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Cui Bono?

"Cui bono?" means in Latin "to whose advantage?" or "who benefits?" as a determinant of the value or the motivation of an action. In the implementation and the evaluation of an educational change or reform, "cui bono?" becomes a central question for those effecting change, those affected by it, and those studying it. One may easily answer, "Of course, it's obvious, the children—the students—should benefit from school or any change in schooling. That's why we have schools, right?"

Certainly and simply, almost all efforts to improve schools have at their core an intention to benefit the children for whom schooling is based and to whom these efforts are directed. Age-graded classes, the organization of junior high schools, vocational education, life skills, whole language reading programs, social studies curricula, cooperative learning, and decentralized management are a few examples of the many reforms attempted or accomplished within schools during the past one hundred years with the primary intention to improve the learning of students.

But as vital as student learning is to the purpose of schooling, it is by no means the sole determinant or reason why we have schools. The state has social, political, and economic interests in the schooling of its youth, as do those individuals who are personally and financially invested in schooling, such as parents, community members, teachers, school administrators, and so forth. As each of these roles is considered, the analysis of "cui bono?" in schooling becomes increasingly complicated.

Nor does the benefit analysis of schooling become necessarily simpler by reducing the unit of size to that of the classroom. An instructional change implemented within a classroom may benefit only one group of students within the overall class while having no effect upon the other students or even having deleterious effects upon some students in the class. For example, learning to read by the phonic method has clear advantages for the auditory learner, but what effect does it have upon the visual or kinesthetic learner? The inclusion of exceptional children into the regular classroom has been proven to benefit the academic learning of these children, but what about the academic benefits for the other children?

Determining who actually benefits from schooling and educational change is a much more complex task than it first appears. The question, nonetheless, is of critical importance in the study of school reform in general and in the study of the Johnson City schools and community and of outcome-based education in particular. Since the first principle of ODDM and OBE states that "all children can learn," thereby establishing children and their learning outcomes as the foremost purpose of schooling, the analysis of both the intended and unintended consequences in efforts to achieve this goal is primary.

As defined by Spady, outcome-based education means using "clearly defined outcomes for all students" within the school's curriculum, measurement, and reporting systems; organizing instruction based upon the "performance capabilities and learning needs of students"; and modifying this instruction to enable all students to reach outcome goals, according to the results of "documented student learning."[1]

Similarly, the philosophical principles of Johnson City's ODDM state that "an essential function of schooling is to ensure that all students perform at high levels of learning and experience opportunities for individual success."[2] In both OBE and ODDM the student is identified as the major beneficiary of the outcomes. Increased student learning and success are defined as the primary outcomes.

But which student(s) will benefit from OBE? School learning in almost all situations involves groups of students rather than just one student. Within a class or group of students, how many will benefit from OBE? According to the principles of OBE and ODDM, *all* students will benefit. But what does this mean? Does it mean each student within the class—i.e., all—will demonstrate documented increases in achievement?

If the consequences of OBE match its intentions, then *all* students are expected to achieve an explicitly stated outcome goal; or as in ODDM, *all* students will perform at high levels. In each model, a verbal commitment is made to each student (and thus to all students) that a predetermined level of learning will be achieved by each and all.

Here again, one may easily add, "Of course, we want all students to learn and all to achieve at certain levels. We expect everyone to achieve in American schools." But, as we also know, many children in American schools fail subjects, grades, or courses; score below grade level on achievement tests; and finally drop out before graduation.

The extent of the failing, poor, or mediocre performances of American students has led critics of the American system to cry that our schools benefit only the top 20 to 30 percent of those children who enter the schoolhouse door.[3] They compare our weak showing with the performance of the Japanese who

> achieve their extremely high average level of academic performance by taking great care to see that their weakest students do well. As they have often claimed, they have "the best bottom 50 percent in the world" educationally—and virtually no dropouts.[4]

Proponents of OBE and ODDM make claims similar to those of the Japanese in that even the weakest students will achieve the expected outcomes. In making these claims, they challenge a fundamental belief within the American education system: the belief in the bell-shaped curve, the graphic representation of the distribution of random student intelligence and of achievement.[5] Instead of believing that student achievement will closely follow the bell-shaped curve of student aptitude or intelligence as measured by standardized tests, they propose that the amount of achievement can be increased for almost every student in defiance of his or her measured intelligence.

Educational psychologists who are proponents of the use of standardized tests to measure cognitive capacity and achievement hold that the visual representation of the statistical distribution of student cognitive aptitude and achievement will follow a normal probability curve or a bell-shaped curve when there is a uniform or "equal" opportunity to learn and a uniform or "equal" quality of instruction in a classroom of randomly assigned students.[6] According to the proponents of standardized tests often used by schools, such as the Wechsler Intelligence Scale for Children and California Achievement Test, the distribution of student aptitude or achievement scores will

be documented by a bell-shaped curve with its highest point over a designated mean score.

However, OBE and ODDM advocates maintain that if the quality of instruction is adapted to the learner's needs, if the time needed to learn is provided, and if a student is motivated, *all* students are able to achieve to a certain level of knowledge and skill for each grade level. In the implementation of this reform, the student distribution of achievement on specified learning tasks can best be visualized, perhaps, as a vertical line of string hanging above that point or score that is considered mastery of the skill, knowledge, or task.

In the gradual reform of its entire system, grades K–12, the teachers, the administrators, the school board, and the parents of the Johnson City schools changed their beliefs about the so-called normal distribution of achievement among students as that represented by the bell-shaped curve.

