Socrates Is <u>Not</u> Dead! The Role of the Teacher in Higher Education Now and for the Next Ten Years

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ABSTRACT

This paper addresses the ongoing transformation in academe from traditional tutorial teaching methods to the use of new technology tools that enable a modern university to compete successfully with the increasing popularity of distance learning programs, sometimes known as the "electronic classroom." In particular, the paper maintains that teaching techniques must be expanded to include interactive methods that bring students into a more participative role. From the examples provided by the Greek philosopher and teacher Socrates 2,400 years ago, higher education has an excellent role model from which to develop these skills. Based on the comments of concerned authors, the paper holds that the transformation must be accomplished within the next ten years.

Among the challenges to successfully learning Socratic teaching methods, the paper cites several, including knowing how to ask the right questions in the classroom, how to ask those questions the right way, and how to select the students to ask without seemingly "picking on" someone. Additionally, the paper discusses the major challenge that confronts the teacher when dealing with the wrong answers that students provide.

The discussion suggests that the new technology tools available to the modern classroom, including video projectors and presentation programs like PowerPoint, enable any teacher to create interactive lectures quickly and easily. With the addition of interactive simulation software programs, a teacher can extend the Socratic method directly to the students, who will be able to develop new techniques for proposing and testing theories in simulations of real-world environments but without any risk of damage caused by "learning errors."

An additional benefit of using a Socratic teaching method is that the teacher causes students to arrive at logical conclusions about complex circumstances. Since the students actually discover or invent knowledge, they are likely to buy into their discoveries, eliminating the need for the teacher to persuade them about it.

The paper suggests the need for a balanced approach—all the teaching methods teachers already know how to use, plus the addition of a Socratic classroom style when appropriate. Effective Socratic teaching requires knowing when to show and when to tell, when to ask and when to allow students to ask questions themselves. The paper also holds that developing more interactive teaching skills can be a progressive experience, and that with the use of better tools, any teacher can learn to teach Socratically.

The final comment addresses social trends that seem to suggest an environment that is antagonistic to teachers who ask questions. But the paper concludes that these trends reflect a turning point in the intellectual lives of students, wherein they will welcome the teacher asking them what they know and think, and that more Socratic teaching methods will give students something they know deep-down that they need: a challenge to think and begin to ask questions.

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INTRODUCTION

No one can ignore the presence of new technology tools in many of today's college classrooms. But despite the effort schools have made to bring these tools into common usage by teachers, and despite the willingness of most teachers to learn how to use these tools effectively, something more is needed to complete the relationship between student and teacher that these tools are intended to facilitate.

A Transformation in Progress

The fact is that more and mores colleges and universities provide new technology tools including video projectors, presentation programs and interactive simulation software that give students a "hands on" learning experience. However, these wonderful new teaching tools were not just discovered recently and

automatically adopted by schools and teachers. Much of their implementation is in response to an ominous specter on the academic horizon—a specter that is a genuine threat to the survival of the traditional college classroom as we know it—with or without these new tools.

Most schools have begun transforming their classrooms into something more than a place where teachers read unchanged old material from dog-eared lecture notes about topics that are in constant change. Today's classrooms are much more alive than they were just ten years ago, thanks in part to the use of these new technology tools. But more strategically, traditional academe has begun to recognize the competitive challenges presented by the "electronic classroom" that offers online, video tape and cablevision courses leading to college degrees.

Through the use of technology, the basic college classroom now provides a learning environment that generates new currencies in the repertoires of teachers and the enhanced access to new knowledge sources for students and teachers alike. However, there is

one facet of this transformation that is still underdeveloped. The new tools of teaching and learning and the new knowledge sources finding their way into the classroom environment cannot be truly effective unless the teacher knows how to use them educationally. The problem is not learning how to turn them on and deliver good audiovisual presentations; most teachers have already learned this much. problem lies in the need for teachers to maintain an interactive learning relationship with students while using them. The tools are intended to help bring students and teachers together, not keep them apart; using them must not compromise the studentteacher relationship.

