

“Outliers” Provide the Innovative Spark to U.S. Education

Lucille Lorette Porter, Ph.D.

Abstract

The educational system in the United States currently finds itself in a quandary. Various attempts at educational reform have come to an impasse. A new paradigm for the infusion of innovation into the educational system may be found by looking outside it. Identifying “outliers” as agents of needed change and inspiration is highlighted.

Introduction

Prescriptive requirements in education policy have generated disagreement on how to educate K-12 and post-secondary students to be competitive in a global market. Today’s education programs must struggle to prepare future teachers to properly educate students because educators, for the most part, are not in consensus and have to contend with state and federal mandates that are constantly changing. For more than a decade, there have been moves to reform education policy. Educators have largely come to rely on two federal acts in the hope of accomplishing this task, “No Child Left Behind” and most recently, “Every Student Succeeds.” The advocates for these programs share a similar, two-fold strategy: all students will advance in our public schools; and cracks in the education system will be closed. However, absent from this push is a discussion of the extent to which our students will succeed and the components that define success.

In 1993, President Bill Clinton said in a speech to the Democratic Leadership Council that, “...the American dream that we were all raised on is a simple but powerful one – if you work hard and play by the rules, you should be given a chance to go as far as your God-given ability will take you.” (Hochschild, 2011, p. 1). This ideology supports the very essence of our education system today because the idea of “playing by the rules” continues to contribute to the hurdles and stumbling blocks that U.S. students must endure. If this country’s public education system continues with the same ideology that held sway in the late 20th and early 21st centuries, our education doctrine will become further “situated away from or classed differently from a main or related body.” (Gladwell M. , 2008, p. 3) Equally important, the disparity in education will become even more pronounced among our students.

It is time for policymakers, education consultants, administrators, college and university school of education program coordinators, think tanks, and rethink the ways in which we are preparing all of our students to be competitive by exposing them to a more diverse group of people while giving them the opportunity to experience an array of enriching and extraordinary circumstances. This is important because extraordinary circumstances are “products of history and community, of opportunity and legacy.” (Gladwell M. , 2008, p. 285). The goal of attending public schools should include an understanding of how to achieve success and happiness through individual merit, an understanding that is outside the current norm of prescribed experience found in our nation’s schools.

This article offers alternatives in discussing success for U.S. students. It focuses on two reviews found in Malcolm Gladwell’s book, *Outliers: The Story of Success*. This is because they capture the essence of the discussion of change in public schools. The first review sparks a debate over “What is the difference ... between those who do something special with their lives and everyone else?” (Schappell, 2008, p. Acclaim page). When placed in the context of how education is perceived today in the United States, we must ask ourselves why we are not making changes in the education system to keep pace with or- more importantly- to set the bar that other countries will be challenged to meet? The second review advocates, “...by understanding better what makes people successful we should be able to produce more successful (and happy) people.” (*Economist*, 2008, p. Back cover jacket). The United States continues to lag behind other countries in education system rankings as it struggles with equity issues, thus making it a challenge to “understand better what makes people successful.”

A primary cause of the difficulty of introducing students to extraordinary circumstances has been noted by the Council on Foreign Relations: “The United States is in an era of austerity...the challenge will be to expand higher-quality education for all Americans, rich and poor, in a time of tight budgets.” (Strauss, 2013, p. 2). Of course, funding is not the only obstacle our education system must contend with in 2016, a year in which the contest for the office of the presidency continues to divide political parties and equally, has plunged the populace into a state of uncertainty regarding the direction in which the country is headed. During the early months of the 2016 presidential election race, candidates offered recommendations regarding restructuring the education system at the federal level. One presidential candidate even endorsed the abolition of the U.S. Department of Education, a Republican Party platform embraced in the early 1980s by President Ronald Reagan. Yet another presidential candidate promised to eliminate the Common Core Standards while allowing more charter schools to be established. In view of these proposals and with the decline in the United States’ international rankings for education, the U.S. education system will struggle to educate competitive, successful, and happy students. Education at the federal level has not been and continues not to be a priority because it is seen as a soft discipline compared to the other governmental agencies. Education, for the most part, is a matter left for each state to regulate.