To understand why and how these beliefs changed, and thereby facilitated the implementation of an instructional change with the possibility of benefiting all children, the work of Seymour Sarason is useful. In his book, *The Predictable Failure of Educational Reform*, Sarason states there are "two kinds of basic understandings or problems that should inform implementation" of educational change.[7]

The first of these two understandings is what Sarason loosely terms the *theoretical*, which is

> the weaving of a conceptual framework that makes sense of your ideas—that is, their interrelationships, the "real world" context from which they arose, their connections with the ideas and efforts of others, the different weights you assign to this or that factor. It is a framework in the present that has a past and a future direction.[8]

In Johnson City, ten years passed from the point of the initiation of an instructional practice in eight elementary classrooms that challenged traditional belief in the bell-shaped curve of student achievement to the unified, coherent articulation of the reform framework, which first appeared in 1982 and later became ODDM. The weaving of the conceptual framework underlying ODDM took time, as did the continuous process of making sense of the ideas and beliefs of superintendent and the central office staff, of the teachers, of the parents, and of the community as they meshed with each other, the "real world," and the "ideas and efforts of others."

The "ideas and efforts of others," the research that undergirded Johnson City's instructional change, originated in Bloom's Learning for Mastery model.[9] If, when needed, differential instruction was provided to students, then almost all students could achieve mastery of the predetermined level. Only those students who were unwilling and refused to learn would not achieve mastery, and they possibly could become motivated through programs directed at motivation. In effect, the implementation of the mastery learning strategy in a classroom could push to the right the achievement of 95 per cent of the students in the bell-shaped curve of the random distribution of "ability," boosting almost all to attainment of the task, knowledge, or skill.

Mastery learning promised that a huge portion of students who under traditional school circumstances had mediocre, poor, and even failing grades, could, with enough time and quality instruction, achieve at the "B" and "A" level. It maintained that under the right conditions, almost *all* students could learn and achieve at mastery levels.

Ideally, Americans may want this for all students in our schools. Where it becomes problematic is in the public and personal investment of the financial resources to provide "enough time and quality instruction" for this to occur and in our ideological commitment to a meritocratic and competitive society where there are striking variations in the socioeconomic status of different segments of the American population. Assuming that each student will persevere in the effort needed to learn, the amount and cost of resources to be invested in the process are not established or described in this model. But, even if money were not a salient issue in schooling, are we, as Americans who live in a competitively structured society, really prepared to allow students from every socioeconomic station to achieve mastery at the "A" or "B" level? Do we really believe that *all* students should be guaranteed to benefit to an established level in American schooling and society?

Several underlying factors predisposed the Johnson City schools in the 1960s and 1970s to support programs that proposed to lift the bulk of its students to high levels of achievement, providing a receptive environment in which this "theoretical" change could take root.

The reasons for its appeal to many within the Johnson City schools and community can be sought in Sarason's second explanation of what is necessary to inform the implementation of educational change. Sarason terms this the *social-institutional context*, i.e., the

> structure, implicit and explicit rules, traditions, power relationships, and purposes variously defined by its members. It is dynamic in that it is characterized by continuous activity and interchanges both within its boundaries and between it and its community surround. It is a context that can be described, but it is not a context that can be understood by what we ordinarily mean by description. It has covert as well as overt features.[10]

Sarason warns that only by understanding this context is it possible to implement changes that will result in replication of an educational reform rather than in superficial imitation, which he calls "sloganeering and advertising, an imitation of surface phenomena devoid of substance."[11] Only by carefully investigating the subtle interrelationships of the "theoretical" and the "social-institutional context" of the school and community are we able to determine what knowledge, beliefs, values, and relationships of both the schools and community of Johnson City permitted the planting of a change that benefited the bulk of its students and pushed them to the right of the midpoint of the bell-shaped curve.

Refining Sarason's description of the social-institutional context further, Cuban delineates two overlapping contexts within the social-institutional context that shape an instructional change. Cuban first describes the outer context, consisting of the "long-term cultural beliefs about the nature of knowledge, what teaching and learning should be, and the ethnic, racial, and social backgrounds of the children attending the school."[12] This mixes with the second inner context of "teacher beliefs and occupational ethos" to influence the form of a change in schooling, and determines whether it will become a fundamental or incremental change.

The social-institutional context with its overlapping layers is designated by Gerald Grant in *The World We Created at Hamilton High School* as the family mix and "the cultural ground." Grant defines the "cultural ground" as

> the deep ground influencing the forms of socialization in the family and attitudes toward schooling. Patterns of culture shape the actions of teachers and school officials, enhancing some policies and frustrating others. We are seldom aware of how much our culture has taught us until we leave it.[13]

Here, in this context, in the cultural ground of the knowledge, beliefs, and values of the children, the staff, and the community of

Johnson City, we begin to understand why this conceptual framework of mastery learning took hold so firmly and comprehensively, and to understand what may be necessary to replicate such an instructional change in other schools and communities. As we fold back the outer layers of schooling, we find the stuff that comprises the cultural ground of Johnson City and how this stuff has been shaped by the corporate ethos of the Endicott Johnson Corporation and International Business Machines, the two major economic forces in this community and area. Each corporation, although very different in the type of product it manufactured and the type of worker it employed, exerted far more than an economic influence upon the values of this community. Each corporation shaped the social and political values of the community and formed the basis for the instructional changes that promised to benefit all, rather than some, of its students.