Testing and instruction are sometimes seen as unrelated elements in the educational process, rather than as integrated components. This paper, organized in three sections, views testing and instruction as complements in the educational process, taking into account both testing and instruction in schools and classrooms with diverse student populations where cross cultural awareness, mutual respect, and mutual understanding become essential parts of the curriculum. In the first section, a variety of instructional methods are reviewed. The advantages of each method, with an eye to student needs as well as preparation for a multicultural world, are considered. The second section discusses assessment in a real world context; a distinction between test and assessment is drawn; and context-relevant assessment is presented as a sound way to meet the challenges of accountability. Appropriate assessment allows students to demonstrate skills without discriminating against minority students' special learning needs, styles, or difficulties. The final section considers how instruction and assessment can be integrated to meet both the needs of the learner and the challenge of a complex, interrelated, and multicultural world. (Contains 44 references.) (Author/LL)
ABSTRACT

In what follows, both testing and instruction will be considered. In the first section, a variety of instructional methods will be reviewed. The advantages of each method, with an eye to student needs as well as preparation for a multicultural world will be considered. In the second section, assessment in real-world context is discussed. A distinction between test and assessment is drawn and context-relevant assessment is presented as a sound way to meet the challenges of accountability. Appropriate assessment allows students to demonstrate skills without discriminating against minority students' special learning needs, styles, or difficulties. The last section will again consider how instruction and assessment can be integrated to meet both the needs of the learner and the challenge of a complex, inter-related and multicultural world.
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Testing and instruction are often treated simplistically by educational professionals. For example, one type of testing is sometimes adopted as an answer to all evaluation needs. Similarly, instruction may be reduced to a single mode when multiple techniques are warranted. In addition, testing and instruction are sometimes seen as unrelated elements in the educational process, rather than as integrated components.

Utilizing the diversity of techniques and formats in both testing and instruction, as well as viewing testing and instruction as complements in the educational process holds distinct advantages. The diversity of techniques and formats available in both testing and instruction allow the instructor the flexibility necessary to tailor learning experiences to the unique world of individual students. At the same time, this flexibility allows the instructor to help the student explore the widening circles of family, community, state, nation and world (see the Model, FIG 1).

That is, the ability to individualize instruction and testing serves the developmental needs of the learner while the greater complexity in student understanding created by integrating testing and instructional components provides students the insight and skills necessary for coping in an increasingly complex and inter-related world. Put another way, the integration of testing and instruction allow
educational systems and teachers to move in two directions. First, this integration allows a downward movement to the micro-level, by meeting individual student needs and devising instruction that takes into account and encourages growth of current skill levels. Second, the integration of testing and measurement encourages a movement toward the macro-level. At this level, the entire class or instructional group gains skills of analysis, synthesis and evaluation, important to the understanding of complex issues and conflicting values often found when considering problems at the state, national and world levels.

In what follows, both testing and instruction will be considered. In the first section, a variety of instructional methods will be reviewed. The advantages of each method, with an eye to student needs as well as preparation for a multicultural world will be considered. In the second section, assessment in real world contexts is discussed. A distinction between tests and assessment is drawn and context relevant assessment is presented as a sound way to meet the challenge of accountability. Appropriate assessment allows students to demonstrate skill without discriminating against minority students' special learning needs, styles or difficulties. Finally, the last section will again consider how instruction and assessment can be integrated to meet both the needs of the learner and the challenges of a complex, inter-related and multicultural world.
You Can't Push A String: Instruction and Learner Needs

Thomas Kelly, a New York superintendent, stated that "Excellence is a choice," but what is meant by excellence in education and which strategies will be used to achieve excellence once it is defined? More specifically, what are the goals for excellence in the global/pluralistic educational system? Learners should be self directed, have positive self esteem, and be able to demonstrate critical thinking and process skills. These goals, in turn, are based on adequate academic and social skills. When met, these goals personify a learner that is a productive and effective world citizen. The learner is involved in events, actions and outcomes, because he or she feels an ownership in the work that is done. William Glasser's control theory is an exemplary model that illustrates degrees of control as a way to enhance mastery learning and a way to lead learner competency a step beyond.

