

# SCHOOLING

## outside THE LinEs



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# Student Preface

Online distance learning is one of our great advances in education. It allows students living around the world to earn a degree without extra driving time or inconvenience. However, many classes are very dull. Several online classes don't require students to interact with each other except on written discussion boards. In addition to weekly discussions, most of the assignments are of the traditional school variety, such as research papers. It is with this notion that our EDL 662 class decided to do something a little different. In a class speaking to the topics of educational technology and project-based learning, wouldn't it be ridiculous not to?

The following book is a modest attempt by our class to participate in project-based learning. Over the course of the semester, we learned about establishing a sustaining culture of learning by examining technology, Growth Mindset, assessment, leadership, culture, and relationships. The product of our learning is this book. It contains our ideas for what teachers and administrators can do to create student-centered learning environments. Each

member of the class has contributed to the writing and editing of this book. We hope you enjoy our work.

Patrick Avery & Tiffany Bailey



Photocredit: [George Couros](#)

# Introduction

Justin Bathon

Everyone is on a learning journey, myself included. Over the past decade as a professor in higher education my approach to teaching and learning with students has changed dramatically. A core part of my work has been a return, or perhaps an initial systemic embracing, of the ideas of progressive education most prominently espoused by [John Dewey](#) in the United States.

As part of the University of Kentucky's Next Generation Leadership Academy over the past 6 years we have been helping (and pushing) schools to adopt more progressive models, particularly in the wake of the No Child Left Behind Act's fading to the background. Watching teachers rediscover their passion for teaching as they embraced this difficult work caused me to question my own teaching in higher education settings. Thus, over the past few years, I have begun to experiment more and more with models in my own teaching. This book is a result.

The requirements that led to the production of this book included adapting a

series of blog posts on teaching and learning elements of schools in the digital age as the course title would suggest. Over time, this course has tended to focus less on the technological tools themselves rather than on the contextual curricular, pedagogical, and structural settings within which those tools function. Thus, the topics were broad in nature as the class conducted a whirlwind analysis of teaching and learning structures and systems that advanced deeper learning.

Along the way, each week, they were prompted to write blog posts relative to specific topics we were covering in class. Sometimes the prompts were very specific and task oriented, such as redesigning the diploma (Part 1), and sometimes those were broad such as the role of technology generally (Part 2). We investigated things both broad and amorphous relative to schooling, such as culture (Part 3), as well as specific and technical like assessment (Part 4). Along the way, we ourselves embraced a growth mindset ourselves and considered the implications for our classrooms (Part 5).

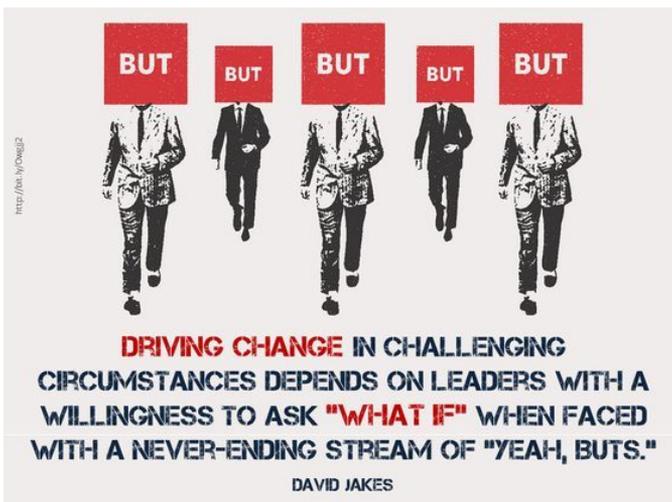
All students wrote on all topics as they were assigned and read and commented on each other's work. In the middle of the semester, we chose the broad discussion topics that warranted inclusion in this book and assigned chapter editors who would curate and edit posts on a given topic for inclusion as the

chapters in this book. Everything in this book, including the title and cover art, were generated by students. Everyone pulled together and shared tasks to bring this book together. I would be remiss, however, if I did not mention the extraordinary effort of our overall managing editors that assured timelines were followed and did the deep edit of the overall text. Thank you Bailey and Kyle.

This book tells a story of change. Of educators willing to question the status quo of schools and classrooms. These are practical stories, thoughts, and reflections told by outstanding teachers who were seeking growth in their own practice. It is a story of shifting mindsets and of an embracing of change at multiple layers within the schools. It is, indeed, thinking outside the lines of the current structures, but it is only there where we might find results for children that are outside of the ordinary.

Thank you for reading. Enjoy.

Dr. Justin Bathon



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# Part 1 - Diploma

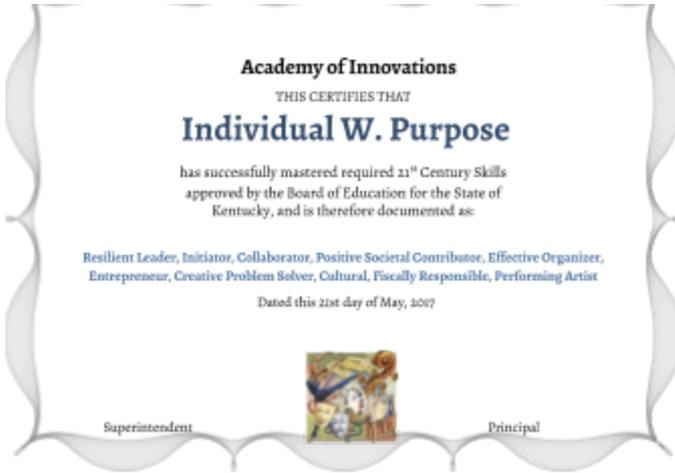


Image Author: Malissa Eaves

*Listed 21st Century Skills Mastered to Obtain:*  
Resilient Leader, Initiator, Collaborator, Positive Societal Contributor, Effective Organizer, Entrepreneur, Creative Problem Solver, Cultural, Fiscally Responsible, Performing Artist

# 1.1 Today's Diploma: Something Worth Striving For?

Author: Jordan Clemons

It is pretty hard to believe that I am currently in my fifth year of teaching. Yikes. But what is even more difficult to believe is how long ago I graduated from high school. Double yikes!

Teaching in a high school setting causes me to ponder all the time. What do I ponder? Well, I ponder how times have changed—or at least my perception of how times have changed. I am constantly evaluating my students, and even comparing them to the group of young adults I



experienced high school with. Are they really so different? Yes... and no.

