

Knowledge, Education, and the Individual

By Drew Underwood – LEARN, or DIE

Part One: Introduction

Schools go to great lengths to teach our kids that each individual is a unique and special being. We have different talents, interests, motivations, strengths, and weaknesses. Then they turn around and standardize the methods by which students are required to learn. The hypocrisy is obvious: if we are each unique, how can they claim that any method or set of methods will work for all of us?

This is the challenge faced by the modern world: how can we provide education for such a massive population while, at the same time, giving full reign to the talents, strengths, and creativity of the individual students? How can thirty students who learn in different ways each receive a valuable education while being in the same class with the same teacher? The LoD proposal may have the solution.

Any valuable education will require the recognition of students as individuals, not just members of a group. The beauty of a free society—the factor that allows us to progress—is that the amount of diversity is exactly equal to the number of individuals. We aren't speaking of diversity of race or ethnicity, but diversity of mind. No two individuals can be the same. Therefore, as the number of individuals in society increases, the total potential for progress must also increase. Since, as we have confirmed, every individual has his or her own talents and strengths, a society with more individuals will have more to contribute to the world. Furthermore, it is the inherent differences in our beings that allow us to interact in various ways and produce diverse outcomes. If everyone were the same, so too would our relationships be the same.

If we want to maximize society's potential, we must first maximize the potential of its constituents. We must, more than anything, give each individual the chance to reach self-actualization. LEARN, or DIE's proposal will do just that. First, however, we need to understand *why* individuals learn in different ways. Then we can tackle the issue of *how* to enable students to maximize learning in modern schools.

Part Two: Data v. Knowledge

The brain consists of millions of neurons with neurotransmitter switches to connect them. We think by sending electrical signals through this mess of wires, with a different pattern of neurons being fired for each idea that goes through our brain. In fact, the brain works exactly like a phone system. Each piece of data has its own code, or pattern, that must be activated for our mind to reach it, similar to a phone number. If I call (123) 456-7890, I will reach another phone. If I change even a single digit in that code and call (123) 456-7891 instead, I will reach a different phone. Our brain works by activating these patterns to store and access data.

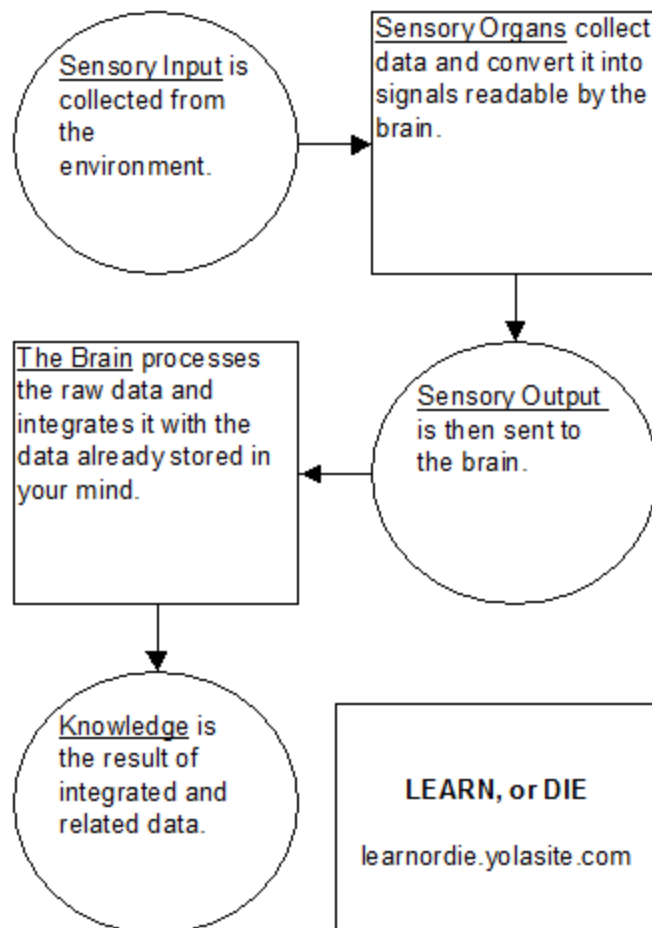
However, data is just output from our senses—sight, sound, touch, smell, and taste. If I see a piece of paper with “ex. 16” written on it, it doesn't “mean” anything. It's just data stored in my mind. Merriam-Webster defines data as “information output by a sensing device or organ that includes both useful and irrelevant or redundant information

and must be processed to be meaningful.” This is radically different from knowledge: “the fact or condition of knowing something with familiarity gained through experience or association.” Data, then, is the raw information in our mind—knowledge, on the other hand, is when we actually understand that data, or give it meaning.

Education is meant to teach knowledge, not just data. The point at which data becomes knowledge is when we associate it with a meaning. So, for example, “ex. 16” may only be data on its own—but if I associate it with the phone number (123) 456-7890, it suddenly has a meaning. It is the extension to another phone. It is an idea in itself, but it is related to the idea (123) 456-7890. Data combines in our mind in the same way that individuals combine in society, with different interactions and combinations. This gives information meaning, not as mere data, but as knowledge. The similarity between the individual mind and society as a whole is astonishing and elegant.

Part Three: Education and the Individual

Put simply, education is about gaining knowledge. Data is obviously necessary for this, because data is necessary for knowledge, but we do not consider learning raw data to be education in itself. For example, I can memorize the string “ex. 16”, but as long as it’s just data, I’m none the wiser for it. I haven’t gained knowledge—I’ve gained data. If, however, I gain not only the data but also the knowledge that it is an extension to a phone number, we would say that I have learned something.



