whom and which.	_____
4. The usage of words with prefixes such as 'un', 'in' and 'dis' to describe feelings	_____
5. The usage of a new sentence structure of defining and non-defining clauses	_____
6. Ways to form questions	_____
7. Ways and phrases to make suggestions	_____
8. Ways and skills to listen to others and take notes	_____
9. Ways to share happy experiences and exchange ideas	_____
10. Skills for extracting useful information from articles and resources	_____
11. Skills for correct reference in a passage	_____
12. Skills for proofreading and correcting own writing	_____

Figure 10.1 Lesson 1 assessment: Self needs analysis

Name: _____ Date: _____

Vocabulary Items for Concept Map

Please put a √ next to the words which are in your concept map.
You do not have to include all the words in your concept map.
Add your own new words in the spaces given throughout the unit.

- ❑ Fundraising activities
- ❑ Organization
- ❑ Teachers
- ❑ Book sale
- ❑ Charity sale
- ❑ Community
- ❑ Funds
- ❑ Designing leaflets
- ❑ Strategies to raise funds
- ❑ Worldwide organizations
- ❑ _____
- ❑ _____
- ❑ _____
- ❑ _____
- ❑ Education
- ❑ Schools
- ❑ Students
- ❑ Carnival
- ❑ Dress causal day
- ❑ Government
- ❑ Donation
- ❑ Local organizations
- ❑ Writing proposals
- ❑ Tax
- ❑ _____
- ❑ _____
- ❑ _____
- ❑ _____

Figure 10.2 Lesson 2 assessment (i): A vocabulary sheet for drawing on peer feedback and teacher feedback

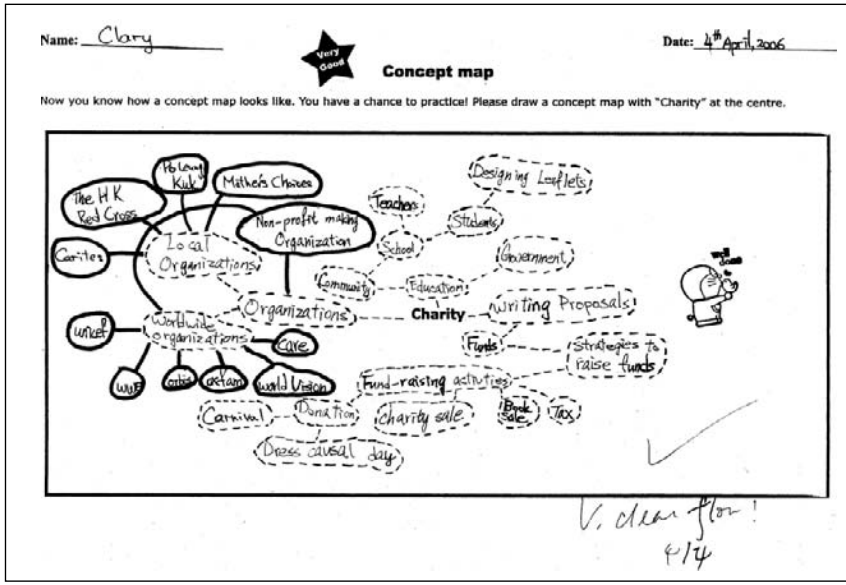


Figure 10.3 Lesson 2 assessment (ii): An example of final product of a concept map

Name: _____ Date:_____

Research Schedule

What are the steps or procedures for you to collect different important information for writing your own leaflet? Take a few minutes and think about what you should do. Step 1 has been done for you.

Step	Area of Focus
Example: 1	Choose a charity organization
2	
3	
4	
5	
6	
7	
8	
9	

Figure 10.4 Lesson 3 assessment: Worksheet for brainstorming and recording peer feedback and teacher feedback

Lessons 4 to 6: Interviewing and reporting to peers, skills forming and reflection, self-correction and consolidation

These three lessons are discussed together, to keep a coherent flow of the description. At different times of these lessons,the teacher taught*wh*- questions and reported speech. The teachers distributed an interview note sheet with one guiding question (*wh*- question) as an example. The students needed to write down a number of*wh*- questions on the note sheet (Figure 10.5). The purpose was to find out the results of the research conducted by their partners. After giving students some time to draft a few questions, the teacher held a whole-class discussion. The teacher in vited the students to talk about the questions they had drafted for the interview (**informal peer assessment and**

Name: _____
Date: _____

Interview Note Sheet

You and your partner want to know more about each other's research. Discuss the details of the research and form questions to ask for some information from each other. Put down the name of your partner as well. The first example has been done for you.