One thing that I think is relatively similar between my generation and the current group of high school students in Central, Ky is the trait of “point gathering.” This is a little term I was introduced to when I began teaching honor and AP level classes. “Point gatherers” are students who are primarily or solely interested in earning enough points in their educational career to nab the A they desire, and then move on to college as quickly and painlessly as possible. Hmm... sounds somewhat familiar. Could this have been me? In some ways, yes. I don’t remember teachers having intentional conversations with me about what my high school diploma stood for. As a matter of fact, I can remember wondering how some of my peers earned the same diploma I did, getting by on little to no effort and bad attitudes. So, really, what did the diploma stand for?

Now that I’m older and much, much wiser (hah!) I am seeing education in ways I never have, and the credit must be given to the career and tech high school where I work (Elkhorn Crossing School). After experiencing one full year of employment in an innovative, hands-on, Growth Mindset community, I feel

prepared to tackle the tough question: What should the diploma stand for?

My thoughts:

- Understanding and embracing a Growth Mindset in life
- Collaborating with individuals from diverse backgrounds
- Bettering the community
- Assessing situations and creating strategies for growth and success
- Adapting to challenging situations
- Exploring personal creativity
- Analyzing information
- Practicing professionalism

Now, I don't want this to seem like a romanticized version of a diploma—something unattainable. I do feel like these aspirations are realistic, but difficult to achieve with every student nonetheless. The reason why I feel like this is an attainable vision for my organization is because our students are taught to believe in these concepts from the first day they step into our school. We certainly are not a perfect school (let's be honest, every school can improve!) but we do provide our students with

opportunities to experience these concepts.  
Some of these opportunities include:

- Creating unique semester-long projects to illustrate a culmination of content, hands-on learning, and creativity.
- Presenting projects to professionals specific to village concepts, and accepting feedback.
- Interacting with community members at dinners, town events etc.
- School-wide challenges and scenarios: ECS Olympics, Film Festival, mock tragedies that require real-world responses (helicopter crash, chemical spill etc.).
- Consistent group work in PBL classes and semester projects.
- Community service days.

Like I said, we can always improve, but this is a starting point!

Thanks for reading, folks.

## 1.2 Destination: Expectations

Author: Bailey Ubellacker

Attending a recent high school graduation, I noticed some clever and creative graduation caps decorated with phrases reinforcing the notion that they “did it” and are “finally done.” This expression of hooray got me thinking - what exactly did they do and what are they finally done with? They could not possibly just refer to completing course work and attending the required number of school days. There must be a deeper meaning and understanding to their accomplishments.

I thought back to my own high school graduation where I wondered what wisdom, if any, I imparted to my class as I know now the understanding I had on the world is much different than I perceive it now. But even then I would like to think that I knew education was so much more than attending, testing, working, and producing a result. I experienced firsthand invested educators that have a greater vision for us students and knew what opportunities we must share in high school to prepare us to make our own mark on the world.

This brings me back to my original question - what is the "it" in stating that "we did it." To me, this phrase delves deeper than the surface and explores the expectations the educational learning environment has for the learners. I believe this should be a clear and defined understanding that both learners and educators should discuss and create together. However, today I plan to define what the "it" is through a diploma for my higher education educational organization. Not only will this provide direction in my instruction, it will also shape the students understanding of where they are and where they are expected to go.

### Mathematics Diploma

- It is providing students with the tools, resources, and guidance for self-learning and discovery.
- It is increasing student's mathematics self-efficacy through positive math interactions, growth mindset activities, and collaboration.
- It is decreasing student's mathematics anxiety through conversations, hands-on connections, and meeting students where they are.

- It is encouraging mathematics related careers by demonstrating how all careers involve mathematics and logical/critical thinking.
- It is expecting students to be able to demonstrate and relate mathematics to everyday interactions through modeling and meaningful examples.
- It is applying content and problem solving skills to real world situations.
- It is never selling oneself short at their own aptitudes and capabilities, but instead learning how to ask the right questions, tap into a community of support, and encouraging mistakes.

These defining expectations and providing program supports are the driving factors for everyday interaction with students, lesson planning, classroom design, and content. If each student leaving this program is able to grasp what "it" is that they confidently say they "did it" then they successfully earned their diploma. The learning of course does not stop there. As part of their expected learned skills is the ability to ask questions, be both their own teacher and student, and interaction with math outside of the traditional classroom setting.

## 1.3 What Should the High School Diploma Mean?

Author: Josh Sparks

For those of you who don't know, I am currently enrolled in a PhD program at the University of Kentucky (go Cats)! For one of my courses, we were tasked to dream about what the high school diploma should mean. I wanted to share some of my thoughts with you here through an Appalachian contextualized lens.

This is a very difficult question to answer since each district can change the qualifications for a diploma in their district (as long as it sticks to the state minimums). However, when I close my eyes and dream about Appalachia and what it will take for our students to lead the greatest economic turnaround ever, a few things stick out to me:

- There must be a clear focus on STEM. When our students graduate high school, they should be fluent in coding and the language of computers (I am not)! Some of our biggest gambles as a region revolve around making eastern Kentucky a hub for tech startups dubbed silicon hollers. If this is to be true, our students must leave high school with the skills to enter the tech startup world prepared.

- There has to be a focus on interpersonal and intercultural awareness. We know jobs of the future are going to require working across lines of difference (in geography, in beliefs, etc.). Having a high school diploma should mean a student has the basic skills of collaboration, knowing who they are, and recognizing that because others are different doesn't mean anything about their abilities to do great work.

- There has to be a minimum benchmark for the academic knowledge students possess. For instance, do they have the arithmetic and reading skills necessary for the world they're entering? A high school diploma must mean a student can analyze complex texts and figure out real world problems that involve math. A high school diploma should also mean students can express themselves clearly in both verbal and written communication.

- There has to be a focus on failure through the lens of a Growth Mindset. When students graduate high school they should have experienced challenge and failure. At the same time, they should have developed the skills to navigate failure and challenge knowing that the failure they had won't be repeated with the new knowledge they gained. In a world where our jobs are yet to be envisioned in Appalachia, there's going to be a lot of challenge and failure and our students MUST be able to navigate that space appropriately.

Those are just a few thoughts on what I think a high school diploma should mean. What do you think?

## 1.4 Is This What You Came For?

Author: Tiffany Bailey

What does a certificate of completion (alternate diploma) mean? If we as schools are unsure what a typical high school diploma means, we are even less sure what the certificate of completion should mean for our high needs students utilizing it as a pathway. Here is what a certificate of completion should mean:

- Ability to see past your label and the realization that you can do anything you put your mind too!!
- Master use and ability to communicate with individualized communication system (techspeak, PECS, IPAD, etc.)
- Ability to complete functional task (put in task, sorting, organizing by color, etc.)
- Self-regulation of behaviors
- Set goals
- Willingness to try, even if you fail
- Adapt and problem solve
- Knowing that you are loved!
- Increased independence
- Recognizing cause and effect of choices
- Comfort in one's identity and confidence

- Hardworking
- Resiliency
- Understanding that sometimes routines change and it is ok!
- Small successes are meant to be celebrated just as much as large successes!
- The attitude that every day is a new day!

