The Gordon Commission
on the Future of Assessment in Education

Toward a Culture of Educational Assessment in Daily Life

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Assessment, in theory, is a great thing. Every person wants to know where they are and where they need to go in order to achieve results. ... "Is the result a good thing, Is the result tangible, Is the result useful, ... getting 100% on a test, is that really going to amount to anything ... (or does) it just reduce people to numbers? ... We know — (from) research and person-to-person interaction — that there is more to a person than just test results.

Luke Botting, Leadership Development Fellow, New Haven Public Schools (recorded interview, August, 2012)

Abstract

As options for education become more comprehensive and ubiquitous, and learners and their families exercise greater choice with respect to what they study (where and how), the need will increase for considerable sophistication in self-assessment and self-monitoring as routine behaviors in the course of living and learning.This phenomenon is already occurring in colloquial health maintenance practices in which lay persons have considerable understanding of some acceptable and unacceptable indicators of good health and enjoy the ability to self-monitor and exercise agency in the conduct and management of health maintenance.

In this paper, inspired by Shulman and Gordon's speculations, we make the case for future cultural practices through which lay persons, as well as educators, enjoy reasonably sophisticated understandings of educational assessment data and processes.We will outline our best estimates of where education is going, where it needs to go, and, therefore, what may be needed from educational self-assessment during the 21st century.Some essential characteristics of such cultural practices are specified in the form of recommendations on educational self-assessment designs and applications that meet or exceed current and predicted future demands and needs of individuals and society.

Introduction

Many researchers hold that static, rigid perceptions of what constitutes intelligence and the overwhelming influence of our Industrial-corporate economy have generated a factory, business-like template of what constitutes education (Gordon & Gordon, et al. 2011; Shurtleff, 2011; Torre & Voyce, 2008; and others). That is what governs how we perceive, structure, and follow through on the whole of public education. Perceived in this manner, the logical paradigm for assessing and evaluating what students know, understand, and or are able to do is the, continuously debated, procedure of standardized testing. However, "new evidence shows that increased standardized testing purely for the sake of performance evaluation ignores other modes of intelligence (see Gardner & Robinson)[1] — is now revealed to be ineffective, broken and hackneyed. We must create new tools to meet the future needs of our young people" (Shurtleff, 2012, p. 4). Thus, re-perceiving learning, education, and assessment in ways that dispute such

[1] The phrase "other modes of intelligence" refers here to creative forms of self-expression not exclusive to the logical-deductive and propositional retention systems classified by traditional academic learning structures. This will be expanded further in the section on *Why We Educate* with specific reference to the work of Howard Gardner (Harvard University), Sherry Turkle (Massachusetts Institute of Technology), and Ken Robinson, and some useful insights from the Collaborative for Academic, Social and Emotional Learning (www.casel.org).

restricted models, as well as, propose alternatives approaches that more closely satisfy individual and societal educational needs, is the contemporary task at hand for educators. As Shepard (2000) states:

> To accomplish the kind of transformation envisioned, we have not only to make assessment more informative, more insightfully tied to learning steps, but at the same time we must change the social meaning of evaluation. Our aim should be to change our cultural practices so that students and teachers look to assessment as a source of insight and help instead of an occasion for meting out rewards and punishments (p. 10).

Re-perceiving learning and education, in and of itself, is a daunting undertaking worthy of several book-length manuscripts. For the purposes of this paper, we will simply outline the elements that need to be present in any education process for it to be responsive to and effective in addressing human, as well as societal, needs at any given moment.

Everyday Health Maintenance Practices as an Elementary Paradigm For Educational Assessment

> Today, the majority of people know very little about medicine; most people do not even know how to be good patients: what information to give their doctors, what questions to ask, or how to make proper demands of hospitals and health care professionals. Most, in the US, are not even aware of their own rights as patients. Many doctors agree that patients should not be left alone in hospitals under the sole care of nurses and doctors, because they receive better and more timely treatment when their families are present and know how to ask for it (Torre, C., & Sabelli, H., Accepted for Publication, p. 1).

In fact, the third leading cause of death in the U.S. is medical care and hospitalization (Starfield, B., 2000).

