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Applying Business Productivity Tools to Educational Institutions

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Abstract

Quality measurement and outcome analysis are key components in evaluations for businesses and educational institutions alike. This paper first looks at “No Child Left Behind” and the mechanisms in place for government evaluation of school performance. Specifically, it analyzes the effectiveness of standardized testing and the implications of a “minimum knowledge threshold” on students and teachers. Next, this paper focuses on the Baldrige National Quality Award for Education and analyzes whether the Award furthers the goals of the legislation or hinders these objectives. Then, the paper studies the critiques and drawbacks both of government standards and business tools applied to educational institutions.

It is the hypothesis of this paper that while TQM measures and standardized assessments apply to and improve businesses, the application of business productivity tools to education does not equate to an ideal classroom. This paper draws on critiques of measurement systems in classrooms, and argues that the consumer-producer paradigm does not apply to education. Additionally, this paper suggests that learning should be measured by change over time rather than by standardized outcomes (as inputs cannot be held stable). In particular, this paper draws on the reality of heterogeneous student populations and talents in direct contrast to identical product specifications seen in the business sector. As students do not begin with an identical set of inputs, they cannot be judged according to standardized outcomes.

Background - No Child Left Behind

President Bush signed the No Child Left Behind Act (NCLB) into law on January 8, 2002¹. NCLB enacts the theories of standards-based education reform, which are founded on the premise that establishing measureable goals and setting high expectations can improve individual outcomes in education². While standards are set by each individual state, the Act requires that states develop assessments in basic skills to be given to all students in certain grade levels. By the 2005-06 school year, states were required to begin testing students in grades 3-8 annually in reading and mathematics. By 2007-08, schools had to test students in science at least once in elementary, middle, and high school. These standardized tests are the basis for adequate yearly progress, or AYP. Meeting AYP is extremely important “and, under NCLB, the consequences for missing AYP are substantial.”³

In an attempt to hold states and schools more accountable for student progress, Congress penalizes schools that do not reach AYP with reforms and other sanctions. Each state decides the requirements for AYP, which allows states a degree of leeway in their definition of “proficient”. According to a publication by Education Sector, an educational think tank, “the law requires states to set performance targets that schools must meet. The goal is to ensure that all schools improve their performance and have almost all of their students

¹ <http://www.edweek.org/ew/issues/no-child-left-behind/>

² <http://www.scoe.org/pub/htdocs/nclb.html>

³ <http://www.educationsector.org/sites/default/files/publications/EXPAYP.pdf>

score ‘proficient’ on state standardized tests by 2014.⁴” This is because NCLB uses students’ scores to determine whether the school has taught students well.

States have the option to create sub-groups and pro-rate the “proficiency” score, requiring different categories of students to accurately answer varying numbers of questions. Another measure of progress towards the 2014 goal is “AMO’s” or annual measurable objectives, although they are hardly ever mentioned as a deciding measure of state funding. On the other hand, NCLB requires that at least 95 percent of students participate in the state assessments in order for a school or district to make AYP⁵. Furthermore, schools must meet an “additional indicator” of academic achievement in order to make AYP. For elementary and middle schools, the most commonly used additional indicator is the school attendance rate.⁶

NCLB – Repercussions for Teachers / Districts

NCLB requires that states introduce “sanctions and rewards” relevant to every school based on their AYP status⁷. While there are no consequences for missing AYP the first year, schools who miss AYP for a second year are identified as “in need of improvement”. These schools are required to develop a two-year improvement plan and students enrolled are given the option to transfer to another school in the district that is not designated “in need of improvement”.

⁴ <http://www.educationsector.org/sites/default/files/publications/EXPAYP.pdf>

⁵ <http://www.educationsector.org/sites/default/files/publications/EXPAYP.pdf>

⁶ Institute for Education Sciences, National Assessment of Title I: Interim Report, Volume 1 (Washington, D.C.: U.S. Department of Education, February 2006).

⁷ http://www.brookings.edu/~media/Files/Programs/ES/BPEA/2010_fall_bpea_papers/2010fall_deejacob.pdf

Schools that miss AYP for three consecutive years must offer tutoring and other “supplemental education services” to students. Then, if a school misses AYP for a fourth consecutive year, the school is identified for “corrective action”.