A Great Need

There is still a great need for teachers who know how to maintain a steady, dynamic flow of dialogue in the classroom—teachers who can cause students to think, respond and express their ideas. In other words, it is important—critically important—that teachers not allow impressive presentations to cause them to "step aside"

and simply cycle through attractive slide presentations augmented by printed handouts. Teachers must remain intellectual masters of their classrooms. Teachers must be able to conduct classroom sessions in which they cause each student to feel that s/he is "one-onone" with the teacher, and not simply a note-taking spectator. To do this, teachers must be able to use interactive verbal techniques that create an ongoing personal dialogue with each student -- and all of them -- at the same time. This is the single unique advantage that traditional classroom teaching has over the "electronic classroom."

A number of persons concerned about future trends in higher education have expressed concern that traditional colleges have about ten years in which to fully recognize the inherent advantage of inperson classroom teaching and fully develop the potential to educate people and teach them how to think.

Fortunately, we have an excellent role model for doing so--a man whose name is synonymous with academe as we know it today--who lived 2,400 years ago: Socrates.

SOCRATES: ALIVE AND WELL

Socrates lived in ancient Greece from 469 B.C. to 399 B.C. He wrote nothing. All that we know of him is what we read from Plato, Xenophon and others who knew him. He was a philosopher and teacher. In his later years, he devoted himself entirely to discussing ethical questions. His method of inquiry was to crossexamine people about their beliefs, and in particular, about ethics, since for a Greek, "wisdom" had a strong ethical meaning.

Socrates' questions would usually involve asking people the meaning of ethical concepts such as self-control, justice or courage. He found that they did not really know, or could not give a satisfactory answer. that extent he was wiser than they-he was aware of his ignorance and they were not. If we knew what justice was, then, he argued, the problems of being just would be relatively simple. quest of that knowledge, he never ceased his constant examination of himself and others.

Being cross-examined with the penetrating

thoroughness of Socrates was not an experience which everyone enjoyed. With all of his uncompromising honesty, Socrates was hardly an orthodox character, and Athens at that time had had enough of unorthodoxy. Socrates was linked in the minds of many Athenians with the skepticism and questioning of accepted beliefs which they blamed for their many misfortunes. Many regarded him as an undesirable political influence, and he was condemned to death on a charge of impiety and corrupting the young.

Socrates is still alive. His method of inquiry by asking questions and proposing hypotheses to arrive at logical causeand-effect analysis forms the basis for most academic and theological research today. Mostly through the dialogues of Plato, who was Socrates' student, we see the "Socratic" method of teaching used very effectively to cause others to discover or invent valid answers and solutions. Plato stands with Socrates and Aristotle as one of the shapers of the whole intellectual tradition of the West. He founded in Athens the Academy, the first permanent institution devoted to research and

teaching, and the prototype of all western universities. Plato's Republic was written after he founded the Academy. Much of this work involves Socrates' discussions with others about ethics as well as education. The Republic starts with a moral and political question: what is justice? But its overall thrust is, in short, a statement of the aims which the Academy set itself to achieve. Its method is a series of dialogues in which Socrates leads others to discovery of knowledge by asking questions.

Consider these passages from The Republic. Socrates is questioning Adeimantus in a dialogue about justice:

"Justice can be a characteristic of an individual or of a community, can it not?"

"Yes."

"And a community is larger than in individual?" "It is."

> "We may therefore find justice on a larger scale in the larger entity, and so easier to recognize.

I accordingly propose that we start our inquiry with the

community, and then proceed to the individual and see if we can find in the conformation of the smaller entity anything similar to what we have found in the larger."

"That sounds like a good suggestion," he agreed.

"Well then, if we were to look at a community coming into existence, we might be able to see how justice and injustice originate in it."

"We might."
"This would, we may hope, make it easier to find what we are looking for."

"Much easier."

"Do you think,
then, that we should
attempt such a survey?
For it is, I assure
you, too big a task to
undertake without
thought."

"We know what we are in for," returned Adeimantus; "go on."

"Society originates, then," said Socrates, "so far as I can see, because the individual is not self-sufficient, but has many needs which he can't supply himself. Or can you In the same manner,
Socrates deals with a
variety of topics, ranging
from education and
politics to morality,
women, art and music. In
each of the dialogues, the
"Socratic method" of
drawing knowledge from
people causes them to
assemble knowledge in a
true cause-and-effect
discovery that they were
unaware of beforehand.

In reality, modern academic research is an extension of the "Socratic method," wherein a series of questions are formulated, a hypothesis is constructed and tested, and from which additional questions arise and are examined. As this process continues, both logic and knowledge are integrated to form new answers and new questions. Socrates' issues may not have been those of the modern academic world, but through his method of inquiry, he has shaped subsequent academic thought more than any other person in history.