Nonetheless, as bad as our common knowledge of health maintenance is, it is much more advanced than what most lay persons understand about the purpose, meaning, and application of educational assessment. In the United States, many have a considerable understanding of acceptable and unacceptable indicators of good health and enjoy the ability to self monitor and

exercise agency in the conduct and management of their own health as well as that of freinds and family's. For example, most people know that a fever of 102 degrees is unacceptible, needing immediate attention, even though it is just 3.4 degrees from the average. Most would know to give Tylenol® for pain, Maalox® for acid stomach, Viagra for sexual disfunction, Ambien for sleep disorder, etc. By contrast, few students and parents understand what a percentile is; what intelligence tests really measure; assessment's role in public policy and system-level change; the meaning of validity, reliability and 'standards' in different types of educational assessment; what psychometrics are; etc. Consequently, bringing students' and parents' educational assessment skills to the level of their understanding of health care assessment, as inadequate as these may be, would be a huge improvement beyond the status quo.

Ubiquitous Education

Our society is ever morphing into a, potentially, ubiquitous learning environment (ULE) (Zhao, X., et al. 2010). Because of computers, digital information, and other communications technologies, our lives are carried out in a, hypothetical, ecosystem of pervasive education and learning in which we are immersed in the learning process 24/7 without necessarily even being conscious of it. This reality has been recognized, embraced, and is having a transformational impact *outside* of the classroom. Paradoxically, however,

… most classrooms are still strikingly not a part of the information age even by the most basic of measures—students' access to digital learning content and work spaces. And when students have access to these environments, the curriculum content and student work practices are often unimaginatively conventional (content transmission, lock-step sequencing, standardized curriculum, discrete item assessment). Much 'e-learning' does not innovate in ways that the new technologies allow. (As a result,) student learning results are disappointing. (Cope, B; et al)

Nonetheless, self-assessment is still very much possible and urged because even though "e-learning" has exciting possibilities; the basis of self-assessment in daily life need not require technology or tests. During the era of trying to match readers with appropriate reading materials with formal tests and informal reading inventories, Tierney and Pearson (1983) developed a common sense approach that remains valid today and embraces the core of self-assessment philosophy. The procedure was called the "Try Out" and involved giving

an elementary school student a stack of books and asking them to browse and select the ones they liked best. Students chose what they wanted to read and follow up revealed they read and comprehended the material. In many cases, tests had indicated students were at a much lower reading level than the books they selected and, with which they were successful. These findings support our clinical impressions that, for the most part, students know more about themselves and are better at self-assessment than external assessments are at evaluating their strengths and limitations. Thus, educating students and others about how to assess their own learning, growth, and the process through which they've accomplished their goals is an effective pathway toward the development of critical thinking. By contrast, "didactic instruction makes students overly dependent on the teacher" (Paul & Elder, 2000). It follows, then, that "to the extent that our students need us to tell them how well they are doing, they are not thinking critically" (ibid.).

Assessing student learning and progress in the classroom and other traditional environments has always been fraught with serious limitations and confronted by the many intricacies of human nature and its resultant social interactions. Assessing students in the ubiquitous learning environments of the 21st century is challenged with even greater complexity and emergent societal relationships. These challenges confront every facet of the field of educational assessment, from classroom to on-the-job training. However, because of the unprecedented flood of information in today's world through which, to quote E. O. Wilson (1998), "We are drowning in information, while starving for wisdom," we need to emphasize the individual's role in assessing his/her own progress in learning. Further, as Wilson continues, "The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely" (*ibid.*). If, as Torre and Smith (2010, p. 21) claim, "These are the skills our students will need to navigate the continuously evolving process of diagnoses and strategies for achieving sustainability," then it is appropriate to explore how a culture of educational self-assessment can be created and fostered during the 21st century. Clearly, it needs to be one that promotes a systematic, meticulous, reflecting mind.

Why Self-Assessment?

Self-assessment is the process of examining oneself as a way to evaluate what we've learned, how we have grown and changed over time, how much we still need to go in order to achieve our own or society's expectations. Given the intense amount of complexity implied by Wilson and others (and experience by all of us who live and work in today's ubiquitous learning environments), exclusive dependence on teacher- or institution-driven assessment is woefully inadequate, as well as physically unmanageable. Add to this the current and growing world's population of over seven billion people, who all need to survive and thrive, and one can see the wisdom of nurturing a culture of self-assessment.

Such self-intervention would place individuals in the driver's seat, allowing them much influence over what goes into the process of assessment. It would encourage students to reflect about what they've learned and how well they've internalized and understand it; how it all comes together; how it has or can change their behavior; and what else is needed to continuously achieve their own as well as society's goals.