According to Education Sector’s publication, “Corrective action involves more serious steps to improve the school’s academic performance. Steps can include replacing staff, introducing new curricula...or changing the management structure of the school.⁸” After year 5 of missing AYP, the school will be placed under “restructuring”. During this time period, the school has to prepare to make “fundamental reforms”. These alterations may be in the form of a plan for an alternate governance arrangement or otherwise modify school governance. The restructuring plan will then be implemented after the 6th consecutive year of a school missing AYP.

Schools that don’t meet AYP are also at risk of losing their federal funding. An article in BusinessWeek elaborates, stating: “under the current version of NCLB, schools have to show that all students are proficient by 2014 or they risk losing federal funding.⁹” A large number of schools are currently threatened by this possibility. The bottom line, the article explains, is that “about 80 percent of schools could lose federal funding in 2014 unless the No Child act is changed or the Administration grants waivers.” Holding schools accountable and punishing those districts who underperform has been the tactic of the government thus far with NCLB. Another tactic to improve the quality of schools has been the implementation of the Baldrige Performance Excellence Program and specifically

⁸ <http://www.educationsector.org/sites/default/files/publications/EXPAYP.pdf>

⁹ <http://www.businessweek.com/magazine/no-child-left-behind-reforms-may-get-left-behind-07072011.html>

the Baldrige National Quality Award. Efforts from these self-assessments and subsequent management reforms have proven to be substantial.

Background – The Baldrige Performance Excellence Program

The Baldrige Performance Excellence Program is a national educational program created from the Malcolm Baldrige National Quality Improvement Act of 1987. A part of the National Institute of Standards and Technology (NIST), the program was born out of a growing desire by U.S. leaders to focus on quality in an ever-growing global market.¹⁰ Baldrige, whose goal is to enhance the competitiveness of U.S. businesses, educates organizations in performance excellence and administers the Baldrige National Quality Award. According to its website, the program also disseminates evaluation criteria and provides global leadership in promoting performance excellence. Finally, the Baldrige Performance Excellence Program is renowned for its ability to facilitate the sharing of model performance practices, principles, and strategies across the country and the world¹¹.

The Baldrige National Quality Award

The Baldrige National Quality Award calls for high quality management as well as exceptional performance in organization systems and processes. Awarded to private and public institutions alike, the Baldrige Award was created in 1987 in order to recognize excellence in U.S. entities. The Baldrige Criteria for

¹⁰ <http://www.nist.gov/baldrige/about/history.cfm>

¹¹ http://www.nist.gov/baldrige/about/baldrige_faqs.cfm

Performance Excellence provide a framework for organizations to improve overall performance. The Criteria are categorized into seven distinct areas: Leadership; Strategic Planning; Customer Focus; Measurement, Analysis and Knowledge Management; Workforce Focus; Operations Focus; and Results¹².

Award recipients must have a framework that can be used as a role model for future companies, as sustainability is a key concern of the Baldrige Award. As David Garvin notes in his article, “How the Baldrige Award Really Works,” the Award is not given based on future financial success, but rather the efforts of quality teams across an organization¹³. The Award, therefore, focuses on a change in mentality within an organization; it requires horizontal as well as vertical integration of values. In other words, an organization must systematically value quality and customer satisfaction in order to be recognized by this award, rather than focusing on making a profit.

Originally only recognizing manufacturing, service, and small business organizations, the Baldrige Award has included health care organizations and educational institutions since 1998. The Award enhances competitiveness, quality and productivity in American enterprises and non-profits. By calling on U.S. organizations to improve their performance and customer satisfaction, the Baldrige Award also helps provide frameworks for struggling organizations to ameliorate their performance and quality practices. Within the past 40 years, the Baldrige Award has affected the lives of countless individuals, changing the way

¹²http://www.performanceconsulting.org/3.core_services/7_baldrige_categories.html

¹³ <http://hbr.org/1991/11/how-the-baldrige-award-really-works/ar/1>

the U.S. approaches quality management. Its reach in a single year is extremely vast, with effects rippling out to over 80 million customers in 2010. That same year, there were 83 applicants from various organizations, totaling 227,700 jobs, 1,500 work locations, and more than \$38.5 billion in revenues and budgets¹⁴. According to the Baldrige's official blog, the program generated significant profits for the economy in 2011.¹⁵ Specifically, the article explained that the net benefits associated with the program to the economy as a whole totaled \$24.65 billion, and the benefit to cost ratio for the same year was 820 to one. In other words, for each dollar spent on the program, the return was 820 dollars.