There are many educators who fulfill their responsibilities in preparing students to compete in a global market. However, there also are professors working in ivory towers who continue to write scholarly papers to each other advocating their own agendas rather than evaluating the needs of their students. This is because “... university life gives them the freedom to do what they want to do and what they feel is right.” (Gladwell, 2008, p. 97) In addition, there are many education consultants who have never taught at the K-12 or post-secondary levels but offer recommendations to contribute to and fix our education system. The time is now to turn the focus to identifying and nurturing every student’s talents and to lessen the influence of theoretical perspectives and questionable recommendations concerning preparing K-12 and post-secondary students that have unfortunately been introduced into institutions. The significant problem of inequality will be on the table to study and discuss as long as there are students to be educated. It will always be a priority, as it should be.

However, the urgency now is not only to fix our fractured education system but also to introduce a different way of thinking about educating our students, allowing them to practice what has motivated them in their academic scholarship. It is time to incorporate the intrinsic motivation of outliers, a term more familiar in mathematics, statistics, and sociology than in education curriculum studies. It cannot be emphasized enough that to be competitive in an international market, changes are needed throughout the education system so that all students will experience success and be competitive citizens.

Enter the Outliers

There are many definitions of *outliers*. One such description is “something that is situated away from or classed differently from a main or related body.” (Gladwell M. , 2008, p. 3). Another explanation states that an outlier is “an extremely high or an extremely low data when compared with the rest of the data.” (Bluman, 2008, pp. 3-49). If this country’s academic standing were placed on the X axis of a graph, the academic standing would be negatively or left-skewed, reflected in a bell-shaped distribution. In keeping with mathematical definitions, D. M. Hawkins (1980) defined outlier as “an observation which deviates so much from other observations as to arouse suspicions that it was generated by a different mechanism” (p. 1). A more simplistic mathematical definition is that “an outlier can strongly affect the mean and standard deviation of a variable ... and statistics as well.” (Bluman, 2008, pp. 3-49).

This paper adopts Malcolm Gladwell’s definition. However, Allan G. Bluman’s mathematical definition offers a visual image of the influence that outliers play and thus helps in understanding how outliers could be utilized when restructuring current educational practices. “It’s not enough to ask what successful people are like ... it is only by asking where they are from that we can unravel the logic behind who succeeds and who doesn’t.” (Gladwell M. , 2008, p. 19). Clearly then, the methods of observation or data collection must be in place to understand why some people are successful and to learn more about who will succeed and who will not.

Outliers Direly Needed

Outliers, when collectively considered as an entity positioned away from or classified differently from the norm, could serve to reverse the current trend we see in education. One initiative in the Every Student Succeeds Act is that, “participants are given opportunities to test out and apply new skills.

Skills mastery requires coaching and practice.” (Education, 2016, p. 2). This initiative is congruent with the discussion Gladwell offers in speaking about outliers. Using musicians as an example of an outlier group, Gladwell (2008) states the following:

...the thing that distinguishes one performer from another is how hard he or she works. That's it. And what's more, the people at the very top don't work just harder or even much harder than everyone else. They work much, much harder. The idea that excellence at performing a complex task requires a critical minimum level of practice surfaces again and again in studies of expertise. Researchers have settled on what they believe is the magic number for true expertise: ten thousand hours. (pp. 39-40).

There seems to be a rising consensus concerning the magic number of 10,000 hours: “The emerging picture from such studies is that ten thousand hours of practice is required to achieve the level of mastery associated with being a world-class expert--- in anything,” writes the neurologist Daniel Levitin. (2008, p. 40), adding that, “ In study after study, of composers, basketball players, fiction writers, ice skaters, concert pianists, chess, master criminals, and what have you, this number comes up again and again. Of course, this doesn't address why some people get more out of their practice sessions than others do. But no one has yet found a case in which true world class expertise was accomplished in less time. It seems that it takes the brain this long to assimilate all that it needs to know to achieve true mastery.” (2008, p. 40)

So how does this magic number equate with how U.S. teachers are preparing students at the post-secondary levels? A recent survey conducted by the University of Phoenix College of Education reported that “...students nowadays are spending significantly more time on homework assignments – sometimes up to 17.5 hours each week – the type and quality of the assignments have changed to better capture critical thinking skills and higher levels of learning.”(Bidwell, 2014, p. 1)

What is important to note here is the difference from the discussion regarding the magic number of 10,000 hours, which stems from a pattern of practice that begins when a student is young, around five years of age, and continues with those who become experts increasing their practice time as they grow older. These students purposefully and single-mindedly practice to get better by increasing their practice time every year. (Gladwell M. , 2008, pp. 38-39)The hours of work or practice students obtain in elementary and high school was not even considered by the University of Phoenix College of Education survey, which focuses exclusively on the post-secondary level. However, the superintendent of one rural California traditional school district offered an approximation of 14 hours spent to obtain mastery of assigned projects as a collaborative group project.

