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ABSTRACT

This paper presents a conceptual framework for organizing and relating the many confusing concepts associated with continuous assessment (CA) practices. Curriculum-based criterion-referenced CA is shown to have two major components: formative and summative assessment of student learning. The nature of these components and their interrelationships are discussed. CA results for official summative evaluation purposes such as reporting to parents and incorporating CA grades into leaving and certification decisions are examined. Among the issues discussed are: (1) weighting of CA marks; (2) record keeping and reporting of CA results; (3) in-service and pre-service teacher training in CA; and (4) building school-to-school comparability and credibility into the CA process. (Contains three figures, two tables, and six references.) (Author/SLD)

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Curriculum-Based Criterion-Referenced Continuous Assessment: A Framework for the Concepts and Procedures of Using Continuous Assessment for Formative and Summative Evaluation of Student Learning

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by

Anthony J. Nitko
University of Pittsburgh

July 1994

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Abstract

Curriculum-Based Criterion-Referenced Continuous Assessment: A Framework for the Concepts and Procedures of Using Continuous Assessments for Formative and Summative Evaluation of Student Learning

by

Anthony J. Nitko
5B26 Forbes Quadrangle
Department of Psychology in Education
University of Pittsburgh
Phone: (412) 638-7027
FAX: (412) 648-7231
E-Mail: ajnitko+@Pitt.edu

To many persons used to the "all or none" nature of leaving examinations for certification and selection of students, the concepts associated with continuous assessment (CA) are confusing. To some, CA is a summative "mark" to be passed forward to certify or select a student. To others, CA is the physical pages in exercise books which students complete. To yet others, CA is diagnosis and formative evaluation of student learning. This paper presents a conceptual framework for organizing and relating the many confusing concepts associated with continuous assessment practices.

Curriculum-based criterion-referenced continuous assessment is shown to have two major components: formative and summative continuous assessment of student learning. The nature of these components and their interrelationships are discussed. The paper discusses using continuous assessment results for official summative evaluation purposes such as reporting to parents and incorporating continuous assessment grades into leaving and certification decisions. Among the issues discussed are (a) weighting of CA marks, (b) record-keeping and reporting of CA results, (c) in-service and pre-service teacher training in CA, and (d) building school-to-school comparability and credibility into the CA process.

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Curriculum-Based Criterion-Referenced Continuous Assessment: A Framework for the Concepts and Procedures of Using Continuous Assessments for Formative and Summative Evaluation of Student Learning

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Anthony J. Nitko
University of Pittsburgh

Introduction

In many countries using leaving examinations, educators are expressing an increased interest in continuous assessments. Their interests appear to arise from two related but different educational concerns. First, educators recognize that good instruction requires a constant stream of information about students' progress or about possible reasons for students' lack of progress. Both students and teachers benefit during the teaching-learning process from systematic feedback. The second reason for educators' increased interest in continuous assessment is a concern about fairness to students. It appears unfair to students to place the weight of evaluating their worth on one examination which comes at the end of several years of schooling, or even the end of a single year or end of a single term. Parents and educators recognize that a single examination is inherently limited in the breadth of learning that it can assess. It is recognized that students learn each day and that they can express their learning in many different ways. It appears unfair, then, to require that the total evaluation of the student rest on the results of a single terminal examination. Credit should be given for learning obtained throughout schooling and expressed in multiple ways and formats.

In educational systems that are not used to continuous assessments, continuous assessment sometimes means a summative "mark" that is passed forward to educational authorities and combined with leaving examinations to certify or to select a student. To others, continuous assessment means using the pages in exercise books which students complete as part of their lessons. To yet others, continuous assessment is diagnosis and formative evaluation of student learning. These different meanings can be confusing and may make implementation of continuous assessment problematic.

Purpose

It is the purpose of this paper to present a conceptual framework that organizes the many concepts of continuous assessment. The framework uses a national curriculum as the foundation for discussing continuous assessment practices. Once the concepts are organized, a number of issues related to the use of continuous assessments can be identified. These issues may be discussed with minimum confusion and resolved in relation to the framework.