An Example of Baldrige Excellence: 2010 Award Recipient – Montgomery County Public Schools

Montgomery County Public Schools (MCPS) is the largest school district in Maryland and the 16th largest in the U.S.¹⁶ With more than 144,000 students speaking 181 languages and hailing from 164 countries, MCPS represents an extremely diverse population. According to Baldrige's profile on MCPS, about 31% of students receive subsidized meals and 13% receive English for Speakers of Other Languages (ESOL) services. With a central office in Rockville, Maryland, MCPS has over 22,200 employees and a 2011 operating budget of

¹⁴ http://www.nist.gov/baldrige/about/baldrige_faqs.cfm

¹⁵ <http://nistbaldrige.blogs.govdelivery.com/2012/02/14/a-lot-of-improvement-with-little-money-expended/>

¹⁶ <http://www.baldrige.nist.gov/PDF_files/2010_MCPS_Profile.pdf>.

\$2.1 billion¹⁷. In 2010, MCPS won the Baldrige Award, exhibiting best practices and improving key measures of success.

For instance, in five years (from 2006-2010), students reading at the appropriate grade level rose from 82% to 92%. In the same five years, MCPS was able to narrow the achievement gap by 13% between African Americans and white students. Similarly, MCPS now has the highest rate of graduation of any large school in the district. In addition to other measures, this success is in part because of MCPS's ability to "reverse engineer" the education process with the Seven Keys to College Readiness. As mentioned earlier, these successes are reflective of an integrated and unified business strategy that MCPS has adopted.

MCPS has unified their goals around performance excellence. According to the press release by Baldrige profiling MCPS, instructional services are a priority. MCPS trends in their budgetary and financial performance reflect improvements in efficiency. For instance, in 2007, MCPS spent 61.3% of its budget on instructional categories, compared to a state average of 60.6% and a comparable county's average of 58%, according to the document¹⁸. Similarly, the district's 2009 turnover rates for administrators is 3.8%, on par with the average of 3.9% for 15 of the top 100 best companies in Fortune 500's magazine.

MCPS's strategic plan, entitled Our Call to Action: Pursuit of Excellence (OCA), includes comprehensive reform efforts by defining five strategic goals.

Additionally, OCA clearly defines key performance measures and action plans, and provides alignment throughout the district. In accordance with OCA,

¹⁷ <http://www.montgomeryschoolsmd.org/>

¹⁸ http://www.baldrige.nist.gov/PDF_files/2010_MCPS_Profile.pdf

therefore, today's development workshop for teachers introduces the new faculty members to this process and familiarizes them with new quality tools to use in the classroom. The success of MCPS hinges on continued excellence and the integration of all members of the district to be unified in their vision for the schools, cascading down to the classroom level. According to the Baldrige article, "each office, department, and school has developed related improvement plans with performance measures¹⁹". With these in mind, the rest of the memo specifies key performance measures for the classroom and provides teachers with feedback mechanisms to continually improve the classroom environment.

NCLB & Baldrige

The Baldrige Award recognizes schools that make significant improvements in key measurable areas. Using the system of standardized testing to evaluate performance, MCPS has undoubtedly made strides in the past few years. Yet do these successes translate to a "good" school system? NCLB and Baldrige are under harsh criticism for their focus on standardized testing and data-driven measurements. Within this umbrella, both systems fail to encourage the best performance in students and ignore the human side of the education equation. Thus, even though Baldrige successfully reaches the goals set out by NCLB (with arguably more success than NCLB), there are many critiques with both the Baldrige method and NCLB itself, as standardized testing and measurable data do not sufficiently define "quality educational systems". The

¹⁹ http://www.baldrige.nist.gov/PDF_files/2010_MCPS_Profile.pdf

second half of this paper looks at the critiques of these programs and makes recommendations for the future of the education sector.