Economic trends suggest a move away from the fact-based curriculum and toward an information and service based curriculum and global society. Consequently, schools must prepare students to apply information. In order to do this, meaningful instruction that involves learners actively in the process of learning must be utilized. Meaningful learning is reflective, constructive and self-regulated. (Branford, J.D. and N. Vye, 1989). In addition, learning is
an ongoing process that requires learners to constantly 
receive information and interpret it, thus connecting it to 
what they know and have experienced. At the same time, this 
process helps learners to reorganize and revise their 
internal conceptions/perceptions of the global society. The 
need for more learners to develop comprehension and other 
information processing skills both in industry and in 
private sectors, will be one incentive to expand the kinds 
of learning environments and instructional practices 
provided. (Sinclair, 1987) These intellectual skills are 
best developed using well-conceived exercises to apply 
skills to relevant content through modeling, coaching and 
supervised practice. (Sinclair, 1987)

Instructional Expectations

Learners may be either enabled or disabled by 
instructional style. Thomas Good and Rhona Weinstein have 
identified six general dimensions for educator's 
communication of different expectations: task environment, 
grouping practices, focus of responsibility for learning, 
feedback and evaluation practices, motivational strategies, 
and quality of teacher relationships with learners. 
(Sinclair, 1987) Expectations in this context are linked to 
inferences educators make regarding future academic 
achievement of learners and the types of assignments the 
learners need, given their abilities and achievement 
potential. For example, learners thought to be more capable
are provided more opportunity to perform publicly on significant tasks, while learners believed to be less capable are provided less opportunity and given more low-level tasks. Educators communicate their level of learner expectation by the degree to which they display respect for learners as individuals with varied interests and needs and work with learners to meet those needs.

**Instructional Global Awareness and Learner Needs**

Some educators have the world in their classrooms. In schools and classrooms with diverse student populations, cross-cultural awareness and attention to mutual respect and understanding become essential parts of the instructional curriculum. Reconsideration of the learning environment and instructional techniques may be essential to enhance learning in these settings. Instructional activities must exist in a learner-centered environment that can be varied. Possibilities might include cooperative learning, interdisciplinary curriculum, and the use of the community as a learning resource. These techniques are not new, but are frequently overlooked options. These options help focus instruction on becoming learner-centered with the educator acting as a facilitator of learner success.

Learner's needs influence learning and are enhanced or suppressed by instructional styles. Control theory outlined by William Glasser indicates that all humans are born with the basic needs of survival, belonging/love, power, fun and
freedom. According to this theory, "life is an attempt to live in a style that will best satisfy one or more of these basic needs". While knowledge helps fulfill some of the more complex needs of humans, states Glasser, psychological needs are not as clearly identified. Consequently, satisfaction is more of a challenge to meet than the basic need of survival. Additionally, while acknowledging their "presence" and importance, people and society place varying degrees of value on these psychological needs (Glasser, 1986).

Humanistic models of education place importance on both the cognitive and emotional needs of human beings. These humanistic models of education are rooted in the work of thinkers like Arthur Jersild, who associated good instruction with the knowledge of self and learners, Arthur Combs and Donald Snygg who investigated self-concept-motivation-achievement and behavior, Abraham Maslow who became interested in experiences that produced "self-actualizing people" and Carl Rogers who wrote the "Total Human Being". (Ryan and Cooper, 1992 pgs 235-243) Each of these thinkers emphasized the importance of a healthy emotional life for the learner. For humanistic theorists, a learner's cognitive and emotional aspects work together to produce an integrated human being. Over-emphasis on the traditionally cognitive aspects of learners (such as the linguistic/verbal aspect) work to hinder the total
development of the learner by not recognizing other abilities and interests that exist for learners.

Howard Gardner, Harvard University Project Zero, believes that everyone has different intelligences and that there are seven basic types of intelligence: linguistic/verbal, mathematical/logical, bodily kinesthetic, spatial, musical, intrapersonal, and interpersonal. Most class time and evaluation focus on the first two while neglecting the intrapersonal and interpersonal aspects. Interestingly, successful learners have highly developed intrapersonal and interpersonal intelligence/skills (Hacker, Hathaway, Walker, 1991). Glasser’s belonging, power, fun and freedom are supporting examples of intrapersonal and interpersonal skills.

