Depth vs. Breadth for the "Urban Community" Jonathan Howland and Henri Picciotto April, 1999

sidebar: The following article is based on presentations Math teacher Henri Picciotto and English teacher Jonathan Howland at the NAIS Conference in Dallas in February and at the CAIS Conference in March.

Ceding the Survey: Depth vs. Breadth in Secondary Education

No one in education advocates for superficiality. But however wide the consensus that genuine, lasting, meaningful learning must be "deep," there isn't much agreement about how this is best achieved in schools.

Math Dept. chair Henri Picciotto and I put our heads together on this problem to develop a presentation based largely on the teaching and learning "laboratory" of Urban School. Urban is a quick study in pedagogical idiosyncrasy: the long period, the block schedule, the many uncommonly focused courses -- "Civil War," "Space," and "Stone Carving" (at a conventional high school: "history," "math," and "art.") These are Urban's salient structures, less the library and lab than the daily schedule and the organization of the curriculum. Yet the long period doesn't itself advertise a theoretical basis. Nor does a course called "Shakespeare" advance a pedagogical slant other than conviction about the worthiness of the plays. Henri and I wanted to get the foundation, to the assumptions and choices of which our school's structures are expressive. We wanted, in short, to explore what he (in math) and I (in English) have in common, and for this we had to look more closely -- first at our own teaching and the work of our respective departments, and then at the school at large. We met weekly for a time, pursued hunches, saw patterns. Then in January, we sent a query around to the Faculty. It was rather like striking the Urban lode.

We asked Urban teachers to define what it is that constitutes depth of learning in their respective disciplines, and we asked them to describe in some detail a lesson that promotes the same. Their answers? Reflexive, intelligent, abundant, many of them informed by a frank acknowledgement of the cost of pursuing depth in learning and virtually all of them excited by the challenge. Newcomers to the school perceive

something atmospheric, even pervasive, about the values of patience and authenticity, of concentration and complexity in teaching and learning. In the material we gleaned from teachers we found ample hard evidence -- lessons, habits -- as to why.

What is depth of learning?

It is understanding many points of view. It is a math problem tackled from a visual, numerical, symbolic, and algorithmic standpoint. It is a reckoning with Odysseus' return to Ithaka not merely from Odysseus' and his family's perspectives, but from those of less conspicuous characters: the nursemaid, the beggar, the swineherd, the harlot.

It is understanding at many levels. In reading, students work with the literal, the metaphorical, and the sub-textual, employing all three to construct meaning of a literary text. In physics, a deep understanding of force and acceleration involves not just facility with relevant theory and formulae, but a visceral grasp too -- a series of recognitions on the MUNI bus.

Assessment is often illustrative. The history teacher who wants to a reading of his students' understanding of the Civil War has many options:

- 1. A multiple choice test on the facts.
- 2. A series of short answers to pointed questions.
- 3. Essay: "What were the causes and effects of the Civil War?"
- 4. An analysis of three of the Lincoln-Douglas debates.
- 5. Essay: "What was the Civil War about?"

Each of these is valid, but it's the fourth and fifth assignments that call for a deeper understanding of the sectional crisis, the synthesis of more diverse and more nuanced sources, the shaping of an interpretation. Interestingly, the last question is relatively easy early on in the unit (or, at Urban, the course). The more one knows, the harder the question, and the student is no longer merely learning some history, but rather becoming an historian.

It's just this that a number of Urban teachers identified as indicative of depth: thinking and working in the language of the discipline. Not translating from Spanish (or Shakespeare), but speaking, reading, and knowing the language. Not settling in too

comfortably with the right answer in algebra, but understanding the "why" behind the "how". Not working too narrowly from the text in drama, but developing a physical and emotional relationship to character.

Naturally, depth takes time, and if students who achieve depth in a subject do the same "amount" of work as those in a traditional class -- read the same number of pages, do the same number of exercises -- it's a simple fact that they don't investigate as many topics. (At Urban, students satisfy the American History requirement in two courses, "Civil War" and "Recent America"; wherefore art thou President Garfield?) The architecture is fundamentally different: whereas conventional secondary curriculum is driven by anxiety about coverage, depth demands that a faculty think less about what teachers teach than what students learn, less about a curriculum to cover than habits to cultivate and a knowledge base to uncover.

Teachers and schools who want to pursue depth of learning face significant obstacles. Some of these are structural. An eight-period day is problematic; so is a preoccupation with grades and the consequent usefulness of easily quantifiable forms of assessment (that multiple choice test on the Civil War looks better and better). A school's culture is equally pertinent. Depth is achieved in a climate of respect for ideas, even "wrong ideas." It demands patience of students and teachers, and rigor too. Of teachers depth calls for a sort of triple threat: expertise in the subject area, passion, and an abiding interest in pedagogy. Untethered to the textbook or otherwise pre-fabricated curriculum, the teacher "writes," evaluates, and re-writes her own. Colleagues -- and collegiality -- are important here.

Those skeptical about the prospects for deep learning in high school often invoke the exigency of sound fundamentals, and they are at least partly correct. Depth of learning is elusive and misguided in the absence of requisite skills. On the other hand, skill-building isn't, in our view, its own end but rather part of a long process of substantive learning. We drill in the shallow end so as to be able to swim in the deep water.

Urban has something to offer on the subject. Schools are increasingly interested in the long period and the block schedule, often a kind of shorthand expression of their concern about depth. At Urban we're fortunate to have many of the helpful structures in

place. More important, we have a learning culture that isn't merely open to depth but, in some surprising ways, demanding of it. We are also fortunate not to have this figured out, but rather to be attending to the intricacies of achieving depth in learning with eagerness, and support – and the conviction that we will never finish.