Name of your partner: _____

1. *(Name of the organization)*

Which charitable organization do you wish to write to?

Answer: _____

2. *Type of the organization*

Answer: _____

3. *Service of the organization*

Answer: _____

4. *Example (s) of some events of the organization*

Answer: _____

5. *Special events of organization*

Answer: _____

6. *(Can you can think of 2 more related questions?)*

Answer: _____

7. _____

Answer: _____

Figure 10.5 Lesson 4 assessment: Interviewing notes for drawing on peer and teacher feedback

teacher feedback). Students revised their questions. In pairs, they interviewed each other. They could negotiate better questions to ask and different answers to the questions. They were encouraged to comment on each other's suggestions (**informal peer assessment**). A number of self-assessment opportunities were created for students to reflect on their learning, which the teachers could use at their discretion. For example, a self-monitoring checklist (Figure 10.6) could be given to students to self-assess their learning progress. Two other examples were given, including the one which asks students to reflect on their own progress and to make plans for improvement (self-assessment learner logs in Figures 10.7 (see p. 196) and 10.8 (see p. 197), with student reflection). The portfolio would be collected and marked as **teacher assessment. Written feedback** would be given to the students.

Deep thinking and tutorial activities:

3. The learning and assessment activities presented above offer some ideas of how assessment can support learning. In groups, critically examine them and make suggestions on how these can be further improved to support learning. Explain why.
4. Develop an assessment plan and design some learning and assessment activities for teaching your own students. Support your design with assessment for learning concepts.

Three different experiences

Three teachers from the three different schools were involved in the study. Using the same learning and assessment plan presented in Figure 10.1, the three teachers implemented the plan in the school they taught. Using self-assessment and teacher assessment as the context, the following presents the experience of the three teachers in using assessment for teaching and learning. Individual teachers inevitably had their own way of using the assessment activities provided. The information presented in the following is again fact-based with no further elaboration or interpretation added.

Student self-assessment

The self-assessment tasks

Self assessment was conducted with the use of a self assessment checklist (Figure 10.6) as well as two learning logs (Figures 10.7 and 10.8). The self assessment checklist required students to self-evaluate their strategies for learning English in the lessons.

Self-assessment checklist

Name:_____

Date:_____

Here are some classroom tasks. They help you to improve your English.

	Often	**Sometimes**	**Not yet**
Talk to your English teacher in English			
Follow teacher's instructions to finish the task			
Ask partner for information in English			
Raise questions in English when there are difficulties			
Speak English during the English lesson			
Finish the learning tasks with classmate in English			

If you have some answers of "*Not yet*", what are the reasons?

_____

_____

Could you answer all your partner's questions?
(Yes/No)

Do you think you are doing well for the task? What are some examples?
(Yes/No)
Examples:

_____

_____

_____

What do you think you can do to help yourself participate more in the English lessons?

_____

_____

_____

_____

_____

_____

_____

Figure 10.6 Lesson 5 assessment (i): Self assessment: A self-monitoring checklist

Date:	**Period covered:**
In the last four lessons, you have done: 1. Concept maps 2. Discussion and interview with classmates	3. Research of charities 4. Forming *wh*- questions
You should have studied: *wh*- questions; reported speech; fundraising activities vocabulary; extracting information from texts; referencing skills; making suggestions; listening to peers' suggestions	
Reflections I used English when: I spoke English to (whom): I enjoyed/did not enjoy doing: I think I did the following well: In this task, I made these mistakes: In this task, my difficulties are:	
Future action plans Now you should have reflected on and understood more about your learning. What will you do to improve? I will: because I would like to know: I would like to be helped in these areas:	

Figure 10.7 Lesson 5 assessment (ii): Self assessment: Learner log 1

Reflections

Date: 12th May, 2006. Name: Ivy

Time flies. It is the end of our teaching periods ☹. Do you remember any useful learning activities? Are you happy with your effort and performance?