Learners have diverse needs and skills/intelligences. Recognizing this as an educator enables learners. For example, using collaboration assists in the development of student intrapersonal intelligence and strengthens the link between educator and learner. This technique enables learners’ interpersonal intelligence by building upon what the learner already knows and exercises. In addition, educators need to recognize that variety exists in the modes and speed with which learners acquire information/knowledge, in attention and memory capabilities to apply acquisition of knowledge, and in the ways they can demonstrate the personal meaning they have created (Gardner, 1990).
William Glasser writes that there are two categories of educators. Boss managers tell learners what to do, how to do, and when to do, while lead managers offer an environment of warm, friendly, noncoercivness; a protective environment that encourages working together. Lead managers also believe grades show what is known, not what is not known. Additionally, lead managers continually look for better ways of instruction and ways to include the learner in the process (Glasser, 1990). To be effective, the instructional process must be incorporated in the daily living environment.

**Instructional Methods**

There are a variety of instructional methods with solid theoretical foundations and a research base that have demonstrated a positive impact on learning. These methods, elaborated below, can be combined in ways that enhance the potential for learning to a greater degree than if used independently. Since a single method will seldom work in every situation for every learner, professional judgment must be used by the educator. Methods must be selected to match learner’s previous skills, socio-psychological make-up, and available resources. Implementation of the methods should be done in a manner to compliment and support a culturally diverse society and the goals and assumptions of multicultural education.
H. Hernandes suggests in the book, *Multicultural Education* that multicultural education is based on the following assumptions:

A. It is increasingly important for political, social, educational, and economic reasons to recognize that the United States is a culturally diverse society.

B. Multicultural education is for all learners.

C. Multicultural education is synonymous with effective teaching.

D. Teaching is a cross-cultural encounter.

E. The educational system has not served all learners equally well.

F. Multicultural education is synonymous with educational innovation and reform.

G. Next to parents, teachers are the single most important factor in the lives of children.

H. Classroom interaction between teachers and learners constitutes the major part of the educational process for most learners.

Examples of instructional methods that support these assumptions are whole group instruction, teaching by objectives, adaptive or individualized instruction, mastery learning, cooperative learning, learning styles, direct instruction, discovery methods, integrated thematic instruction, peer tutoring, learning by doing and CAI (computer-assisted instruction).
Whole-Group Instruction

During whole-group instruction, content can be introduced by the educator who interacts with all learners. This method can be followed by small groups, individualization or peer tutoring. (Kindsvatter, Wilen, and Ishler, 1988)

Benjamin Bloom’s research suggests the following ways learning can be maximized with this method:

1. Improve learner processing of instruction by using the mastery learning/corrective feedback method and/or the enhancement of the initial cognitive prerequisites for sequential courses.
2. Improve the tools of instruction by selecting a curriculum, textbook, or other instructional material that has proven to be very effective.
3. Improve the home environment support of the learner by beginning a dialogue between the school and the home.
4. Improve instruction in the school by providing favorable conditions of learning for all members in each classroom, as well as by increasing the emphasis of higher mental processes for all learners.

Teaching by objectives

This method indicates to the learner what skills are to be learned, why the skills are important, how they relate to
other skills, and the basic context and purpose of the objectives. The objectives should be understandable to the learner. Frequently, teaching by objectives is combined with direct instruction and mastery learning.

**Adaptive or Individualized Instruction**

This method provides for learner needs and allows for self-pacing of the presentation of content to the learner.