## 1.5 How to Adult

Author: Jorge Pierce

**SO IT TURNS OUT THAT  
BEING AN ADULT IS  
MOSTLY  
JUST GOOGLING  
HOW TO DO STUFF.**

I feel very fortunate in the subject that I teach. Psychology has become a popular elective at Dobson. Students like that the topics are easily applicable to real world situations and therefore discussion are easy to initiate. When I think about the skills and abilities that I want a student to possess when they leave my classroom I lean toward more of the soft skills, communication, rationalization, rather the hard skills of facts and empirical knowledge. I would

hope students leaving any of my psychology classes would possess the ability to:

- Think critically
- Communicate effectively
- Display empathy
- Develop goals and the ability to work towards them
- Overcome adversity
- Problem solve
- Be self-reflective
- Become problem centering, to give back to their community

Reading those, two thoughts come to mind. First I feel like maybe those are a little grandiose. That it is not realistic to be able to achieve those expectations with all of the other demands and restraints that we have in our classrooms. I think the key to being able to achieve these expectations starts with making a connection. When students feel genuine care and concern from teachers they will work hard to reach expectations. My second thought is that these should be common sense and skills schools and classes should achieve on a regular basis. Unfortunately that is not the case. There is a disconnect in some classes between the subject and the students. As teachers we need to remember that just because we are

passionate about our subjects that does not mean students share the same passion.

I talked about this assignment with a my AP classes and asked them to collaborate and create a list of skills that they would expect a diploma to represent. Students embraced the task and it became a meaningful activity and discussion. These are a few of the responses:

- How to think for yourself
- Surviving without your parents
- How to balance different things like jobs, school, etc/time management
- How to care for myself and not be so dependent on my parent
- How to do taxes, how to pay bills, how to write a check, how to manage my money
- How to take what I learned in my classes and apply it my future career
- The gift of being able to find who I am, and to be able to live life genuinely happy no matter where I am
- How to correctly conduct self in a professional environment, and feel prepared to enter society
- Stress management
- How to “adult” and not be totally lost

Most of these responses are from juniors and seniors. They expressed increasing anxiety about graduation and entering the next

steps in their lives. Many don't feel that they are ready. I think a goal of education should be to lessen those anxious feelings and help students not only survive but flourish in whatever path they take after high school. I think students also need to be taught that it is ok not to have their lives figured out at 18 years old. Life is trial and error, and the only way to learn is through experience.

## Part 2 - Technology



## **2.1 - Three Truths and a Lie: Technology's Role in the Classroom**

Author: Heather Chapman

There is a very real juxtaposition that happens when we hear the word “school”. There is conjured up this long-combatted image of students sitting in rows facing the chalkboard, an image that public schooling can’t quite shake despite innovative thinking. Simultaneously, there is the whisper of “21<sup>st</sup> Century Skills” and the mental replacement of desks and notebooks with Notebooks.

No one would debate the importance of technology in schools. Yet, we see it used differently from state to state, district to district, and even school to school. Research studies compare and contrast its effectiveness in line with its cost. Newspaper articles herald the pros of one technology on Monday and critique its cons in the weekend edition. Districts have entire departments that are based on simply finding and funding the “best” technologies for school systems.

With all the information out there, it is difficult to decide the best use of technology. What is its job without making ours harder? I propose three declarations about technology in the school system. Regardless of what is being considered as technology – the laptop, the Smartboard, or the chalk (if your students still know what that is) – need to hold true to all three of these things.

**Declaration Number One: Technology is an enhancer of instruction, not a replacement.**

This tenet is the most important. Often, schools and teachers implement technology simply to tout that they are. They spend thousands on software or devices without consideration of how they are going to be used in the classroom. Sadly, they often become the most expensive textbook money can buy.

Technology's role in the classroom is to enhance quality instruction, not to replace it. We want to include technology into our instructional design, not put it instead of. Teachers must consider how specific technology is going to make their instruction better. This critical forethought will mean that technology is used effectively and continued to be used, not discarded because it “didn't live up to expectations”. For instance, teachers

confined to the classroom walls can utilize Google Earth to make abstract concepts like fault lines, perimeter, and mountain ranges seem a little more tangible. The technology is used to access the unattainable, not merely as another point to read about it.

**Declaration Number Two: Technology is a means to an end.**

Further, going along with the first tenet, technology is a means to an end. It must be used with a purpose in mind. Are students using technology so you can check off a characteristic of an effective teacher? Or are they using technology for a specific purpose? Technology's other role in school is to provide an avenue to a final destination. When planning, the first thought should not be "what technology can we use?" but, instead, "where do we want to go? And how can we get there?". The technology is not the ending of the journey. Instead, technology is used to get there. This can be a project, a publication, or even the development of another technology.

**Declaration Number Three: Technology is a platform.**

The final tenet of technology's role in the classroom is that it is a platform to allow

students to communicate their ideas and their learning. Often, in that image conjured, we envision students simply typing papers on laptops. Papers seem to be the “go to” product that people think of when they envision technology as a platform. The truth is much wider. Students can share their writing in new ways. However, technology gives access to those that wouldn't have it otherwise. With a click of a button they can submit their thoughts out to the world, a world much larger than the classroom walls once dictated.

Students can create videos, movies, blog posts, animation, and countless other products that years ago they would have never had the chance to share with a wide audience. Whatever the product of learning, technology should be a platform that helps students share their thoughts to a wider audience.

By keeping the role of technology in mind, we can better incorporate it into the classroom.

## 2.2 - Tech for Productivity

Author: Anna Clements

Each calendar year, collaborative days are scheduled into the school calendar that are more often than not, wasted time. The science teachers convene at one of the district schools, while the language arts teachers convene in the library of another. Teachers like myself who are dual certified and teach both subjects are forced in one direction or the other and then expected to catch up on the next scheduled work day. For a half hour, a district head speaks at us, and then splits us up further by grade band to go and do the work they've requested be done. The group disperses to then spend an additional half hour getting logged back onto the unfamiliar laptop in the student lab at a different school, grumbling because the resources we really needed are sitting on the desktop of our school computer, or even worse, in the filing cabinet. Time for lunch, and then go back to your school to be talked at by someone else and do the same thing over again. End scene, and head home for the day with little being accomplished, if anything at all. The days are never planned to be a waste of time and resources, but they most certainly always are.

Ask anybody directly involved with education about the most essential ingredient, and the answer is likely to be time, so when time is perceived to be carelessly wasted by the district, it sets an undesirable towards the party in charge of us all.