Additionally, self-assessment would provide student with a common language with which to communicate with teachers about their aspirations and learning objectives. Teachers would have a well-defined idea of how students perceive their own learning process and, thus, be able to help students reflect on what they have learned, as well as help the teacher focus on how to best teach individual students. It would also allow students to relate their own experiences to peers and mentors, as a way to evolve continuously toward the learning goals they consider important.

> While a major goal of student self-assessment is to evaluate their intellectual capabilities, … "it also promises to increase students' responsibility for their own learning and to make the relationship between teachers and students more collaborative" (Shepard, 2000, p. 12). By sharing responsibility, teachers obtain increased student ownership, more trust on the part of students, and greater comprehension that standards are not random or whimsical, even as they maintain their full authority (Gipps, 1999).

Shepard (*op. cit.*), further, reports on two case studies by Klenowski (1995) in which self-evaluating students in Australia and England "became more interested in the criteria and substantive feedback than in their grade per se" (p. 12). And that these same students "also reported that they had to be more honest about their own work as well as being fair with other

students, and they had to be prepared to defend their opinions in terms of the evidence" (*ibid.*). He summarizes that:

> Klenowski's (1995) data support Wiggins's (1992) earlier assertion that involving students in analyzing their own work builds ownership of the evaluation process and "makes it possible to hold students to higher standards because the criteria are clear and reasonable" (p. 30).

In summary, students in these studies move from an extrinsic stance to an intrinsic one. When this occurs, learning becomes more personal and complex, and outcomes are enhanced.

Pros and Cons of Self-Assessment

Self-assessment should not be likened to working by yourself or without help, because working in isolation, in and of itself, generates numerous intrinsic shortcomings: deficient feedback and communication; a sense of disconnectedness; confusion and self-doubt; and the like. Thus, self-assessment, of necessity, needs to have a strong interactive component akin to the concept of "learning communities." Collaboration and Interaction among students, as well as with teachers helps to engender enthusiasm, motivation, and inspiration for learning. It can also provide criticism, comments, and constructive advice that facilitate the discussion of beliefs, thoughts, and objectives, … as well as opportunities to evaluate your own learning and the experiences through which you acquired it. This last point is the heart of this paper. In brief, we want students, and society in general, to practice self-assessment as a way to "know what you know, and know how you know it", that is, to develop their own metacognition. As such, we are addressing universal needs for everyday living and learning. Therefore, approaches to the development of a culture of self-assessment need to be relevant in an extensive array of life-learning situations.

As for the role of teachers, their greatest goal should be for students to take control of their own learning and to become responsible for their own progress (Hansen, 1989; Newman, 1990). When students become responsible for their own learning, they should also become actively involved in the evaluative process. The teacher's role changes from being a judge to being an intellectual agitator. Teachers help students to ask themselves questions: "Do I really understand this?" "How does this relate to what I learned yesterday?" "What can I do to make sure I do better next time?"

Perhaps this interaction is the key difference between evaluation in the traditional sense and student self-assessment. In the first, evaluation is viewed as something the teacher "does to the students." In the latter, monitoring of learning is viewed as an interaction in which the growth of the students is being evaluated while the learning environment is being monitored and revised to meet the ever-changing needs of the student.

Glasser (1992) lauded the benefits of self-evaluative behavior by stating there are basically two types of people in the world. One group consists of those who are productive, growing, contributing members of society. The second group consists of nonproductive individuals who are actually a detriment to society. The productive group is actively engaged in self-evaluating, reflecting on their self-evaluation, making decisions such as goals, plans of action, or corrective behavior based on their reflections, and then moving forward in a growth cycle. In contrast, the nonproductive group is constantly evaluating others and assigning blame to others for their own lack of success.

It is critical that we look at our evaluative system and determine if we are providing opportunities for students to participate in the assessment process by engaging in self-evaluative behavior. Learners must not feel that evaluation is something "done to them" for the purpose of finding deficits.

This all-too-familiar model of assessment has been termed "teacher as examiner" (Britton, Burgess, Marin, McLeod, & Rosen, 1975) or what Glasser (1992) referred to as the "boss" mentality in which one is dependent on someone else to determine if a job is completed to satisfaction. This is probably the method of assessment that most of us were subjected to during our elementary and secondary school careers. An assignment was given; we completed it, turned it in, and then waited with anxiety for the teacher to "grade" it. If we were successful, we were given a good grade — if unsuccessful a poor one. If a poor grade was received, there was little or no opportunity for dialogue concerning the strengths and weaknesses of the assignment or opportunity to learn from mistakes and revise and resubmit. In essence, that assignment was a "done deal" when it was returned with a grade, and we moved on to the next task, hoping we would improve and "do what the teacher wanted." It is vital that schools change this paradigm. Assessment must be internal rather than external. Self-assessment will serve learners both in and out of schools, and carry over into their entire life span.