Striving for Mediocrity, not Excellence – Teaching to the Test

Because the government is aiming to increase accountability for schools and teachers, there is a significant emphasis on standardized tests as the key measures of educational quality. As mentioned earlier, performance on these tests is directly linked to the school's future state funding. Failure to meet AYP has serious results, and for this reason, teachers feel extremely anxious about their students passing standardized tests. This tension forces teachers to adopt a short-term vision, rather than set long term goals for their students. William Davis, in his article in the Educational Forum, explains that “practicing administrators and teachers know...that even a school that has met AYP during the preceding year is just two failing years away from sanctions, and at most six years away from restructuring” (38). This fear is subsequently reflected in teacher curricula, which stagnate both student creativity and teacher happiness in an effort to ensure that schools reach AYP.

Bobbie Solley, a professor in the Department of Elementary and Special Education at Middle Tennessee State University, speaks to this point. He writes that “given the fact that high stakes are now being attached to all standardized tests, the amount of pressure placed upon children, teachers, and administrators to perform is overwhelming.” In direct reaction to this anxiety, teachers have begun “teaching to the test”, or limiting curricula to focus standardized tests.

Amrein and Berliner describe how “scores can be made to rise by narrowing the curriculum” in their article “High-Stakes Testing and Student Learning.”

Therefore, this is the tactic that teachers most frequently adopt.

Teachers face losing their jobs if their students underperform, so they have adapted curricula to ensure success on these examinations. Solley explains that

high-stakes testing not only negatively affects motivation and learning, it also undermines the curriculum. Because of the increased pressure on teachers for their children to do well on standardized tests, the curriculum has been narrowed.

Instead of teaching skills that may encourage critical thinking, creative thought, or problem solving, teachers have focused on the types of questions that students will see on the state standardized tests. To that end, Solley clarifies that “developmentally appropriate teaching and learning practices have taken a backseat to the more focused attention on low-level skills that can be assessed easily on a standardized multiple-choice test.” Similarly, Alfie Kohn, in his book “The Case Against Standardized Testing: Raising the Scores, Ruining the Schools”, explains that “we are hurting students and destroying schools by choking creativity and forcing teachers to teach to the test.” While creativity will be addressed in later sections, the gravity of “teaching to the test” must be analyzed.

Bobbie Solley explains that “attaching high stakes to tests ‘obstructs students’ path to becoming lifelong, self-directed learners and alienates students from their own learning experiences in school’”. Furthermore, Peter Sacks, in his book “Standardized Minds: The High Price of America’s Testing Culture and

What We can Do to Change It” also discusses the dangers of test-driven classrooms. He explains in his book that “test-driven classrooms exacerbate boredom, fear, lethargy, promoting all manner of mechanical behaviors on the part of teachers, students, and schools, and bleed school children of their natural love of learning” (64). Yet if these classrooms are such negative atmospheres, why do they continue?

Dr. Joseph Pedulla, an associate professor at Boston College published his findings to this particular question in his article entitled: “What Do Teachers Think? A nationwide survey examines how state testing programs affect teachers Think.” The answer, he concludes, lies in the pressure teachers feel. Pedulla’s article analyzes the results of a 2001 survey conducted by the National Board of Education Testing and Public Policy. He analyzed responses according to the types of stakes attached to the state tests, which fell into five categories. Pedulla defines stakes for schools or teachers and for students. Therefore, the categories were high/high for high stakes for schools and high stakes for students, and so on. According to his article, 80% of high/ high states agreed that “there is so much pressure for high scores on the state-mandated test that teachers have little time to teach anything not on the test.” (44) Even more disturbingly, “overall results from the survey [reveal that] most teachers believe that their district’s curriculum is aligned with the standards measured by their state tests” (45). Solley comments on this phenomenon as well, noting that “no longer is teachers’ professional judgment about curriculum and instruction valued. It has been replaced with curriculum deemed valuable by the federal government as a

means to achieving high scores on standardized tests” (33). NCLB is constricting the ability of teachers to effectively transmit knowledge to students; instead, they are focusing on teaching to the standardized tests that ensure their jobs and the future of their schools.