Although the district is moving in the right direction by implementing file sharing via cloud storage services such as DropBox and Google Drive. They are not taking a comprehensive approach to tech integration as a method of increasing overall efficiency and productivity, which is arguably one of its most valuable characteristics.

#TRUDATCHAT

**The only feature I am  
looking for in an  
#edtech tool is whether  
or not kids can use it to  
change the world.**

@PLUGUSIN

Photocredit: [William M Ferriter](#)

**What I Envision:** A comprehensive HUB for teacher collaboration supported by cloud services such as Google Drive, and streaming such as Adobe Connect, Canvas, Facetime or Google Chat.

**Impacts:** Overall productivity of administration, teachers, and students.

**Plan of Action:**

1. Use the very first collaborative day to teach every employee in the district how to use the technology in their classroom. (Create a strong foundation from the start to decrease time wasted down the road).
2. Host breakout rooms for specific pieces of tech and allow the experts in the district to teach them and act as year round resources for help.
3. Organize folders, rooms, etc...for teachers to upload materials, lessons and plans.
4. Using technology as a platform for open (maybe even anonymous) contribution of ideas/past results/feedback district wide.

5. Sharing with their organization's members via skype, facetime, or google hangouts so teachers can work collaboratively from their own classroom work station.
6. Creating a positive image of the changes they are trying to make with links to research backing up their decisions.
7. Host monthly hangouts during staff meetings for teachers to collaborate, grade, create assignments and reflect on successes and failures.

## **2.3 - No Pause Necessary With Self-Paced Learning**

Author: Patrick Avery

I'll admit, I am frustrated with the amount of technology in schools. For instance, there is a student at the high school I work at that has an iPhone, a school-issued Chromebook, a personal laptop, an Apple Watch, and a Nintendo 3DS. He brings all of these devices to school EVERY DAY. When asked about why he brings each of those to school

EVERY DAY, he says that he likes to stay connected. Obviously, it's deeper than that and many of his teachers are trying to coach him through his potential over reliance on technology to meet his social and emotional needs. However, I see many students who feel like they need their devices in order to feel like themselves. It disturbs me. Despite a negative reaction to those that depend too much on their tech, I see a tremendous value to educational technology as a tool for allowing students to move at the pace and place that they need to.

I've been lucky to participate in a new program called 3PT, a self-paced learning program.

Self-paced learning is an excellent way to have students take control of the pace and place of their learning. In addition, students can decide when to complete the learning and when to slow down or speed up, based on their needs as a learner. This can only take place when students have regular access to technological devices without any delay. Each student at our school is issued a Chromebook. Students are able to login at school or at home and access the curriculum for their entire high school career. Obviously, they must complete it in the order assigned by the school, but they don't have to wait for anyone. Once they finish

a course, they can immediately move on to the next one.

Typically, in a traditional classroom setting, a teacher has one lesson scheduled per day. Once a student is done with that lesson, they get free time. Some teachers, might have further enrichment activities planned, but that's the exception rather than the rule.

One thing we have learned from this program is that students, largely, do not want to be in front of their computers all day. They regularly suffer from screen fatigue. How could they now with all the other devices they regularly check. Even though all of the curriculum is online, teachers must provide opportunities for students to act with other students and teachers in order to further their grasp of learning. Technology, through the use of online chat rooms, discussion boards, and other interactive platforms, can give students ways to interact with teachers and students. However, sometimes that can be overwhelming.

Technology provides so many opportunities for students to continue their learning. However, it must be combined with a balance of traditional critical thinking and discourse moments. A student consistently in front of a computer learning from posted

videos is no substitute for face-to-face contact and discussion. However, it allows students to access material at many different times and locations. It's hard to ignore that.

## **2.4 - Technology's Role In Schools**

Author: Josh Sparks

In education, there is a constant conundrum: does technology enable excellent pedagogy or does excellent pedagogy

complement technology? Ultimately, I think this fairly common binary (this or that thinking) isn't helpful in ensuring all students receive an excellent education. It is my deeply held belief that technology won't help students learn when a teacher has no clue how to teach in alignment with rigorous content. Therefore, this article will explore just how technology and pedagogy can go hand in hand to make sure all students master rigorous academic content.

First, it's pivotal that teachers deeply understand what mastery looks like for each objective taught. Without exemplar responses to objectives, teachers can fall into the pitfall of lower expectations for what student responses should be. After this exemplar response is determined, then teachers can begin exploring how they want students to engage with the material. One additional pitfall I see from beginning teachers is planning an activity without spending time deeply understanding what mastery will look like at the end of each day. Don't do this- it makes your life and your students' lives more stressful.

After determining and knowing deeply the objective, teachers can then begin to explore the methods in which their particular students will learn best. It could be a self-paced online module; it could be a group activity in

which they use research skills to determine and synthesize the information on their own; or it could be basically anything as long as it's done with alignment and purpose to the objective.

Ultimately, I think this quote from an anonymous person, "pedagogy is the driver and technology is the accelerator" is poignant. A teacher must constantly ask and know what students must master and then figure out which technology best suits their particular group of students. When these things merge, student learning and student academic outcomes will accelerate.

## **2.5 -Technology As An Aside, Not a Focus**

Author: Bailey Ubellacker

In my educational organizations, I could group technology into three broad categories. These include: technology that enhance learning in new ways, technology that replaces traditional "paper and pencil," and technology that are either used incorrectly or not at all (either collecting literal or metaphorical dust).

Examples of improperly used or neglected technology in school environments include the fad-like Smart Boards, small class set of iPads, and programs such as Google maps and “real world tools” that remain untapped potential. Examples for technology that replaces traditional “paper and pencil” include progress monitoring that is now on the computer and allows for instant data collection and analysis, or computer games/programs that help students practice mathematics facts (replacing paper flash cards). I do not see this as an absolute negative way to use technology as on some level students learning is being enhanced such as accessibility, speed, and more user friendly. However, the focus and emphasis will be on examples and experiences in the category of technology that seamlessly enhances student learning in new ways and, when implemented properly, is not the focus point of learning.

Through my School Technology Leadership Program courses and readings, I have come to understand the importance of technology to not be the focal point as it should not be “seen, heard, or talked” about in a way that detracts from the real goal of student learning and achievement. Although sometimes schools and classrooms do not hit the mark on this, I have been involved in learning environments that do. It is my goal to share my

experiences and understanding of technology's role with you.

Specifically, I have been impressed with the use of Google Drive and the connections, collaborations, and streamlining it allows both in and out of schools and with students, teachers, and administrators alike. It is very important to focus on the learning and connections that platforms such as Google Docs, Google Slides, and even Google Forms produce. The very simple idea of student's real time working to solve problems, put together meaningful presentations, and possibly collect data from other students globally is changing the way students access and see the world. Learning is now more readily built upon the understandings and learning of others. It is changing how students and teachers piece together lesson plans, disseminate information, ask questions, challenge one another, and it saves time on the back-end to provide more time what matters: the doing, the reading, the editing, the presenting, the feedback, and the cycle continues.