What is an educated person?

Before we can discuss the "what," "how," and "why" of self, or any other kind of assessment in education, we need to determine at least some initial parameters around what it means to educate and to be educated. Being "educated" has different meanings depending on time, place, culture, socioeconomic class, political orientation, and so on. All manner of descriptions, definitions, and qualities of an educated person are offered by a variety of groups, individuals, and institutions. Carl Bereiter and Marlene Scardamalia (2011), for example, state that: "Being an educated person has traditionally had two aspects, one representing academic knowledge and skills and the other representing personal qualities. … Recent future-oriented literature has shown a definite tilt toward the second aspect, … described … as "higher-order," "21st-century," or "soft" skills, "habits of mind," and "literacies" (p. 3). They, further, hold that:

> Reasons for the tilt toward personal qualities are not difficult to discern. There is the rapid growth of knowledge, which makes mastery of any subject increasingly beyond reach and renders knowledge increasingly vulnerable to obsolescence. There is the ready availability of factual information via Web search engines, which reduces the need to store declarative knowledge in memory. And then there is the general uncertainty about what the future will demand of people, thus raising doubt about the value of specific knowledge and "hard" skills and favoring more broadly defined educational objectives such as "learning to learn," "critical thinking," "communication skills," and "creativity." These, it can be assumed, will always be useful. In practical educational terms, however, this is also a tilt away from things that teachers know how to teach with some degree of effectiveness to objectives of questionable teachability. (ibid.)

This notion of education and what it means to be an educated person contrast significantly with Mulcahy's idea of a liberal education. He outlines six essential characteristic of a successful education:

1. Affirmation of multiculturalism for both curriculum and students;
2. Attention to values and service "reflecting the pragmatic value of education and its capacity to address the tensions between facts and values";
3. Emphasis on community and citizenship "pragmatic notions of community and communal conceptions of truth as knowledge";

4. Similar emphasis on higher education;
5. Education that foster cooperation between higher education and schools;
6. Reconceptualization of education in term of learning and inquiry (this has strong implications for assessment and pedagogy).

   (Mulcahy, 2008, pp. 24–25)

Bereiter and Scardamalia stress technology and the economic context while Mulcahy highlights construction of knowledge and sociocultural interactions.

Universities offer, still other, versions of what an educated person is. Below is a limited sampling. Harvard, for instance, outline the following 10 qualities:

1. The ability to define problems without a guide.
2. The ability to ask hard questions which challenge prevailing assumptions.
3. The ability to quickly assimilate needed data from masses of irrelevant information.
4. The ability to work in teams without guidance.
5. The ability to work absolutely alone.
6. The ability to persuade others that your course is the right one.
7. The ability to conceptualize and reorganize information into new patterns.
8. The ability to discuss ideas with an eye toward application.
9. The ability to think inductively, deductively and dialectically.
10. The ability to attack problems heuristically.

    (Gatto, J. T., 1992)

Princeton offers the subsequent 12 abilities:

1. The ability to think, speak, and write clearly.
2. The ability to reason critically and systematically.
3. The ability to conceptualize and solve problems.
4. The ability to think independently.
5. The ability to take initiative and work independently.
6. The ability to work in cooperation with others and learn collaboratively.

7. The ability to judge what it means to understand something thoroughly.
8. The ability to distinguish the important from the trivial, the enduring from the ephemeral.
9. Familiarity with the different modes of thought (including quantitative, historical, scientific, and aesthetic.)
10. Depth of knowledge in a particular field.
11. The ability to see connections among disciplines, ideas and cultures.
12. The ability to pursue lifelong learning.
(http://blog.lightkeeper54.com/?p=711)

As a final example, Michigan State University (MSU) articulates the following statement on one of its web pages:

> An educated person is someone who has learned how to acquire, analyze, synthesize, evaluate, understand, and communicate knowledge and information. An educated person has to develop skills that respond to changing professional requirements and new challenges in society and the world at large. He or she must be able to take skills previously gained from serious study of one set of problems and apply them to another. He or she must be able to locate, understand, interpret, evaluate, and use information in an appropriate way and ultimately communicate his or her synthesis and understanding of that information in a clear and accurate manner. (Michigan State University Cultural Engagement Council, 2004, p. 8)

