Current Teacher Accountability Measures Are Wrong: What We Should Be Evaluating Instead

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October 16, 2014

Abstract

Imagine that a strategy to improve the quality of medical practice was to remove doctors whose patients are more likely to die. For example, doctors who specialize in oncology, cardiology, and geriatric care would be soon be eliminated because of their higher patient mortality rates. This strategy would further result in an overabundance of pediatricians and in a shortage of medical doctors to treat patients with cancer, heart problems and who are older. Yet, a similar strategy is now being considered for improving the quality of education by removing teachers whose students' academic achievement is less than those of other teachers. This strategy would further result in loss of special education teachers and teachers of students who come from lower income families. This would harm more students, just as more patients would die if this strategy were followed in medical practice. Such a strategy is clearly irrational and will do more harm than good.

Another Metaphor

In today's political climate there is considerable talk about terminating employment of poor teachers as a means to improve the quality of our schools. Through an empirical statistical procedure called *value-added modeling*, teachers whose students achieve less than those of other teachers would be fired. To use a different metaphor, this would be similar to a strategy where chefs in a restaurant are fired because they do not *add value* in terms of profitability.

To continue the metaphor, imagine that you sit down for a meal in a restaurant. A more holistic evaluation of the restaurant could consider 4 dimensions of quality:

1. *Content* of food to be served (e.g., menu items; nutritional value of ingredients; dietary balance; quality of ingredients),

2. *Context* of the restaurant in which meals will be eaten (e.g., comfort of seating; cleanliness of facilities; dining atmosphere; adequacy of food preparation area, food storage, and waste disposal),

3. *Process* of experiencing the dining event (preparation of meals by chefs; timeliness of courses served; customer consumption of food and drinks; service provided by waiters), and

4. *Outcomes* (e.g., satisfied dining customers with no subsequent food-born illness; tips for waiters and payment for meals by customers; sustainability—sufficient

numbers of returning and new dining customers to stay in business; retention of competent restaurant staff).

All of these dimensions of quality are important. For example, it would be shortsighted to focus solely on the quality of chefs without consideration of the choices on the restaurant's menu and the quality of its dining environment. There are many reasons that customers might not come to the restaurant: they may not like the choices available on the menu due to high caloric content or to omission of vegetarian or seafood entrées; they might not like the dining atmosphere in the restaurant because it is dirty, noisy, smoky, too warm or cold, and uncomfortable seats; patrons could be dissatisfied with the service by waiters; and they could find that the meals are too expensive for their dining budget. Yet chefs could be doing a good job preparing meals.

In short, we could have excellent chefs in this particular restaurant who can prepare excellent meals, but customers could be dissatisfied with other aspects of the restaurant. So would it make sense to fire the chefs if the restaurant is losing money? This is not rational as a strategy for improvement.

Now, instead of dining in a restaurant, let us turn to education.

Would it make sense to get rid of teachers solely because their students are not meeting academic standards? Yet, this is the conversation going on in many state departments of education in the U.S. who are concerned about improving educational outcomes.[1]

But the conversation does not stop there. If K-12 teachers' students do not meet state standards, some state departments of education are considering a similar strategy for shutting down teacher education programs where those teachers are prepared. Once so-called ineffective teachers are identified through a value-added model, then the next step proposed would be to identify the programs where these ineffective teachers were educated. If enough of these teachers were coming from a particular teacher education program, then this would be sufficient grounds for closing that program.

Surely, an incompetent chef who poorly prepares the meals could be a reason to fire him or her. But to shut down a school where the chef learned the art of cooking also seems irrational.

To continue this line of reasoning, we might want to consider the competence of the owner of the restaurant. Should the owner fire himself or herself?

Similarly, if teachers' students do not meet state standards, should we not also shut down the state department of education who licensed those teachers and the local school boards who hired them? Surely, a state department of education whose schools are failing to advance student achievement should be a sufficient reason to fire the state department. By using the very same logic for getting rid of poor teachers, state departments and local school boards should all resign if they are not adding value either.

Then the U.S. federal government could take over local school districts. Since the NCLB law will guarantee that most of our schools will fail by 2014,[2] the federal government should

[1] Cody, A. (2012), How the war on teachers is changing the profession.

also relinquish control of the schools if it too does not add value. Perhaps we should then look to the governments of Singapore or Finland whose students are faring much better on standardized tests than do those in the U.S. They must be doing something right.[3]

Perhaps this analogy will have exposed the shortsightedness of current discussions about improving our schools.

Let us now turn to a more holistic approach.

