

Peter Liang

Ms. Small

Humanities

9 October 2022

Optimizing the Education System

The current pre-university education system is lamentable. It should prioritize bettering the learning experience of students, but instead is awfully unoptimized. The world has changed substantially in the past twenty years, but schools hold onto an outdated core. Applying old concepts to modern times does not suffice, and there is much room for improvement. Improving the learning experience means giving every student the resources they need to conduct their best learning. These can be physical resources, but more importantly, the establishment of a beneficial psychological state. In particular, personalization, collaboration, and a low emphasis on grades are the qualities required to build a supportive learning environment.

Personalization, unlike the common “one size fits all” education paradigm, optimizes students’ learning potential. The “one size fits all” paradigm is a problem because it hinders students. Some students at my previous high school would take two math classes during freshman year in order to accelerate their math path. However, due to the large number that chose to do so this year, the administration decided to discontinue the practice. Evidently, the reason behind the decision was the complicated scheduling. The objective of a school is to teach students; however, by removing the option of doubling up, the school curtailed the math education of the students. The freshmen were forced to take the ninth grade math course, when in reality these bright students would have been better suited for the tenth grade course. In this case,

students were slowed down. Similarly, forcing a common curriculum upon all students can also accelerate some too quickly. Theodore Sizer, a leader of American education reform in the 20th century, observes in his writing lesson how “Some could barely write simple prose ... Others ... could write easily” (Sizer). All students are of differing skill levels. Therefore, how can one curriculum possibly suit all of their abilities? For the more advanced students, their understanding of the material exceeds what is being taught as they already know much of it. Hence, class will be boring and they will learn very little. On the other hand, the underachieving students may be so behind that they will have trouble keeping up with the curriculum. By trying to learn above their capabilities, they skip critical intermediate steps. Without learning the in-between steps, the higher level knowledge has nothing to support it and it becomes worthless. Not only should the difficulty of the content be suitable for the learner, the presentation of the content also matters. As Sizer puts it, “A teacher cannot stimulate a child to learn without knowing that child’s mind any more than a physician can guide an ill patient to health without knowing that patient’s physical condition” (Sizer). In order to offer a more personalized curriculum that appeals to each individual’s style of learning, the teacher must understand how the student thinks and learns. Are they a visual learner or an auditory one? Do they lean towards kinesthetic or reading and writing (Malvik)? For example, catering to the visual style of an individual will allow them to pick up the knowledge faster and expedite their learning compared to a more auditory approach. However, personalization is difficult to execute due to the fact that it is hard to determine what works best for each student, as they themselves might not know. Regardless, schools should adopt a more personalized approach so as to better fulfill their objective of educating students.

Collaborating with other people accomplishes more than competing against them or working alone. Collaboration offers unique perspectives that cannot be gained by independent work. In *Against School*, John Taylor Gatto, a fierce critic of public education, proposes that parents should expose their kids to “plenty of solitude so that they can learn to enjoy their own company, to conduct inner dialogues,” in order to lead a “more meaningful life” (Gatto). While it is true that in certain environments, other people might slow one down, working alone is an even greater hindrance. Mother Teresa once said, “I can do things you cannot, you can do things I cannot; together we can do great things.” As powerful as one might be, they cannot be all-powerful; there is something to be learned from everyone they meet. Combined, their knowledge will fill each other’s gaps and they will accomplish more than either would have individually. Moreover, a person working alone can only access their point of view and their inherent biases, skewing their way of thinking. Worse, they will not even realize their bias because they have not encountered an alternative viewpoint. Collaborators also have their own perspectives, but these perspectives become more objective when united, often revealing things that were overlooked before. Similar to working independently in that they are without a team, competing against others drives the individual, but bringing in other people as opponents creates an unhealthy mindset. As a social motivator, competition increases effort, especially in physical situations (DiMenichi and Tricomi). However, when competing against other people, students are prone to comparing themselves to others. Pernicious thoughts such as “He’s so much better at math than me” or “Her GPA is a lot higher than mine” are hurtful to self esteem, which in turn puts the student in a bad mental state to learn. Competition, solitude, and collaboration each have their merits, but the sheer power of multiple minds combined overpowers anything else.

Whether it comes from school, parents, peers, or the students themselves, the pressure to achieve high grades can backfire. Grades provide extrinsic motivation for learning, which may cause the opposite of the desired effect. There is attention put towards getting good grades, and students with good scores are rewarded with honor rolls and eligibility to participate in sports, among other things. Intuitively, outside motivation should increase the existing intrinsic motivation students have for a subject. However, in the overjustification effect, expecting a reward for completing a task can actually decrease the intrinsic motivation a person has (Lepper et al.). If a student is inherently interested in a subject and takes a class to study it further, they will lose interest as a result. Granted, grades can be used as an external motivator for students with little to no interest in certain classes, but what about the subjects they do take an interest in? Should they not enroll in those classes to keep that interest? Completely absurd. People go to school to take classes in the fields they might want a career in. Paradoxically, grades cause them to lose interest. Additionally, grades encourage result-oriented thinking, which is detrimental to overall learning. The intent of grades is to provide feedback on how students are doing in their learning, but many students learn in order to get good grades. Many times I have heard peers ask the question, "Will this be on the test?" At first it seems innocent enough; they want to know what to study for. However, the question implies that if the content is not on the test, it is not worth studying. At this point, the roles have been switched. Grades have become the result and learning has become the means to obtain them. With grades as the end goal, students only learn the minimum amount required to get a good grade, not the amount they need to achieve mastery. Outside of school, this mindset is unsustainable as there are no grades as reward. The stress caused by worrying about grades adversely affects learning. A study found that the amount of

cortisol, the stress hormone, rises when grades decline (Lee et al.). Long-term stress can result in a multitude of unhealthy issues, including anxiety, depression, and concentration impairment (“Chronic Stress”). This creates a downward spiral of doom. As cortisol levels increase, it becomes more and more difficult to obtain a good grade due to lowered brain function. Then, the next bad grade only serves to increase stress even more. Instead of focusing on the results, students should focus on learning for mastery, and the grades will come naturally.

Less attention towards grades, a collaborative mindset, and a personalized curriculum are crucial to a supportive learning environment because they facilitate the process of learning. While it is a large part, school is not the only component of a learning environment. Parents and peers also affect how a child thinks and learns, and working together, a better collective learning environment can be achieved.

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