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Assessment, Testing, Measurement, and Evaluation

Before describing the framework, I should define assessment and distinguish it from three other related concepts. This will make clearer the ideas I discuss later in the paper. ***Assessment*** is the process of gathering information for purposes of making decisions about educational policy, about curriculum and educational programs, or about individual students' learning (cf., AFT, NCME, and NEA, 1989). Figure 1 shows how these purposes are related to educational assessments. The branch of the figure associated with decisions about students is further elaborated to show several categories of decisions such as decisions about managing their instruction, placing them into special educational programs, and selecting them for further educational opportunities. The figure elaborates the managing instruction decision category to identify more specific decisions for which teachers need assessments, including planning instruction, placing students into learning sequences, and assigning final marks or grades.

Insert Figure 1 here

The term assessment, then, refers only to the process of gathering relevant information, not to the instrument for gathering it. The proper method or procedure for gathering information is best decided by examining the purpose for which you will use the information and the type of student performance you are most interested in assessing. There are many formal and informal ways a teacher may use to gather information. Which way(s) a teacher should use depends on what and why the teacher wants to use the information. Table 1 shows examples of basic uses to which a teacher puts classroom assessment results. Notice that the table differentiates formative uses and summative uses. A teacher uses assessment results formatively to guide teaching and learning and not to give final marks or grades. A teacher uses assessments results summatively when a more formal description of what the student has learned is required for official action. As you may see from Table 1, the different uses of assessment require information about different aspects of a student. Each aspect requires a teacher to use different methods of gathering that information. Some assessment methods may be informal, others may be formal.

Insert Table 1 here

Testing or examining refer to more or less formal methods of assessment. Frequently, these methods require the use of paper and pencil instruments: reading questions and writing or marking answers. They may, however, require other methods such as performance tasks, practicals, and projects. Sometimes the results of assessing students are reported on a numerical scale. A scale reflects quality of learning through a quantitative score or mark. Higher marks mean a higher degree of learning or competence. The process of reporting a student's performance on a numerical scale is called measuring. ***Measurement*** is the process of assigning numbers to students' performance in such a way that the students' order of quality is preserved. (For example, students with more mathematics competence should receive higher

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mathematics test scores.) Not all assessment requires marks or scores; not all assessment requires measuring students.

Evaluation is the process of judging the goodness or worth of a student's performance. Teachers usually assess students and use this assessment information to judge the goodness or quality of students' learning for either formative or summative purposes. Teachers may also use assessment information to evaluate their own teaching. High quality evaluations do not necessarily require using paper-and-pencil tests or examinations. Neither do they require using measurements. Of course, evaluations ***may*** use information from tests and measurements. It is an open question whether teacher-made evaluations are improved by using tests and measurements.

A Framework for Curriculum-Based Criterion-Referenced Continuous Assessment

In another paper, I argue that the official curriculum should be the basis for assessing student learning, especially in a high stakes examination system (Nitko, 1994). I also argue that all assessments, teacher-based or externally set, should be aligned with the curriculum learning targets and should form a seamless fabric of teaching, learning, and assessing. In this paper I elaborate on that idea in the context of continuous assessment.

The most important ideas about continuous assessment can be organized within a framework that focuses on students' learning the important outcomes set down in the curriculum. The learning targets described in the curriculum become the criteria against which students' are assessed (Nitko, 1994). Thus, I refer to this framework as ***curriculum-based criterion-referenced continuous assessment***. The framework is shown in Figure 2.

Insert Figure 2 here

At the top of the figure, you can see that the major idea is that all continuous assessments are aligned with and organized around the learning targets specified in the official curriculum. This not only assures a seamlessness between teacher-based examinations and the national examinations, it also increases the accountability of teachers for teaching the curriculum and the comparability of continuous assessment results from one teacher to another.

Formative vs summative distinction At the next level, the figure shows that continuous assessments are conducted for formative and summative purposes. ***Formative continuous assessment*** provides the teacher and the student with information that guides learning from day-to-day. ***Summative continuous assessment***, on the other hand, provides teachers, students, parents, and school officials with information they may use to draw conclusions about how well a student has attained the learning targets in the official curriculum. Both formative and summative continuous assessments are necessary if students are to learn the targets laid out in the official curriculum.

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Formative Assessment

Informal formative continuous assessments Formative continuous assessments are mostly informal, that is, they consist of a teacher's casual and impromptu observations and impressions of students' progress in relation to the curriculum. The assessment techniques a teacher uses for formative guiding of instruction include (a) reviewing homework and seatwork for errors or misconceptions; (b) observing students as they read, work cooperatively with others, carry out assignments, or solve problems; (c) talking with students to determine whether they understand a concept; and (d) listening to students' responses during a lesson.

