'Let's stop measuring fish by how well they climb trees'

Joshua Katz is a high school math teacher in Orange County, Florida. He gave the following speech about what he calls "the toxic culture of education" today in a TEDx talk this month at the University of Akron. TEDx Talks is a program of local, self-organized events that bring people together to share an experience similar to the organized TED Conference events. TED itself is a global set of conferences owned by the private non-profit Sapling Foundation, under the slogan "ideas worth spreading."
Following is the TEDx summary of Katz's talk, the video of his speech and then the transcript of the speech as written to be delivered:

In the mid 1800's, Horace Mann captured the potential impact of education on society. We have yet to realize the potential he saw, and in fact, we are missing the mark by a wider and wider margin. We have created a "Toxic Culture of Education" in our country that is damaging students, impacting our economy, and threatening our future. Since the passage of No Child Left Behind, we have embraced a culture of high stakes testing and are perpetuating a false sense of failure in our schools. We have ignored research and data on effective policy making practices in order to serve the interest of private industries that have monetized our students. The impact is being felt in communities, on college campuses, and in our economy. The solution lies in a common sense approach to student development, curriculum choice, career exploration, and relevant data analysis. This talk will present a vision of an education system that allows us to embrace our full potential if we only had the courage to ask "Why Not"?

Here's the script for the speech:

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid." -Albert Einstein

So, there I was, working with a student, Natalie, on solving equations. She had to multiply 2 times 9 and was stuck. No joke, my students get stuck on that. So, I decided to go for the teaching moment. 2 times 9. All she had to do was count by 2, nine times, that was it. She tried and failed three times, on paper and on fingers, in both English and Spanish, her native tongue. THREE TIMES Natalie is 16. In the ninth grade. And she is NOT ALONE. NOT BY A LONG SHOT.

I teach at a high school with a student population of over 3,000. It is only one of over 30,000 high schools in the United States. You have to somehow begin to wrap your head around the enormity of the number of Natalies in our schools, in our country, in our future.

I've seen the best of the school system. I can honestly say that our best students can compete with the best students from around the world. In fact, when looking at the data from PISA results that compares our students to other countries we rank in the 20's, BUT…if we separate it out by district poverty level, and look at the US districts that have comparable poverty rates to the other countries, it is clear that our students are at or near the top in the comparisons. But our highest performing students are only a small percentage of our overall population, even in the honors classes.

But what about the Natalies?

I have specialized in teaching Algebra to the lowest-ranked 25% of high school students, and I work mostly with THOSE students.

The best of THOSE want to do well, but when they finally realize how capable they are, they find themselves either stuck in a path of academic mediocrity or they are so close to graduation that all they need is their credit to pass. It's a scene of wasted potential.

The worst of THOSE have had no education of character, common decency, appropriate language and behavior, or right from wrong. By high school, they are so ingrained in their behaviors of laziness, disruption, disrespect, and defiance that any measure of guidance is completely lost on them. These are the students on the path of dropping out, of incarceration, and abusing social welfare.

Parents will talk their children into purposefully failing tests so they can qualify for social security benefits, up to $800 per month per child. And these families find other sources of untaxed income, in the way of pharmaceutical sales. There is a LOT of abuse of social welfare, and the parents know how to milk the system for all it's worth. This abuse is happening when people TRULY in need can't get the help.

What's out there waiting for THOSE students? Jobs? College? They are in an educational system that says "if you don't go to college, you have no worth" so their alternative is to be underemployed, find illegal work, or abuse social security.

THOSE students are marginalized by what I call our "Toxic Culture of Education." It doesn't matter if a student is a gifted artist, a loving caretaker, a poetic writer, or a talented musician. THOSE students are

the fish being measured on how they climb trees. We say the be all end all is college, or we leave students to the lowest skill level work (which, more and more, is being occupied by college educated people). Even with the honors students, they are, in general, too worried about grades and results, and not interested in true learning, which affects their performance in college. I don't want to talk about the college student loan debt crisis.

But you have to believe me, I am not placing blame on them, yes they can take credit for who they are, but this is about something much larger than them. Our Toxic Culture began with a classic Super Villain Archetype. Recall any Super Villain, I focus on Syndrome from The Incredibles. The villain's plan is to unleash a doom onto the world, and the villain is the only one that can stop it. Thus gaining all the desired power.

This is exactly what began before the 1980's and culminated in No Child Left Behind. Private companies realized they could utilize the education system (at the time a $750 billion industry) to create a nearly endless stream of taxpayer funds. They channeled millions of dollars into lobbying efforts in order to create two buzzwords that put everything in its place: "Accountability" and "Rigor". State statutes were passes, district rules were put into place, and No Child Left Behind was finally passed. But don't get me wrong about politics, these efforts were underway long before they were passed, and both parties can take full credit for their disastrous results.