I was first introduced to Google Docs my senior year in high school while completing a group project for my AP Environmental Science course. At first I was caught up in the "cool new toy" and my group members and I tested it out by sending fun messages to each other, adding to sentences watching live as we all provide our

own voice and spin on it. Suddenly, the novelty wore off and it became second nature. My students are now having the same realization that I did: the focus is on the interaction and global connection, not the platform itself. My students, just like myself, are learning from the insight of others through their edits, comments, and unique perspective brought to the table and made possible through the power of Google, the internet, a computer or tablet device, and the minds of many individuals.

See... even though I never mentioned any of these other technologies until now, I bet they were subconsciously included as you painted the picture in your head. In my opinion, that is how they should be, present, but not the focus.

## Part 3 - School Culture



## 3.1 - The Culture of Couches

Author: Jorge Pierce



For the last 15 years, I have had at least one couch in my psychology classroom. It started with one small couch that was left in our social studies work room. Teachers wanted it out because it was taking up space. I said that I

would move it into my room. This was my first year teaching psychology, and after all, a couch and psychology are synonymous. Someone then brought in an old orange lazy boy. After a few years a futon was added to the mix. I later gave the futon to a student who didn't have a bed. The futon was replaced by a larger couch from another department and a couple of chairs that had been in the office. The custodians brought them to my room knowing that I had different furniture and didn't want to just throw them away.

Couches have been replaced or covered over the years but the one thing that has stayed consistent is the inviting and comfortable atmosphere that has been created in my classroom. To some, including a few administrators I have had, the couches are a distraction. I had one administrator tell me that mine is not your "traditional" classroom. I took that as a compliment. My class is driven by discussions. My goal is to create a classroom that students look forward to coming to class and openly participate. I realize that you don't have to have one couch, or several, to accomplish this, but in my experience, it hasn't hurt.

Couches are first come first serve. Students get to class early just to get a spot on the couch. This creates another opportunity for interaction. One year I had students come into

my room to eat lunch just so they would be able to sit on a couch. The simple act of changing the physical layout of the classroom has created a culture of openness and collaboration. Just this morning, I overheard a student say, "I wish every class had couches." Couches wouldn't work in every classroom. Teachers have to be comfortable with their classroom and not all students like sitting on the couch. Every student does have a desk in my room, and we don't take tests on the couches. There are also rules. Students are aware that if they fall asleep during class on the couch, they are kicked off for life. I have had several students over the years sit on their own in a desk on days they were tired to make sure they didn't fall asleep and lose the privilege. I think my use of couches (and chairs, lazy-boys, end tables) represent an improvement in the culture of the classroom design.

Teachers need to have the ability to customize their classrooms to fit what works best for them. I joke with students every year that when their parents are getting rid of furniture just bring it in, maybe one day we can replace all the desks!

## 3.2 - A Tale of Two Analogies

Author: Kyle Curry

Imagine, if you will, the following scenario.

Consider a child. A child of approximately eighteen months of age who happens to have the most beautiful smile in the world, the sweetest laugh, and the fullest head of hair that can be imagined. This same child brings great joy to the lives her parents, and the child is always at the center of attention whenever a crowd of individuals are present. As with any milestone in a child's life, celebration occurs whenever she accomplishes a task that she has never accomplished before: her first giggle, her first "word", her first time meeting another baby, and even her first diaper change.

It is time for another milestone in her life – it is time to learn how to walk! As with any child who tries to learn how to walk, the parents are aware of the fact that she will eventually master the art of roaming around the house on two legs rather than four appendages. While the parents hate to see their beautiful daughter

growing up, they also understand that it is a necessity of life.

Typical story, typical rationale, and typical background for such a wonderful child.

The father takes his daughter by the hand, he smiles, and starts walking her up and down the hallway with assistance. His daughter sways back and forth as she walks with the assistance of her father, but she is making the necessary steps to move from one location to another. So far, so good. The father-daughter duo make several laps in this fashion to prepare the daughter for the inevitable unassisted trial. The father is proud of Daddy's Little Girl, and he nods his approval to his spouse who happens to be filming this special moment.

At this point, the father starts walking his daughter forward for another trip down the hallway. This time, however, he lightly lets go of his daughter's hand to watch her walk on her own. She sways violently, loses her balance, and immediately falls to the floor. The father walks over to his daughter, frowns, picks her up by her leg, hangs her upside down, and proceeds to spank the child for not doing what he wanted her to do. After all of the help he had given her, with all of the assistance provided, with all of the scaffolding he could provide, he paddles his daughter's behind while asking himself, "How can she not do this after I have shown her countless times!?" The father places his

daughter on the floor and walks away as she continues to cry from the punishment that she just received...still...unable to walk.

As the reader, how effective is the father's strategy in teaching his daughter how to walk? If you are a parent, is this how you taught your own daughter/son how to walk? Is this how your parents taught you how to walk?

Consider the same scenario but tweaked so that it is pertinent to what could happen in a school.

Consider a child. A child of approximately 15 years of age who happens to have the most beautiful smile in the world, the sweetest laugh, and the fullest head of hair that can be imagined. This same child brings great joy to the lives her teachers, and the child is always at the center of attention whenever her peers are present. As with any educational milestone in a child's life, celebration occurs whenever she accomplishes a task that she has never accomplished before: graduating from pre-school, receiving the honor roll for the first time, earning a perfect attendance award, and being voted the president of the Sophomore class!

It is time for another milestone in her life – it is time to learn how to accurately demonstrate the use physics equations pertaining to Newton's Laws of Motion! As with

any child who tries to learn Physics, the science teachers are aware of the fact that she will eventually master the art of using mathematics to describe the physical world around her. While the teachers hate to see their beautiful student growing up, they also understand that it is a necessity of life.

Typical story, typical rationale, and typical background for such a wonderful child.

The Physics teacher takes his daughter by the “hand”, he smiles, and starts providing educational opportunities to complete Physics problems with assistance. His student struggles as she grasps with the challenge of the completion of problems with the assistance of her teacher, but she is making the necessary steps to move from one mathematical variable in an equation from one location to another. So far, so good. The student-teacher duo complete several examples in this fashion to prepare the student for the inevitable unassisted trial. The teacher is proud of his favorite student, and he nods his approval to his administrator who happens to be documenting and observing this special moment.