Restructuring the U.S. education system could begin with our elementary students by revising the current minimal amount of homework given and promoting a gradual increase in homework hours so that students can practice what they have learned in the classroom. The hours practiced would increase as the student moved through the education system. Equally important, this system must be seamless whereby the schools, the districts, and the state would be “on the same page” regarding what they expect from all students.

Learning does not stop when the bells ring, signaling school is out for the day; rather, learning should continue in after-school programs and in the home. “Practice isn't the thing you do once you are good. It's the thing you do that makes you good.” (Gladwell, 2008, p. 42) In the instance of the California school district referred to above, students attend school from August to June. These students are on the school premises for less than seven hours per day, Monday through Friday. These hours do not account for lunch and getting from one class to another and other scheduled activities. These same students in middle and high schools are expected to spend at least one to two hours per evening on homework. The district superintendent commented that students are assigned projects that require them to work collaboratively on weekends. The assumption here is that students will spend countless hours in perfecting their project. These are students who are intrinsically motivated and committed in achieving a goal that they have set. This allows for students to experience and develop camaraderie in similar interests but also sometimes aids in developing “cultural capital.” Elliott Med rich reminds us that, “Not only do children come to school with significantly different intellectual capabilities but also with very different family and social situations. Their backgrounds, which affect their values, attitudes, and experiences, further diminish the likelihood that all will attain the same scholastic success. ...In terms of their future, what happens to children outside school is as important, at least, as what happens to them in school. (Elliott A. Medrich, 1982, p. 3) Yet what happens after school gives parents the opportunity to pick up on special interests of their children, thus enabling the parents to assist in directing the children's talents to the appropriate resource and to further develop the children's skills.

A special interest is not developed in isolation. Gladwell argues that a person cannot succeed alone. He reminds us "...no one – not rock stars, not professional athletes, not software billionaires, and not even geniuses – ever makes it alone." (2008, p. 115) Students at every level of education need the opportunity to practice much harder at a skill as well as work with others to gain expertise in their skill.

Every student comes to school with a special talent or interest but too many struggles to develop their skills because of lack of support that should come from both the parent and the school. "They lack something that could have been given to them if we'd only known they needed it: a community around them that prepared them properly for the world. This is squandered talent. But they didn't need to be." (Gladwell, 2008, pp. 112-113).

In my adolescent years in the late 1960s and early 1970s, as an African American female student, I passed through middle and secondary education in a rural California farming community. My talent would have been squandered had my mother not worked hard to see that her four children completed high school and attended college. "Working-class and poor parents are no less eager than middle-class parents to see their children succeed in school. They take a different approach to helping them reach that goal, however." (Lareau, 2011, p. 198)

Extraordinary opportunities and exposure to diverse people were not accessible to me, in contrast to my classmates of Portuguese and Scandinavian heritage. When I transferred into the school, I was not allowed to continue with learning a second language, Spanish. The majority of classes I took during my years at the school were vocational education classes with few college-preparatory courses. In the end, I returned to college to earn three degrees and a teaching credential. Years into my studies for a terminal degree and after being dropped by some advisors, I understood that I may have been in the wrong academic discipline. However, I continued with my coursework despite being in the wrong discipline because I did not want the time and financial aid to have been wasted. My story aligns somewhat with Steve Jobs' childhood in that perseverance allowed me and Mr. Jobs to move forward with our aspirations. According to the book, *Accidental Millionaire*, as an adolescent Mr. Jobs was found

....attending evening talks by Hewlett-Packard scientists. The talks were about the latest advances in electronics and Jobs, exercising a style that was a trademark of his personality, collared Hewlett-Packard engineers and drew additional information from them. Once he even called Bill Hewlett, one of the company's founders, to request parts. Jobs not only received the parts he asked for, he managed to wrangle a summer job. Jobs worked on an assembly line to build computers and were so fascinated that he tried to design his own.... (Butcher, 1987, p. 66)