1. What do you feel about the learning and learning activities in general? Have you found anything useful or interesting?

I feel very happy. Because I learn many things in the learning and learning activities. Yes, I have. I have learnt many new words and I learn how to write a leaflet.

2. I have learnt the following things from English lessons:

- write a leaflet.
- learn some new words
- learn to listen people
- learn to find useful information in the web site.

3. Were there any difficulties in learning? How did you solve them?

Yes, there were. I will discuss with my classmates or ask teachers.

4. Do you think you are a good learner? What will you do if you want to improve yourself?

Yes. I do. I will read more English newspapers, read more english books, If I have something don't understand I will ask someone to help me.

Figure 10.8 Student self assessment: Learner log 2 (with student reflection)

For example, the students indicated how often they would communicate with teachers and students during the lesson. A number of open-ended follow-up questions were used to prompt students to look into their learning and to make suggestions for improving their own learning. The two learners' logs required students to reflect on what they did in the lessons, what they thought they had learned well and not too well, and what kinds of future plans they would need, in order to improve further. The checklist and learners' logs would be submitted to the teachers for monitoring progress and for giving support whenever it is deemed necessary.

The responses of the three teachers to students' self-assessment

Miss Chan (School A) made numerous responses to students' self-reflections. For example, when a student wrote that she would try not to speak Cantonese during English lesson, in order to improve her English, Miss Chan drew a smiley face right next to the statement, to show her appreciation. Other times, she showed her approval by writing comments such as "Good idea".To acknowledge good progress, she would write, for example, "You have made good progress in your research". She made suggestions to help students improve. For example, "You will need to gather more information to enrich this part" (indicated in the worksheet). "You could look into (a website) for further information".

Mr Au (School B) read through the self assessment checklists and logs and gave some ticks. However, he opted not to give any comments in writing. It was not clear whether Mr Au had given verbal feedback to his students.

Mr Wu (School C) also provided feedback to students. Some feedback was to suggest ways for improvement, for example, "This word doesn't fit here" (with indication). "Look for the meaning in your dictionary. You can either use the same word in a different context or find another word to replace it." Mr Wu sometimes used questions to stimulate students'thinking. For example, "Now, you have collected some information about a charity organization you want to write about. Is the information enough? How would you organize the information you have got?" Students in School C were usually low achievers and had low self-esteem. One student said that he loved to improve his English by doing more reading. However, he found it very hard to start this. Mr Wu then wrote, "Choose some interesting but very easy books to start with. How about bringing one to me so we can read together first?" In one lesson, when one student showed his frustration about the pronunciation mistake he made, Mr Wu said, "Don't worry. Let's say it again. Repeat after me?"

Teachers' reflection on self assessment after implementation

Miss Chan said that she experienced a number of difficulties when promoting self assessment in the classroom. Her students did not seem to be keen on taking control of their own work. Things like monitoring their own work did not seem to interest them much. Her students were very used to following instructions. Except for a number of high achievers, most students preferred to have the instructions from their teachers rather than making plans for themselves. On the whole, students lacked the skills of doing self and peer assessment. Despite this, Miss Chan was very positive about self assessment. She believed that self assessment would benefit students, as learning would not be spoon-feeding. It would be something from them.

Mr Au said that students did not know what to write in their self assessment. They were not able to make suggestions about what to do to become better. Probably because of their low level of language proficiency, students could not truly express themselves in writing. Therefore, many of them just copied exactly the same words as the teachers used as examples in the instructions. Mr Au said that he had a lot of trouble when he first got his students to do self assessment. He needed to do a lot of clarification with them. Despite this, he found it worth doing, as he saw that students became more active in learning. He said jokingly, "My students like to take more control over their learning now. They negotiate with me about the composition submission due date and the number of words to write."