Education is often misunderstood, as many people would consider gaining data of any kind to be “learning” something. However, the mere act of turning on our senses necessitates that we are gaining data. Our eyes are always communicating to our mind what they see, for example. If learning is the mere act of gaining data, then we are always learning, because our senses are always sending data to our mind. Even while my eyes are closed, they are sending signals to my brain. These signals transmit data. Even in an empty, padded cell with my eyes closed, I would be learning if “learning” is simply “gaining data.” This data is raw, unprocessed information. It has no meaning until our brain sorts through it to find the important details. The data is then integrated with what is already stored in our mind. At this point—when the data

is related to pre-existing ideas—we are learning. The data now has a meaning. We now understand it.

However, individuals lead different lives and have different experiences. They accumulate different data, creating different relationships in their minds. Looking at the brain as a network, it's clear that if the relationships and associations between the objects in our minds are different, then the very structure of our knowledge is different. The data is arranged in different ways. Psychologists have been able to break our brain down into different parts and identify the functions of each section, but they cannot find the exact location of a specific piece of information, because it changes for each individual. That is, the data “ex. 16” is stored somewhere in my brain, and a psychologist could give us a rough guess of what area it would be in—but they cannot tell me exactly which neuron(s) it will be stored in without looking at my specific brain. The structure of each mind is unique, just as the individual is unique. Because the structures are different, adding to them must also be different. Individuals do not learn the same because learning requires us to integrate data with what we already know, and data cannot be integrated the same if what we already know is not arranged in the same way. What's more, we cannot go through and “program” each individual student by looking at his or her brain and integrating the knowledge we want them to learn.

This is why education is a deeply personal activity. It is not the same for you as it is for anyone else—there are as many ways to learn as there are students. The challenge of society is to design a system that will provide a format for all students to learn while maximizing the individual strengths and talents of each student.

Part Four: Empowering the Individual

Despite the seemingly impossible nature of the task, there is a way to allow individuals to reach their full potential, even in a standardized institution such as the public school. The answer lies not in what we can do, but in what we can't. Essentially, we have been thinking about teaching in the wrong way. There is nothing we can *do* to that will *give* or *provide* every single individual with maximum potential. Self-actualization is different for every student, so we need to recognize that we cannot provide it for all of them. We do not have the resources to do so. However, this is because we are thinking about the wrong type of rights.

Rights are divided into two categories: positive and negative. The Stanford Encyclopedia of Philosophy explains the distinction:

The holder of a negative right is entitled to non-interference, while the holder of a positive right is entitled to provision of some good or service. A right against assault is a classic example of a negative right, while a right to welfare assistance is a prototypical positive right.

Negative rights can be respected simply by each person refraining from interfering with each other, while it may be difficult or even impossible to fulfill everyone's positive rights if the sum of people's claims outstrips the resources available.

We normally consider education to be a positive right. In our current system, we seem to think that providing a specific method of education is necessary for all students. That is, we claim that the “do a large amount of homework and practice problems” model is best for everyone. If we were to recognize that each individual has a unique learning style, then it would be impossible to fulfill this positive right—the sum of people’s claims would outstrip the resources available.

If, on the other hand, we change our outlook on the rights of education, then this dilemma disappears. By changing the grading policy to focus on the end goal—learning and gaining knowledge—instead of the means of getting there, LEARN, or DIE’s proposal will allow the maximum realization of the students’ potential. Rather than claiming that the means of education are a positive right, we should claim that the institution of education is the positive right. That is, we may have the obligation to construct schools and provide teachers, but students are not obligated to follow a specific set of means in utilizing that education. Instead, the means of education should be a negative right.

Teachers can and should provide practice and homework problems. Homework is a factor of both the current grading model and the LoD proposal. However, under our system, students are not punished if they deviate from that set of means, *so long as they learn the material*. The standard for evaluating our students should be that of learning—did they or did they not learn the material required? If not, then they should be held accountable for not working to do so. If they do learn it, however, we have no right to punish them because they didn’t learn it using the methods we provided for them.

Homework and practice problems are good. They provide students with benchmarks to test their understanding of the material, find and correct weaknesses, and build strengths. But this doesn’t work for every student, because each one has a different structure of knowledge in their mind, and different methods are called for to integrate new data into those structures. Individuals will only reach their maximum potential if they are allowed to utilize the means best suited for their styles of learning. Since this cannot be provided for each student by teachers and schools, they are forced to provide only a limited range of learning material. That is all well and good, but we know that this system is limited by our resources and is not as effective for many students as it is for the others. Why, then, would we think it’s beneficial to require every student to conform to this model? So long as they learn the material, why should we demand that they sacrifice their self-actualization for the sake of uniformity and standardization?

If we wish to solve the problems of our system of education, we must be willing to see its faults. We must also be willing to admit that there is a better way—and, in hope and confidence, think through and implement reforms. LEARN, or DIE wishes to do just that. Our grading system is broken. Even though we know that each individual is unique and learns in different ways, we insist on holding all students accountable to the same method of learning. We pay lip service to the worth of the individual, but we crush the individual in our collectivized school system. In America, we call that hypocrisy. If we focus our approach to education, grading, and rights on the end goal of learning, we will be able to reach that goal. Otherwise, we will continue to dig our own graves, refusing to leave the rut of standardization and conformity. We must climb out of that hole and empower the individual students to reach their highest level of achievement. We must LEARN, or DIE.