Adaptive method factors to consider are:

1. Instruction should be based on the assessed abilities of each learner.
2. Learners should work at their own pace.
3. Learners should receive periodic reports on their own mastery.
4. Learners should plan and evaluate their own learning.
5. Alternative materials and activities should be provided.
6. Learners should have a choice of goals and activities.
7. Learners should help one another to achieve individual and group goals. (Waxman, Wang, Anderson, and Walberg, 1985)

**Mastery Learning**

This method is based on the premise that a learner does not progress to the next level or stage until mastery of the
previous level of stage has been achieved (Bloom, 1984). Kindsvatter, Wilen, and Ishler, (1988), offer the five-phase approach for preparation and implementation for mastery learning:

Phase 1. Break down the content into small units of learning in order for learners to be able to learn and be evaluated in each incremental step.

Phase 2. Decisions must be made concerning the use of appropriate instruction to enable learners to accomplish the objectives.

Phase 3. Designing and administering formative diagnostic tests which can be scored by learners to give them feedback on their progress.

Phase 4. For learners who did not achieve mastery, additional materials and/or instruction must be furnished.

Phase 5. Summative testing is given to determine mastery of the unit. Learners not mastering the unit are recycled until a mastery level has been achieved.

Whole-group and/or one-to-one instruction can be used with mastery learning.
Cooperative Learning

This method is based on a learning environment for group identification and working with peers in a productive and cooperative manner. Learners work in small, mixed ability learning groups which are beneficial academically and socially. Principles beneficial in facilitating effective cooperative learning groups are:

1. Distributed or shared leadership
2. Heterogeneous membership
3. Positive interdependency
4. Social skill acquisition/working effectively with others
5. Group autonomy to help one another solve problems in their own way, and the opportunity to do so. The teacher is a partner/guide. (Dishen and O'Leary, 1984)

Learning styles

This method is based on the belief that people vary in the way or style in which they learn. Three general ways educators can use the learning styles approach are to focus on the learner knowing him or herself, designing curriculum, and developing instructional processes that provide for adaptations to the different learning styles and a diagnostic mode (Brandt, 1990). It is important to note that learners must acknowledge and accept that they will be
working with others that have different learning styles thus drawing upon interpersonal skills.

**Direct Instruction**

This method is the delivery of content by the educator to the learner(s). The educator supplies the same skill at the same time for all the learners. Steps of direct instruction include:

1. Provide daily review
2. Present new material
3. Conduct guided practice
4. Provide feedback
5. Assign independent practice
6. Provide weekly, monthly reviews

(Davis & Thomas, 1989)

**Hunter**

The Hunter Method, rests on the premise that education requires a constant flow of decision making based on the relationships of content decisions, learner behavior and teacher behavior. The major goal of education is to allow the learner to be responsible for his or her own learning while the educator remains accountable for that learning.
The Hunter Model includes seven steps:

1. Anticipatory set/context of what is to be learned
2. Stating objectives and purpose
3. Providing input/new information
4. Modeling
5. Checking learner understanding
6. Receiving guided practice with direct supervision
7. Doing independent practice (Hunter, 1984)

If this order is followed as listed, direct instruction is represented. However, the order can be varied effectively.

Discovery Method

This method is also called nondirective, inquiry, or inductive and offers a learner structures that can be related to variables for a given concept. It is investigative. These approaches directly involve the educator assisting learners in identifying generalizations and relationships. Discovery gives the learner total autonomy and in the experimental approach, the educator presents an assumed to be true statement and the learners seek ways to test the validity of the statement.

Inquiry includes thirteen elements: observing, classifying, using numbers, measuring, using space-time relationships, predicting, conferring, defining operationally, formulating hypotheses, interpreting data, controlling variables, experimenting, and communicating.
(Orlich et al., 1985) The learners are given control and an opportunity to have fun in the learning process.

Integrated Thematic Instruction
This method interfaces with how learners learn, instructional methods and strategies, and the curriculum. Supporting Glasser’s control theory, Kovalick indicates instructional effectiveness factors are:

1. Creation of a trusting environment
2. Development of content meaningful to learners
3. Provision of activities from which learners choose
4. Adequate time for understanding
5. Enrichment of the environment through varied real-life experiences
6. Nurturance of learners
7. Creation of a classroom environment void of physical and emotional threat. (Kovalick, 1986)

Peer-tutoring
This method can be used as a supplement to regular classroom instruction and integrated with cooperative learning or as an after-school option. Peer tutors, to be effective, must have a positive regard for the learners being tutored, be able to maintain confidentiality, be committed and dependable. The educator is involved in a supervisory role to ensure that the specific skills needed by the learner are being addressed (Jenkins and Jenkins, 1987).
Peer tutoring can be especially successful because the tutor and the learner are frequently on the same "wave length". A sense of belonging and freedom which Glasser emphasized can develop.