Unintended Consequences – Cutting Programs from Schools

While NCLB never directly mentions arts or sciences, by making reading and math the subjects in standardized tests, they are subsequently discarding these subjects. This is seen in schools when, in an attempt to secure funding by meeting AYP, schools eliminate programs that do not relate directly to the standardized test. Tina Beveridge, author of “No Child Left Behind and Fine Arts Classes” explains that “because AYP only measures math and reading skills, schools have no incentive to test any other subjects” (5). This phenomenon is basically a generalized version of “teaching to the test” on a school level; programs that do not increase scores do not receive the funding that they need to continue. Instead of altering the curriculum to address specific lessons (like quadratic equations over differentials), schools on a larger scale have seen programs in the creative arts and sciences drop as well, since testing only focuses on math and reading. According to Amrein and Berliner, “art, music, creative writing, physical education, recess, ROTC, and so forth are all reduced in time or dropped from the curriculum when schools need to increase their scores on state tests” (70). Similarly, The Baldrige program achieves similar results. According to Savilla Bannister, author of *“A Question of Quality: The*

Malcolm Baldrige Criteria as Applied to Education,”

Portfolios that chronicle a student's development and records journaling a student's experiences in the visual arts, music, and drama are examples of data ignored through Baldrige analysis. Rather than releasing the imagination in classrooms and acknowledging the benefits of an arts-enriched curriculum, Baldrige narrows the vision, but it does so covertly - never explicitly disallowing such documentation, but in establishing a structure that makes non-comparative data inconsequential to the reporting process.

NCLB does this as well; during a time when funding is tight, schools are increasingly finding themselves making difficult decisions regarding which programs to continue funding. According to Beveridge, “As budgets are cut nationwide, the funding for non-tested subjects are affected first, because the majority of resources are directed at the areas that are tested for accountability (Schneider 2005, 56; Pederson 2007, 287).”

Another way that the arts and sciences are affected is through scheduling, or the actual allocation of time that schools dedicate to subjects separate from the standardized tests. According to Beveridge, “anecdotal evidence that the high-stakes testing environment has affected the scheduling practices of schools abounds” (5). Schools have been dedicating the time traditionally given to electives such as arts or music to remedial math or reading classes if students fail the standardized tests. Beveridge elaborates on the lasting negativity of these tactics, which, while they are cost-efficient, often damage students’ motivation in the long run. She explains that when schools use electives as incentives to score higher on tests, they are in effect telling students that “the arts do not require skill, knowledge, commitment, or work, and that as long as the student produces something, the quality of performance does not matter” (2). Describing these

classes as “fun classes” also has a negative impact on teachers, “undermining the professionalism and knowledge of any arts educator, casting them as peripheral, rather than essential, players in students’ educations” (10). Although educators believe in well-rounded students (and so do politicians in their speeches), this type of behavior by schools in no way encourages creative students. This paper argues that it is not the fault of schools, however.

Rather, it is the tactic of using standardized tests to gauge the value of an educational institution that fails to breed differentiated students. Furthermore, creating a minimum requirement instead of setting high goals, actually hinders the ultimate desires of NCLB. Because the legislation addresses the threshold necessary to pass AYP, instead of setting actual goals, teachers are forced to focus on underperformers instead of each child individually.

Focus on Key Populations

Both NCLB and Baldrige have come under fire for focusing on targeted populations rather than individual students. For NCLB, the key population is the failing students, as those are the ones who will keep schools from reaching AYP (and ultimately, will take away federal funding). John Cloud, author of an article in Time Magazine, explains

in a no-child-left-behind conception of public education, lifting everyone up to a minimum level is more important than allowing students to excel to their limit. It has become more important for schools to identify deficiencies than to cultivate gifts.

For Baldrige, however, the key populations vary. The two critical groups are the students who are below the threshold of AYP and those who are capable of

performing well on other standardized tests, like AP scores. Because the Baldrige (unlike NCLB) evaluates schools using more than one measure, emphasis can be placed on students in honors courses as well. Informal interviews with a MCPS alumna, for instance, explain that her experience in school was stressful, because educators were pushing students to take performance tests if they were intelligent. Statistics published by MCPS focus not only on improving minimum scores, but also on reaching into new brackets with AP scores and college acceptance. Yet this type of pressure to succeed may also provide negative repercussions on student health and well-being. Solley explains that “research by Glasser and Glasser (2003) indicates that stress increases the rate of aging and reduces the functioning of the immune system.”

