Teaching, Learning, Educating - The Complex Trilogy to Securing a Learned Society

Kwansah Ackah

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Abstract

The concepts of teaching, learning, and educating are often misconstrued as one in the same. There are instances even in academia where these three concepts are viewed with an unhealthy degree of similarity; prioritized and valued in a disturbingly unbalanced way; and disproportionately evaluated from one academic institution to the next. This paper discusses some of the short and long-term negative effects of unbalanced prioritization of these concepts, while seeking to highlight the importance of placing equal value on teaching, learning, and educating throughout civilized nations, but most importantly in academic settings. A harmonious prioritization of teaching, learning, and educating is vital to securing the future of society in a continually fast paced emergent world.
Introduction

In the history of humanity, societies that advanced themselves placed a strong and equal value on teaching, learning, and educating their citizens. Understanding the trilogy, enabled them to industrialize, innovate, advance, and contribute to the world’s evolvement. Prior to the mechanization of humanity, much of knowledge and advancement was made through the discovery of theories and laws in science, math, language, and other areas that were then used to create things pertinent for that era.

Even though their methods may not have been as formalized as they are today, great nations historically placed significant emphasis on teaching, learning, and educating and understood their importance in defining themselves as world leaders. We see this demonstrated by the construction of the Royal Library of Alexandria in Ancient Egypt. The library served as home to volumes of scholarly material and was patronized by many of the most learned minds of the era (Chesser, n.d). Its destruction during the Roman conquest was arguably a monumental blow to the trilogy and an early signal of our modern day trend of lessening its importance. Ancient Egypt was not only a beacon of wisdom for Africa, but for the world.

Historically, prominent individuals of successful societies have been heavily influenced by teaching, learning, and educating because it helps to form their way of thinking, approach in life, and their decision making which ultimately affects the society. When that is taken away or less prioritized, a slow decline in that society is inevitable.

Teaching, Learning, Educating

Differentiating Between Teaching, Learning, and Educating
Education is the formation of skills, values and knowledge that are imparted upon an individual. Learning is the adoption of skills, values and knowledge. And teaching is the act of imparting knowledge, skills, and values to others through practical and theoretical application. All of these are as defined in the Merriam-Webster dictionary and must all be applied cohesively or problems will begin to surface. Without proper teaching skills, education and learning suffers. Without a strong education system in place, learning becomes all the more difficult. And without the ability of the student to learn, education and teaching becomes more difficult to implement. When an education system does not put emphasis on whether or not the student is learning, you end up with a society that lacks strong cognitive capabilities and the lacking of skillsets to navigate through an ever advancing technological world.

Learning is an ongoing process and is carried throughout a person’s lifetime. Whether learning is attained through the reading of a book or through experience, it is ever occurring and can be formal or informal. Teaching on the other hand is mostly formal. The role of the teacher is crucial to education and learning because it is their responsibility to introduce the power of teaching in the classroom. It is the teacher whose role is to make sure the student comprehends and applies what is being taught. For the student, it must go beyond becoming a test taker.

The Pitfalls of Not Placing Equal Value On All Three

Test taking is one of many aspects of education and learning, but when the emphasis is heavily placed on it and not on whether the student comprehends the subject matter, problems will ensue as seen in the “No Child Left Behind” initiative in the United States. Most people in America have heard the term ‘No Child Left Behind’ (NCLB) because it became one of the most heralded education initiatives of the 21st century although many did not truly understand what the program entailed. The name of the policy was a public relations ingenuity at its best leaving
many believing that its goal and results had the concern of a student’s success front and center. The policy was instituted by then President George W. Bush in 2002 and became a new 21st century model for education systems across the country. Unfortunately, test results became the barometer of whether or not a student had a grasp of the subject at hand and the emphasis on quality learning began to perish.

The primary purpose of NCLB was to bring accountability to public schools. My goal here is not to leave you with the impression that there were no good outcomes of the initiative, so let me touch on some of its good points first. The policy opened the door for the conversation to be had on why and how to make schools and the process of educating and learning more accountable. Because of this increased attention and visibility, schools began to discuss how they could make sure their students attain and achieve the test scores required to meet a government imposed standard for each grade level. The other benefit seen in the policy was that it exposed how students, teachers, and state education systems were grossly unprepared. The intention of the new policy, or so said the policy makers at the time, was that it would make sure all children and youth regardless of race and background would attain the quality of education they deserve. Much of this required teachers making sure that their students would pass standardized tests and at least be labeled ‘proficient’ in the area of math and reading (Klein, 2015). The required standardized test was known as the Criterion-Referenced Competency Tests (CRCT) and was administered at the eighth grade level.