Formal formative continuous assessments Of course, formative continuous assessment does not exclude the use of paper-and-pencil or performance assessments. For example, a teacher may give the class a short pretest before teaching a science unit on meteorology. This test may assess the students' attitude toward the weather, their experience with weather systems (e.g., severe storms), their fears (e.g., fear of thunder and lightning), their knowledge of generally known facts about the weather, and their misconceptions about the causes of weather. Such a pretest could provide a teacher with a "snap shot" of the class and be used for planning lessons on the weather that build on students' experiences and prior knowledge structures. Similarly, when one unit of learning is prerequisite to another, the post-assessment of the first unit may be used formatively to guide teaching in the second. Thus, instruction-oriented continuous assessments may be formal in the sense of being structured tasks or informal in the sense of being less structured and impromptu.

Primary purposes of formative continuous assessment What distinguishes formative from summative assessment techniques, however, is not their formal or informal nature. Rather the distinction lies in the purposes for which the results are used: Formative continuous assessments focus on monitoring and guiding student progress through the curriculum. Formative continuous assessments primarily serve purposes such as: (a) identifying a student's learning problems on a daily and timely basis and (b) giving specific, action-oriented feedback to a student about his or her learning. Because they are formative, the results of these assessments are not used as a basis for official termly or yearly marks or grades. A teacher may record the results of formative assessments for his or her own purposes of managing the class, but these marks do not become part of the official record for a student.

Summative Assessment

Formal Summative Assessment Summative continuous assessments by contrast are more formal. Since the results of summative continuous assessments become part of the student accountability system the summative assessment procedures or the techniques a teacher uses need to be crafted with deliberation and care to be aligned with the curriculum. It is most important that summative assessments be matched to the learning targets of the curriculum. For example, if the curriculum learning target states that the student must learn how to measure using a meter stick, balance scale, and graduated cylinder, the teacher's method of assessment must require students to actually measure objects and quantities using these instruments. It will not be valid for a teacher to substitute a paper-and-pencil test on the metric system or on defining a graduated cylinder for the performance task required by the curriculum. Among the

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techniques a teacher may use for summative evaluation are (a) tests embedded in the curriculum materials, (b) quizzes and tests the teacher creates, (c) systematic marking of projects a student completes, products a student creates, and performances a student demonstrates; and (d) end-of-term or end-of-year curriculum-driven criterion-referenced assessments. The later summative assessments could be created by several teachers collaborating.

Official continuous assessment results The results of formal continuous assessments become the official record of what the student has learned at the classroom level. In one sense, keeping records of what curriculum-based learning targets students have learned is the way each local school monitors its own effectiveness. Local schools should hold themselves accountable for effectively teaching the official curriculum. Most students should acquire the basic learning targets specified in the official curriculum. Similarly, students who are taught these targets should be accountable for learning them.

The need to combine several assessments' marks Because summative continuous assessments include several different assessment results, use many different assessment techniques, and occur over a relatively long span of a student's classroom experience, the marks need to be combined in some way so they may be summarized for the official record. The methods of summarizing students' marks and translating them into letter grades or quality levels are beyond the scope of this paper. You should refer to several reviews found in the literature (e.g., Nitko, 1983; Oosterhof, 1987; Frisbie and Waltman, 1992).

Primary purposes of summative continuous assessment Summative continuous assessment results serve several purposes. Because they are criterion-referenced, they provide information on students' strengths and weaknesses regarding the official curriculum. They also provide a basis for reporting to parents a student's progress in learning the curriculum. Because these assessments are curriculum-based, parent reports can contain specific information on students' mastery of important learning targets rather than overall marks or grades for a subject. End-of-term and end-of-year grades have meaning in relation to specific curriculum-based learning targets. (However, this does not imply reporting details of fragmented behavioral objectives.) Summative assessment results, unlike formative assessment results, are officially recorded in students' permanent record cards. They provide a schools' official record of the students' progress in learning the major curriculum objectives. Finally, summative continuous assessment results can be combined with the results from the national curriculum-driven examination and used for purposes of certification and selection.