A Method for Surviving

Socrates was indeed master of "how to ask the right questions." His method may well provide traditional higher education with a way to survive the onslaught of the electronic classroom, which now has over 500,000 students enrolled in distance learning degree programs without benefit of classroom. True interactive Socratic teaching is two-way realtime communication that enables teachers to actually see their students and distinguish a "glow" from a "glaze" in their eyes.

THE SOCRATIC METHOD--TODAY

Try teaching a child how to ride a bicycle-without physically touching the bicycle and picking the child up when s/he falls. Or try describing a trombone-without using your These tasks can be successful only when they achieve their purposes. is not important that the teacher knows how to ride a bicycle or play a trombone; the student needn't even know whether s/he can! What is important is that the child/student discovers or invents the right answer

"How do I ride this bicycle?" or "What is a trombone?"

Shouting at the child when s/he falls off the bicycle is no solution. Simply telling students the current answer to a question is no guarantee that they will understand what is meant, or that they will believe it. It is not possible to obtain understanding, creativity or belief by simply being an assertive leader in the classroom. The students may remember the words and recall enough to pass an exam, but they still must be persuaded that what they remember is truthful and useful. Even when the teacher is an accepted authority in the subject area, learning does not entirely occur until the students perceive the meaning of the answer as it applies usefully to their own lives and under their own assumptions. "Crest" to some is the top of a wave; to others it's the feathers on a bird's head. To still others it's toothpaste.

Simply "telling" the students something is no better than having them view a video tape; perhaps worse, since the students can rewind and rerun the tape until they "get it."

Consider a series of cause-and-effect relationships that a teacher wants the students to trace logically and make conclusions about. Perhaps it's about something that starts with an observable business effect, such as poor goal achievement (low profit), and seeks to identify the root causes thereto. The teacher might ask, "Why are XYZ's profits down?"

The students could easily just say "profits are down because sales are down."

"But why are sales down?" the teacher asks (as Socrates might have asked). Many different conditions are capable of causing a sales decline. Choosing any one might give a plausible answer, but what's needed is the real reason-the right answer. Too often, students choose a scenario that might account for the problem, while never really finding the true root cause. is particularly common with the "case study method;" students often develop solutions that are intended to give the teacher what they think s/he wants to When this occurs, the teacher has obviously

failed to bring the students to knowledge they understand and believe. It is certainly not "Socratic" teaching. The same thing happens when someone "surfs" and downloads an item from the internet just because it has the right words in the title.

Thus, Socratic teaching is much more than an attitude or a better teacher-student relationship; it's a learnable technique that causes students to discover the real root causes of real problems, and then invent good solutions to these problems.

Good News and Bad News

The good news is that all humans are born with the ability to recognize common sense when they see and hear it. The bad news is that constructing and communicating common sense requires skills that must be learned. To learn how to teach as Socrates taught-to ask the right questions and cause students to discover and invent knowledge-is a somewhat challenging assignment for most teachers.

THE CHALLENGES

One obvious challenge lies in our ability to bring college teachers to an operational level of competence in using an interactive Socratic teaching technique. It's more than asking questions in the classroom like "Are you with me—yes or no?" or "Is it understood?"

Asking the Right Questions

Teaching Socratically requires direct questions to either the entire class or to individual students. The teacher must know how to select the questions to ask so that the information falls into place step-bystep, like a row of dominos, causing the students to see the sequence of cause-andeffect relationships that describe complex real-world situations. Each "domino" brings the students a step closer to the root causes of the phenomena they are examining. One step at a time, they discover the real causal relationships that are not automatically apparent to them. Observable effects are usually separated from the root causes by a number of intermediate logic steps ("dominos"); the teacher

must lead the discussion through these steps, otherwise the students will never really understand what causes what.

Asking the Questions--the Right Way

Even more challenging for the Socratic teacher is developing a smooth technique for asking questions of individual students in the classroom.

It's one thing to propose a question to the entire class; still another to aim a question at one student without that student feeling as if s/he is being singled out or is being "picked on." addition to establishing the proper setting for doing so, the teacher must make the selection appear to be a random process. Many teachers have already mastered the ability to do this, and it becomes even more important when a teacher wants to conduct an ongoing dialogue in the classroom and not lose continuity. With any group of students, some are very eager to participate, some are rather reticent and shy, and still others either don't know or don't care about the material being covered. successful Socratic

approach means making each student aware of the possibility that s/he may be randomly selected at some time during the session—a thought that may actually promote better preparation!