An analogy that can inform the above, apparent, divergence of ideas about what it means to be an educated person, is that of the blind people who want to understand what an elephant is. By touching the elephant, each blind person describes it from his or her own perspective: a kind of boa constrictor, after touching the trunk; a tree trunk, after touching the leg; as a prickly wall, after touching its side; as a swish broom, after touching its tail; as a piece of modern sculpture, after touching one of its tusks.
It is only when we start to consider all of the individual perspectives that we realize that even if each one is correct, … each is also incomplete. To get a more accurate image of what an elephant is, we need to find ways to reconcile a tree trunk with a boa constrictor, with a swish broom, with a prickly wall, with a piece of modern sculpture. In doing so, we could get a very strange-looking elephant. Yet, as strange as it may be, it would probably look infinitely more like a “real”

elephant than a tree trunk, a boa constrictor, a swish broom, a prickly wall, or a piece of modern sculpture.

Thus, notwithstanding the apparent differences among the above perspectives (from Bereiter and Scardamalia, Mulcahy Harvard, Princeton, MSU, and others), on balance, there is clear, broad-spectrum agreement about what it means to be an educated person. Put simply, an "educated" person is someone who is able to handle the majority of everyday circumstances. Proficiencies needed to manage such demands of daily life are, thus, the qualities expected of an educated person. These are the qualities to which we will refer or imply when discussing the emergence of a culture of self-assessment.

What is the purpose of education?

The companion question to what it means to be an educated person is: *"*What needs to be done in education to generate educated persons*?"* That is to say, *"*What is the purpose of education?" As with the previous question, responses to this one are as varied as the people and institutions responding. Again evoking the elephant, Torre & Smith articulate it as follows:

> Education reflects what we do in the rest of society. Human cultures throughout history have viewed the purposes of education differently; the Spartans, Romans, and Mayans all had different perceptions. Modern day debates about education are equally diverse. When human beings consider the goals of education, they are like visually impaired people trying to describe an elephant. Each of us reaches out to touch a different part of the education elephant. One touches the elephant's trunk, another the ears, or and yet another the tail. As correct as our perceptions may be, they are all incomplete. All of us are limited in what we perceive and understand about education, its purposes, and the most effective ways to accomplish those purposes. (2011, p. 7)

Below are some proposed purposes of education derived from a diversity of Western sources (quoted in Torre & Smith, 2011, p. 4):

- *"To produce citizens."* – A previous Archbishop of York before a group of English headmasters;
- "*To gain knowledge to change the world for the better."* – The Roman Catholic Church;

- *"To develop the whole person of the student."* – The Initiative for Global Development, a national alliance of business leaders championing effective solutions to global poverty;
- *"To be the proper cultivation of the gifts and talents of the individual through the acquisition of knowledge, . . . to teach us how to give proper service to self, family, community, nation, and then to the world."* – Louis Farrakhan;
- *"To provide the opportunity for each child to grow into his or her full capacity."* – The U.S. Department of Education;
- *"Any act or experience that has a formative effect on the mind, character, or physical ability of an individual. . . the process by which society deliberately transmits its accumulated knowledge, skills, and values from one generation to another."* – Wikipedia;
- *"An educated person is someone who is wise to the world and knows and understands social graces, so as to protect other's dignity when being forthright about a given issue or circumstance"* – Conventional Latin American answer;
- *"The acquisition of knowledge, the reading of books, and the learning of facts."* – Conventional U.S. answer;
- *"To give children a desire to learn and to teach them how to use their minds and where to go to acquire facts when their curiosity is aroused."* – Contemporary U.S. answer.

Reconciling the above and other similar purposes of education, Torre & Smith propose that "the goals of education are to help us understand who we are, comprehend the world in which we live, learn to navigate our world, and leave it a little better than we found it" (2011, p. 7).

Ironically, and irrespective of the plethora of lofty purposes we set for education, we must concede that too often, our current educational systems fail to achieve these purposes. Eisenstein, for instance, claims that "If the purpose of school is that children may learn, then school is quite evidently not working" (2007, p. 316). Shurtleff (2012) holds that education aspires to impart intellectual development, reasoning, and discernment to students. Thus, "the devaluation of the Arts in education and the mechanization of how knowledge is brought to young people, focusing rather exclusively on intellectual growth and scientific process, is likely as outmoded as it is dangerous" (p. 14).