The pressures of these new test requirements led teachers and administrators to become engrossed in making sure their students made the mark and produced the test scores required by the government. Unfortunately, this placed such pressure on the schools that many of them turned to cheating in order to attain the government required minimal goals. An example of such
cheating scandals is the case of the Atlanta public school system which made national news. The scandal was initially broken after a comprehensive investigative reporting effort was taken by the newspaper Atlanta Journal Constitution (AJC) in 2008 after it conducted an analysis of the previous very low test scores at school districts comparative to new high test scores. The newspaper questioned the probability of such a score difference in such brief period of time which led to the initiation of an investigation by the Georgia Bureau of Investigation (Atlanta Journal Constitution, 2016). These investigations revealed that 44 out of 56 schools were involved in some form of cheating mainly by changing student’s answers on the standardized tests. In this instance, it is clear that the education process failed, learning was impeded, and quality teaching was an afterthought.

The Atlanta scandal was not the only test cheating scandal in the nation, but by far the biggest ever. What does it say about a policy like NCLB when almost 80% of a school district is caught up in a cheating scandal in order to attain expected test results? The biggest losers in this situation are not those teachers and administrators who were involved, although many received jail sentences, but the several thousands of students who obviously did not measure up to what was expected of them in regards to test scores and were passed up to the next grade being highly ill-equipped to perform. If we are to be honest we would say that ‘No Child Left Behind’ failed for many based on its expectations.

How the Three Are Necessary For Applied Knowledge

The failed results of NCLB in the school system of Atlanta was a good example of what happens when equal value is not placed on teaching, learning, and educating. NCLB created a monster for a number of reasons. With the pressure for schools to achieve good testing scores at the middle school grade level, more of the high performing and motivated teachers were being
placed at that grade and above leaving the poorer performing teachers to mind the pre-school, kindergarten and early elementary grade children. This change immensely hurt applied knowledge capabilities for students in their formative years. According to the SUNY Empire State College, applied knowledge is learning that is used in various situations and contexts; through it, students use various procedures and analytical tools to formulate and generalize concepts to solve diverse problems and situations (SUNY, 2017). When the failure to place equal value on teaching, learning, and education is set in motion, applied knowledge for the student and ultimately the society will suffer greatly.

**What is the Role of Education?**

*A 21st Century Education Model and its Impact on Students*

In 2009 the National Governors Association (NGA) introduced yet another 21st century education initiative called the Common Core State Standards Initiative (Straus, 2014). The main objective of the Common Core initiative was to set standards for children in grades K-12 in terms of math and language arts at the end of each school year. Forty-four of the fifty States have adopted the initiative which was assessed on a national level from 2014-15. Much like NCLB, this initiative is indicative that the government is looking to establish a standard education program for the nation’s students. Again, this approach to education erases the autonomy of students and to a certain extent that of schools as well. Such systems fail to recognize that no two students are alike and unfortunately, our American school system is moving more in the direction of treating all students alike and discarding those who do not measure up to the established “standards” without any great deal of regard to their unique challenges. For any system to work, we must understand and consider the fact that students are not just numbers, they are people who possess individual personalities, gifts and talents.
Expectedly, some students also have challenges that must be addressed with the provision of appropriate assistance. Unfortunately, the current system appears to only address one goal - attaining expected scores on the standardized tests. The American education system has and continues to suffer because of these initiatives passed down through its government and the pressures placed on the schools to show results of performance up to the government established standard(s).

