

# Understanding and Valuing Knowing

CONNECTING WHAT STUDENTS DO in school to what they will do in life after school is a matter of increasing concern on multiple fronts, but the issue can be deflected until it comes to a head at the college level. K-12 educators can, and commonly do, cite as their objective providing students with the skills they will need to meet the demands they will encounter at the next level of schooling—the demands that elementary school students will encounter in middle school, middle schools students in high school, and high school students in college. Is there an implication for how students themselves understand the purpose of what they do in school?

I recently asked Robbie, a tenth-grader at an outstanding suburban high school, what use his current schoolwork would be to him in his adult life. He hesitantly mentioned writing skills, which his school emphasizes,

but then had a sudden insight: “Oh, and Latin will be helpful for my SATs.” When I clarified that I was talking about his life after he finished his schooling, he could come up with nothing further. Mike, a ninth-grader from the same school said he didn’t see his studies being of any later use “unless you just want to have facts to make yourself look good in a conversation. Like now we’re studying the Ming dynasty; why else would you need to know this?”

Students like Robbie and Mike have grown up in privileged families and communities in which the future benefits of education—both prestige and material gain—have long and consistently been made clear to them. The responses quoted above suggest it is not clear to them why this is so, but this probably doesn’t worry them much. These boys are clearly “college bound.” At this stage in their lives, do they need to be aware of any more exalted purpose to what they are doing? Unlike many of their less-privileged counterparts, they at least see school as having some purpose. Believing that school is a path to success can’t be such a bad thing, for students of any age or social background.

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**The development of intrinsic valuing of intellectual activities stands to provide the firmest basis for sustaining intellectual motivation**



Rhodes College



# as Developmental Goals

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Yet there arguably is a downside. The problem is that the relation between school and life is essentially an instrumental one: Investment and outcome—means and end—bear only an arbitrary connection. There is no intrinsic logic as to why intellectual pursuits (rather than, say, athletic or musical accomplishment) should be the object of society's approval and reward. Any of these could as well serve as the means to the desired end of social recognition and reward. Whether it is



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intellectual activity, then, or some other activity, its value derives from its role in a means-end relationship that is arbitrary. Here lies the downside. Once an activity becomes identified as merely a means to an end, it becomes easy to devalue it as without significance in its own right. One undertakes it because it produces some totally different dividend that is valued.

The value of an intrinsically valued activity, in contrast, lies in the activity itself. The benefits of the activity emanate directly from it. One engages in it because it is experienced as valuable in its own right. The advantage is clear: Continued commitment to the activity is ensured. It is not dependent on external maintenance of a relation between the activity and some independently valued outcome.

For this reason, it can be argued, the development of intrinsic valuing of intellectual activities stands to provide the firmest basis for sustaining intellectual motivation through childhood and adolescence and into adulthood. Students experience for themselves the value of the intellectual activities they engage in. This experience leads to increasing levels of time and energy devoted to them and ultimately an explicit commitment to them as a way of life. This characterization begins to sound like every educator's vision—the production of intrinsically motivated, self-directed learners—and yet, one that has proven difficult to implement and certainly fragile to maintain. What makes it happen?

#### **How does one know?**

An answer I propose here is that students' developing understanding of what it means to learn and to know is a key component of the process. It is by no means the only one. Certainly, the kinds of educational environments that students experience are crucial. But often overlooked is the meaning they attribute to these experiences. Their school experiences are for most students the primary basis for the understandings they construct of what it means to learn and know and, not incidentally, whether investing one's time and effort in such pursuits is worthwhile.

The study of students' developing epistemological understanding has blossomed in the last decade (see Hofer and Pintrich 1997, 2002, for review), with the result that we now have a fairly convergent picture of a series of steps that mark development toward more mature epistemological understanding in the years from early childhood to early adulthood. (See Table 1.)

Preschool age children are *realists*. They regard what one knows as an immediate reading of what's out there. Beliefs are faithful copies of reality. They are received directly from the external world, rather than constructed by the knower. Hence, there are no inaccurate renderings of events, nor any possibility of conflicting beliefs, since everyone is perceiving the same external reality.

Not until about age four does a knower begin to emerge in children's conceptions of knowing. Children become aware that mental representations, as products of the human mind, do not necessarily duplicate external reality.



