

## **Integration of Faith & Learning in the Classroom: Posing Integrative Questions**

Harold Heie  
Center for Christian Studies  
Gordon College

My overarching goal for each of you this morning sounds modest, until you try it. I hope to get each of you started on the process of formulating one good question for one course that you will be teaching during this upcoming academic year.

But, it isn't any old question that I want you to formulate. It is what I will call an *integrative question*. That will take some explanation.

The word "integration" is prominent in the stated missions of most, if not all, CCCU institutions; the operative phrase often being "integration of faith and learning." There are two words in this phrase that beg for careful definitions, the word "faith" and the word "integration."

First, I am using the word "faith" in its broadest sense as a set of beliefs about the nature of reality and my place in that reality (what some call a "worldview") and the practices that flow from those beliefs. In that broad sense, each of us has a "faith." Mine is a "Christian faith". Others may have a faith that is committed to other religious traditions. Others may have some version of a "secular faith." But, none of us is "faithless."

Second, let me address the sense in which I am using the word "integration." If you ask 10 different faculty members randomly chosen from CCCU institutions what the word "integration" means in the phrase "integration of faith and learning," you are likely to get 10 different answers, at a minimum. And that is not all bad, since the meaning of that phrase is multi-dimensional.

But, it therefore behooves me to tell you up front how I am using the "integration" word. I think the integrative quest has two interrelated components, what I call "personal integration," and what I call the "integration of knowledge."

The first component, “personal integration,” which I will not dwell on this morning, involves helping your students, and yourselves, to be “whole persons”, not disembodied intellects (not what Peter Gomes at Harvard has called “a brain on a stick”). In brief, it involves us becoming persons who think deeply, feel deeply, and live out what we say we believe. To use more high-falutin terms, it is the wedding of the cognitive, affective, and volitional dimensions of being a person. Or, in more colloquial language, a wedding of the head, the heart and the hands.

The rest of my presentation this morning will dwell on what I mean by the words “integration of knowledge,” which will then lead into what I mean by an “integrative question.” I can best get at that meaning by briefly sharing with you a portion of my story.

I came out of graduate school as an entrenched intellectual dualist. I grew up intellectually with two worlds of knowledge that never intersected; an impenetrable wall between them. As a teenager in my home church in Brooklyn (near 33<sup>rd</sup> Street and 3<sup>rd</sup> Avenue), I came under the influence of a godly Sunday School teacher whose personal Christian living had an enormous impact on me, inspiring me to immerse myself in Scriptures. I devoured the pages of my Bible as I sought to better understand myself and my confusing world of adolescence. I thereby came to love my first world of knowledge; my world of biblical understanding. As I grew intellectually, this world expanded into my world of biblical and theological understanding (my Christian faith perspective).

During these same years of formation, a second world of knowledge was developing. As I studied first in the natural sciences, and, then later, more informally, in the humanities and the social sciences, I grew to love a second world of knowledge, the knowledge revealed in the academic disciplines.

But, my two worlds of knowledge never met. The excellent secular universities I attended seemed to care little about my Christian faith understanding. And my church was afraid

of my academic world of knowledge, possibly fearing that it would contaminate my Christian faith understanding. As a result, my knowledge was hopelessly fragmented, like that of most Christians I knew then, and most Christians I now know, even highly educated Christians and some Christians teaching in college and university settings.

But, I knew that such fragmentation of knowledge was inadequate, although I didn't have a clue at the time as to how to overcome this fragmentation. It was then like a breath of fresh air to discover that Christian liberal arts colleges were committed, at least on the first few pages of their catalogs, to the distinctive vision of "integrating" my two worlds of knowledge. That was when I knew I would devote my life to Christian liberal arts education, which was the beginning of forty years of service at four Christian colleges.

But, what exactly do I mean when I talk about integrating my two worlds of knowledge? That is a much disputed question, and I cannot deal here with all the nuances of that debate. But, for my present purposes, let me first give you an example of what I do not mean by the "integration of knowledge", an example of what my good friend, David Wolfe, has called "pseudo-integration".

David discovered an article in a denominational periodical that used the following example to explain how teaching mathematics in a Christian day school differs from teaching in a public school: "two plus two is always four...and God is always the same." That is not an example of the integration of knowledge. Both of these statements may be true (assuming you are counting in base 10, and, possibly, assuming you are not a process theologian). But, to place two truths side-by-side is not integration of knowledge. *Coexistence is not integration.* I emphasize this because much of what passes for integration at Christian liberal arts colleges is only coexistence, at best. Genuine integration of knowledge takes place when you can demonstrate the integral relationship between two or more truths.