At this point, the teacher hands out another activity filled with computational physics problems. This time, however, he no longer speaks and he lets go of his student’s “hand” to watch her complete problems on her own. She struggles a bit, loses her confidence,

and immediately fails to complete any of the problems. The teacher walks over to his student, frowns, picks up the exam, and proceeds to grade it as an F since the student was not able to do what he wanted her to do. After all of the help he had given her, with all of the assistance provided, with all of the scaffolding he could provide, he sees the student's course grade decrease while asking himself, "How can she not do this after I have shown her countless times!?" The teacher allows his student to leave the room at the end of the class period while he walks away as she continues to cry from the humiliation that she just received...still...unable to complete Physics problems.

It would seem that based on your reaction and based on personal experience, the method used to teach the child how to walk is one that would be entirely unacceptable in our nation's culture associated with raising a child. If this strategy is not accepted by the parenting culture that is established throughout the United States of America, then why is does the educational culture of the United States accept it to be used to teach its own children? Both scenarios end with a child in pain (physical pain vs. emotional pain), and both students end with a child being punished for not completing an activity to the expectations established by the individual serving in the "authority" role.

As we all know, whenever we teach children how to walk, we pick the child up by the hand and then continue practicing with the child until she/he is ready for another solo attempt. When the child falls again, the process repeats itself until the child is able to walk on her/his own. Throughout the process, the child is not punished for the failed attempt; the child is celebrated when the successful attempt has been made! More celebration follows whenever the child can continuously demonstrate that she/he can walk!

In the same vein, the modern educational system could establish a school culture in which students are allowed to revise their work, learn from their mistakes, and continue the revision process, with the aid of a teacher or facilitator of education, until the student can demonstrate that she/he can master the skill on a continuous basis. All-too-often, even today, students are graded using summative assessments that do not allow for students to learn from their mistakes. In essence, we are “paddling” our “children” for not “walking” on the first attempt. Keep these two situations in mind as you think about why we allow the current testing culture in our nation’s schools oftentimes do not allow for student revision.

In either case mentioned, it should be considered completely deplorable.



## 3.3 A Little Friendly Competition

Author: Jordan Clemons

- Students walk into school with zombie-like strides.
- Heads are down on desks in class.
- Trash is left in the hallways.
- Confrontations between teachers and students occur.

Yep, I've seen it. After teaching for a few years in a traditional high school setting, there's not a lot I haven't seen. To be perfectly honest, these characteristics aren't that uncommon in today's high schools—or middle schools for that matter.

A serious dilemma facing educators and administrators today is the challenge of building positive school culture. How do you build up your students, while building up your teachers, while maintaining the rigor of courses, while achieving outstanding scores on state

testing, while making learning enjoyable?  
Hmm.. good question. I'm no expert, but I have an idea that could help build positive culture in schools. Will it solve all of these problems? Probably not. Will it be a step in the right direction? Yes, I believe so.

After coming to my current school of employment in 2015, I was able to see just what positive school culture looks like. Are we perfect? Absolutely not; and I don't think any school is. However, I have seen some things that promote happiness in students and staff. As a consequence, this happiness makes learning more enjoyable for students and teaching more enjoyable for me.

One of the ideas I've seen implemented at my school is the concept of friendly competition. We have six villages in our school, each containing three teachers and up to 144 students. To inspire school and individual village pride, our administrators came up with the school's Olympics: a series of events that take place throughout the school year to generate competition. Have you seen any of the Harry Potter films? Well, it's kind of like that, only way less magical. Pun intended.

On the second and third day of school, we participated in school-wide competitions to kick off the Olympics. We had preliminary competitions in our own classes to determine

who would represent our village in the school-wide competition. There were a series of games including minute-to-win-it games, an athletic game, and a brain game. Each village wore their colored village t-shirts (we all have our own color) and we cheered on our representatives as they competed against students from other villages. I've never seen more enthusiasm the second day of school! To my surprise, my village (the only all freshman village) won the first round of the Olympics! Our prize was a golden cape with the school logo on it, which still proudly hangs in the window of my classroom, so everyone passing in the hallway can see it. We have had a second round of competitions since, and we won again, which meant holding on to the cape! Our third round of competitions will take place this month, so wish us luck!

This little bit of friendly competition gave the students a sense of ownership, and a glance at the bigger picture. These competitions continue all year, so anyone can steal the cape at any time. This could be applied in a variety of school settings, as long as the students are divided in some way. As for now, we'll see what the rest of the year holds for us!

## 3.4 Fight the Power for Failure

Author: Patrick Avery

As I was concluding my fall break trip to northern Virginia in 2016, I was dropped off at Washington's Reagan National Airport to catch my flight home. As I moved toward the security line, I happened across the Smithsonian Institution's airport store. At the front of the store was a display of t-shirts, cubs, pins, and other assorted novelties, all showcasing the phrase "Failure Is Not An Option." This phrase was made famous when these words were uttered by Gene Kranz, a NASA mission control flight director. And to his credit, that was probably the attitude that was needed in order to ensure that the astronauts aboard the doomed Apollo 13 spacecraft returned home safely.

But failure should be an option. Right? Imagine showing up on the first day of school, when even the least interested student has a little hope for a good school year. Then, when

they least expect it, you tell your students that you EXPECT them to fail. What? How? Why? "Forget this," might be their response. In order to serve students and teach them how to learn, a school culture of embracing failure is essential.

Now let's get something straight. This does not mean that students should go to school with the intention of failing their classes. The type of failure that we should embrace as school focuses on encouraging students to try new things and experiment, all with the goal of discovery. This is really difficult for many students, particularly students who have struggled to find success. They feel as if they have failed for so much of their school career that they are tired of doing things the wrong way and do not want to go out on a limb. It's often difficult because teachers also have a problem with failure. We are constantly judged by data that we try to play it safe so that we can look the best to our administrators and community. However, playing it safe has not produced the massive student-centered learning explosion that school reformers have sought.

Now is the time to reduce the stigma of trying to discover something even though I might not get it right the first time. Imagine a school where teachers and administrators model and encourage a new way of learning instead of allowing students to continue using

ways and means that are familiar and comfortable to them.

## **3.5 Creating a Cohesive Learning Culture Starts with the Adults**

Author: Malissa Eaves



Creating a culture of trust is essential to learner communities. The ideal learning environment exists when everyone, adults and students, functions as learners. Open leadership promotes honest communication and shared goals. Building a cohesive, trusting

learning environment yields growth and development for all learners.

Collective learning leads to cohesion. When learners are able to explore ideas through open communication, relationships of trust are viable. After an eight year study of professional learning communities [Robert Bullough \(2007, p.178\)](#) concluded, "Sustained school reform will require both a foundation of trust among teachers and life-enhancing relationships with one another and with young people." Creating a culture of openness is difficult to accomplish without trust. The idea of learning together in formulating solutions, taking risks, and even going back to the drawing board in the face of failure has potential to create cohesion. Lack of cohesion obstructs the process of obtaining efficacy in teaching, learning and assessing skills development. The burden rests on leadership and staff. As adults develop cohesion through collective problem solving, relationships among staff and students become more cohesive, making the clarified goal accessible.