Four Dimensions of Educational Quality

The essence of education is intended, guided learning.[4] When students intend to learn and teachers attempt to guide student learning, then education is occurring.

The following dimensions of education can be assessed with respect to quality:

1. *Content*: goals of learning, design of teaching-learning activities, and resources to support those activities;

2. *Context*: environment for teaching and learning;

3. *Process*: what teachers and students do with the content in that context;

4. *Outcomes*: results of what students learn, sustainability, unanticipated side effects.

Some Examples

When evaluating the first dimension of educational quality, we can evaluate the worthwhileness of *goals* of education. One of the most basic questions ought to be: What should be the purpose of education?[5] Very little current discussion appears to be on the goals. What if we are expecting students to achieve the wrong goals?

Similarly, we can consider the *learning tasks* that students are expected to do, how they are sequenced, and task authenticity.[6] In other words, what is likely to motivate students and help them to achieve desired goals?

In the first dimension we can further evaluate curriculum resources that are made available to students and teachers. For example, the quality of textbooks used in schools should be evaluated. If the textbooks are poor, this would be analogous to a chef in a restaurant who has poor ingredients to work with when preparing meals, and a narrow

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[2] Provisions of the *No Child Left Behind* law require that any school will be considered as failing where academic standards are not met by 100 percent of its students by 2014, and will be taken over. See http://www2.ed.gov/policy/elsec/leg/esea02/107-110.pdf .
[3] See Mourshed, M., Chijioke, C., & Barber, M. (2010), How the world's most improved school systems keep getting better.
[4] Steiner, E. (1988), *Methodology of theory building,* pp. 14-16.
[5] See Steiner, E. (1981), *Educology of the free.*
[6] See van Merriënboer, J.J. & Kirschner, P. (2007),*Ten steps to complex learning.*

range of ingredients to use, including lack of ingredients that are associated with a balanced healthy diet.

When considering the second dimension, we can evaluate the environment in which students and their teachers are working. For example, if students and their teachers feel unsafe, and the school's roof is leaking and windows are broken, these contextual factors would not support teaching and learning, and instead serve as obstacles.

When considering the third dimension, we could evaluate the presence or absence of principles of instruction known to promote learning. We could evaluate student engagement in learning tasks and their success in doing them.[7]

When considering the fourth dimension of educational quality, we can evaluate the integration of cognitive, conative and affective learning outcomes as kinds of student achievement. Cognitive outcomes pertain to what students think and know, including generalizable concepts, relations and criteria; practical know-how (do procedures, adapt, innovate and create); and qualitative knowing of uniques (recognition, acquaintance and appreciation). Conative outcomes refer to student intentions—not only in the short-term, but for life—e.g., wanting to learn, to seek truth, to excel; to become a nurse, a social worker, a teacher, a physician; to own and run a business; to be a leader; to do what is right; to be rational. Affective outcomes pertain to development of sensitivity—e.g., attentiveness, immediate awareness, compassion, kindness, caring for others.

In the discussion here, my major contention is that there are many important things that are part of educational quality, not just the quality of those whom we call teachers. For further reading about what constitutes worthwhile education, see Steiner[8] and Frick.[9]

How Do We Justify Criteria for Determining Educational Quality?

If we are going to determine quality, we must have *justifiable criteria* for making such judgments. Reasoned argument is paramount for such justification. Rationality is required.

Reasoned argument for criteria should not be based on what *is*, but rather on what *ought to be*. Reasoned argument for justifying criteria should not rely solely on empirical evidence, for to do so would be to commit the *naturalistic fallacy*. For example, it does not make sense to argue that murder of human beings is worthwhile, based on the empirical fact that murders do occur.

The ultimate criteria for making such judgments must be based on initial principles that are justified by means other than empirical evidence. As an example, Plato put forth the fundamental principles of *truth, goodness,* and *beauty*.[10]

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[7] See Merrill, M.D., (2012), *First principles of instruction,* and Frick, T. et al. (2010), Improving course evaluations to improve instruction and complex learning in higher education.
[8] Steiner, E. (1981), ibid.
[9] Frick, T. W. (2012), ibid.
[10] Plato (350 BC), *The Republic.*

As another example, *beneficence* and *justice* could serve as criteria for judging educational quality. Beneficence pertains to kindness and minimization of harm. Justice pertains to doing what is right.

Kant reasoned that *justice* should be determined by the *categorical imperative*: "Act only on that maxim whereby thou canst at the same time will that it should become a universal law."[11] In other words, it is right for a person to do this action, if it also should become a universal law for everyone to do likewise. For example, one should treat others with respect, because everyone ought to do likewise. On the other hand, murder of human beings cannot be justified, when judged rationally by the *categorical imperative*.