Basic Issues to Be Discussed

Concepts Themselves

Figure 2 provides one framework for organizing concepts often used when discussing continuous assessments. You should not think of it as the only framework for continuous assessment. Local understanding and use of such assessment concepts as curriculum-based, criterion-referenced, formative vs summative, formal vs informal, and instructional vs official should be reflected in a local conceptual framework. An important point, however, is that ***some type of framework*** must be articulated and made public, otherwise teachers, other educators, and

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the public will be confused. Without a framework different stakeholders and decision makers are likely to make pronouncements concerning continuous assessment that are confusing or contradictory. Therefore, ***a common framework of understanding is most important for progress to be made in formulating continuous assessment policy.***

In addition to a framework, there are a number of other basic issues that need to be resolved before a coherent and workable continuous assessment policy can be implemented nationwide. Table 2 shows an outline of the major issues that need to be considered. Below I will briefly discuss each of these issues.

Insert Table 2 here

Components of the Official Continuous Assessment Term Grade

If continuous assessments are to be used for purposes of officially recording students' progress in the curriculum, then issues arise regarding what assessment components should be combined each term in order to create a termly mark or grade. In some schools, a formal termly test or examination is administered at the end of each term and only this mark is officially recorded as the record of a students' mastery of the curriculum. This practice is a miniature version of the "big bang" examination procedure which motivates using continuous assessment in the first place. That is, it seems unfair and of limited validity to reduce the entire term's learning to a single paper-and-pencil examination. If one test is unfair then what else should be included? This is a policy question that needs to be discussed and resolved. You should keep in mind, however, that it is not necessary to apply exactly the same procedures at every age: In the early grades (standards) different assessment policies may apply than at later grades. As students become older, more frequent and more formal assessments may be more appropriate than when they are younger. Policy should also recommend a minimum number of teacher-made formal assessments per term. The maximum number should be left open, perhaps, to accommodate subject-matter and teaching style differences. Figure 3 shows one scheme for framing a discussion of these issues. The figure is not a recommendation per se, but a graphic way to show options that can be further discussed.

Insert Figure 3 here

Issue Regarding Termly Tests

If schools use curriculum-driven criterion-referenced termly examinations as one component of a summative continuous assessment grade, there are a number of issues that arise. These issues revolve around local school versus centralized control of continuous assessment. For example, should test questions and other assessment tasks be set by teachers individually, by teachers collectively, or by a central examination authority? How should standards for marking, boundaries for letter grades, and setting of questions be established? A related issue

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is reporting a letter grade vs reporting a formal test result. Letter grades can hide a multitude of sins if teachers are not properly prepared to use them. It may be appropriate to report to parents for each subject both a letter grade and the termly formal test result. In this way, the more objective curriculum-based test can serve as a check on the more subjective letter grade assigned to a student. A parent (or headmaster) could question the results if the grade and the test results were inconsistent from student-to-student for the same teacher. The teacher may have a reasonable explanation for inconsistencies, but the process may serve to keep abuses in check.

Yearly Continuous Assessment Grades

In a system that uses a national curriculum, the procedure for assigning yearly curriculum-driven continuous assessment grades or (marks) should be logically consistent within and across schools. Among the issues to be resolved is how the yearly summary should be determined. It appears to be inconsistent with the idea of continuous assessment to base a yearly grade on a single end-of-year examination. Should the yearly grade (mark) be based on the marks from all three terms or from only the third term? Should the yearly marks be moderated? By whom? If letter grades are used, should the marks' boundaries be set locally or nationally?

Physical Records for Official Purposes

When continuous assessment is used as part of the national student certification process, it is essential that complete and accurate curriculum-based records be kept. Without continuous assessment, achievement records become less important because the leaving examination subsumes everything. Matters change when continuous assessment results become part of the official record. Among the records that need to be designed are (a) the teacher's gradebook, (b) the parent report card, and (c) the student's permanent record card. To be consistent with a curriculum-driven model, these record forms need to be carefully designed. Among the issues to be discussed is the question of how much curriculum detail should be included in the report card and permanent record card. Too much detail is unnecessary and confusing for summative purposes. Too little detail does not describe a student's accomplishments in relation to the major learning targets of the official curriculum. Too little detail is not helpful to teachers who receive the students from the earlier grades (standards) or receiving schools when students transfer from one school to another. Figure 4 shows one United States elementary school's report card for parents. This report card balances detailed curriculum-based information with the need to provide less detailed information to parents. The report doubles as an annual permanent record card. Although the card in this figure is not a perfect one for all situations, it does illustrate some of the possibilities of preserving curriculum-based information in students' records.

Insert Figure 4 here

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Issues Specific to Report Cards

If schools are to send report cards to parents, it is important that they be designed properly. Report cards are one method of communicating between parents and school officials regarding students' achievement. They are also a means of schools being accountable to parents. Point six in Table 2 lists some of the issues that need to be considered and resolved. Most important is involving the report card stakeholders in designing the card itself.

