

FORMATIVE ASSESSMENT — IN A — BRAIN-COMPATIBLE CLASSROOM

How Do We Really Know They're Learning?

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Introduction

While I was in the process of writing this book, I was simultaneously listening to a television newscast in America regarding a group of ten educators from a major school region who were being accused of racketeering for falsifying the standardised test results of students. It appeared that the cheating practice in this region dated as far back as 2005 and initially involved 180 teachers in forty-four schools. Regional administrators were also accused of not renewing the certification of educators who refused to participate in changing students' scores. The principal of the region was also charged, but she became ill and passed away before she could stand trial. Some administrators and teachers entered into plea deals, while others were advised by their attorneys to fight the charge in court. The court cases lasted for many months, with testimony from over one hundred witnesses.

According to the newscast, the verdict had just come in for the educators. Nine of the ten were found guilty and the judge encouraged them to consider a plea deal prior to sentencing. He advised them to accept the plea deal since the specifications of the deal would not be as harsh as the actual sentence he would impose. However, one condition of the plea deal would be that each educator would have to admit their guilt. Several of the nine took the deal, while others refused to admit their guilt and were sentenced by the judge. The harshest sentences involved twenty years, with an incarceration period of seven years and the balance on probation, two thousand hours of community service and a \$25 000 fine. The most lenient sentence involved five years of probation, including one year of 7 p.m. to 7 a.m. home confinement, one thousand hours of community service and a \$5000 fine. Several days later, it was announced that the judge was reconsidering his three harshest sentences (Lowry, 2015).

Why am I relating this story in a book on assessment? First, as an educator for over forty years, I became emotionally connected to the case itself. I would

never condone what these administrators and teachers did! The judge even commented that he thought that hundreds or thousands of children had been harmed by their actions. However, I do wonder why these educators felt the need to do what they did. I am sure that this is not an isolated instance of falsifying test results. When teachers' reputations and jobs are in jeopardy, people who would never think of breaking the law may consider doing so. I had to ask myself this question: When we measure teacher performance by student assessment data, are we putting so much pressure on educators today that teachers see no alternative other than to cheat to get the results they seek? In the next section of this introduction, we will discuss the fact that students often see test results as tangible, visible evidence of their worth and value. Could it be that some teachers experience that same visualisation?

The good news is that none of the events in the above scenario needed to have happened! It is the purpose of this book to enable teachers to put practices in place that will increase the likelihood that students will do well on teacher-made, end-of-course and standardised tests and, more important, demonstrate that they are really learning what the teacher is teaching. Should we be teaching just for high traditional test results or also to facilitate students' abilities to remember the content long after the tests are over? After all, is the latter not the true purpose of schooling?

Assessment Versus Student Worth

In the beginning of the assessment workshop I teach, which, by the way, has the same name as this book, I read aloud a wonderful story called *First Grade Takes a Test*, by Miriam Cohen (2006). Thanks to the document camera, I am even able to show my class the pictures. This is a children's book with a much deeper meaning for teachers and administrators. It is the delightful story of a class of Year 1 students who are required to take a standardised test. Most of the students find the test difficult and, in desperation, begin to do things like draw in answers since the correct one, in their estimation, is not among the answer choices. In another instance, a student named Sammy, when faced with the question *What do firemen do?* responds to another student that firemen get your head out when it is stuck, since that is what happened to his uncle who had his head stuck in a pipe. However, none of the multiple-choice answers say that, so he does not know which answer to mark.

One student by the name of Anna Marie, however, keeps telling everyone that the test was easy! Weeks after the test is long forgotten by the students, a



QUESTION 2

What Evidence Supports the Use of a Variety of Assessment Types?

There are brain theories and national studies that support the use of a variety of assessment types to tell us whether students are learning. We will consider three of them.

1. Left versus right hemisphericity
2. The theory of multiple intelligences
3. The SCANS report

Left Versus Right Hemisphericity

Early research on the brain began with the work of Dr Roger Sperry, who attempted to assist epileptic patients in limiting their seizures to just one hemisphere of the brain. He severed the corpus callosum, the structure that joins the left and right hemispheres, in those patients. He found that while they could function rather normally, patients tended to use either the left or the right hemisphere, depending on the tasks they were attempting to perform. This discovery led Sperry to conclude that the hemispheres might just have different functions.

At one time, it was believed that the left hemisphere controlled one's ability to organise, bring structure to a task, think logically and complete tasks that required one to demonstrate verbal or mathematical ability. Sounds a lot like *school* to me! We require students to be organised and structured. Standardised testing have always consisted of verbal and mathematical sections, so many students who appear to possess strengths in the left hemisphere do better on tests of this nature.

The right hemisphere appeared to control one's ability to be creative, musical, artistic, intuitive and global. Sounds like *real life* to me! My son, Chris, draws beautifully. I did not teach Chris to draw and neither did he learn it at school. He was born in real life knowing how to draw. Students who possessed strengths in the right hemisphere were more likely to excel in elective classes, such as art, chorus or band. These students did not always excel on paper-and-pencil assessments, which were an integral part of academia.

The current brain research informs our practice and relates that Sperry's theory may just be too simplistic; it is also outdated. What we know now is that human beings appear to use both hemispheres of their brains all the time. For example, there appears to be a maths/music connection in many brains. It seems that while music was originally thought to be associated with the right hemisphere, classical pianists and composers use many left-hemisphere characteristics as well. Many students who learn to play a musical instrument seem to do better in mathematics. Some countries in the world have very high test scores in mathematics. Those same countries also tend to have strong music and art programs. I have had Japanese parents tell me that they will arrange Suzuki violin lessons for their children in the hope that this will improve their academic achievement. According to David Sousa (2006), of all the content areas, mathematics appears to be the one most closely aligned with music. Music uses fractions for tempos, proportions, ratios and patterns for notes and chords, counting for beats and rests and geometry for the placement of fingers on a guitar. Yet, in the United States, the first areas to be eliminated from the curriculum due to budget cuts and increased time-on-tasks appear to be music and art since those subject areas are thought to be *fluff* and very expendable.

I received a local newspaper that told about a major school region where one-fifth of the 2012 graduating class did not graduate. The article related that of the twenty-seven secondary schools in the region, only two graduated all of the students in the senior class. Those two were an early college academy and a school of the performing arts. It became obvious why the students

Answer to Question 2

What evidence supports the use of a variety of assessment types?

There are two theories and one report that support the need for a variety of assessment types in order for all students to excel. The theory of left and right hemisphericity points to the fact that, while people may have preferences, teachers should be teaching to and using assessment types that address both hemispheres of the brain. The theory of multiple intelligences notes various ways to know things and yet only about 25 per cent of those ways are best assessed through traditional measures. The SCANS report outlines three fundamental skills and five workplace competencies that secondary school graduates should demonstrate if they are to be career ready. Only about 25 per cent of these skills and competencies are best measured through traditional assessments. The goal of all educational pursuits is for students to achieve success in school and in life. Therefore, educators would do well to remember this information that supports the use of a variety of instructional strategies as well as assessment types.