They decided to take the education system that produced the individuals, that put a man on the moon with technology less powerful than the phone in my pocket, and paint a picture of "failure" using the word "accountability". You see, we only have one way to address accountability: Standardized Testing. So, we implement standardized testing, and it shows that schools are failing, teachers are failing, and students are failing. And when everything is failing, guess what we need? We need new textbooks, we need new resources, we need new training, we need charter schools, we need private schools. And who creates all these things we need? Private businesses. The only way to feed the business model in our Toxic Culture is to perpetuate the picture of failure. In fact, I'd LOVE to see any education company that has a business model that is built upon success. There is no money in student success.

How can we possibly believe standardized testing accurately measures student achievement? How can it measure student growth? How can it measure that "a-ha" moment when a student's light is finally lit? That moment when a student says "thank you" for helping him graduate with a 2.0 GPA? That moment when a student athlete works hard in study hall and finally gets a C in her class because her coach helped? How can we attach a number to that moment when a 5th grader finally has the ability to write his own name (who is labeled a failure for himself, his teacher, AND his school)? But we crave

education standardization, we believe we need high stakes testing, and we eat up misinformation provided by companies using test results with no validity.

Our testing culture begins in elementary school. Colleagues of mine deal with third graders who are suffering from anxiety for standardized testing. From a one-day, 4 hour, computer-based test, the future path of the student is set, the academic identity is established, and the message is delivered loud and clear: either you CAN make it, or you CAN'T make it. No matter what the teacher tells them about how good they are or what talents they have, if they don't score well on that test, they know what it means. They define themselves. In the third grade. It's starting to happen in kindergarten.

So these students continue testing, continue failing, and the districts continue new initiatives that can solve the problem. Who makes these products? Who has these solutions? Our super villain. Companies like Pearson and McGraw Hill which operate on legislation and policy written by private lobbying groups like ALEC. Buy the next textbook, the next workbook, the next software package. I've been through four Algebra textbooks in seven years. And that's where the schools and districts are spending all the money. **And we stick to the standardized test (guess who makes those?).**

We illogically attempt to compare education to business, we ignore the impact of poverty and hunger, we pay no attention the non cognitive factors that are realistic predictors and measures of student success, and that way, we can place the blame on the teachers and schools. And because we have a Toxic Culture of Education, policies, teachers, and schools have accepted accountability for students, including all THOSE students. We take the blame for a student that has no moral compass. We take the blame for a student that cannot focus because he hasn't eaten since yesterday's lunch. We take the blame for a student that cannot stay awake in class because she spends her nights on a different couch, depending on which friend takes her in. When those students don't "score well", we get blamed. And we take it. We accept it. Because we love the kids. We are the only ones protecting them from this Toxic Culture of Education.

And what do we do as a system? Our only interest in education "reform" is to create policies that include additional standardized testing, to place higher stresses on teachers and students, and continue the picture of failure so private companies can sell the answer. And all this ignores highly publicized and easily available data on effective policy-making and effective practices. And it's about to get worse. The Common Core will do more damage its high-stakes test (not to mention its myopic standards masked in a guise of "critical thinking" which is just developmentally inappropriate "rote". I see my daughter's work in the first grade. They ain't fooling me). Any education reform that does not address high stakes testing and the non-cognitive factors of true student achievement, like character and personal habits, is a waste of time and it kills our kids.

Our main focus is on the schools, on the teachers, on the curriculum. We need to start paying attention to our students. If a student fails Algebra 1 in the ninth grade, chances are it is not because they do not understand the material. Chances are it's not because the teacher isn't teaching. Chances are it's not because of the school. Chances are it is because the student lacks some type of intangible characteristic (a "Non-Cognitive Behavior") that enables them to succeed. Things like persistence, initiative, social skills, common sense, a full belly, or a good night's sleep. However, none of these things are considered in our definition of "student achievement". None of these things are considered in our policies.

All the talk about failing schools and failing teachers and how to improve teachers and improve schools NEEDS to be changed to failing students and how to improve students. How can we help them to be better students? How can we help them to be better people? How can we help them with these Non-Cognitive factors like integrity and work ethic? How can we feed them? Give them a place to sleep? It's the public narrative that needs to be shifted. We have to discuss what is happening with our students, even the Honors students. Because right now we are simply creating a massive population of future citizens who are afraid to attempt anything challenging, unable to read or think critically, or unable to find ways to earn a meaningful income, and I'll get to that in a minute.

Right now, our system pushes ALL students to study abstract classes in order to be "college ready". We throw around buzzwords like "rigor" and "STEM". It sounds good, right?

The reality is that the word "rigor" has completely replaced the word "relevant". I met with our district and pitched an idea to bring back Home Economics, but this time as a math credit. First words in the response: "it's not rigorous". So, forget relevance. Forget teaching students about measurements, about taxes and discounts, about loans, about debt, event planning, or the reality of fractions. It's not as rigorous as Factoring Trinomials and Graphing Logarithms, so it can't fit. There's no room for it in our Toxic Culture of Education. There's also no room for the arts and for imagination, which are being systematically removed from schools. There is no profit in that, either.

We have felt the effects of our education policies. There are thousands of highly skilled jobs that are currently vacant. There is opportunity for small business development and innovation like never before. And we are relying on highly skilled immigrants. But where are our graduates?

