



The head can get heavy when you're thinking!

The Thinker by Aidan Hart, iconographer, carver, sculpture, commissions include H.R.H The Prince of Wales, Hereford Cathedral and Ivrion Monastery in Mount Athos, Greece.

WHOSE FERTILE QUESTION?

Revisiting the most popular plank of the Community of Thinking platform

Adam Lefstein

Richard asked me to write a few words for the *Newsletter* on fertile questions, particularly talking about why we suggest that they be crafted by teachers. I confess that I approach this task with mixed feelings. The six characteristics of the fertile question – a question that is open, undermining, rich, connected, charged and practical – are by far the best-known and most popular tool within the community of thinking system. Indeed, in many cases, it is the only idea that has taken hold. Yet, the fact that the fertile question is the most popular tool in the community of thinking framework should give us pause. (I'm assuming readers are familiar with this comprehensive pedagogical framework, which includes theories of learning, knowledge and educational aims, instructional processes, school re-organisation, and more; but if not, please see the references in this footnote.¹) The fertile question is first and foremost a pedagogical planning tool, a way of helping teachers reorient themselves to the subject matter to be taught, to shift their mind-set from an *answering* to a *questioning* pedagogy.² But the key outcome of such a shift is not identification

or presentation of a fertile question, but the recentering of student learning around inquiry and application. Posing a question – fertile or other – without engaging the students in a serious and meaningful process of attempting to answer it completely misses the point.

So, with that reservation in mind: *Why should teachers pose fertile questions? Isn't the point for students to pose the questions?* Yoram and I often receive this question, and I believe it relates to the issue I touch on above, that the fertile question is a pedagogical planning tool, not the be-all and end-all of the process. There are a number of reasons why we have advocated teachers rather than students posing the fertile question. First, some practical concerns, and then a theoretical problem.

Following generation of the fertile question teachers need at least a few weeks to complete plans for the community of thinking process (and it's vital to know where you want to be at the end of the process before beginning it). If students generate the fertile question, when will this planning take place? And how much of the students' time will then be dominated by issues related to coordination of question, inquiry, materials, concluding performance, etc.? Given limited time – and there's never enough time once students become engaged – I prefer to focus students' attention on inquiry and concluding performances.

Second, teachers have their own particular areas of expertise and interest, and communities of thinking that intersect with those areas will be better than processes that diverge from them. Facilitating student inquiry around a dozen different research questions is difficult enough as it is; facilitating inquiry around a dozen different research questions in an unfamiliar area cannot be done well.³

So much for practical problems, here's the theoretical problem: posing a good question requires knowledge of the domain. In particular, posing an undermining



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question – one that uses disciplinary insights to call into question learner’s misconceptions – is beyond the reach of most students. By definition: a “misconception” that learners are aware of and capable of undermining, on their own, is no misconception. So, we have a catch: in order for students to pose a fertile question they need to be initiated into the domain. But, on what basis do we initiate them into the domain? We don’t want to introduce them to the domain as a series of answers to be digested, but rather to engage them with the key questions worth thinking about. In other words, in planning the initiation process, it’s helpful to have a fertile question (or two) in mind. So we’ve come full circle: in order for students to pose a fertile question teachers need to pose one first.

For these reasons, I don’t recommend that students be asked to pose the fertile question. Nevertheless, I should add that this question about students posing the fertile question points to a legitimate and important concern: how to bridge the gulf between *our* questions and students’ minds. The fact that we as teachers have experienced the sort of cognitive conflict or puzzlement that gives rise to a genuine question does not mean that our students will experience this same cognitive state through our questioning practices.⁴ The challenge is to get students to appropriate our questions, to experience them as a problem or puzzle that troubles them (cognitively). So I agree with the instincts underlying this question: we should be wary of teachers posing questions. The solution I’ve attempted to offer is to use the question as a guide for initiating students into the subject matter in such a way that they make our questions their own.

¹The framework is elaborated in Harpaz, Y. (2005). Teaching and Learning in a Community of Thinking. *Journal of Curriculum and Supervision*, 20(2), 136-157; and briefly outlined in Harpaz, Y., & Lefstein, A. (2000). Communities of thinking. *Educational Leadership*, 58(3), 54-57. Both articles are freely available on Yoram’s new web-site: <http://yoramharpaz.com/about-en/>. For the reasons outlined in this article, I recommend the former, more elaborate version.

²This distinction is explained in Harpaz, Y., & Lefstein, A. (2000). Communities of thinking. *Educational Leadership*, 58(3), 54-57.

³It can be done, of course, and often is. The problem is that then facilitation often becomes more administrative than disciplinary.

⁴This point is argued brilliantly by John Dillon (1982) in “The Effect of Questions in Education and Other Enterprises” (*Journal of Curriculum Studies*, 14(2), 127-152.).



Adam Lefstein is Senior Lecturer in Education at the Ben Gurion University of the Negev in Israel. His recent research has focused on continuity and change in classroom interactional patterns, dialogic pedagogy and teacher learning from video-recordings of classroom practice. His articles have appeared in *American Educational Research Journal*, *Reading Research Quarterly*, *Teachers College Record*, and *Teaching and Teacher Education*. Previously he worked as lecturer at the Institute of Education, University of London, and in the development and implementation of the Community of Thinking programme at the Branco Weiss Institute in Jerusalem. He is currently writing (with Julia Snell) a book for practitioners about pedagogy and classroom interaction (*Better than “Best Practice”: Developing Dialogic Pedagogy*, to be published by Routledge).

Characteristics of fertile questions

FERTILITY TEST:

An open question. A question that in principle has no one definitive answer, rather, it has several different and competing possible answers.

An undermining question. A question that undermines the learners' basic assumptions and casts doubt on the self-evident or commonsensical, uncovers basic conflicts lacking a simple solution, and requires the critical consideration of origins.

A rich question. A question that necessitates grappling with rich content that is indispensable to understanding humanity and the world around us. Students cannot answer this question without careful and lengthy research; such research tends to break the question into sub-questions.

A connected question. A question relevant to the learners, the society in which they live, and a discipline and field.

A charged question. A question with an ethical dimension. Such questions are charged with emotional, social, and political implications that potentially motivate inquiry and learning.

A practical question. A question that can be researched in the context of the learners, facilitators, and school facilities and from which research questions may be derived.

Yoram Harpaz & Adam Lefstein

I first met Adam at the 10th International Conference on Thinking in Harrogate, England in 2002, since then we have been using the fertile question and Bob Swartz's infusion of thinking skills in science, social sciences, technology and the arts. If you are working on developing a thinking curriculum in your classroom or school I would like to suggest you look seriously at using fertile questions as part of the development of skilful thinking. A unit with a fertile question challenging and guiding the inquiry and infused with a thinking skill/s is a powerful combination to engage your students in worthwhile research while enhancing their thinking skills - Editor

Examples

The Human Genome Project—a curse or a blessing? (biology)

Human beings—a product of environment or genetics? (biology)

Is Jerusalem united? (geography)

Why did the peasants obey the gentry and the church, even when exploited and oppressed by them? (history)

Is competition good for us?
(multidisciplinary)

What should we remember about war?
(history)