Once this participative setting has been established, the teacher must then use a selection technique that involves three mandatory events: speak, point and look. The important distinction in this technique is that after the teacher asks a question, s/he points to one of the students with an arm or hand before actually looking at the student selected. In so doing, the teacher creates a "random" selection event (pointing), and only afterward creates a visual linkup with whomever the hand finds. (For cultural reasons, it's a good idea to avoid using a finger for this action.) This helps students feel comfortable as well as keeps them on their toes in case they might be among the next called upon.

USING THE NEW TECHNOLOGY TOOLS SOCRATICALLY

Socratic teaching methods are greatly enhanced through the use of new

technology audiovisual tools. Displays that don't present all the answers in one view enable a teacher to create Socratic dialogue beforehand-to actually put the questions into the course materials and present them at exactly the right time. With good display tools-video projectors and PowerPoint programs, the teacher can unfold the material lineby-line, asking the class to supply the material that is to come next--before it appears.

Hardware and Software

Today's presentation hardware and software enable a teacher to prepare interactive lectures, even more easily than s/he once assembled overhead slides-but what a difference! The teacher can print out a set of speaking notes that contains the questions and the desired answers-and even hints about how to draw out the desired responses—that the students do not see. This method gives the teacher total command of the discussion as it leads the students through logical discovery and invention.

A Major Challenge: Dealing with the Wrong Answers

Another major challenge confronts the teacher when the question asked only brings out wrong answers.

Actually, it is at this point that the teacher either "makes it or breaks it." Undoubtedly, the teacher's ability to continue a Socratic dialogue during a class session hinges on knowing how to respond to students' wrong answers. One cannot assume that a properlyasked question, however well-phrased and delivered as Socrates might have done, will inevitably bring a correct response from a student or from a room full of students!

How does a teacher continue to inspire students to continue to respond after having told even one of them that s/he was "wrong?" In truth, a teacher cannot expect students to keep answering after having intimidated one of them by saying or inferring that a response was totally incorrect. Again, this is the make-itor-break-it point in maintaining a continuing dialogue. Of course, a wrong answer is a wrong answer. But it is certainly not useless; if

nothing else, a wrong answer, properly treated, helps lead to a correct answer. Many times, a "wrong" answer is actually partially correct, providing a stepping stone to a more thorough response. The manner in which a teacher deals with less-than-perfect responses determines whether s/he will be able to continue the dialogue.

In this situation, the teacher's individual style makes a big difference. It doesn't take long to learn how to use encouraging responses like "you're on the right track," "that's part of it," or "can you expand on that?" Socrates often used terms like "you may be right," and "what are we to do then?" to cause students to examine their own responses and improve on them.

SOCRATIC SIMULATION PROGRAMS

Socrates often used simple examples to lead people to an understanding of something very complex. He conducted many of his dialogues in *The Republic* to examine morality and ethics by getting people to describe the basic ingredients of a city-state (republic) and the

relationships between various disciplines therein. Socrates sought to expose his view of morality as something more than social approval. make his point, he elicited a series of responses to simple questions that would describe a complex physical entity (the "republic"), showing the meaning of morality for both the individual and the society. In effect, describing the "republic" was a kind of simulation in which the notion of morality could be explored without having to examine an entire system. Today, modern academe has simulation tools that can describe physical entities (business organizations) and explore the effectiveness of various management decisions without having to actually run a real business.

Interactive Software

A number of interactive simulation software programs are now available for a variety of academic disciplines. Courses in Production Operations Management, Operations Research, Project Management, Logistics, Finance, and Marketing have ready access to new software programs that give

the teacher enormous versatility in the classroom. The teacher can lead students through a series of simulation exercises designed to develop their skills step-by-step, one level of complexity at a time, until they can manage a simulated business with levels of complexity and uncertainty very much like real-world organizations.

Some Interesting Advantages

Simulation programs offer tremendous advantages over the simplistic models found in many textbooks. Simulations can be used as progressive learning tools, starting with fairly simple models and progressing to very complex examples and even models of complete real-world organizations. With proper interactive leadership by the teacher, students can develop true understanding of both the theories and processes involved in managing complex organizations.

