

Pitfalls and Paradoxes of Ambitious Teaching

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This issue of *Hed Hahinuch* is devoted to ambitious teachers and innovative teaching practices. We find such teachers inspirational: they push at the boundaries of our educational imaginations. We want to be like them. We want everyone to be like them. But herein lies the problem: a few exceptional individuals' great teaching is surprisingly unhelpful for thinking about how to achieve good teaching at scale.

Our argument can be summarised as follows:

- 1) Ambitious teaching requires a complex set of conditions, which in most cases are absent or highly difficult to align.
- 2) Within the current system, these conditions are largely beyond the control of individual teachers and even schools.
- 3) Setting highly ambitious goals without attending to the conditions necessary to achieve them has the unintended effects of harming the teachers called upon to achieve these goals and of fueling simplistic notions about how to improve teaching.
- 4) Enacting ambitious teaching on a large scale requires a carefully designed systemic change strategy that attends to teaching conditions, teacher learning and the improvement process.

It's important to situate the question of ambitious teaching within the context of a mass education system. The question is not "should we want great teaching?" – of course, we should and do – but rather how can we best go about improving pedagogy at scale, in other words among some 150,000 teachers in thousands of schools. Since ambitious teaching is not easy (hence, we call it "ambitious"), the question of how high we should aim is inextricably linked to questions about our capacity to change practice, and at what expense.

The dilemma of attaining expert practice across a profession comprised of tens of thousands of practitioners is not unique to education. Even the vaunted medical profession makes calculated decisions to compromise individual expertise in favour of establishing a minimal level of competency across the profession. In a fascinating discussion of the history and relative effectiveness of obstetric techniques, Atul Gawande charts the rise of the Cesaerean-section alongside the decline of the use of forceps as preferred methods for dealing with birth obstructions. To make a long story short (though we recommend reading the article in its entirety), Gawande observes that "forceps have virtually disappeared from the delivery wards, even though several studies have compared forceps delivery to Cesarean section and found no advantage for Cesarean section. (A few found that mothers actually did better with forceps.)" Why would medicine opt for invasive surgery when a well-know non-surgical technique produces equal if not better results? Gawande offers a number of explanations. First, the use of forceps is far more complicated and requires a greater degree of professional judgement and skill. Second, it is much more difficult to teach. A surgeon explains to Gawande: "With a C-section, you stand

across from the learner. You can see exactly what the person is doing. You can say, 'Not there. There.' With the forceps, though, there is a feel that is very hard to teach."

Third, and perhaps most importantly, the public health profession created a system that allowed them to begin to keep "score" on the success of deliveries: This measurement, known as the "Apgar score", changed the way clinicians thought about their work: "When chiefs of obstetrics services began poring over the Apgar results of their doctors and midwives, they started to think like a bread-factory manager taking stock of how many loaves the bakers burned. They both want solutions that will lift the results of every employee, from the novice to the most experienced. That means sometimes choosing reliability over the possibility of occasional perfection." While the forceps occasionally produced perfection (especially in the hand of particularly expert doctors), the C-Section was on the whole more reliable.

Let's now extend our analogy back to teachers and to the classroom. One equivalent of forceps in teaching – a technique that is highly uncertain, complicated, requires considerable judgement and skill – is teaching through discussion. Not the sort of "discussion" that is actually a thinly masked monologue composed of predictable teacher questions, one or two word student guesses and teacher evaluations. No, we have in mind the sort of precarious, dialogic encounters in which the class collectively tackle an authentic problem, students contribute extended turns, participants challenge one another's ideas, new, unexpected ideas are offered, all are engaged, and the teacher somehow manages to hold the whole thing together. This sort of teaching is exhilarating, and also highly productive educationally, but very difficult to pull off even in the best of conditions, and even our best teachers can't make it work every day. One of the problems of teaching through discussion is that this strategy significantly increases the demands on teachers' attention, knowledge, flexibility, and ability to think on their feet.

But teaching through discussion is not only a question of individual teacher's skill. A number of other pieces need to be in place in order to facilitate such teaching. The strategy has implications for curriculum (e.g. emphases on depth rather than breadth, on rich questions rather than stock answers), assessment (of understanding rather recall), students, classroom culture, school climate, etc. Moreover, it has implications for what sort of support teachers need in learning the strategy and improving their technique, and for how forgiving the system must be of the inevitable difficulties and even failures teachers may encounter while honing their expertise. We can readily envisage carving out a space for the development of such teaching with a select group of ambitious teachers in one or even a handful of innovative schools, and for providing intensive support (e.g. through employment of pedagogical coaches). But how could this be done across the entire system with *all* teachers? And, even if we assume for a moment the necessary changes in curriculum and assessment, where within the system can we find the capacity to support so many teachers in developing their discussion-leading expertise?

So, a reader might object, even if you can't turn all teachers into expert leaders of classroom discussion, you can at least set expectations high, opening up the possibility that at least some teachers will meet them. However, since most of the necessary conditions for ambitious teaching (e.g. through discussion) are not in individual teacher's control, promoting such practices will likely lead to frustration and shame. Well-intentioned promotion of "best practices" can quickly deteriorate into a platform for the criticism of the more "conventional" teaching of those teachers who work in less-than-ideal conditions.

An example of a more manageable way of improving teaching at scale –the pedagogical equivalent of a C-section – is increasing teachers’ provision of formative feedback to pupils – the sort of feedback that challenges pupils’ thinking, and provides them information about how to improve their learning, rather than merely evaluating their answer as right or wrong. Such a strategy is uninspiring as banner for an educational revolution, but it does offer some clear advantages, especially for improvement of teaching at scale. Formative feedback is relatively straightforward to conceptualise, see and practice. It does not require a significant departure from current classroom interactional norms, and does not increase uncertainty in the classroom. And, finally, there is an enormous body of evidence showing that increased teacher provision of constructive and appropriate formative feedback is associated with higher student achievement (e.g. Hattie & Timperley; Black & Wiliam). Moreover, improved facility with providing feedback is arguably an important step in learning how to teach through classroom discussion.

Some readers may object to our comparisons of teaching and medicine. And, indeed, the analogy has obvious limitations. Students’ desires, motives, thoughts and actions are far less predictable and therefore controllable than the responses of an anaesthetized patient undergoing surgery. Moreover, a critical advantage of teaching over surgery is that teachers get a second chance. A bungled forceps operation can injure or kill the baby; a bungled classroom discussion is rarely tragic, and may even be worthwhile if the bungler learns from their mistakes and develops their expertise. In this sense, there is nothing wrong with individuals teachers taking risks and trying new practices—indeed, it is essential for the development of the teaching profession. Yet, it is important to distinguish between the successful efforts of a handful of teachers that innovate and learn on the job (and on their own), and a well conceived and planned change process that guides teachers through to expert practice by offering appropriate learning opportunities, multiple representations of new practices, opportunities to work and learn from colleagues, and so forth.

For this reason, calling for ambitious classroom teaching can be counterproductive if we don’t also think carefully about the conditions, supports and processes necessary for making our ambitions a reality.