Torre and Smith propose the following explanation:
The current educational crisis is one of perception. Society has changed greatly over the past 10,000 years, but contemporary human beings have had essentially the same genetic make-up throughout our quarter of a million years on earth. We are biologically and emotionally suited to interact in small bands, rather than large, impersonal groups. The gap between our biological origins and today's large educational environments does not produce the learning required to sustain humanity. Bringing our educational goals and practices into line with our biological heritage will create learning environments that prepare our children to make the hard choices required for a sustainable future. …

> … We assert that the primary reason that today's educational efforts do not produce effective learning is that we humans are no longer in touch with our biological heritage. Regardless of the human culture in which they occur, educational purposes go awry when we fail to understand the biological needs that motivate and sustain our behavior as human beings. As creatures with bodies and emotions still largely like those of our hunter-gather ancestors, we humans require environments that reinforce our biological need for living in close-knit, interdependent communities in which everyone feels respected, recognized, and acknowledged. When we live and learn artificially, our institutional environments make us feel inadequate and distressed. Our biological heritage causes us to do poorly in large, bureaucratic hierarchies with one-way communication, lack of democratic processes, and dehumanizing factory or business metaphors used to organize and manage students and their schools. We cannot educate effectively using strategies and techniques that go against the grain of those we are trying to educate. For our children to understand themselves and sustainably interact with the rest of the world, they need to understand that they are intimately connected with everything that surrounds them. (2011, pp. 1–5)

Thus, when developing an approach to educational self-assessment, we need to take into account the definition suggested, above, of an educated person: someone who is able to handle the majority of everyday circumstances and who also has the proficiencies needed to manage such demands of daily life. We need also have high regard for such biological human needs as respect, recognition, feeling of belonging, feeling of competence, feeling that one is reliable, and

so on, as well as bear in mind the above stated purposes of education, … especially as synthesized by Torre and Smith: “to help us understand who we are, comprehend the world in which we live, learn to navigate our world, and leave it a little better than we found it” (ibid., p. 7).

Toward A Culture Of Self-Assessment: **Students as Collaborators**

Self-Assessment Methods

How can we design a culture of learning in which students and teachers have a shared expectation that discovering what has meaning, purpose, and relevance and what is insignificant, indifferent, and trivial is a mutual, collaborative and valuable endeavor, necessary for authentic, trustworthy learning to take place? And, as Shepard asks: “How might the culture of classrooms be shifted so that students no longer feign competence or work to perform well on the test as an end separate from real learning?” (2000, p. 10).

First, we need to be aware that “improving the content of assessments is important but not sufficient to ensure that assessment will be used to enhance learning” (ibid.). Thus, we need to take into account how current practices need to change so that assessment becomes synonymous with learning.

If the goal is for students to assess their own progress, it is painfully obvious that current educational practices have not prepared them to do this easily, even with our help. Thus, if we are to shift the culture of classrooms from one of passively depending on an authority figure to tell us how we did, to one of mutual collaboration through which teacher and student consider the merits of what was intended compared to what was achieved, there is much work to be done. We can generate a shift in classroom culture by integrating the function of self-assessment into the design of our in-class activities and planning time and circumstances for reflection after assignments are completed. However, if students are not proficient at self-assessment, the whole experience can easily turn into one of futility. As Maria Montessori recognized, a century ago:

The educator must, to the greatest possible extent, limit his intervention. Yet, he must not allow the child to worry himself in an undue effort of auto-education. … We cannot create observers by saying ‘Observe’, but by giving them the power and means for this observation, and

these means are procured through education of the senses. Once we have aroused such activity, auto-education is assured. (Chapter 15)

An integral part of designing self-assessment into our in-classroom activities and allotting time for reflection after each assignment is the development of assessment criteria, against which students can critique and evaluate their work. Such criteria must be clear to understand, meaningful, and relevant to the purpose of the given task. Only then can students be expected to meet *any* criteria at all. By its very nature, self-assessment requires that, as part of students evaluating their own work, they also need to establish their own criteria defining “excellence,” “mediocrity,” “poor performance,” and other levels of performance. Thus, it is part of the teacher’s role to help students clarify and articulate the criteria they create.

It is beyond the scope of the present writing to elaborate about the “education of the senses” required to help students become proficient self-educators and self-assessors. That crucial undertaking is, perhaps, better left to a future piece focused exclusively on that task. For now, we will 1) outline some initial thoughts about how this complex endeavor can be approached and 2) emphasize some of the many forms that self-assessment can take.