William Jeffrey Davis, in his article ““Baldrige and Education: ‘A Good (and Popular) Methodology that is Being Inappropriately Applied’” focuses on the negative aspects of quality measurements being applied to education as well. He explains that “changes derived from the Baldrige criteria do more harm than good for student learning by forcing teachers to focus on student minorities.” Similarly, Joel Nachlas explains in his article “An Alternative View of Education Quality” that schools applying for the Baldrige Award overlook key student populations. He argues,

Another implication of using minimum competency thresholds is that we should focus on the students who need to achieve the greatest change and devote less attention to those students who start nearer the threshold. This is not what people in our society really desire, and all would find this approach to product quality inappropriate. The term acceptable competency level reminds me of acceptable quality level.

In other words, Nachlas reiterates that both Baldrige and NCLB encourage

teachers to focus on particular groups of students, excluding middle-performers from their attention.

A 2007 article in Time Magazine entitled “Are We Failing our Geniuses” addresses the reverse unintended consequences of NCLB. Because teachers are focusing so much on ensuring that students cross the threshold and schools meet AYP, little attention is paid to gifted students. The article further explains that “our education system has little idea how to cultivate its most promising students.” Teaching to the test, just like teaching to the under-performers, has long-term ramifications for our school systems. “To some extent, complacency is built into the system. American schools spend more than \$8 billion a year educating the mentally retarded. Spending on the gifted isn't even tabulated in some states.” NCLB forces schools to direct their attention to low-performing students, rather than nurturing those with the highest potential to learn.

A Lack of Humanity – Ignorance of human variability

Another major criticism of Baldrige and NCLB is the assumption that all students are the same. According to Arif and Smiley, authors of “Business-Like Accountability in Education”, “instructors do not get the same type of raw material at the beginning of their class or semester. Students come with different strengths and weaknesses” (743). Davis argues that Baldrige (and other business initiatives) have come under fire “for classifying students as raw material just as inputs are for factories, casting aside the academic, linguistic, ethnic, and social differences that might exist between them in reality and

promote or inhibit learning” (38). Setting a standard measure for students assumes a homogeneity that simply doesn’t exist in student populations.

According to Nachlas, “even within population groups that are considered relatively homogeneous with respect to cultural or ethnic composition, substantial variation in initial knowledge and in potential for development has been observed” (740). Comparing students to one another in a manner similar to products on a product line fails to recognize the individuality of each and every unique student. Nachlas recognizes that “it is important to avoid a one-size-fits all approach to the design of instructional programs” (745). Similarly, Baldrige is criticized because of its tendency to use year-to-year data. According to Banister, “corporations may be able to control variables and streamline their processes to manufacture a product more efficiently [but] classrooms...are full of unique individuals who come and go with increasing frequency.” While the Baldrige Award does improve processes, this doesn’t correlate to improving student learning. Arif and Smiley recognize the impact that Baldrige can have, while simultaneously noting it’s limitations. They write

this article recognizes and maintains the quality of non-instructional services can definitely be improved using Baldrige criteria. However, the varied nature of student populations...do not leave room for exhaustive data collection and statistical analysis.

Another aspect of homogeneity is on the part of students as a “product”. Arif and Smiley explain that “the Baldrige Award criteria assumes that the quality of the product coming out of the educational setting can be regulated as the quality of a product comes out of any other industry.” Part of the reason why data collection

and “product” standardization is not applicable to educational institutions is because of the limitations of teaching as a profession. Teachers require fluidity and creativity that is stifled by both the Baldrige and NCLB.

Creativity / Fluidity under NCLB and Baldrige

“Teaching to the test” and other alterations of the curricula by NCLB severely limit teacher’s abilities to be creative and fluid in their lessons. Walpole and Noeth, authors of the ACT Policy Report entitled “The Promise of Baldrige for K-12 Education” explain that critics of Baldrige “fear...that factors such as a love of learning and the enhancement of curiosity – considered by many the most important outcomes of education – are in fact not measureable.” Therefore, they are ignored when applying for Baldrige Awards or making AYP. Furthermore, Banister explains that “viewing educational practices more artistically and less scientifically promotes an emphasis on the complexity of human interactions and values diversity.” Adopting a one-size-fits-all model, (as explained earlier) fails to recognize how unique each student is and instead forces a single way of teaching.