In comparison, let’s take a look at a school system which has consistently attained great success for their students. Let us take a look at the country of Finland which has been consistently rated as the most literate nation with close to a 100% literacy rate for boys and girls (Flood, 2016). In a report published in The Hechinger Report, the stellar performance of students in Finland and what makes their education system stand out from the rest was examined and highlighted. The Finland school system is based on a comprehensive education system which does not discriminate in the quality of education offered based on the income of a household. All education is also free and thus a student whose parents are wealthy has no better educational opportunities than a student who comes from a less economically endowed home. The older students are also offered more design and technology curriculums. Students also do not begin attending formal school until age seven, leaving the parents responsible for early childhood development. By age sixteen, students can either elect to continue their education or be done. Additionally, teachers are also trusted to do what they must to ensure their students achieve success and not just pass standardized tests.

In the Finland school system, the pressure to cheat on standardized tests is almost non-existent because they have taken a more realistic approach that allows teachers to truly care about the success of their students and implement every measure to accomplish it. Most if not
all schools offer hands on and vocational courses for their students giving them a keener sense of ingenuity and purpose. Students are not just sitting in class for hours being lectured, but can practically participate in the learning process. Students in the upper secondary grades design their own individual learning within a modular structure with a great deal of emphasis on personal responsibility placed on the student and teacher (William Doyle, 2016). As a result, graduation rates for upper secondary (high school) is over 90% outperforming their peers in other nations and students are not just learning the theories and laws of specific subjects but are applying these theories and also learning the meaning and functional aspects of life.

The Importance of Education in Forming the Intelligentsia of a Society

The American school system could adapt a thing or two from the Finns. The current American system is falling behind the rest of the world in preparing its students. Among the 35 members of the Organization for Economic Cooperation and Development, which sponsors the PISA initiative, the U.S. ranked 30th in math and 19th in science in the world. In 2015, 38% of fourth-graders, 34% of eighth-graders and 22% of 12th-graders were rated proficient or better in science; 24% of fourth-graders, 32% of eighth-graders and 40% of 12th-graders were rated “below basic” (DeSilva, 2017). Similar studies conducted at the initial college entry levels depict comparable regressive percentages. With the world turning more towards technology and innovation, how prepared do you really think American students are in order to compete with the rest of the world for skilled jobs?

There are some solutions that can help reverse our current dwindling state of education. Our nation must turn back to greater accountability among educators and should seek to only hire the top 40% graduates from universities for certain grade levels. Additionally, teachers of all grade levels should at a minimum be required to possess a master’s degree to teach our
children. Just as important, those who handle the hiring process should evaluate a teacher’s creativity and motivation in reaching the student. Is that educator content with just “sticking to the book” and treating their class as a monolith, or do they take into consideration their ability to adjust to reach their students? These questions must be asked because truth be told, there are sadly too many teachers who are in it just for the check or who have become burned out and lack the passion for teaching. Don’t be fooled, students pick up on this very quickly and can tell when a teacher really cares about them and when a teacher is just going through the motion and will respond and perform accordingly.

Results of Emphasizing Testing Over Educating

It is becoming more apparent that NCLB was not the answer because it disconnected the value of merging teaching, learning, and education and placed more emphasis on test taking and results to meet a predetermined mark. It left more students behind than we care to acknowledge. The American student currently appears to be falling further behind the rest of the world and that should be alarming. Too many dead policies, bureaucracy, and incompetent teachers are to blame…not the students. The students only reflect what is being made available to and taught to them. So if American students are falling in rank against the rest of the world, what does that indicate the education system is doing in preparing them? It’s time for some honest assessment and some changes for the sake of the nation’s prosperity.

Role of Teaching/Teachers

Human Relations Specialist, Facilitator and Motivator

In education, the role of the teacher must be that of human relations specialist, facilitator and motivator (Whitman, 1984). Based on these expected roles, it confirms that a teacher cannot
just primarily be a test giver as we’ve already discussed in the failures of NCLB. For many students, attending school or even sitting in a classroom or learning environment can be stressful. This could be for a number of reasons including social anxiety, learning disabilities, inability to cognitively comprehend the subject at hand, or just a lack of interest in the subject. It is up to the teacher to apply his or her teaching skills to identify shortcomings and assist students to overcome those obstacles and become engaged in the learning process. No two students are alike and a vital understanding of this concept by teachers coupled with increased student-teacher interactions, can lead to an increased likelihood of students becoming more engaged, and interested in learning and achieving.