Learning by doing
This method incorporates case study, experiments, gaming, manipulatives, role play and simulation. The method is particularly effective when used to compliment other methods. Behavioral processes are needed and analysis or critiques of what was done lead the learner to problem solving and decision making while the educator summarizes and brings out additional points.

CAI (computer-assisted instruction)
This is a patient, individualized and consistent method of instruction if not overused. Educators must ask how computers can enhance what they are currently doing. CAI should offer the following:

1. Enable the learner to be in control
2. Stimulate cognitive and social learning activities
3. Promote interactive involvement of the learner
4. Relate to other learning experiences in the classroom (Swick, 1989)
Time on learning
This method refers to instruction tailored to specific learner needs and indicates that the learner is engaged or attentive to the task or information presented. (Arends, 1988) Methods of instruction implemented independently or collectively in an educational environment can have a positive impact on learning; however, meeting the learner's basic needs is an important factor in the true effectiveness of instruction.

The learner is a complex person and "survival" is related to how much one can learn. There is belonging in knowledge. There is power in knowledge. There is freedom in knowledge. There is fun in knowledge. ABC Newsvendor, Peter Jennings, stated in Common Miracles: The New American Revolution, that learning liberates the potential for all Americans and contains the keys to a glorious future. The more we are challenged the more growth we experience and with this comes new power. It must be acknowledged that everyone has different intelligence and more important - anyone can learn if their needs are recognized and met.
The Other Side of Assessment: Testing

The skills and individual progress of students can be monitored in appropriate and meaningful ways through authentic assessment. The purpose of a test was made clear by Horace when he stated, "A true test asks students to show what they know and can do, not to spout unrelated facts they have memorized the night before" (Coalition of Essential Schools). According to the National Center for Fair and Open Testing, standardized testing is overdone and misused as an accountability mechanism. Educational reform should focus on assessment based on what the student can do rather than how a student scores on multiple choice tests.

When test results alone are used in selection, misclassification falls disproportionately on minority groups (Gardner, 1989), and can undermine social policies and hinder real learning. We appear to teach to prepare learners for testing, therefore, the test results may indicate how good a test taker the learner is rather than what the learner knows or can do. In order to promote greater development of the diverse talent of all our students, "alternative forms of assessment must be developed and more critically judged and used so that testing and assessment will open gates of opportunity rather than close
them off" (National Committee on Testing, 1990). We must expand the use of more creative and more varied devices that provide direct evidence of the knowledge, skill, and behavior of interest in the changing real world setting.

More and more American educators are demanding that testing become "more authentic," i.e., assess in a realistic an integral way meaningful skills and abilities including those of higher thinking skills that enable students to become successful, productive adults. The National Commission on Testing and Policy has identified key problems of standardized testing as follows:

*Current tests are imperfect and potentially misleading as measurements of individual performance in education and employment;
*Some tests result in unfair treatment of individuals and groups;
*Students are subjected to too much testing in this nation's schools;
*Some testing practices in both education and employment undermine important social policies and issues intended to develop or utilize human talent;
*Tests have become instruments of public policy without sufficient public accountability (Commission Report, p.6).

One other problem of testing, according to the critics of traditional testing is the burden of misclassifications that fall disproportionately on certain ethnic and
linguistic minority groups as well as on students who have special learning needs, styles or difficulties. According to Hacker and Hathaway (1991), the reasons for such disparity between minority and majority test scores include cultural test bias, differences in economics or education, and the limited power of existing tests to predict success for all students. Whatever causes the disparity, the fact remains that many minorities are currently being denied opportunities. Zimmerman (1991) underlines these concerns by stating that some tests are culturally, racially, and socially biased: They can be used to label students in ways that may not effect their learning positively. According to Kozol, all tests are culturally dependent to some extent. Hence, the score gap between minority and majority groups. Society has yet to extend educational opportunities fairly to all (Kozol, 1991).