Before children achieve a concept of false belief, they are unwilling to attribute to another person a belief that they themselves know to be false (Perner 1991). Once they attain this level, the knower, and knowledge as mental representations produced by knowers, come to life. The products of knowing, however, are still more firmly attached to the known object than to the knower. Hence, while inadequate or incorrect information can produce false beliefs, they are easily correctable by reference to an external reality—the known object. If you and I disagree, one of us is right and one is wrong, and resolving the matter is simply a matter of finding out which is which. At this *absolutist* level of epistemological understanding, knowledge is regarded as an accumulating body of certain facts (Table 1).

Further progress in epistemological understanding can be characterized as an extended task of coordinating the subjective with the objective elements of knowing. At the realist and absolutist levels, the objective dominates. By adolescence typically comes the likelihood of a radical change in epistemological understanding. In a word, everyone now becomes right. The discovery that reasonable people—even experts—disagree is the likely source of

recognizing the uncertain, subjective aspect of knowing. This recognition initially assumes such proportions, however, that it eclipses recognition of any objective standard that could serve as a basis for evaluating conflicting claims. Adolescents typically fall into “a poisoned well of doubt” (Chandler 2003), and they fall hard and deep. At this *multiplist* (sometimes called *relativist*) level of epistemological understanding, knowledge consists not of facts but of opinions, freely chosen by their holders as personal possessions and accordingly not open to challenge. Knowledge is now clearly seen as emanating from knowers, rather than the known, but at the significant cost of any discriminability among competing knowledge claims. Indeed, this lack of discriminability is equated with tolerance: Because everyone has a right to his or her opinion, all opinions are equally right. That ubiquitous slogan of adolescence—“whatever”—holds sway.

Evidence suggests that hoisting oneself out of the “whatever” well of multiplicity and indiscriminability is achieved at much greater effort than the quick and easy fall into its depths. By adulthood, many, though by no means all, adolescents will have reintegrated the objective dimension of knowing and achieved

**Table 1 Levels of Epistemological Understanding**

Level	Assertions	Knowledge	Critical Thinking
Realist	Assertions are COPIES of an external reality.	Knowledge comes from an external source and is certain.	Critical thinking is unnecessary.
Absolutist	Assertions are FACTS that are correct or incorrect in their representation of reality.	Knowledge comes from an external source and is certain but not directly accessible, producing false beliefs.	Critical thinking is a vehicle for comparing assertions to reality and determining their truth or falsehood.
Multiplist	Assertions are OPINIONS freely chosen by and accountable only to their owners.	Knowledge is generated by human minds and therefore uncertain.	Critical thinking is irrelevant.
Evaluativist	Assertions are JUDGMENTS that can be evaluated and compared according to criteria of argument and evidence.	Knowledge is generated by human minds and is uncertain but susceptible to evaluation.	Critical thinking is valued as a vehicle that promotes sound assertions and enhances understanding.



the understanding that while everyone has a right to his or her opinion, some opinions are in fact better than others, to the extent they are better supported by argument and evidence. Justification for a belief becomes more than personal preference. "Whatever" is no longer the automatic response to any assertion—there are now legitimate discriminations and choices to be made. Rather than facts or opinions, knowledge at this *evaluativist* level of epistemological understanding consists of judgments, which require support in a framework of alternatives, evidence, and argument.

### From beliefs to values

This cognitive evolution cannot by itself yield the sort of intellectual valuing pointed to earlier as an essential bridge between education and life. Values have an affective, as well as cognitive, component. But the evolution just described serves as a necessary condition for the development of intellectual values. Adolescents who never progress beyond the absolutist belief in certain knowledge, or the multiplist's equation of knowledge with personal preference, lack a reason to engage in sustained intellectual inquiry. If facts can be ascertained with certainty and are readily available to anyone who seeks them, as the absolutist understands, or if any claim is as valid as any other, as the multiplist understands, there is little point to expending the mental effort that the evaluation of claims entails. Only at the evaluativist level are thinking and reason recognized as essential support for beliefs and actions. Thinking is the process that enables us to make informed choices between conflicting claims. Understanding this leads one to value thinking and to be willing to expend the effort that it entails (Table 1).