Combining Continuous Assessment Results With National Examination Results

A major issue for continuous assessment policy concerns how to use assessments as part of the certification and selection process. Among the specific issues that a ministry of education needs to resolve are (a) which terms and years should be included for certification or selection (e.g., all prior years, or only the last five terms), (b) how much weight should be assigned to the examination results vs the continuous assessment results, and (c) should each subject's continuous assessment results weigh the same in relation to the examination. Several models for weighting continuous assessments should be identified and discussed. Here are some examples:

Model One Use continuous assessments only in the classroom and do not count them toward certification or selection.

Model Two Count continuous assessments toward certification or selection using a compensatory model (e.g., statistical regression weighting).

Model Three Count continuous assessments toward certification or selection but fix the percentage weight (e.g., 40% or 60% of the total for continuous assessment): (a) Count only the last few years, (b) Count all years, or (c) Count all years but weigh earlier years less than later years.

Model Four Use only continuous assessment marks for certification; use only examination results for selection.

Many models could be generated and their pros and cons discussed until these issues are resolved.

Building Teacher Competence For Continuous Assessment

Any plan for continuous assessment is only as strong as teachers' ability to use it appropriately. Therefore, those implementing continuous assessments must devise methods of training inservice and preservice teachers. Among the teacher competencies in continuous assessment that need to be developed are:

1. Understanding the importance of assessing curriculum learning objectives.
2. Understanding how to match alternative assessment methods with the appropriate curriculum learning targets.

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3. Understanding what information is most appropriate to use for each of the decisions shown in Table 1.
4. Competence in creating their own assessment exercises and examinations including paper-and-pencil examinations, performance assessments, and other alternative techniques.
5. Competence in evaluation and grading students including how to weigh and combine results from several assessments taken over the term or year.

An interesting approach to the teacher competence problem is being tried in Jamaica (Faulkner, 1993). A central agency develops certain formal tools which teachers may use at the local level for diagnosis and monitoring student progress in the primary school curriculum. For example, a first grade readiness inventory; a third grade diagnostic test; fourth, fifth, and sixth grade achievement tests; and a list of graded critical objectives on which teachers should focus assessments. The innovation in this system is that each school will have a specially appointed senior teacher for assessment. This teacher is responsible for implementing ministry of education assessment policies and procedures at the school; assisting the headmaster in assessment-related tasks; and working with and training the schools' teachers in using appropriate assessment techniques.

Teachers' college and university lecturers need to be consulted and brought into the continuous assessment policy-making framework. Syllabuses for educating preservice teachers may need to be redesigned to teach new national curricula and methods of assessing student outcomes in relation to them. Ministry of education officials need to assure that what is being taught to preservice teachers in these areas is congruent with innovations and policies being invented in departments of curriculum development and assessment.

Public Confidence in School-Based Assessments

The final category of issues listed in Table 2 concerns public confidence in school-based continuous assessment. If the public is used to only external examinations with little or no continuous assessment marks being used for important decision-making, it may not accept innovations in continuous assessments. This may mean bolstering public confidence in the checks and balances built into the continuous assessment process, using (field) education officers to moderate or inspect continuous assessment results, or requiring headmasters to play leadership roles in monitoring the quality of teachers' continuous assessment grades. Plans for building public confidence should be laid early on as continuous assessment innovations are developed so they can be simultaneously implemented.

Summary

If the curriculum is to be the basis for assessment reform, then all parts of the assessment enterprise need to focus on evaluating student learning in relation to the curriculum. In this paper I presented a framework to organizing many assessment concepts in relation to curriculum-based continuous assessment. The framework distinguishes formative and summative purposes for continuous assessment. Only summative continuous assessment should be used to keep official records on what students have learned.

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As continuous assessment needs are discussed at the level of policy and decision-making, the framework may be used to clarify concepts and sharpen the discussion issues. Among the issues that need to be resolved and for which policy needs to be formulated are the following: Components of the continuous assessment marks, use of end-of-term assessments, use of end-of-year examinations, types of physical records to be kept regarding continuous assessment, type and contents of parent reports, combing continuous assessment marks with certification examination results, building teacher competence, and building public confidence for using continuous assessment for decision-making purposes.