A good time to establish cohesion among staff is during regularly scheduled meetings with teams focusing on school improvement. Prior to meetings, be sure to complete the following tasks:



1) Set meeting expectations -  
ANNOUNCEMENTS

-Agendas to participants at least 48 hours prior to meeting start

-Use protocols during meetings help establish habits of intentional collaboration. They are structured conversations for groups to use limited time efficiently and ensure that all voices are heard when working to solve problems,

2) Establish Norms with teams -  
DISCUSSION/SURVEY

-No Blame, No Excuses, Positive Thinking Motto

-Take interest in other viewpoints, ask questions

-Evidence or data-based statements only

3) Differentiate for Work Styles - A Survey via Google Forms or Survey Monkey could be used to gather this information.

Protocols can be found at:

<http://isites.harvard.edu/icb/icb.do?keyword=datwise&pageid=icb.page556408>

Another way to build cohesion among staff members is development of a School Professional Learning Network. Regular and consistent discussion postings foster open communication. Possible activities could include creating a Coherence poster discussion, school action planning input, and data compilations.

The adults have are responsible for creating a trusting learning culture. Once adults in the building learn to learn collectively, a trusting learning environment can exist for the students.





## **4.1 - Assessments: Why It's Pivotal For Student Learning and Equity**

Author: Josh Sparks

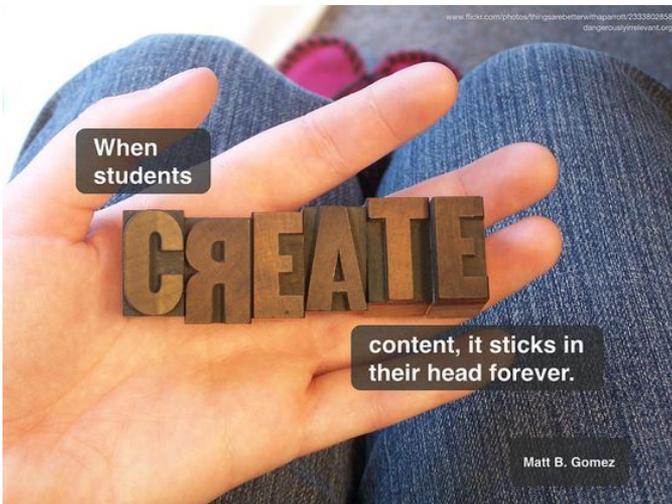
Assessments have gotten a bad reputation lately, and to me, that's unfortunate. Assessments were NEVER meant to be about teaching to the test and I hate it when people say that. Assessments were created to ensure we know how schools, teachers, and students are performing on a relative basis so we can celebrate success and deploy resources to those schools not meeting the relative bar. Assessments also were formed to ensure that ALL students around our state and country receive an equitable education. Prior to assessments, no one knew what students knew or could show they knew. Since the implementation of assessments, we know there is an achievement gap between different demographics. We know that since we've made

closing that a gap focus, students from low-income backgrounds and students of color have performed increasingly better which equates to more at-risk students receiving a game-changing and academically rigorous education. Assessments did that. Teachers did that. Communities did that.

I also view assessments as ensuring students know where they stand in pursuit of their academic progress. Without assessments, either summative or formative, students lack that basic understanding of how they're performing, the actions they've taken to perform at that level, and their ability to take agency over their own education. Understanding student academic performance is the moral commitment we enter into with parents when we agree to teach. We also receive a pay check to ensure that all students learn. Assessments and reflection allow us to do that.

However, with all good things, assessments have been used to do some awful things as well. Since math and reading are the focus of accountability, schools have increased time students spend in these subjects while reducing other subjects including science and the arts. This was NEVER the purpose of accountability or assessments. In fact, doing this is an affront

to equity. ALL students should have access to a well-rounded education infused with the arts, the sciences, and other subjects that aren't "accountable" in the current system. Also, this approach assumes that more time equates to better results. If a student is in a classroom with a teacher that is not reaching him/her, more time won't really matter. We must think more critically about the total approach to education and not just focus on accountability which should be linked to assessments but not be the end all, be all.



Photocredit: [Scott McLeod](#)



## 4.2 - What We Taught Our Kids: A Primer In Miseducation

Author: Heather Chapman

*NOTE: With the release of KPREP (state testing) data, "accountability" has been weighing heavily on my mind. Also, in my grad class we have been talking about the culture that we create within our schools. These two ponderings resulted in the following post. Hint, bring antacid. It's a doozy.*

Dear student,

We failed you. We promised you learning and a first-rate education.

And you did learn....

And you were educated....

But not the lessons we had planned.

You learned you were a number. You learned you were a test score, an invisible label imprinted like a barcode on your forehead that showed up under scrutiny. You learned education was a numbers game and some schools were good, better, best. Your education consisted of whispered remarks about “proficiency” and disapproving glances that your teacher was just a hair too slow to hide.

You learned being smart meant you were the fastest, that taking a fraction too long to think before you answered opened the door to ridicule, disparaging remarks are for the playground now too. You learned to blurt words and regurgitate answers that you wouldn’t even consider reasonable if only given a chance to fathom the question.

You learned that art was a luxury that you can’t afford. Subjects that aren’t state tested are subjects that aren’t state taught.

You learned to sit still. Be quiet. Bubble in the correct answer. Please power down any electronic devices. Exit doors are to your left.

You learned that school didn’t prepare you for life, but, “just you wait until you get to the real

world". That no, most of you won't really use slope-intercept form again. That yes, you actually will have a calculator with you everywhere you go. There's an app for that.

You learned an education was something you get, not something you do. That worksheets and tests and on demand writing prompts were the key to greatness. That your worth is the number of correct answers you can get in a certain amount of time. That celebrations would be based on this data and that you'd better get on board or risk missing out.

You learned all the wrong things. And it was us that taught you.

## 4.3 - Liberating Assessment

Author: Patrick Avery

Back in the 12<sup>th</sup>-grade, amidst applying for a half-dozen colleges, I had to take the SAT for the third time in order to see if I could squeeze a higher score out in order to look good for the admissions officers that would soon look over my applications. Unfortunately, I had a bad cold that day and I scored 40 points lower than my previous scores. Even worse, I was constantly sneezing and didn't have any Kleenex. I received a lot of icy stares from other test takers who were clearly distracted. I'm sure they were feeling just as stressed as I was with the feeling of their future being on the line. But should so much be at stake for one test?