Teaching requires that teachers engage the students through feedback, encourage class participation, provide comments on test papers versus just putting a grade on them, set time aside to meet with the student one on one, and provide structure and clear expectation at the start of a class (Whitman, 1986). This helps to personalize the classroom and humanizes the teaching environment enabling for greater student participation and positive results. Most importantly, it reduces or perhaps may even eliminate the stresses associated with teaching and learning. Stressful environments inhibit the capacity for learning and in turn puts even more stress on the teacher. A teacher must be the facilitator of disseminating information to his or her students in a way that encourages the learning process to yield results in favor of the student and not just solely to attain a state or government required score or mark. When the stress level in a classroom environment is reduced, it allows students to become motivated and teachers more engaged in the student’s learning success (Whitman, 1986).

**How the Evidence of Quality Teaching Conveys Beyond the Classroom Through Experience**

The evidence of quality teaching carries beyond the classroom and is seen through application and experience. Because application and experience shows the linkage between
education and learning, it is important to place value and priority on teaching. There must be a better way to evaluate the quality of teaching other than student results on a standardized test. The fundamental tasks of quality teaching for the teacher are knowledge of the subject matter, interacting with students, designing learning experiences, and managing course events. These fundamentals move the teaching capacity beyond just the results on a standardized test. It humanizes the process more keenly and creates a better mode to evaluate the quality of teaching that is being executed by the educator. After all, the expected end state of our students is not the classroom but out in the job market applying the theories and concepts studied in the classrooms.

**How Teaching Styles Serves as a Motivator for Learning**

For any education system, the quality of the learning process cannot be emphasized enough and quality teaching serves as a motivator for learning. Learning for the student occurs in three phases which are: during the course, at the end of the course, and after the course (Fink, 2008). Learning during the course requires that they attend the course regularly and take action in doing the work of learning such as participating in discussions and completing assigned tasks given by the educator. At the end of the course, learning is seen when what a student learns lasts, sometimes throughout their lifetime. Learning after the course is evidenced when what they have learned can now be applied to their lives to enhance their living and that of others. Learning should be an ongoing process and when that is central in educating and teaching, the results are long lasting in a positive way for the student. Building a strong and stable course/curriculum design by the teacher will help to sustain learning beyond the classroom experience for the student (Fink, 2008).

**The Power of Learning and its Application**
The Elements of Curriculum Development in Learning

If a quality curriculum is not in place, the quality and ability to learn will suffer. One often used method in curriculum development to facilitate learning is the application of the Dick and Carey Model which was first introduced in 1978. The first step in this model is to identify the goals and objectives. The next step is determining what your learners already know so that you can figure out how to fill the learning gap. This task can be accomplished through assessments, surveys, or questionnaires, and plays a vital role in helping determine the enabling and intellectual skills the learner brings to the learning task. Performance objectives must then be established outlining functions that must be applied to align instructions to lesson/curriculum established outcomes. A criterion for testing a student’s progress and performance must also be established as this tool helps both the student and teacher to evaluate the level of progress.

An instructional strategy or lesson design must be set in place as it helps to determine the best delivery method for the lesson (discussion emphasized, teacher led versus group paced, etc). The selection of instructional material is then determined with a focus on material that aids in the learning of the subject i.e. print, electronic, video, etc. The final two steps in the Dick and Carey Model are formative evaluation which helps to provide data in determining whether or not the materials need to be adjusted or revised and the summation evaluation which allows for the educator to determine the overall success of the system as a whole. Although there are other models available in curriculum development, the Dick and Carey Model has been used for nearly forty years as a standard with proven success to help students in the learning process as well as help educators organize the teaching process in a well thought out and implemented manner.

How learning Styles Can Become Learning Strategies
Students are not a monolith and every educator that will teach before a group of them will soon discover this truth. Every student has their own learning style through which they are comfortable with and effective at learning. It is important for educators to place an emphasis on learning styles but with caution to create a balance in the approach to prevent the alienation of students with divergent learning styles. A balanced approach to addressing the challenges associated with multiple learning styles in the classroom can lead to the creation of learning strategies (McKeachie, 1995).

