Defies Measurement
Activity Guide – Campbell's Law

Discuss the topic below and then make a presentation to the group. The presentation will be in the form of a proposal to the local school board. Using the information you learn about Campbell's Law, be sure to state the problem that currently exists in the local school or district and then lay out the proposed solution. Or, if there isn't a problem, then propose a new plan that would add something positive to the school and/or district.

CAMPBELL'S LAW

In *Defies Measurement*, David Berliner brings up the Social Science law called "Campbell's Law". In his (off-screen) interview, he says that "It stated very clearly that anytime some metric you're using takes on too much value, then it gets corrupted." Robert Crease adds to this by saying "The minute you say you're going to assess student intelligence in terms of SAT scores, then a whole industry develops around boosting SAT scores instead of intelligence, which is what you're trying to measure after all."

Here is a quote from the law:

"The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor."

In regard to the tests, Linda Darling-Hammond says, *"One of the tragedies of the school reform movement in the United States is that it has been so organized around high stakes testing. We have guided most of the reform movement based on the results of these very low quality tests that measure a tiny fraction of what really matters and drive instruction away from the most important kinds of learning."*

For discussion:

How have you seen Campbell's Law at play in K-12 testing on the national level and in your own school community?

How much value is placed on test score results in your local school or school district?

What are some ways in which public schools can avoid the pitfalls of Campbell's Law?

Defies Measurement

Activity Guide – Brain-Compatible Elements

Discuss the topic below and then make a presentation to the group. The presentation will be in the form of a proposal to the local school board. Using the information you learn about Brain-Compatible Elements, be sure to state the problem that currently exists in the local school or district and then lay out the proposed solution. Or, if there isn't a problem, then propose a new plan that would add something positive to the school and/or district.

BRAIN-COMPATIBLE ELEMENTS

In *Defies Measurement*, both Terri Elkin and David Kleine refer to the Brain-Compatible Elements when they talk about teaching at Chipman Middle School. These ten elements were developed by Susan Kovalik who translated the research of neuroscience into action within the classroom. The ten Brain-Compatible Elements are as follows:

Absence of Threat: Threat, either real or perceived, significantly restricts (or eliminates) the students' abilities to engage fully in the learning process. Instructors must orchestrate a safe learning environment free of anxiety, where no threat is present (either real or perceived) and all participants feel safe to share, learn, explore, and exist in a culture of respect. Create an environment filled with meaning to invite thoughtfulness, introspection, and the mental habit of thinking things through.

Sensory-Rich "Being There Experiences": "*Being There*" experiences are rich in sensory interaction in real-world locations where all 20 senses and mirror neurons can be activated. "*Being There*" locations anchor curriculum for students by illustrating how the concepts and skills appear in real life and how those who work at or visit the location interact with the environment and perform tasks with resources that are available to them.

Meaningful Content: Meaningful Content is determined by each learner. It digs deeply into the learner's pool of intrinsic motivation and provides focus for the ever active brain, harnessing attention and channeling effort. When the content of the material being taught is meaningful to learners, it builds conceptual understanding, and can be experienced – thus providing real-life context and engaging students in the learning process.

Enriched Environment: The learning environment should reflect a healthful, inviting, and comfortable setting providing an immersion area with many resources from which students can learn. Special emphasis should be placed on real places, people, and objects to provide real-life context for that learning. The enriched learning environment is bodybrain-compatible in that it has designated areas for further exploration of material, group work, team projects, reflection, and movement.

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Activity Guide – Brain-Compatible Elements

Movement to Enhance Learning: Current brain research has revealed that the body and mind are a partnership – one cannot be developed without the other. This has confirmed the importance of movement in a learning environment. Movement is critical to every brain function, including memory, emotion, language, and learning. Therefore, movement activates and focuses the bodybrain systems for optimal learning.

Choices: It is clear that all students do not learn in the same manner, nor do they have the same interests. Parents know this and so do teachers. In HET classrooms, students are given options (Choices) to demonstrate understanding through multiple intelligences, higher level thinking, and personality preferences so that students can master required curriculum, explore potential career interests, and acquire the skills to be lifelong learners.

Adequate Time: It takes time to extract meaningful patterns and it takes time to acquire useful programs. Enough time must be given so each learner can thoroughly explore, understand, and use ideas, information, and skills. One of the greatest gifts a teacher can give the student is adequate time to sort through the information, establish the meaning of it all, develop a mental program for using and remembering what is learned, and apply what is learned to his/her own personal life.

Collaboration: The use of the word "collaboration" (rather than cooperation) is deliberate. *Merriam-Webster's Dictionary* states: "the act of working jointly with others or together especially on an intellectual endeavor." This means working together toward a common goal – mastery. This leads toward career skills in communication and interaction for solving problems, exploring, and creating when learning or performing.

Immediate Feedback: Immediate feedback is a necessary element in the successful learning environment – both for pattern-seeking and for program-building (the two steps of the learning process). Receiving feedback that is immediate and ongoing ensures effective first learning by assembling sensory input into understandable components and allowing the correct use of what is understood as well as orchestrating the situation for students to explain to others what is learned.

Mastery: The focus must be shifted to what is learned – what the student understands and can do with it – rather than on what was taught or covered by the instructor. A focus on Mastery ensures that students acquire mental programs (step two of the learning process) to use what is learned in the real-life situations and that such programs get stored in long-term memory.