There is an ENORMOUS opportunity in our economy for our students, but we just don't enable it in our schools because we are focusing on "college ready" and "rigor".

If we focus our attention on getting students the resources they need in order to find their place in the community, the economy, THOSE students would value education more highly, use their time more wisely, and make better decisions outside of school. Let's keep the college bound students going to

college. They need to continue their path, but we need them to be more successful and more innovative. But what about THOSE students?

I have students that want to be tattoo artists, mechanics, and barbers. They want work, some want to open their own businesses. But..they are THOSE students. They consistently fail classes and get themselves in trouble in school, and may not graduate. So I say: let's scrap Algebra for them and teach them some tangible skills (like we did in the system before it was labeled as a "failure"). Let's get them out there making a living for themselves, rather than spending another $10,000 in tax money to pay for another year of school for them to learn how to factor trinomials, which they won't. Why Not get them into the economy?

How do we address this on a large scale? I believe in Horace Mann's 1850's vision of an education system that can improve mankind. In public education, we have an amazing opportunity to mold a better future. What we are currently doing is so toxic and I have two solutions that would be better. I'm not a fan of this idea, but it would be better than what is happening now: we could completely defund public education and put the 750 billion dollars back in our pockets. No more taxpayer money going to private companies in the name of public education and on the heads of our students. Because let me tell you, it isn't reaching our classrooms and students and it's certainly not reaching the teachers. The second plan, which I am in support of, is to double down on public education. Eliminate the toxic policies and the corruption in profit flow. Get the money more directly to the students. Allow them to be successful, focus on them, on their non-cognitive factors, on their abilities. Train and allow the teachers to work with their students and assess their students on what they truly need to know: thinking, reasoning, and learning. I believe in the potential greatness of a public education system DONE RIGHT. In fact, most of my colleagues do as well.

Speaking of my colleagues…what about all the talk about teachers?The public narrative, thanks to "education reformers" like Michelle Rhee and Bill Gates, paints a picture that our schools are teeming with horrible teachers. Most teachers are accomplishing amazing feats of human achievement and motivation with their students. What teachers are able to accomplish is being done in a "professional" environment of questioning, belittling, and self doubt due to "accountability" measures for ALL teachers because "teachers can't be fired". If you want to compare education to business, check out HR and employee relations. Companies empower employees, encourage employee growth, believe in employee morale, and reward employee success. Yet in our toxic culture, we call a teacher "successful" IF AND ONLY IF students can score well on a 4 hour computer based test. We evaluate teachers based on what is written on their boards or hung up on their walls, or spotted by an administrator with an iPad in a three minute observation. We blame teachers for students who are hungry, homeless, without

guidance, or without character. I don't even need to mention teacher pay. You cannot measure how successful a teacher truly is in the life of a student! How do you measure when a teacher acts as mental health counselor for a student that has suffered a family loss? How do you measure when a student is able to eat dinner only because a teacher is paying for it? How do you measure a student learning something new based on immediate feedback from an assignment because the teacher stayed up until midnight the night before grading papers? How do you measure when a teacher spends thousands of dollars of their own money to have supplies in their classrooms? And we blame the teachers for accountability policies they had no place in creating.

Why not develop a system that invests in the teachers' relationship with the students? Why not invest directly in the students? Why not encourage teachers to create their own assessment systems to fit their students' needs? Why not allow them to collaborate with one another or at least have a peer review system to better serve their students (like in other professions)? Why not involve them in the policy making decisions at the school level, the district level, the state level, the national level?

The truth about education policy is that it is written and enforced by people who have either spent little or no time in the classroom with the students that these very policies affect. Why not allow the individuals in direct contact with students to mold and shape the environment of the students? Education is the only industry that is developing a product without any valid market research from its users! Students aren't asked what they want or need. Teachers aren't asked what would work for their students. Teachers are not the enemy: it's the private companies like Pearson and interest groups like ALEC, that write policies and laws that are passed over steak dinners with words like "accountability" and "rigor" to perpetuate their bottom lines on the heads of our students. Follow the money: of all the tax dollars that go into education, how much goes directly to students? How much goes directly to a teacher's relationship with students (which by the way are another leading indicator of student success)? Compare that to how much goes to private companies for materials and resources, as well as bureaucracy? Just follow the money.

We must change the public narrative on education. We must fight our Toxic Culture! We must end high stakes testing for the sake of "accountability". Let's have education policy that builds up our students with sensible human standards instead of fitting them into robotic boxes for "college readiness". Let's focus on getting students out there in the evolving global economy. Let's focus on teaching them the important things: how to read, how to think, how to research, how to reason, how to master basic skills, and how to be good citizens. Let's talk about the Non-Cognitive factors that are the true measures of student achievement: persistence, integrity, character.

Let's teach them how to learn and how to innovate, NOT how to take tests. We must change the focus of our Toxic Culture away from curriculum, teachers, and schools, and WE MUST focus on our students! **Let's stop measuring fish by how well they climb trees.**