There are seven general learning styles which are: visual which requires learning through images; verbal which is learning through written words and speech; physical which is learning through a sense of touch through body and hand use; logical which is learning through reasoning and systems; social which is done through group settings or others; solitary which is done through solitude and self-study; and aural which is learning through sound and music (McKeachie, 1995). A good teacher not only recognizes the different learning styles among their students, but they also are flexible enough to adjust their teaching style to help in creating a learning strategy for their students. Additionally, such flexibility allows the educator to adjust and visit new approaches in teaching and increases the chances of holding a student’s interest in the topic of discussion or subject.

Although adjusting to the learning styles of your students can be very helpful, teachers must be cognizant not to change too much or adapt entirely to one style as that could also lead to a disinterest by other students who possess differing learning styles. Teachers must understand that most learning styles were formed through habit and practice and as such, there is usually room for the student to learn even when different styles of delivery are
used by the educator. An effective teacher must know how to create solid learning strategies to engage all of their students through their specific learning styles.

Creativity in education leads to better learning in and outside of the classroom. Learning strategies become engaging, stronger, and more inclusive for the student. Some strategies that can be presented are spaced practice, retrieval practice, elaboration, interleaving, concrete examples, and dual coding (Gonzales, 2016). Let’s take a closer look at each of these learning strategies and how they are inclusive for all learning styles.

With spaced practice, the teacher should help students to turn away from last minute study and cram sessions just before a test and assist them with developing an actual study plan. Last minute studying for a test may yield good results on the test, but more than likely, the learned material is forgotten or hard to retrieve as time passes. According to cognitive psychological scientist Yana Weinstein, creating a spaced practice learning strategy forces the brain to relearn material that may have been forgotten due to the time gap between initial learning of the material and the spaced practice time. This process forces the brain to work harder and increases the chances of the brain retaining such information.

In retrieval practice, information is recalled without the use of any resources or materials. For example, the teacher can instruct students to put away all books, computers, tablets, and other electronic devices and begin to ask them to recall information about the subject at hand and write about it. When completed, the students will then compare what they wrote with the source material i.e. books or notes. This strategy enables the student’s brain to work in a mode of retrieval of information which helps to reinforce the understanding of the material.
With the elaboration learning strategy, students are instructed to ask opened ended questions to themselves regarding the subject. By asking about who, what, and why regarding a subject, the student is enabled to learn about it from different perspectives expanding the understanding of the material. This strategy also allows students to compare what they came up with against the subject material.

Interleaving learning strategy is the switching of ideas while studying. In other words, a student is encouraged to approach the learning of something by making changes such as calculating the circumference of not just a triangle as requested, but also of a square, circle, rectangle, etc. This method may be more difficult, but it creates a more cognitive thought process about a subject and steers students away from approaching the subject in the same mundane way.

Concrete examples is a strategy that many teachers use. Instead of the teacher giving the concrete examples, students are asked to give them. Students are asked to present concrete examples of abstract ideas they are studying. For example, if it’s the subject of statistics, a student may be asked to give an example of statistics with actual objects.

Dual coding learning strategy is the combination of words and images. In this learning strategy, students are directed to create images such as graphs or charts to accompany the text they write for a subject or topic of discussion. The process of converting words to graphs and graphs to words, forces students to digest and analyze information which then reinforces the learning process.

Understanding and making the most of each strategy gives the teacher/educator the flexibility to use each learning strategy intermittently to help keep the learning process in the
classroom interesting and to also become more inclusive in teaching each student with a learning strategy which fits their various learning styles.

**Difference Between Classroom Versus Practical Learning**

In some of civilization’s oldest cultures, much of its learning was done outside of a formal classroom environment (Solomon, 1997). This tradition can still be seen among aboriginal and African tribes. It was through practical experience that knowledge was passed down. This is how language, hunting, gathering, and religion were learned. Today in industrialized and digitized nations, practical learning is very much a part of how knowledge is passed from one to the other as well. It taps into our natural gifts and instincts too as humans. A child learns to walk not through the reading of a book, but through some coaching by the parent by first crawling, then gaining strength in its legs to stand, and eventually begins taking its first steps. There are people who are proficient in music and can play an instrument just by hearing the notes all though they neither have formal music education nor can they read music. Story telling was a method in which learning happened in the shaping of humanity as well. Although a formal classroom was not required and mostly unavailable, early civilization combined the wisdom of teaching, learning, and educating through practical experience in order for knowledge to be attained.