Cultural capital previously referred to, can be defined in terms of those "non-financial social assets that promote social mobility beyond economic means such as education, intellect, style of speech..." (Bourdieu, 1984, p. website). Cultural capital has dominated and continues to influence our public education system. For example, access to advanced-placement classes continues to be an ongoing equity issue. "The education system reproduces all the more perfectly the structure of the distribution of cultural capital among classes (and sections of a class) in that the culture which it transmits is closer to the dominant culture and that the mode of inculcation to which it has recourse is less removed from the mode of inculcation practiced by the family." (Bourdieu, 1977, p. 493) The opportunity for all students to be exposed to extraordinary circumstances and diverse people so that they can master a skill should be a topic of conversation at the federal, state, and local levels. Gladwell suggests allowing 10,000 hours in mastering a skill is optimistic but not probable in today's climate because it would place a hardship by over-extending the availability and talent of our teaching pool. Moreover, our education system is stressed when it comes to instruction and delivering an effective curriculum that is not overly prescriptive and hierarchically reinforced. Regardless, if this ideal pedagogical practice of reaching out to all students to experience success and happiness were in place, there would be a continued ingrained ideology that would erect new hierarchies in the education system. "By doing away with giving explicitly to everyone what it implicitly demands of everyone, the educational system demands of everyone alike that they have what it does not give." (Bourdieu, 1977, p. 494) The U.S. public school system should take lessons from its international neighbors regarding pedagogical practices to improve our students' academic achievements in the areas of science, technology, engineering, and math (STEM). In contrast to the typical approach in the arts and humanities, the STEM philosophy is that "...it's more important than ever for our youth to be equipped with the knowledge and skills to solve tough problems, gather and evaluate evidence, and make sense of information. These are the types of skills that students learn by studying science, technology, engineering, and math." (*Education U. S.*, 2015, p. 1) March 23, 2015 (internet-<http://www.ed.gov/stem>).

An example of pedagogical practices that is seen every year is the students' rigor of practice to prepare for the National Spelling Bee. Shalini Shankar, an anthropology professor, in an article titled, "Here's a Theory About Why South Asian Americans Totally Rule the Spelling Bee," (2015, pp. 1-4) writes about the preparation:

That process is usually every day, if not almost every day, they spend a few hours after school, after their homework, sometimes after their parents get home so they can quiz them. They spend several hours each weekend day preparing ... but certainly in the weeks and months leading up to the bee. Some of these spellers who compete in their school bees as well as these South Asian spelling bees, they don't let too much time go by when they don't have to be preparing for something. (Shankar, 2015, p. 4)

As evidenced by the South Asian spellers, the people at the very top don't merely work a little harder or even much harder than everyone else; they work much, *much* harder. I worked much harder than most of my classmates in my rural California community to be exposed to extraordinary opportunities and diverse people so that I could experience life-long happiness by way of the sacrifices I made as well as my commitment to be viewed as an expert in the field of my earned terminal degrees.

Conclusions

The U.S. education system, kindergarten through grade 12, as well as the post-secondary years, is fractured. The time is now to rethink how to better prepare our students to compete in an international market and to not squander their academic talents.

As a young African American female student, I could have become just another "victim" and dropped out of the doctoral program, had it not been for my determination, perseverance, and self-commitment to earn the letters of Ph.D. I was an outlier. Many obstacles were in place to deter me. In spite of this, I worked extremely hard as I continue to do today. The department from which I earned my terminal degree failed to acknowledge the expert skills that I possessed upon arrival at the university.

I had very little support from my many academic advisors while I passed through the obstacles they erected. Instead of receiving support for the interest and experience that I brought initially to the program, I was left to develop an original topic. But at least that was mine. What I took from this experience was that I became an expert on the topic of curriculum from the period of transition after the Civil War through the first couple of decades of the 20th century. I discovered that influential people such as U.S. Presidents, philanthropists, and educators decided how future teachers would be educated at one southern institution. In essence, for part of American history the mindset was, "If we do not educate them someone else will, and whoever thus benefits them will win an influence over them which will control their votes...If we perform this service...then we shall secure their identification with us in promoting....our interest."(Swint, 1941, p. 138)If becoming an expert requires insurmountable hours within a defined time period to earn the letters of Ph.D., then I am an expert in a small yet very important time of our history.

From a young African American student's early years in secondary school to the decade spent in a department where I earned my terminal degree, I went beyond the norm in seeking extraordinary opportunities and diverse people. Intrinsic motivation, a lot of practice, and a profound interest in my field of study allowed me to achieve my goals as an educator and to subsequently translate some of these skills in working as an advocate at a non-profit in the ongoing and vital struggle against cancer.

The book, *Outliers: The Story of Success*, was an awakening for me. What I hope was conveyed through this article is the important idea that we, as a nation, must rethink our fractured education system so that the struggles that we experienced while progressing through it will not be present when our children and grandchildren follow suit.

Endnotes

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