Review of the framework and the issues indicates that continuous assessment procedures have great potential for improving teaching and learning because they focus attention on students acquiring specific learning targets and require teachers to show students how their performance differs from the desired performance.. This focus contributes significantly to the goal of universal basic education. This potential is likely to be realized if all important issues surrounding continuous assessment are identified and systematically addressed. If important issues are not identified and addressed, it is likely that continuous assessment will just be a slogan. Any educational benefits it might contribute is unlikely to be realized.

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Table 1. Example of basic uses to which classroom assessment results are put

A. *Formative uses* help teachers to monitor or guide student learning while it is still in progress.

1. *Sizing-up uses* help a teacher to form initial impressions of students' strengths, weaknesses, learning characteristics, and personalities at the beginning of the year or course.

2. *Diagnosing individual students' learning needs* helps a teacher to identify what the student has learned and what still needs to be learned, as well as to decide how instruction needs to be adapted to the students.

3. *Diagnosing the group's learning needs* helps a teacher to identify how the class as a whole has progressed in its learning, what might need to be reinforced or retaught, and when the group is ready to move on to new learning.

4 *Planning instruction uses* help a teacher to design and implement appropriate learning and instruction activities, to decide what content to include or emphasize, and to organize and manage the classroom as a learning environment.

B. *Summative uses* help a teacher to evaluate student learning after teaching one or more units of a course of study.

5. *Assigning grades for report cards* is a way in which a teacher records evaluations of each student's learning progress so that the evaluations may be communieated to students, their parents, and responsible educational authorities.

6. *Placing students into remedial or advanced courses* are ways in which a teacher attempts to adapt instruction to individuals' needs when teaching is group-based. Students who do poorly in the teacher's class may be placed into remedial classes that provide either alternate or supplemental instruction that is more suitable for the students' current level of educational development. Similarly, students whose educational development in the subject is above that of the rest of the class may be placed into a higher level or more enriched class.

7. *Evaluating one's own teaching* requires a teacher to review the learning that students have been able to demonstrate after the lessons are complete, to identify which lessons were successful with which students, and to formulate modifications in teaching strategies that will lead to improved student performance the next time the lessons are taught.

C. *Other uses* help in teaching generally, but may not be directly linked to evaluating individuals.

8. *Using assessment procedures as teaching tools* are ways in which a teacher uses the assessment process as a teaching strategy. For example, a teacher may give practice tests or "mock exams" to help students understand the types of tasks used on the assessment, to practice answering and recording answers in the desired way, or to improve the speed at which they respond. In some cases, the performance assessed is identical or nearly identical to the desired learning target so that "practicing the assessment" is akin to teaching the desired learning target.

9. *Controlling students' behavior* is a use in which a teacher hopes to motivate students to study and learn by using performance on an assessment instrument as a vehicle for student accountability. The higher the stakes for the student in doing well on the assessment, the greater the incentive to "get a good grade" or "pass" the assessment. It is believed by some teachers that without such external rewards students will not study and learn the material.

10. *Communicating achievement expectations to students* is a use in which a teacher helps to clarify for students exactly what they are expected to be able to perform when their learning is complete. This may be done by showing the actual assessment tasks or by reviewing the various levels or degrees of performance of previous students on specific assessment tasks so that current students may be clear about the level of learning expected of them.

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Table 2. Curriculum-Based Criterion-Referenced Continuous Assessment: Some Basic Issues to be Discussed

1. **Concepts themselves**
   a. curriculum-based
   b. criterion-referenced
   c. continuous assessment
   d. formative vs. summative purposes for assessment
   e. informal vs. formal assessment
   f. instructional vs. official assessment
   g. grade or mark for each subject for each term

2. **Components of the official continuous assessment grade for each term**
   a. variations at different standards
   b. CRT termly tests that are weighted
   c. minimum number of other formal teacher-made assessments

3. **CRT termly tests issues**
   a. local vs. central setting of test questions
   b. local vs. central setting of the test plan/blueprint
   c. groups of teachers setting tests at a school
   d. local vs. central setting of standards for letter grades
   e. reporting CRT termly test marks along with the term grade

4. **Yearly continuous assessment grade**
   a. procedures for determining
      i. all terms vs. term three only
      ii. moderating
   b. local vs. national boundaries for various letter grades

5. **Physical records to be kept for official continuous assessment**
   a. Teacher's gradebook
   b. Student/parent report card
   c. Permanent record card
      i. transfer from one school to another
      ii. destroy after certain grades