Steiner further argued for these criteria: "The justification of the principles of *universality* (impartiality), *autonomy* (liberty), and *humanity* (rational benevolence) resides in the intuition of *rationality* as the essential characteristic of humanness."[12] To be truly free, we must become rational. Therefore the primary goal of education should be to guide students to become rational.[13]

In summary, justification of criteria for determining educational quality must be through reasoned argument from initial principles—i.e., through rationality—not from empirical fact.

Stop the Irrationality

It is not rational to try to improve the quality of education through use of so-called value-added models to identify teachers whose students do not meet achievement expectations. Many other factors affect the quality of education, and which can undermine good teaching. Most important, students have wills. While teachers should attempt to guide learning, students control whether or not they try to learn. To hold teachers accountable for conditions not under their control makes no sense.

Firing teachers whose students achieve less than other teachers is irrational. This is analogous to firing medical doctors because more of their patients do not get well, and some die—year after year—compared with other doctors. Imagine what would happen to oncologists who treat patients with cancer, for example. Or to cardiologists and geriatric care specialists.

Physicians should be expected to prescribe appropriate treatments for various patient illnesses. However, if patients themselves do not cooperate, or if other factors prevent them from getting well, then it makes no sense for holding physicians accountable. Eventually their patients will die. Many medical doctors would eventually be fired, if this strategy were followed. Worse, remaining doctors would have patient overloads, and fewer patients would get adequate health care.

Use of value-added modeling to remove teachers from educational practice will actually harm more students. This strategy will result in greater teacher shortages, especially in

[11] Kant, I. (1785), *Fundamental principles of the metaphysic of morals*, 2nd section, para. 32.
[12] Steiner, E. (2009), Ethical theory, section 13.5, italics added.
[13] Steiner, E. (1981), ibid.

lower income communities and in special education. Who will teach these disadvantaged students?

Summary

While having good teachers is clearly important for quality education, they are only part of what should be considered. Educational quality will not be improved unless we focus on multiple dimensions of education: content, context, process and outcomes. Criteria for judging these dimensions should be based not on what is, rather on what should be. *What should be* ought not be justified by empirical fact, but instead by reasoned argument. Criteria for judging educational quality must be consistent with initial principles that are justified rationally.

References

Cody, A. (2012). How the war on teachers is changing the profession. Washington, DC: The Washington Post. Retrieved from http://www.washingtonpost.com/blogs/answer-sheet/post/how-the-war-on-teachers-is-changing-the-profession/2012/01/27/gIQAbKyLWQ_blog.html

Frick, T. (2012). The theory of totally integrated education (TIE). Bloomington, IN: Monograph in Four Parts. Retrieved from http://educology.indiana.edu/Frick/TIEtheory.pdf

Frick, T., Chadha, R., Watson and Zlatkovska, E. (2010). Improving Course Evaluations to Improve Instruction and Complex Learning in Higher Education. *Educational Technology Research and Development*, *58*(2), 115-136.

Kant, I. (1875). *Fundamental principles of the metaphysic of morals* (Translated by T. K. Abbott). Project Gutenburg (2004, eBook #5682). Retrieved from http://www.gutenberg.org/cache/epub/5682/pg5682.txt

Mourshed, M., Chijioke, C. & Barber, M. (2010). How the world's most improved school systems keep getting better. London: McKinsey & Co. Retrieved from: http://ssomckinsey.darbyfilms.com/reports/schools/How-the-Worlds-Most-Improved-School-Systems-Keep-Getting-Better_Download-version_Final.pdf

Merrill, M. D. (2012). *First principles of instruction: identifying and designing effective, efficient, and engaging instruction*. San Francisco, CA: Pfeiffer.

Plato (350 BC). *The republic* (Translated by B. Jowett). Cambridge, MA: The Internet Classics Archive. Retrieved from http://classics.mit.edu/Plato/republic.html

Steiner, E. (1988). *Methodology of theory building.* Sydney: Educology Research Associates.

Steiner, E. (1981). *Educology of the free.* New York, NY: Philosophical Library.

Steiner, E. (2009). Ethical theory (Lecture notes). Retrieved from https://www.indiana.edu/~tedfrick/steiner/Ethical%20Theory.pdf

van Merriënboer, J. J. & Kirschner, P. (2007). *Ten steps to complex learning: A systematic approach to four-component instructional design*. Hillsdale, NJ: Lawrence Erlbaum Associates.