Practical application within the classroom is what you see most often now in societies. In technology, different subjects pertaining to information technology are taught through books and other materials, but students have to utilize computers to implement what they learned and to discover the essence of the theory behind the subject. Regardless of how technologically advanced societies become, the merging of practical learning and classroom learning has proven to be one of the most rewarding methods of sharing and gaining knowledge.
The Unification of Teaching, Learning, and Educating

Why the Trilogy must be Incorporated by the Educator in Producing a Highly Skilled Society

Teaching, learning, and educating, must always be upheld as equal partners in the continually evolving and advancement of a society. As already highlighted, when these three core elements are not treated with equal value by a nation, the commencement of the decline of that society is now set in motion. A highly skilled, intelligent, and agile workforce comes out of a nation’s or society’s education system. That system is the means by which training, experience and application are afforded to that workforce which sustains that nation’s economy. Societies can neither evolve nor endure without importance placed on education, teaching, and learning.

How the Digital Age Transforms Teaching, Learning, and Education

Today, we see the world marching towards faster and more creative technological advances and innovations. These innovations are now being applied in the passing down of knowledge. In education systems in many nations, students are learning remotely via the internet through the utilization of computers, tablets, phones and more. Test taking is done mainly by the use of computers and homework is now being assigned online even at the elementary school levels. Even toddlers are being taught through technology with many schools around the globe equipped with computers and tablets to be assigned to an entire student body. Applications are being developed for smartphones to learn different languages, sciences, music, and many other subjects. The incorporation of the digital age with teaching, learning, and education is now upon us and continues to enhance the ability of educators to share knowledge with students.

Implementation of the Trilogy at the United States Military Academy
The implementation of the trilogy: teaching, learning, and educating is valued equally at the United States Military Academy (USMA). Several pillars, structures, and programs have been established over the years to ensure students as well as teachers are continuously involved in the process and maintaining proficiency amongst all three facets. For teachers and instructors coming to USMA, department specific New Instructor Training events that lasts anywhere between three weeks and two months are mandated. Throughout the course of every semester, there are also several faculty development meetings held by divisions and sections to calibrate lessons, tests, to share lessons learned with all instructors, and to continue training instructors and teachers to the maintain proficiency.

In the Department of Military Instruction’s (DMI) Military Science (MS) section for instance, instructors are encouraged to adapt the curriculum to their own style of teaching and personalize the lesson plans as much as possible to their military experiences albeit meeting the lessons and course objectives. This liberty afforded the instructors of Military Science, generates ingenuity and has historically contributed to increased interest in Military Science by our students. On any day during any lesson, it is commonplace to find a MS instructor out and about with their class conducting some practical aspects of the lesson. Feedback received from our students indicate that this is an approach that they see as helpful in enhancing their learning experiences.

The Master Teacher Program is a voluntary but highly encouraged two-year post-graduate faculty development program designed with a priority to assist faculty in developing the knowledge, abilities, and skills that ultimately lead to an enhancement of cadet learning. The program although not mandated, is an expected requirement for teachers and instructors who wish to earn academic promotion to assistant professor and or several internal department level
promotions. In this program, teachers from different departments are able to share their ideas, styles, and approaches that have yielded positive results in addition to learning about tried and tested methods to teaching, learning, and educating in order to remain relevant and accomplish the overall goal of enhancing the cadet learning experience.

It is also an expectation of teachers and instructors at USMA to continue to remain relevant and current with the subject they teach. To this measure, one must continuously conduct research and publish findings. Publishing forces teachers to come out of their comfort zone, explore other strategies, apply those strategies in class, and pen down their findings and recommendations for the rest of the academic community.

Conclusion

The moral compass of humanity declines when the value of its education is diminished although technology will ever advance. Societies must recognize that in order to maintain a sustainable future, it cannot weaken its ability to impart knowledge to its citizens. The citizenry will determine how it interacts with other people and other parts of the world as a direct link to how its knowledge expands. The future of a society is secured through the trilogy of teaching, learning, and educating. History teaches the world a valuable lesson in that it gives examples of the distortions and destructions of societies when the three core elements of an education system are debased. It is our inexcusable responsibility as educators to ensure such catastrophic lessons are not repeated.
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