Firstly, engendering cultural change can, in the best of circumstances, intimidate the bravest among us. It not only calls for thinking “outside the box”, but, rather implies not even seeing the box, … or knowing that a box exists. *Varenne*, for example, makes the argument that the state’s duty to assess performance to distribute privilege need not involve multiple choice tests, value-added models, or to even proceed through the institution of the school. For example, the media plays an important roll in informing citizens about health concerns or global warming. Parents don’t attend formal “baby training” classes. There is a need to distinguish the various functions that schools have accreted and determine to what extent they remain the best institution to grant career and other privileges (2011).

Additionally, the United States, appears to lag behind other industrialized countries. Shepard documents this clam, persuasively:

I believe that our international colleagues are ahead of us in thinking about the difficulties of making these cultural changes. Sadler (1998) in Australia, for example, writes about "the long-term exposure of students to defective patterns of formative assessment" (p. 77). Perrenoud in Switzerland (1991) notes that there are always certain students in a class who are willing to work harder to learn more and who, therefore, go along with formative assessment. But other children

and adolescents are "imprisoned in the identity of a bad pupil and an opponent" (p. 92). According to Perrenoud, "every teacher who wants to practice formative assessment must reconstruct the teaching contract so as to counteract the habits acquired by his pupils" (p. 92). Tunstall and Gipps (1996) have studied classrooms in Great Britain where teachers have developed more interactive ways of discussing work and criteria with students as a means to re-distribute power and establish more collaborative relationships with students. (2000, p. 10)

As implied above, meaningful reflection takes orientation toward the development of assessment capabilities and appropriate practice to sophisticate these new skills. Corris (2006) expands on this idea when she posits that: “This is as true for students as it is for teachers. You can best support your students in their efforts at self-assessment by providing regular, uninterrupted time for students to think about their progress” (pp. 9–10). She offers a set of sample questions teachers can use to guide their students in their reflection:

- What did I learn today?
- What did I do well?
- What am I confused about?
- What do I need help with?
- What do I want to know more about?
- What am I going to work on next?

(ibid. p. 10)

The self-assessment process allows students to interact with their own critiques and feedback from their teachers. Individual conferences with students allow significant opportunities for teachers to help guide the self-reflection skills of the students, as well as, reinforce the importance of collaborative self-assessment as a central cultural value.

Secondly, as stated above, Self-assessment takes many forms. A brief sampling can include:

- Self-assessment Checklists and Inventories;
- Student-teacher Interviews;
- Whole-class or Small-group Discussions;
- Reflection Logs; and
- Others

Such forms of self-assessment require that students appraise their work to find out what they've accomplished and what uncertainties remain. Each form must also include an adequate amount of time for students to deliberate and estimate their own evolution. What students interpret through this process provide indispensable feedback for teachers to improve their teaching. It's an excellent way to discover how students are developing and if they are learning what you are teaching.

A further sampling of the various forms that self-assessment can take is offered by the National Council of Teachers of English. The following five simple, transferable methods can be used at any point to promote reflection on learning and inform teaching:

- *Student Created Rubrics*: Ask students to contribute to the creation of a rubric that defines success. A reading response task, a multi-modal presentation, or a group discussion leads to higher levels of learning when students are included in defining success.
- *Learning Contract*: Ask students to create and agree to a learning contract at the beginning of a unit. The learning contract can define the learning goals, the "photo album" of evidence of learning, and agreed upon activities. At numerous times during the unit, ask students to revisit the contract, record new learning or muddy points and to get feedback from you or other peers.
- *Muddy Point Board*: Designate an area in the room or a board for students to pin questions, muddy points, or topics they'd like the class to revisit. Asking students to periodically pick a question or comment from the board to discuss can build student ownership of learning.
- *Nameless Voice*: Ask students to anonymously submit sample work to share with the class. Sample paragraphs on the overhead, a visual vocabulary card, or a ticket out the door quick write can all be samples of student work that the class or individual students can use. Ask students to write or discuss how the nameless voice is similar or different to their understanding.
- *Letter to a Future Student*: At the conclusion of a unit, ask students to write a letter to a future student in the class explaining what they've learned in a unit or what to do when a text is difficult or what I've learned about my own learning that might help you, etc.

Regardless of the topic, the medium provides useful feedback on student thinking and learning while promoting reflection on learning. *(retrieved*: 9-27-12 from: http://www.readwritethink.org/professional-development/strategy-guides/promoting-student-self-assessment-30102.html)

Instructional Examples of Self-Assessment

1)The K-W-L Model

Self-assessent is important because it is personal assessment. This is in sharp contrast to traditioaonl assessment, which asks students to answer questions they did not ask. Self-assessment moves learners to the realm of monitoring their own understanding and asking their own questoins anout what they have learned and what they want to learn. An example is the K-W-L (Ogle, 1989) strategy. It involves students in activating their mental schema concerning a topic, developing questions about and a purpose for exploring information concerning the area, and recording information they gleaned from the exploration that answers their questions and concern. The strategy models processes that proficient readers utilize when attempting to evaluate their level of learning from text. It may done as a small group or as an individual activity.