6. **Issues related to report card for parents/students**
   a. what should be reported
   b. level of detail that will be useful
   c. involvement of stakeholders in the design of the report card
      i. teachers
      ii. parents
      iii. school officials
      iv. curriculum-developers
      v. educational measurement specialists
      vi. MOE staff members
   d. whether parents will sign and return the report cards

7. **Issues related to combining continuous assessments with JCE results**
   a. certification vs. selection
   b. which years/terms should be included
   c. procedures for weighing certification examination results with CA grades
   d. uniform vs. differential weighting with various subjects

8. **Building teacher competence for continuous assessment**
   a. types of competencies to be developed
      i. understanding the curriculum learning objectives
      ii. understanding the various alternative methods of assessment
      iii. understanding what information is most appropriate to use for each of the decisions in Table 1
      iv. competence in creating test questions and other alternative assessments
      v. competence in evaluating and grading students, including what to include in grades and how to combine results from different assessments
   b. inservice workshops
   c. preservice courses and curricula changes

9. **Public confidence in school-based continuous assessments**
   a. checks and balances using the termly CRT
   b. moderation or inspection by field education officers
   c. quality monitoring by headmasters or headteachers

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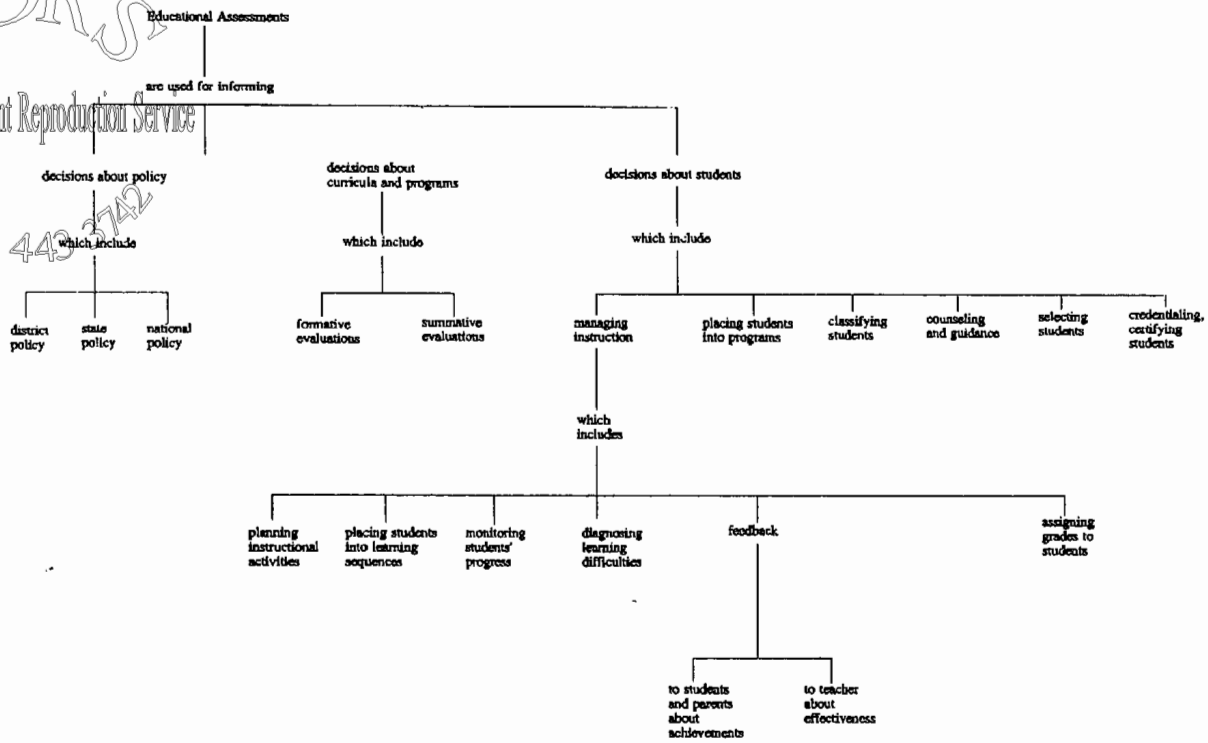

Source: Nitko (1993)

Figure 1. Examples of types of educational decisions for which assessments may be used

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SCHOLASTIC RECORD 115-I

Pupil _____ (LAST) _____ (FIRST) Year _____ Room _____ Teacher _____

REPORT PERIOD

1st			2nd			3rd			4th		
Commendable	Performing Successfully	Experiencing Difficulty	Commendable	Performing Successfully	Experiencing Difficulty	Commendable	Performing Successfully	Experiencing Difficulty	Commendable	Performing Successfully	Experiencing Difficulty

EXPLANATION OF MARKING

Experiencing Difficulty — Basic skills have not been acquired, the student has not reached the performance level set for his or her group or set for the child individually.