Integration of my two worlds of knowledge means that I "uncover connections" between my two worlds; where the insights from each world complement, illuminate and enrich

the insights from the other world. But, there is much debate about the nature of this “uncovering”, which I cannot dwell on here. Suffice it to say for my purposes that it is inadequate to think of these two worlds as self-contained. They are actually two sides of the same coin (at least for God if not for my college teachers). So, the “uncovering” I speak of is more like drawing out connections that are already there. Arthur Holmes talks about this as a “reintegration” of a union broken apart in the course of history.

This understanding of the meaning of integration of knowledge is the basis for my definition of an “integrative question” as *a question that cannot be addressed adequately without drawing from both one’s faith perspective, and knowledge in the academic disciplines*. I have found from my own teaching experience that the pedagogical strategy of posing integrative questions to students, and helping them to address such questions has been an effective way to initiate students into their own quest for the integration of knowledge. Let me illustrate the nature of an integrative question by giving some examples from various academic disciplines.

**BIOLOGY:** To what extent should genetic engineering be used to enhance human well being?

Consider both poles of this question. At one pole, you need extensive knowledge about matters pertaining to genetic engineering, drawing on academic insights from the disciplines of genetics, bioengineering, and medicine, at a minimum. But, the other pole of the question refers to “human well-being”. Where do we gain our beliefs about what constitutes human well-being? For the Christian scholar, such beliefs are drawn from biblical and theological understanding. For scholars committed to other faiths, religious or secular, their particular “worldviews” will shape their beliefs of what constitutes the well-being of humans. Therefore, a scholar can address this question adequately only by drawing deeply from knowledge in multiple academic disciplines as well as from her particular faith perspective.

**SOCIOLOGY/SOCIAL WORK:** To what extent are social problems caused by inadequacies in societal structures or by individual or group irresponsibility, or some of both?

Once again, consideration of the nature of societal structures takes one into the academic areas of sociology, social work, politics, economics, and psychology, at a minimum, as does the very meaning of a “social problem”. But, one’s beliefs about what constitutes a social problem is also informed by one’s faith perspective, as is the distinction between behavior that is “responsible” and “irresponsible”. Again, to deal adequately with this question, the scholar, whatever her faith perspective, will have to draw deeply from those beliefs as well as from multiple academic disciplines.

By now you get the idea. So, let me simply pose a few more integrative questions from a sample of other academic disciplines, without any elaboration.

**ENGLISH:** What are the similarities and differences in interpreting the biblical text and interpreting other literature texts?

**POLITICAL SCIENCE:** What is the role of forgiveness in international relations?

**CRIMINAL JUSTICE:** To what extent should the penal system be retributive, or restorative, or both?

**FINE ARTS:** What are the limits, if any, on the freedom for human creative expression?

**HISTORY:** How does the doctrine of God’s sovereignty inform, if at all, the writing of history?

**COMPUTER SCIENCE:** What are the ethical implications of the use of the internet?

**ECONOMICS:** What is the relationship between the quest for profitability and the Christian call for compassion and justice?

**EDUCATION:** What is the relationship between subject-centered and student-centered teaching pedagogies in light of a Christian perspective on personhood?

**PHYSICS:** What is the status of models in scientific inquiry, and what are the similarities and differences between the use of models in scientific inquiry and

the use of models in theological inquiry? [Ian Barbour, *Myths, Models, and Paradigms*]

**SPORTS MEDICINE:** What are the limits, if any, on allowable means for enhancing athletic performance?

**COMMUNICATIONS:** What is the potential for finding common ground through dialogue when the conversationalists are embedded in different traditions?

**RELIGION:** What is the relationship between the Creation account given in Genesis 1&2 and scientific findings in geology, astronomy, and biology? [Integration is a 2-way street]

**PHILOSOPHY:** What is meant by “revelation from God,” and is this an adequate way of knowing?” How is revelation as way of knowing related, or not, to other ways of knowing?

**PSYCHOLOGY:** Why do “ordinary” people sometimes do extraordinary evil (e.g., genocide and mass killings)?

**ENGINEERING AND TECHNOLOGY** Should Christians embrace the “technological imperative” (if something “can” be done, that is sufficient reason to do it)?

**ENGINEERING AND ALL OTHER CHOICES OF VOCATION:** Will the “product” or “services” of the vocation I am preparing for foster God’s redemptive purposes for Creation?

I claim that to adequately address any of these “integrative questions.” It is necessary for me to uncover integral connections between my two worlds of knowledge: between my Christian faith understanding and knowledge in the academic disciplines.

But, a huge question remains: Who cares? Do students really care about these integrative questions? Or, do they only care about the knowledge and skills needed to land that first good job? And, if they don’t care about such integrative questions, how does a good teacher tease them into caring? This is a critical question: What kind of pedagogical strategies can best help students to uncover connections between their faith perspective and knowledge in the academic disciplines?