For discussion:
How have you seen any of these elements used in your local school or in your own life? What are the benefits?

What needs to happen within a school to support these elements?

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Activity Guide – Multiple Intelligences

Discuss the topic below and then make a presentation to the group. The presentation will be in the form of a proposal to the local school board. Using the information you learn about Multiple Intelligences, be sure to state the problem that currently exists in the local school or district and then lay out the proposed solution. Or, if there isn't a problem, then propose a new plan that would add something positive to the school and/or district.

MULTIPLE INTELLIGENCES

In *Defies Measurement*, Dr. Howard Gardener talks about his theory of "Multiple Intelligences". He says "We don't just have a single general intelligence, but rather a number of separate intelligences." He has said before that "It's not how smart you are, but how you are smart" that matters.

Here is a list of Dr. Gardener's Multiple Intelligences:

1) Visual/Spatial	4) Bodily/Kinesthetic	7) Interpersonal
2) Verbal/Linguistic	5) Musical/Rhythmic	8) Naturalist
3) Mathematical/Logical	6) Intrapersonal	9) Existentialist

According to Dr. Gardener, *"The intelligences constitute the human intellectual toolkit. Unless grossly impaired, all human beings possess the capacity to develop the several intelligences. There are two principal educational implications (of the MI theory): Individuation and pluralization. The first, individuation (also termed personalization), suggests that since human beings have their own unique configuration of intelligences, we should take that into account when teaching, mentoring or nurturing. As much as possible we should teach individuals in ways that they can learn and we should assess them in a way that allows them to show what they have understood and to apply their knowledge and skills in unfamiliar contexts. As for pluralization, that is a call for teaching consequential materials in several ways. Whether you are teaching the arts, the sciences, history, or math, you should decide which ideas are truly important and then you should present them in multiple ways."* If you can present material in several ways, *"you achieve two important goals. First of all, you reach more students, because some students learn best from reading, some from building something, some from acting out a story, etc. Second, you show what it is like to be an expert—to understand something really well. Think about anything with which you have a deep familiarity. Presumably you can describe and convey it in several ways. Indeed, if you are limited to only one way of conveying an important concept or topic, your own understanding is probably tenuous."*

For discussion:
Which intelligences do you feel are most developed within yourself?
How can teachers honor the multiple intelligences within the classroom?

Defies Measurement
Activity Guide – Poverty and Test Scores

Discuss the topic below and then make a presentation to the group. The presentation will be in the form of a proposal to the local school board. Using the information you learn about Poverty and Test Scores, be sure to state the problem that currently exists in the local school or district and then lay out the proposed solution. Or, if there isn't a problem, then propose a new plan that would add something positive to the school and/or district.

POVERTY AND TEST SCORES

In *Defies Measurement*, Ken Wesson says, *"If we know that family income is driving the test scores, then these are not tests of intelligence. And if we say that race and socio-economic status impact the test scores, then maybe these aren't tests of intelligence, these are tests of other factors that we don't wish to acknowledge."*

Linda Darling-Hammond adds that "*If you look at the Pisa scores, our schools which have less than 10% of their kids living in poverty are number 1 in the world. And, the other countries we're being compared with have all of their schools with less than 10% of kids living in poverty. Even our schools with as many as 25% of kids living in poverty, which is by international standards…extraordinarily high rates of poverty, rank number 3 in the world. Even our schools with as many as 50% of kids living in poverty rank above international averages in reading. But, we have a growing number of schools where more than 75% of children live in poverty. One in five of our schools now have 75% or more children living in poverty. That is an international horror. No one in other countries can even imagine how a country could allow that to be the case."*

Alfie Kohn says, *"If you tell me for a given school how many kids are on free or reduced lunch, how many kids have two parents at home, what kind of car they drive if they drive, I can predict with chilling accuracy what the average test score will be."*

For discussion:

What are the ways in which poverty can impact a student's test score?

How does poverty affect your local school and/or district as a whole?

What are some ways in which schools and districts can address the needs of students and families who live in poverty?

Defies Measurement

Activity Guide – Common Core

Discuss the topic below and then make a presentation to the group. The presentation will be in the form of a proposal to the local school board. Using the information you learn about Common Core, be sure to state the problem that currently exists in the local school or district and then lay out the proposed solution. Or, if there isn't a problem, then propose a new plan that would add something positive to the school and/or district.

COMMON CORE

In *Defies Measurement,* Anthony Cody says, "*The flaws in No Child Left Behind that were identified by the people who created Common Core, were that different states had different standards and so, as a result, there wasn't a common bar. So, the solution to that was to create a national set of standards and a national test so we can compare every state to every other state. Well, that misses the fundamental problem with NCLB, which really was not that different states had different standards. The real problem with NCLB was that it required schools to focus very narrowly on test scores. Well, Common Core does not address that. It assumes that we're still going to remain single-mindedly focused on test scores.*"

David Kirp adds to this by saying *"Common Core as a set of standards…the Common Core is a lot better than what most states have. As a set of exams…the fear is that everything is being tested from every moment, we're going look back fondly on No Child Left Behind which was just one test a year in reading in math. I mean, if everything is going to be tested and tested from pre-K on, then we are really living in a nightmarish universe.*"

For discussion:

How has Common Core effected your local school district?

What has been appealing about Common Core to parents and teachers and what problems (if any) have crept up because of it?

Is a national set of standards necessary? Is a national exam necessary?

If they are, how can they be designed and implemented effectively?