Similarly, Baldrige, by emphasizing alignment and data collection, doesn’t allow for the flexibility innately necessary in the educational system. Bannister explains that

The most recent findings of the United States National Research Council concerning teaching and learning support the need for fluidity, rather than rigidity, in creating optimal learning environments ([Bransford, Brown et al., 2000](#))...The Baldrige model, as realized at Washington Elementary, did not support these directives.

Baldrige claims that their framework allows for creative processes to ensure positive results. Yet research like Bannister's disproves these myths. Davis expands by explaining that "the Baldrige criteria narrowed the vision of educators by standardizing the majority of their tasks, therefore strangling their creativity in the classroom." Not only are student populations continuously changing, but individuals need a continually shifting teaching approach in order to address all concerns throughout the day. Arif and Smiley explain that "in order to address different student needs, their instructors might have to change their styles continuously" (739). Furthermore, even if educators adopt a standardized model, there is no way to hold constant student reaction or growth. Davis explains that "subjected to uniform processes, [students] react and learn in very different ways."

Another limitation of Baldrige in relation to teaching is the feasibility of data collection in addition to all the responsibilities already imposed on teachers. Arif and Smiley explain that "classroom environments do not leave room for exhaustive data collection and statistical analysis, unlike the factory and industrial models on which they are based" (739). Furthermore, Davis writes that "administrators and teachers [are already] 'overwhelmed with the amount of bureaucratic 'hoop-jumping' in their lives', with Baldrige initiatives producing additional and unwanted meetings, surveys and jargon." In light of the difficulty collecting data and applying it to students, Arif and Smiley reach an important conclusion. They state that "the rigid framework imposed by the Baldrige Awards

might be counterproductive to academicians who rely on creativity, feedback and intellectual exchanges as a part of their repertoire” (738).

Educators must be flexible and responsive to student needs, while simultaneously tracking progress and inputting data under a Baldrige system. Yet students are not generalizable; Arif and Smiley explain that “data should not be generalized for the entire system. Rather, it should be kept specific to a smaller sub-system for different instructors in different classes” (740). Additionally, Banister emphasizes how standardization is not useful for education. She writes that in classroom without these rigid guidelines, “rather than expecting and emphasizing standardization in education, we become freer to experiment, create, and celebrate the many ways people can learn.”

Business ≠ Schools

This section of the paper addresses a core question: can business productivity tools successfully be applied to educational institutions? The resounding answer from the field is, no. According to Walpole and Noeth, “many educators have criticized the application of quality principles to education as inappropriate. Much of the criticism has focused on applying a business model to education.” Although the Baldrige Award improves processes, critics argue that people are simply not processes – they have too much variability and idiosyncrasies. Walpole and Noeth explain that “education cannot be mass-produced; it must be an individual, student-centered process” (2). As previously mentioned, alignment and data collection help reach goals for standardized test

goals, but not for the development of students into lifetime learners or creative individuals. Davis explains that “the quality movement was predicated on the idea that educators controlled the quality of the end product of education. However, given the fact that the level of incoming students varies greatly,” educators do not have control in the same sense as businesses do. “Students are simply not raw material”, just as they cannot be considered the consumer of the education system either (Davis).

Theoretically, the application of a business model to an educational institution also creates “the wrong paradigm”. Davis explains that “when education and business overlap, the most common clash involves competitive paradigm.” Students aren’t consumers that teachers need to serve, as in a restaurant or hotel. Walpole and Noeth explain that “while some educators define students as consumers, many educators strongly resist seeing students in this way and believe that students’ wants may be quite different from students’ needs” (8). Analysts then wonder, “who are the real customers of education?” Nachlas answers this query, stating: “the reason that none of the definitions of the customers of an educational organization fit well is that the server-customer paradigm is the wrong paradigm.”

Another critique of Baldrige being used in schools is its focus on outcomes rather than procedures. The flexibility that supposedly allows for teachers to use their own methods to improve scores actually is viewed as a weakness by scholars. Walpole and Noeth explain that

although most districts reported a focus on improving processes such as teaching and learning, districts did not describe the plans or procedures

for doing so; Horine et al. call this a 'weakness,' implying that the key educational processes of teaching and learning were unaffected [by implementing Baldrige Award mindsets]. (8)

As previously mentioned, teachers are also not prime candidates for business techniques because they are already overwhelmed with their jobs. Walpole and Noeth explain that “teachers spoke of improving the quality of processes as a task separate from their teaching...[T]eachers often focused on discipline and classroom management processes...rather than on improved teaching and learning” (20) Furthermore, teachers are not trained to think in a business mindset. Walpole and Noeth explain that “teachers reported making decisions based on intuition, not data” (12).