My pedagogical suggestion is simple (i. e., simple to state, much harder to do): *Wherever possible, start with something students do care about (e.g. a question they might have), and building on that interest, tease them, cajole them, inspire them into caring about questions that are central to the objectives of the course you are teaching, such as the pursuit of important integrative questions.*

Let me illustrate this strategy by sharing with you how in my former life as a math professor, I tried to get students to seriously consider a few integrative questions in Math 101: The Nature of Mathematics, a general education requirement for students not majoring in math or science, a number of whom had trouble adding fractions.

MATHEMATICS: Can the deductive nature of mathematics be used to do Christian apologetics (defend the Christian faith)?

Allow me to elaborate on some of what typically transpired in our collective class consideration of this integrative question, to give you a sense of the kind of dynamics that can take place when considering integrative questions, and to illustrate my pedagogical suggestion of trying to start with something in which the students are interested.

Because I knew that many of these first year students didn't care a great deal about the nature of mathematics, I sought for a "connection" I could make with something I knew most of them cared about a lot, presenting arguments for the "truth" of Christianity. Therefore, I started the course with a section on symbolic logic, in which students gained competence in testing deductive arguments for validity (arguments that start with initial premises, what mathematicians call axioms, and demonstrate that certain conclusions, called theorems by mathematicians, necessarily follow from the premises). I then posed my integrative question, assigning the reading of an essay by C. R. Verno, titled "Mathematical Thinking and Christian Theology" (*Journal of the American Scientific Affiliation*, June 1968). Verno proposes a presuppositional approach to doing Christian apologetics, in which tenets of Christian theology emerge from certain fundamental assumptions in a manner analogous to the way a mathematician's theorems are deduced

from her axioms. Students were attracted to this presuppositional approach; it seemed to yield such conclusive results.

But, I then create some cognitive dissonance in the next class by raising possible objections to this presuppositional approach. By now, the students have learned that the “truth” of a theorem resulting from a valid deductive argument is guaranteed only if all the axioms are true. In that light, how does one demonstrate the truth of the fundamental Christian assumptions? If they are the results of prior deductive arguments, then we have an infinite regress. Are these Christian assumptions self-evidently true? To illustrate a potential problem with that line of thought, I then introduce my own version of a valid deductive cosmological argument for the existence of God, in which the conclusion is “God exists.” Students are impressed (Dr. Heie has just proven that God exists). But, I then ask them to examine the premises in my argument. Are they all true? The students seem to think so. But, I then raise some eyebrows by suggesting that the reason they find the premises to be self-evidently true is because they already believe the conclusion to be true. I then demonstrate how a person not already committed to the Christian belief in the existence of God can reasonably reject as “false” a number of the premises in my argument. I conclude that a major problem with presuppositional apologetics is that it insulates one’s fundamental Christian assumptions from the possibility of criticism, and also does not take into account the role of experience in making judgments as to the adequacy of any system of thought about the world. Is not such an approach neglecting crucial empirical questions as to whether Christian beliefs do indeed make sense of experience (as I believe they do)?

I have gained the attention of the initially disinterested student. In the process of learning something about the method of the mathematician, students have been initiated into exploring possible connections with their biblical and theological understanding. To generalize from this good teaching experience, I repeat my pedagogical suggestion for initiating students into the exploration of integrative questions in the classroom:

*Wherever possible, start with questions the students may care about deeply, and building*

*on that initial interest, tease them, cajole them, inspire them into caring about an integrative question that is related to their interests.*

Although most of my teaching has involved Christian students, I believe that the pedagogical strategy I propose can be very interesting, and effective, when teaching a class of students who are committed to different faiths, Christian and otherwise. Each student will hold to a set of faith beliefs about the nature of the world and her place in it. Therefore, in dealing with any integrative question, each student should be encouraged to uncover connections between the world of knowledge in the relevant academic disciplines and her particular faith beliefs. The ensuing conversation could be particularly lively when students in the same class bring differing faith beliefs to the table, possibly even leading to fruitful conversation about the differences in these fundamental faith beliefs. This could even provide an opportunity for the Christian teacher or student to talk about the way in which her faith beliefs makes sense of her experience relative to the integrative question being discussed, giving other students a “welcoming space” to do likewise from their particular faith beliefs.

**MATHEMATICS:** Why should a Christian, or anyone else, do mathematics?

I have posed this question both to first year students who were prospective math majors at Christian colleges, and to senior math majors at these colleges. I still recall one senior math major telling me that he wished he had struggled with this question three years earlier (I sensed that he had second thoughts about his choice of major). I cannot get into the details of our collective struggles with this important integrative question. Suffice it to say that it is a variation of a question that every student should be asking: Is doing mathematics (biology, economics, engineering, music, whatever) important in light of my faith perspective as to what is ultimately important? A related integrative question is: Will the product or services of the vocation I am preparing for foster my faith perspective on what is ultimately important?

I conclude this presentation by encouraging each of you, as faculty at Tabor College, to commit yourself to initiating Christian students into the search for connections between the academic disciplines and their faith perspective by posing “integrative questions” and assisting them in their attempts to answer such questions.