Performing Successfully — The student has attained the performance level set for his or her group or set for the child individually. Knowledge and skills have developed satisfactorily

Commendable — Knowledge and skills are well developed. The student has exceeded the expectations set for him or her individually or for the group. Performance is praiseworthy.

THE LANGUAGE ARTS

Reading

- Reads with understanding
- Recognizes and applies vocabulary
- Uses study and reference skills
- Understands elements of literature

Spelling

- Spells assigned words accurately
- Spells accurately in written communication

Language

- Recognizes parts of speech
- Applies correct sentence structure
- Uses conventional punctuation
- Expresses ideas clearly

Handwriting

- Writes legibly

MATHEMATICS

- Understands concepts
- Recalls basic facts (+, −, ×, ÷)
- Works accurately
- Uses reasoning in solving problems
- Applies principles of measurement and geometry

SOCIAL STUDIES

- Understands basic concepts
- Uses research skills

SCIENCE

- Understands basic concepts
- Uses process skills.

Lower Int.	Middle Int.	Upper Int.	Grade 7
Book 4	Book 5	Book 6	Book 7

Intermediate basal reading materials used to date

*A check mark indicates the performance level in the basal reading program which has been covered.

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REPORT PERIOD

1st		2nd		3rd		4th	
Performing Successfully	Experiencing Difficulty	Performing Successfully	Experiencing Difficulty	Performing Successfully	Experiencing Difficulty	Performing Successfully	Experiencing Difficulty

KEY

A dash (—) indicates that performance was not measured during the report period

(I) indicates improved performance.

The evaluations in this section refer to personal interaction and task-related skill development as viewed by your child's regular subject teacher(s). Special subject teachers may use these numerals to explain improvement needed in their respective areas.

YOUR CHILD IN SCHOOL

Personal Interaction Skills

1. Is courteous in speech and actions
2. Shows respect for others
3. Responds positively to help and correction
4. Respects property of the school and others
5. Takes care of personal belongings
6. Demonstrates self-control
7. Observes rules and regulations

Task-related skills

8. Follows directions
9. Utilizes time effectively
10. Listens attentively
11. Works independently when necessary
12. Starts and finishes work on time
13. Completes assigned work
14. Contributes to class discussion
15. Observes standards of neatness
16. Works quietly
17. Brings necessary material to class

ESTHETIC DEVELOPMENT

Vocal Music

- Develops basic performing skills
- Comprehends and interprets musical elements
- Participates appropriately in activities
- Performs commendably

Art

- Manipulates a variety of materials
- Applies principles of design in projects
- Participates appropriately in activities
- Uses constructive imagination in art projects
- Performs commendably

PHYSICAL DEVELOPMENT

Physical Education

- Displays good sportsmanship
- Participates in activities
- Maintains minimal fitness level
- Behaves appropriately
- Performs commendably

Health

- Demonstrates knowledge of health concepts
- Behaves appropriately

Days Absent			
Times Tardy			
Times Excused Early			

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Figure 3. One possible scheme for using summative continuous assessment for official evaluation of pupil progress.

STANDARD

1			2			3			4			5			6			7			8			9		
I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III

A. No termly CRTs administered.	A. Termly CRT administered for each core subject.	SEE BELOW
B. Term grade based on at least 3 formal assessments of each student's attainment of the important curriculum learning objectives.	B. Term grade based on at least 2 other formal assessments of each student's attainment of the important curriculum learning objectives.	
C. One or more termly grades assigned per subject.	C. One or more termly grades assigned per subject: 1. Termly CRT weighted 50(?)% into the grade. 2. Termly CRT marks reported along with the termly grade(s).	
D. Parents sign the report card indicating they received it. Report card returned to school with a parent's signature.	D. Same as "D" for Standards 1 - 3.	

Note: Standard 9, Term 3 is the JCE term. One suggestion is to (a) average the continuous assessment grades for a subject for the last 5 terms before the JCE term and (b) combine this average with the results of the JCE.