Like flight simulators, business simulators can emulate the real world without the unfortunate effects of "learning errors" or the uncertainty caused by widespread process variability. Although

simulations can model realworld situations, they provide the teacher and students with a way to examine the effects of changing a single parameter while holding all others constant-something the real world never offers. Moreover, interactive simulations run at higher clock speeds-a year of operations can be observed in a matter of minutes, to show not only the result of specific decisions, but the flow of activity and materials through the period. Students get to "watch what happens."

Teaching With Simulators

Simulations are excellent teaching tools when used with a video projector and a large screen in the classroom. With proper preparation exercises provided by the teacher, students can run simulation programs on their own PCs and develop skills by trying different decisions, one by one, to discover how changing theories affect the flows and outcomes. While the teacher leads the students to develop the theories, the simulators permit them to actually observe how well their theories and decisions work.

There is one overwhelming caution to be observed with interactive simulations, however. are not video games; the student is not simply aiming laser weapons at Japanese monsters that jump out of endless castle corridors. Video games are toys in which the "goal" is killing monsters as they emerge; there is usually an endless supply of bullets, and the user learns only better hand-eye coordination skills.

To achieve the purpose of interactive simulation programs, the student must be aware of why s/he is using the simulation-not so much to get optimum results at the end of the simulated period--but to discover how various operational decisions affect those results. Consider, for example, the production management student who decides to reduce unit production cost in a simulated factory by manufacturing more units than the market demands. In static calculations, the student sees only cost savings, but in a simulation exercise, s/he sees how the extra units flow into inventory, dayby-day, without a corresponding increase in

sales revenue and cash flow.

A Very Important Point

It takes only a few simulation exercises for the student to realize that s/he is in effect being Socratic by proposing changes for the simulated environment and getting prompt responses in both flow and outcome. This is a very important point to recognize: when the student experiences Socratic learning in the classroom, s/he actually begins to think Socratically as well. The more often this occurs, the more the student develops the habit of asking questions-of others and of oneself-in the search for true cause-andeffect knowledge. same thing occurs as the student gains confidence in the use of simulation programs, provided the teacher has done the job of leading the student to think Socratically.

Like Grade School?

Are we actually only describing how a third grade teacher leads children in learning basics like reading and arithmetic? A good grade school teacher knows the

power of frequently asking simple questions in the classroom. S/he knows that to keep children attentive, one has to constantly ask questions to maintain their level of interest. Even so, some of the children, especially the brighter ones, are likely to lose interest as the teacher aims the discussion at the slower children. Such is not the case in higher education; the college teacher is far more concerned with developing student understanding than just remembering specific facts. Interest alone does not guarantee this outcome; the teacher must lead the student to discovery. It isn't easy, at first.

"Don't ask me . . . "

A college teacher attempting Socratic methods for the first time is likely to hear (or see on students' faces) something like "don't ask me; just tell me so I can go home." When students are accustomed to traditional lecture methods and textbooks intended to make up for the lack of dynamic presentations, a new approach comes as somewhat of a shock for them-at first. A Socratic teaching style doesn't just begin by

asking questions and pointing to people to answer them. The teacher is wise to explain what s/he is going to do, why s/he will be asking questions and pointing, and assuring the students that the selection process is random. The teacher must also explain that there are no really "wrong" answers, but that s/he will be asking a number of questions designed to lead students to a more thorough understanding. The best thing to tell students, and tell them often, is: "the answers will all change in time; what we're here to do is learn how to ask the right questions." leads to the ultimate benefit of the Socratic teaching approach.

The Ultimate Benefit

Nothing a teacher says is guaranteed to persuade students about anything. But when students come up with the right series of answers to a teacher's questions, something very important occurs. When the students discover or invent knowledge themselves, they actually take ownership of the answers. No persuasion is necessary when students think of something themselves. Even when only

one student responds and provides something useful, the others are likely to agree; they don't have to admit being persuaded because they are allowed to regard new knowledge as either something they already knew, or that they once knew and were just reminded of. This is a truly powerful teaching tool!

To those teachers who might claim that Socratic teaching takes too long, there is a good answer. It may take a little longer to develop the students' responses and arrive at knowledge they truly understand, but the time not spent repeating and emphasizing just to get agreement and acceptance more than makes up for it.