Gold (1992), Hill (1991) and others, pointed out that present standardized tests are flawed, and that results are frequently misinterpreted. In addition, some administrators and counselors may lack the necessary fundamental training in basic educational measurement to make correct inferences about student progress. Assessment that allows for discussion, reflection, and shared control of learning needs to be implemented to allow room for success for all students to be happy and successful people.

Due to its versatility, flexibility and individuality, authentic assessment could be used in all classrooms for all
learners. It allows both teacher and students to provide input and feedback, provide quantitative and qualitative performance over time and represent different stages of growth; permitting both student and teacher to evaluate progress (Paulson, 1991). In addition, if students are expected to take seriously the lofty objectives we establish for our courses, examinations must reflect those objectives. Most teacher-made objective tests do not do that, and as a result, students fixate on the names, dates, places and terminology they know will be tested.

Emphasis on assessment has changed through the years. [SEE FIG 2] Prior to 1915, the emphasis of assessment was on checking student learning and grade performance for promotion; during 1915 to 1920, the emphasis was on accountability of educators; from 1920 to 1950 the growth of standardized testing in the school setting was emphasized. After 1950, tests were used to assess individual student performance and from 1970 to today, emphasis was placed on criterion/skill assessment. Due to community and nation dictates, evaluation has been improved. In the 21st century, evaluation and assessment will emphasize the integration of different pieces of knowledge (drawing relationships), holistic learning, student production, and student collaboration in solving problems, planning strategies and reacting to ideas collectively. As Hillard pointed out, "We need to change the paradigm of testing from a predictive/gate keeping model to an analytic
process that helps learners to develop survival skills in a competitive global society.

Archbold and Newman (1988), Zimmerman and Enid (1991) and Gold (1992), have emphasized why authentic assessment is necessary:

1. It encompasses the diversity of the American cultural experience. Glasser (1984) commented that with each decade we have "increased the proportion of children attending school, expanded the range of social groups, and expanded the amount and kinds of education offered; --the challenge to 21st century education is "to teach successfully all the children and youth of our educational system." This requires an improved approach to teaching and testing.

2. It allows students to be independent learners. It embraces the learner and reflects what the learner needs to know and can command at a given time. Diane Bloom stated that this learner-centered assessment is rooted in a social context that is purpose-directed in tasks and artifacts, unlike other assessments.

3. It encourages teachers to facilitate individual processes. One example is providing multidimensional evaluative tasks that measure growth over time.

4. It emphasizes teaching-learning-assessment which includes: The training of teachers and administrators, advancement of teacher empowerment, decision-making skills, higher order instruction, a realignment of curriculum to fit program needs and active involvement in the process.
5. It emphasizes what students "can do" and presents alternative ways of assessing student progress including: Portfolios, checklists, inventions, essay questions, performances, tasks, exhibits, interviews, observations, note taking, open-ended test items, experiments, teacher observation, diary keeping, and journal entries [See Fig 3A and 3B].

Many teachers, principals, administrators and theoreticians are increasingly turning toward school restructuring, teacher empowerment, and integrated curriculum approaches as the vehicle to meaningful educational improvement. According to Hacker and Hathaway (1991), this trend, along with alternative assessment, promises both freedom from topdown accountability and enhanced control and success in the classroom. A number of people believe that an over-reliance on standardized testing may itself be a primary factor in America's educational "lag". The U.S. is the only nation that relies on multiple choice tests for large-scale assessment," states Linda Darling-Hammond. "Most countries we compete with in Europe and Asia that out achieve us use essays, oral exams and exhibits of students' work" (Newsweek, January 8, 1990).

An effective assessment procedure will allow improved instruction and on-going classroom instruction every day. Standardized tests have served in the past as monitoring devices irrelevant to the learning process and various other instructional environments. Parents, students and
politicians are aware of the purposes and uses of standardized test scores. Using standardized scores to rank students and schools, identify success by culture and background, interpreting scores without concern for socioeconomic status and geographical location are but some of the familiar practices that have created divisiveness among the public and the schools. Anything that adds to the teachers' load, teachers will criticize; anything that is not accessible and accountable to the public, the public will criticize. And, if the public loses faith in assessment, it is likely to withdraw the financial support schools have been accustomed to.