In my research on intellectual values I have found striking differences across cultural groups and subcultural groups within the U.S. in the responses of parents and children to several questions like this one:

Many social issues, like the death penalty, gun control, or medical care, are pretty much matters of personal opinion, and there is no basis for saying that one person's opinion is any better than another's. So there's not much point in people having discussions about these kinds of issues. Do you strongly agree, sort of agree, or disagree?

Reasons respondents offer for disagreement are similar and refer to values of discussion in

enhancing individual and/or collective understanding, solving problems, and resolving conflicts. Reasons offered for agreement, however, tend to be of two distinct types. Some participants respond along these lines, suggestive of the multiplist level of epistemological understanding: "It's not worth it to discuss it because you're not going to get anywhere; everyone has a right to think what they want to." Others take this position, suggestive of the absolutist's equation of knowledge with right answers: "It's not worth it to discuss it because it's not something you can get a definite answer to."

Parents and children within the cultures and subcultures we have studied respond similarly to one another. Middle-schoolers and high-schoolers in American ethnic subcultures, however, show some movement away from their parents' response patterns in the direction of those of their American peers. These results suggest that parents do matter in transmitting intellectual values to their children, but, at the same time, that children to a significant degree construct these values anew in a context of their peer culture, especially when the values of the culture outside the home deviate from those within the home.

I've made a case thus far for the importance of understanding and valuing knowing as developmental goals. A final challenge is to connect these values to school experience, which is by no means automatic. Even teens like Robbie and Mike, who come from a privileged community in which parents and children are the most likely to have achieved a mature level of epistemological understanding and to endorse the value of intellectual engagement, may not see their school lives as having much to do with the intrinsic, in contrast to the instrumental, value of intellectual engagement. Herein lies the challenge for educators at every level.

### Setting the stage

The transitions from realist to absolutist to multiplist portrayed in Table 1 don't seem to require a great deal of tending by those wishing to scaffold children's development. Unless the child's experience is unusually restricted, children become aware that people's beliefs vary and they must figure out a way of understanding this state of affairs. The vast majority take at least a brief dip, and more often a prolonged one, into the well of multiplicity. The



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last major transition, however, from multiplist to evaluativist, is another story. It is helping young people climb out of the multiplist well that requires the concerned attention of parents and educators, especially if it is this progression that provides the necessary foundation for intellectual values.

The goal will not be achieved by exhortation—by telling students that a particular kind of activity is valuable, or even how or why it's valuable. A more promising adult role is that of introducing young people to activities that have a value that becomes self-evident in the course of engaging them and developing the skills they entail. By serving as a guide, or coach, as students engage such activities, the adult models his or her own commitment to the activity and belief in its worth. As students' skill and commitment and self-direction increase, the coach's role diminishes.

Much of what we ask students to do in school simply does not have these characteristics. In the seventh-grade social studies class I observed at Robbie and Mike's school, I was surprised to hear a student venture the question, "Why do we have to learn the names of the thirteen colonies?" The teacher responded without hesitation, "Well, we're going to learn all fifty states by the end of the year, so we may as well learn these thirteen now."

In my own work (Kuhn, forthcoming), we have been experimenting with involving middle-school students in activities that we believe have this crucial characteristic of revealing their intrinsic value as they are engaged in. These activities fall under the broad headings of inquiry and argument, and we are able to follow students' progress microgenetically as they develop these two families of skills by engaging in exercise of them. Through their involvement in such activities, we hope students will discover for themselves that there is something to find out and a point to arguing, sufficient to make the effort worthwhile. It is only their own experiences that will lead them to the conviction that inquiry and reasoned argument offer the most promising path to deciding between competing claims, resolving conflicts, solving problems, and achieving goals.

By the time students enter colleges or universities, if they do, their ideas and values about thinking and knowing will have been years in the making. Still, the college experience has been widely noted as an occasion for intellectual, as well as personal-social, unmooring, upheaval, and hopefully reintegration.

Encountering reasonable arguments for competing claims becomes ubiquitous, impossible to avoid. The ideas I have proposed, then, regarding the educational experiences of younger students I would argue are no less applicable at the college level. The intellectual endeavors that college students undertake must reveal their intrinsic value in a way that is accessible to the student and can be embraced as worth the effort entailed. It is a criterion that those of us who teach college students would do well to keep in mind as we plan our course outlines. □

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