Recommendations and Conclusions

Scholars suggest that educators should be cautious when adopting business models to their institutions. Walpole and Noeth explain that “there is clearly a need for more information and data regarding the efficacy of implementing Baldrige in K-12 education” (20). While the outcomes in respect to NCLB have been clearly displayed with MCPS, educators feel discomfort in the fact that the processes are not clearly outlined. As previously noted, there is also a disconnect between business tools and teachers. Walpole and Noeth explain that “until such information and data are available...Baldrige [should be involved] on an introductory or pilot level” (23). In other words, rather than having the entire country embrace this mindset, certain districts or states should instead consider adopting the model.

Walpole and Noeth also recognize that “improvement efforts may require years to demonstrate their efficacy and are often problematic in environments of short-term accountability” (14). To that end, AYP as a measure of school success is completely unacceptable. In addition to forcing teachers to adopt their teaching methods and curricula, it doesn’t allow for true improvements to be made.

Teachers need to be free of the pressure that is currently being placed on them in order to maximize their efficiency as promoters of life-long learning. This is not to say that teachers shouldn’t be held accountable, rather that “accountability” is a business term whose place is not in the education sector. Making teachers “accountable” for student progress is equating students to products or processes that are completely manipulated by teacher input.

This model fails to recognize the variability and uniqueness in each individual student. Nachlas calls for educators to “abandon the incorrect paradigm that the student is the consumer in education.” Furthermore, educators must recognize that the process of teaching does not correlate to the outcomes of learning. Even with standardized teaching mechanisms, students react to these lessons differently, understanding the lessons with respect to their own potentials and capabilities.

One recommendation adopts the emphasis on leaders from the Baldrige model and applies it in a different way. If leaders are trained to be in constant communication with teachers about their processes, rather than trying to streamline them, they may be able to change the way that teachers approach their classrooms. Leaders in the schools have the opportunity to engage their

teachers in more meaningful ways, including trainings and individual meetings. Instead of focusing on the bottom line of AYP, however, leaders and teachers need to focus on the change in knowledge children demonstrate over time.

For this reason, this paper suggests a new way of measuring learning. Instead of using standardized testing to measure student growth, teachers could use before and after tests to gauge the progress of individual students. This way, the school systems would be aiming to maximize student potential rather than focusing on the minimum competency threshold. In this way, gifted students and other “middle” performers will not be ignored; they will be valued based on their own unique talents and potentials. Solley explains that “organized, classroom-based assessments can inform the teacher about individual students’ needs as well as offer ideas about modifying instructional practice.”

In light of the effect of NCLB on the arts and music, Beveridge lists a number of solutions. Most importantly, however, she explains that more research needs to be done on the long-term effects of NCLB. As previously mentioned, there is significant debate surrounding the legislation, and research is required to measure whether or not students are truly benefiting from it. Nachlas supports this initiative, stating that “most of all, sensitive and more thoughtful examination than those done in the past of how to enhance teaching effectiveness should be conducted.” In the meantime however, Beveridge explains that it is important for arts teachers to learn how to grant write in order to lobby for more funding for their particular programs. Even if NCLB doesn’t recognize the arts as a core competency, Beveridge argues that arts teachers should fight to have it included.

The ultimate lessons from Baldrige and NCLB are that more information is needed, and that current research suggests that these programs may be failing our students. NCLB's emphasis on AYP has detrimental effects on teachers and students alike, and Baldrige's emphasis on alignment and outcomes ignores the human aspect of the education process. Both approaches to education fail to recognize the variability in student learning and force teachers to adopt methods that do not best serve our students. Individualized testing measures addressing the amounts that students learn and grow based on their own potential may be more effective ways of measuring student learning. Reading and math should not be the only core competencies, as students should also have an understanding of arts and sciences. The United States wants to raise students to be creative thinkers who can address today's problems; without teaching critical thinking or allowing for flexibility, educators are stifling their potential and hurting the future of the country.

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