As educators, we need to identify what is important and of value to the learner and the society at large, rather than identify what is "easy to see and test and report" for policy purposes. When test scores are not as high as expected, we are accustomed to putting the blame on the teacher and learners, when curriculum as well as testing may be at fault. Some of the research done by Jay Simians and others comparing portfolio assessment to standardized testing, has shown that children in the top 2/3 of the assessment group look the same from both perspectives. The picture of children in the bottom 1/3 (the disadvantaged), however is much more diverse. The collaborative process, including self evaluation and decision making of students about themselves and their progress, gives authentic assessment an edge over other alternatives. Grant Whiggish,
President of CLASS (Consultants for Learning Assessment and School Structure) pointed out, "What you test is what you get, if we want to have quality assessment that creates quality work, we need to test for the task we want kids to be good at (Videotapes: Multidimensional Assessment Strategies, 1990).

Conclusion: Assessment and Testing as Educational Partners

Rather than viewing tests as a necessary endpoint to instruction, it is important to view testing and assessment as an integral part of curriculum planning and learning experiences in general. The goal of testing what learners should know, rather than teaching to the test guides educators in creating reasonable assessment tools that provide information not only for official administrative purposes, but self-knowledge for the learner as well. Testing not only needs to be incorporated in instruction and function as a compliment to it, tests should also function to assess learner abilities, not disabilities.

As a compliment to instruction, summative tests can function to assess what the learner gained through the instructional process. Decisions can be made about whether learners are ready to proceed in the instructional sequence. Summative tests have generally been used with whole group instruction, teaching by objectives, instruction, mastery learning, learning styles, and direct instruction. "In the
beginning is the end" is true of summative tests that focus on assessing the goals and objectives of instruction. It is not necessary to wait until the learner has completed the course of instruction in order to assess his or her progress, however. Pre-testing and on-going assessment may be easily incorporated in many forms of instruction. Learner feedback and various forms of assessment may be part of each instructional day or lesson or may occur at other regular intervals (mid-way through instruction, for example). In addition, assessment may be used to provide insights for instructors who must guide learners, but it should also be used by the learners themselves in order to learn how to independently move from one level of instruction to another. Teacher and learners may also use assessment techniques in order to gain insight into learners particular learning styles as well as strengths and weaknesses.

Once testing is used to assess needs, the educator is in a position to provide a classroom environment that is multicultural in nature. Once used as a way to ensure learners proceeded in a lock-step manner, assessment today can be used to help tailor instruction to a learner’s individual needs. Once assessment is seen as an integral part of instruction, and its purpose is to serve the best interests of learners, and, in turn their communities, a new vision of education is possible. Learners advance, but not at the expense of classmates or their own sense of identity.
or self-worth. Lock-step education is replaced by a community of learners that may each be in unique positions educationally, but all function together to come to new insights and understandings. These early educational experiences may well function as the pebble dropped into a pool: ripples of respect and opportunity for all peoples moving outward to global communication, communities and world peace.
before 1915

-oral
-memorization
-high-stake for
learners
-low stake-
for teachers
-less accountability

1915-1930

-school acnt. rising
-WWI
-IQ
-school survey
-performance
-Mann, Rice,
...

1930-1950

-school testing
-growth of
standardized test
-less impact on
instruction
-NTE, SAT, GRE..

1950-1970+

-individualized
-testing
-talk of national
assessment
-congress involved
-MBO

1970-1990

-criterion
-diagnostic
-many kinds of tests
-school
accountability
-change of curr.
-CBE
-mastery as learner

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<td>- focus on accomplishments</td>
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<td>- reflect on life-long nature of learning</td>
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<td><strong>open-ended questions</strong></td>
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<td>- construct response to convey what was learned</td>
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<td>- reflecting and responding to problems</td>
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REFERENCES


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