

Dear Jo Boaler

I listened with interest to your lecture on the dramatic consequences of the way mathematics is taught. I regret you could not deliver the lecture yourself, but it was well read by your student.

My concerns are about the validity of your study. I got my education as math teacher more than 30 years ago and what we wrote in our essays then, and what our tutors notoriously were telling us, is pretty much the same kind of teaching that you rightly are promoting. Twenty years later, when I attended some courses for a master in didaktik (as we call it) the situation was exactly the same. To be honest, I hardly know of any math teacher who disagree with you. From my point of view (which is Norway) you are attacking a position no professional is holding. I understand this is not the case in the US.

But *in spite* of unanimous agreement of what is viable math teaching *in principle*, traditional classroom teaching still exists as much in Norway as in the US, I guess. In my opinion that is what has to be understood.

My view is based on a somewhat wider space of classrooms (fig. 1) than appears in your study.

Teacher's performance \ Methods	Well conducted (or managed)	Poorly managed
Traditional teaching	A	B
Problem solving projects, inquiry..	C	D

Fig. 1

According to their beliefs most math teachers want their classrooms to be of type *C*. *But, somehow many of us retreat to position A* (hopefully not *B*).

My opinion why this happens is based on personal experience (I am a practicing teacher, not an 'educator'). We want to be in *C*, but what do you do when you realise that you've come to *D*? Improve your performance, of course – poorly conducted classrooms isn't a pleasant place to be either for students or for sensible teachers. But if you still do not make it, you simply retreat to somewhere not so unpleasant as *D*, you seek shelter in *A* (hopefully not *B*, in that case you, shouldn't be a teacher at all). In the following I leave *B* out.

Teaching is highly situated, and among the positions at disposal for a teacher (*A*, *C* and *D*) *C* are simply not available in all circumstances. Then *A* and *D* are left. So what do you do?

In my opinion this is the key question: What are the worse of *A* and *D*?

This can't, of course, be answered with one letter, but I am positively sure that *C* can be worse than *A*. In that case *A* is where a sensible teacher should go *for a while* – I do. My experience is that the *ethos* as 'traditional teacher' comes almost for free, but the *ethos* needed to conduct more free activities, projects and so on, must be *earned* – not very likely to be done from position *D*!

*C* is a demanding (and rewarding) place to be. Most teachers know where they belong and look for opportunities to get there. (Not much need to go on *telling* them that for another fifty years.)

To me, it looks like your study hit upon the two cases *B* and *C* and thereby missed the dilemma involved.

(End of arguing)

Post scriptum:

This letter came by because of a question I would have posed if you had been present today. It was not at all my intention to express my views as massive as I have done here.

My initially question was:

If I got it right, the school that practiced problem solving (.. Park) ten years ago has now stopped doing it. Do you know why?

Is *the same teacher* that taught problem solving so brilliantly ten years ago now engaged in delivering endless monologs like  $x - 5y + 3xy + ..?$  I simply can't bring myself to believe that.

Yours

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