WHY AREN'T WE USING IT ALL THE TIME?

If Socratic teaching really leads students to better understanding, belief and accountability, and if academe is truly aware of the importance of using the one true advantage it has over the electronic classroom, then why aren't all teachers using it all the time? Why aren't all our class sessions based on the models provided in Plato's Republic?

A Balanced Approach

Realistically, not every moment of every session should be an interactive, Socratic experience. are many times when the teacher must explain things, draw the pictures, write the formulas, solve the equations and present audiovisual examples using the chalkboard, video tapes and verbal accounts of real-world experiences. Students must be directed toward researching outside sources-magazines, books, articles, and even internet references. The fact is that the teacher usually knows more than any one student about a topic, even though collectively the students in a class may have more anecdotal information about it. It is therefore a teacher's duty to set the stage and perhaps open the door to Socratic discussion by first developing interest, suggesting outside research and inviting students to mentally enter the environment of the topic. Socratic teaching is not a constant barrage of questions and pointing; it is a balanced use of all the teaching tools available.

A balanced approach involves all the teaching

methods we already know how to use. That's good news; we don't have to relearn everything we know to become more Socratic! Effective Socratic teaching requires knowing when to switch from one method to another; when to show and when to tell, when to ask and when to allow students to ask questions themselves. A balanced approach is measured in terms of actual knowledge gained by the students (and the teacher learns a lot, too) through interactive, in-class sessions.

We already have some Socratic teaching ability; it's not an archaic idea recently discovered in a cave in Greece. It's not a fad likely to disappear once the students get used to it. As teachers become more familiar and more comfortable with interactive sessions and the tools that enhance them, students will increase their interest as well. But the teachers have to do it first. It's like the lecture the airline flight attendant gives passengers before takeoff: "put your own oxygen mask on first; then assist another person." cannot wait for the students to prompt us to add Socratic dialogue to

our lectures. It's up to each of us to learn how to do it, try it, develop it and make it one of our tools.

It won't be an instantaneous conversion. We may find that we do not have the wisdom of Solomon; he knew how to solve a problem without compromisewithout cutting a crying baby in half while two women were screaming at him and everyone else doubting how wise he really was. Our challenge is to begin to develop our Socratic skills by actually doing it. We have the tools to make it a lot easier than it used to be. We have interactive simulation programs, presentation software, video projectors and a variety of audiovisual devices that, along with interactive teaching methods, can produce a balanced, effective learning experience that the "electronic classroom" cannot duplicate.

A balanced method is in no way a compromise. It's not a question of how intensely Socratic to be, but when to use this approach in a class. The best part of it is that it's easy for any teacher to start becoming more interactive, at a rate that

s/he can determine and apply fittingly to the class being conducted.

The Final Challenge

There is still one final challenge to becoming more Socratic in the classroom. American social trends are not moving in the same direction as higher education ought to go. It's not just the lament of senior citizens that describes our younger generations as "an angry gang in search of nothing." The ongoing cultural trend is seriously lacking in questions about anything. Music and other art forms are too often distortions and perversions of reality designed more to create shock than to inspire thought. The assertive music of today is completely devoid of questions about anything. Gone are the ballads of the past, asking questions like "Why do I love You?" or "Where is Your Heart?" The old song books are full of titles asking questions. But no more; there are no new songs asking about life and love, wondering about something, or exploring hopes and dreams. There are no new songs with verse before chorus to set the theme, to ask the listener

to envision the environment to be described. Today's music screams in anger and rage, demanding that listeners hear how someone feels; chanting one's feelings out loud, "in your face." Along with the emotional reactions to such a barrage of outspoken frustration, consider how thinking patterns are shaped in students' minds. There are two possible ways to react to this dilemma.

Maybe it's just going to get worse, and if so, then we're going to find it more and more difficult to ask questions in the classroom, especially "why?" If this is how the future is bound to unfold, then the only question in the mind of the student will be "is this going to be on the test?"

On the other hand, perhaps these students are finally at a turning point in their intellectual lives, wherein they will truly welcome the teacher asking them what they know and think.

Perhaps the introduction of more Socratic teaching methods will give students something they know deepdown that they need: a challenge to think and begin to ask questions. But only if we teach them how to ask. The next ten

years will tell whether we can.

The latter is not only a better view; it is the

hope and promise of the future of higher education.

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