Mr Wu experienced difficulties when first conducting self assessment with his students. They found the idea of self assessment intimidating. Probably because of this, some of his students did not complete the self assessment sheets. Some of those who completed the self assessment tasks had very low self-esteem. They were rather hard on themselves. For example, one student wrote "I am bad". Another wrote "I am not a good learner". The self-reflection skills were very immature at first. There was a general lack of self-reflection skills. The students were not able to pinpoint their problems, nor were they able to make suggestions for improvement. The situation gradually improved after a few times of using self assessment. Students became better able to identify what they wanted to learn and to suggest what they could do to improve their learning. Mr Wu observed that it was good that students had begun to think about their learning. However, there was a discrepancy between what they wanted to do and what they actually did. In general, Mr Wu was very positive about self assessment. He felt that it was particularly helpful in helping students see their strengths and weaknesses. He pointed out that it was important to let students see the objectives of self assessment and to familiarize them with the self assessment procedures in order to make it useful for the students. Mr Wu's students indicated that they benefited from self assessment. One student said that it helped him see his weakness so he could do something about it. Another said it helped raise his awareness of "ownership in learning".

Teacher assessment

Students were required to submit their work to their teacher from time to time. There were some marking variations among the three teachers. Miss Chan liked to use encouragement tactics. As mentioned, she used "cutie dhops" as well as drawing smiley faces on w ork that w as well done. Comments such as "W ell done! You are a ble to master the questioning skills very well!" were often used to acknowledge students' good work. In addition, correction feedback was frequently used to point out students' grammatical and spelling mistakes. Some constructive feedback was found, for example "Perhaps more information about the background is needed". When students were off-track, she would make comments such as "You have got quite a lot of information in this part. Maybe you could talk a bit more on other areas (indication on the note sheet)". Mr Au and Mr Wu used similar tactics for giving feedback. Comments such as "Good" and "Excellent" were often found. Both used correction feedback for grammatical and spelling errors. MrAu sometimes gave students extra help by providing needed information to them.

Deep thinking and tutorial activities:

5. Compare the assessment practices of the three teachers. Point out the strengths of their practices and suggest what more could be done to support student learning.
6. Mr Wu's students had rather lo w self-esteem. Discuss ho w assessment could help raise students' self-esteem. Why is it important to have good self-esteem in learning?

The Interface of Teaching, Learning, and Assessment

The assessment methods used in many schools tend to focus on determining students' performance at the end of the learning process. Tests and exams are normally used as the vehicle to get that information. Traditional assessment practices tend to focus on errors made by students, and as such can lead to lack of self-confidence and reluctance to undertake challenging learning. Assessment focusing on end product is less helpful in supporting learning. Assessment should also be used for, among others, identifying students' learning needs, motivating students' towards learning, as well as giving them learning support. It is important for teachers to know that assessment, teaching, and learning are interrelated and should be considered together while doing instructional planning. The cases provided in this chapter demonstrate the sort of inte gration that teachers can use for the integration of teaching, learning, and assessment.

Summary

- The three secondary schools presented reflect variations of assessment policies, assessment practices and interpretation of assessment for learning.
- The learning and assessment plan, Task 1 and the six lessons, exemplify the way that assessment can support learning.
- Individual teachers may have their own ways of implementing assessment for learning, as evidenced by their different ways of handling student self assessment and teacher assessment.

Review Questions

1. Go back through the cases and locate what the teachers think might be indications of the linkage between assessment practices and school performance.
2. Revisit the assessment for learning concepts discussed in previous chapters. Then examine the different assessment practices of the three teachers. Which of their assessment practices reflect assessment for learning?
3. The teachers in these cases all reported encountering some challenges and difficulties as they attempted to introduce self assessment practices into their classrooms. Using the perspective and ideas about self assessment that have been shared in this textbook, consider how you might have responded in their place. What are some strategies and steps you might have taken to ensure that self assessment was successful in your classroom?
4. Based on the teacher assessment reported in the three cases, discuss how teacher assessment can be done to support learning.

Index

Subjects