As with all strategies, it is important that teachers focus on the students and adapt the strategy to meet the age and instructional needs of the learners. Students must question their own comprehension. To ensure this, (Sampson, 2002) adapted the KWL to focus students from "What I know" to "What I Think I Know" (see Figure 1 for the revised model).

K What We Know	W What We Want to Know	L What We Learned

Chart Format for "Confirming" a K-W-L

What We Think We Know	Confirmed	Source	What We Want to Know	What We Learned	Source

Figure 1: The Revised Model.

2) Student Logbooks

Student log books provide a way for students to document their self-learning. For example, in the elementary grades they may document the literacy activities students are involved with and provide a record of self-learning (Sampson, Sampson and Razinski, 2004). Most important, logbooks allow students to become actively involved in the evaluative process. As teachers strive to help their students move toward independence in learning, it is important that the students engage in the monitoring of their own growth or self-evaluation. When students participate in this documentation of their language development, they are utilizing crucial metacognitive (knowing what and if you know) skills. As active participants in monitoring their own learning, students quickly become aware that learning is a lifelong activity that is not dependent on another person such as a teacher. While student log books are valuable ways for students to record information concerning their literacy activities, more importantly they provide a valuable format for teacher and student interaction when they both make comments in the logbook. As dialogue occurs, progress is seen from the eyes of both teacher and student. In

many instances, an interactive log book becomes a method of self-evaluation for the teacher as well as the student (Figure 2). Note that Vi Nguyen, a second grader, has decided to "edit" his own writing by circling words he wishes to "check the spelling on."

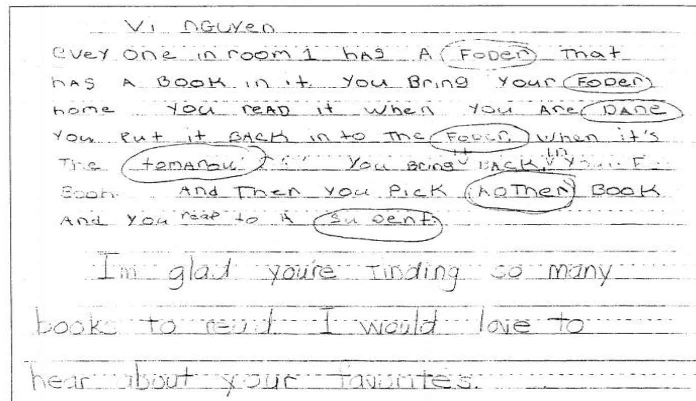

Figure 2: Student Log.

Conclusion

The research is clear; learners need to personally be in charge of their own learning and in assessing what they have learned and in determining what they need to learn. The cultural practice of U.S. schools in which teachers teach and test must make way for a shift to student self-assessment. This shift will mean that instead of teachers asking the questions, students will. And if students determine they have not learned or are confused, they may consult the teacher or other students and continue to work until learning is actualized.

Thus, it is critically important that we engage students as indispensable constituents of any process of assessment and evaluation. As collaborators in their own learning, students can secure a more accomplished sense of self, of what they know, and of how they know it. In the process, students can become more effectual and self-directed learners capable of scrutinizing and appraising their efforts, as well as, reflecting purposefully about their strengths and vulnerabilities.

As a result of such deliberations, self-assessing students are equipped to reaffirm and continuously renew their goals and aspirations. Subsequently, they are prone to develop into more mindful, intentional learners, capable of relating comprehension of their own learning requirements and modes of learning to novel experiences and situations.

Life has changed in the 21st century as digital technologies have made information more assessable and personal. But schools have changed little. Schools are failing because they operate in a contrived, artificial world. If we revise curriculums to make school learning more like learning in real life outside of school, we can make school more relevant. And the key component in this revision is to change testing from something schools do to students to something students to for themselves as they are cognitively aware of their personal learning process and how successful they are as learners.

Shulman's and Gordon's foundational work was ahead of its time. Now schools are behing the times. It's vital that we impliment a major tenent of thier work — students need to be in charge of thier own learning and assessment.

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