One of the issues with today's assessments, be it the ACT, SAT, or the Chapter 7 science test, is that they bring up lots of anxiety in students trying to pass. Assessments should be expressions of what we have actually learned. Today's standardized tests are archaic ways of testing that were created decades ago for a technology-less society.

However, standards-based grading is a movement that is starting to see some traction. SBG essentially awards students for mastering a specific standard. If they fail to achieve a proficient score, they are allowed to remediate until they have mastered the standard. If there is a five-standard test that they are taking and they pass four of them, they only have to remediate the standard they did not pass. This process allows students to seek mastery without having to start from scratch each time.

As a teacher at a school practicing SBG, I find it liberating. In special education classes, students are used to completing overlong assessments in order to show what they know. However, for many of these students, particularly in the lower cognitive range, long tests impede their ability to show what they know. Since their disabilities can require extended time on assessments, they often have to take assessments over multiple days in order to

complete them. Therefore, they have to reorganize their thoughts and knowledge, multiple times during the course of one assessment. With SBG, I have figured out that testing students with disabilities more frequently can be of benefit. My tests are five questions on one standard. Therefore, we test more frequently, but the tests are much shorter.

Of course, many argue that I am not exposing them to the longer tests that they will see on the ACT, ASVAB, and other common standardized tests. However, because of the shorter tests, I find that I can cover more and also come back to review the material throughout the year.

We have to stop holding on to time-honored ways of assessing students. SBG is a way to break out of the mold and try new ways of letting students show how they learn.

## 4.4 - Performance Assessment

Author: Jorge Pierce

I have coached for just about my entire teaching career - primarily basketball, but I have also coached baseball and golf. In sports, assessment is easy. There are winners and losers. It is easy to measure your times or scores and gauge improvement. Performance assessment is natural in competition. Sometimes in the classroom assessment becomes more difficult.

In *Transforming Schools*, Lenz, Wells, and Kingston discuss the importance of using, rather than just possessing, knowledge (p. 45). I like the idea of different kinds of assessment in

the classroom, especially the idea of effectively using what you have learned, but sometimes I have difficulty wrapping my head around how to most effectively incorporate new techniques. In some ways it is like creating a blog. I have not used this method of communication in the past and being new it is sometimes difficult to think about what to write. I think this is the same for students and teachers when looking at different forms of assessment. I think everyone would agree the importance of assessment and giving students different opportunities to show understanding.

For so long it has seemed education has been based on memorization and regurgitation of facts that it is hard for some to get out of that mindset.

The most effective assessment I have used in my classes is the culminating project in my AP psychology classes. There is about 3 1/2 weeks left in the school year after the AP test in May. Students are expected to create a presentation demonstrating concepts they have learned in psychology. The instructions are purposely vague. I want students to be creative in their presentation.

The last few years I have made these presentations during class time. After this class and some of the videos and readings about

community presentations I am planning on this spring to hold the first Psychology Presentation of Learning Night. Parents, administration, students, and the community will be invited to participate. I am still working out the specifics but I think this will be an excellent opportunity for students to be recognized for their accomplishments and allow them to show not only their understanding of psychological concepts, but give them an opportunity to show creativity as well. This will differ significantly from the AP test that is an example of a standardized assessment and give students an opportunity to show deeper learning of topics.



Photocredit: [Scott McLeod](#)

## 4.5 - Is This Going To Be On The Test?

Author: Jordan Clements

If there's a controversial topic in education, it's assessment. Is it good, bad, or ugly? That's a tough question. Like many things, I think it's how you use assessment that determines its usefulness. I do believe assessment can be useful, but it can also be dangerous. That's right-- DANGEROUS.

What comes to mind is the bit from the documentary *Most Likely to Succeed*, where students were tested on information learned in a science class only three months after the class ended. The results were pretty worrisome: students did not retain the information they learned only three months prior. What does

this say about assessments and the way we are measuring mastery in schools?

It's no secret that we don't always retain the information we're taught. Truth be told, I can't remember anything from a math class! So, how do we make the information stick? I think this leads us to project-based learning. If students today are anything like me, I learn best when I actually demonstrate knowledge by creating, by doing. PBL is the solution if this is what we want. PBL consists of continued assessment as students move through weeks of information by collaboratively creating projects that demonstrate their knowledge. Think about it, what is going to be more memorable to a student: a service project focused on restoring a community park or a multiple choice test?



Hmm.. the choice is yours.

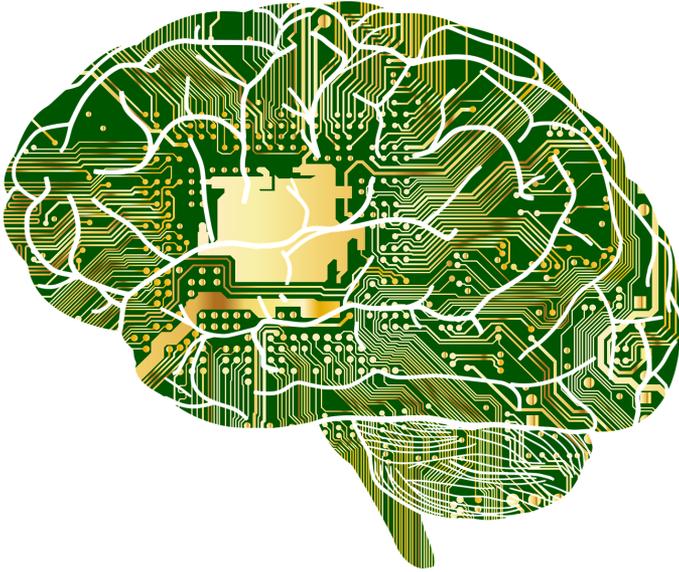
This doesn't mean written assessments are not informative or useful. Formative assessment is something vital to the success of all students.

Little assessments before and during learning can help me understand which students are prepared for the upcoming information, and which students are struggling. These formative assessments allow me to see how the students are handling the information. However, these assessments are not enough on their own. Students can complete a written formative assessment for me, but I also need to see them collaborating, thinking critically, speaking publicly, and revising work, which is why PBL is such a great tool for measurement.

I am also a fan of portfolios to assess student achievement. In my village at Elkhorn Crossing School (Intro to Media Arts) we ask our students to create a portfolio of work that demonstrate their understanding and application of concepts learned in the village throughout the course of the school year. This portfolio stays with them throughout the years, and it can even be used when they apply for jobs one day.

Truthfully, I don't know that there is a perfect assessment out there to showcase what students know. After all, we all learn in different ways, so how can one single test demonstrate what all students know?

# Chapter 5: Freeing the Caged Mind



## **5.1 - Destination - Growth Mindset**

Author: Bailey Ubellacker

Even before I was introduced to the research surrounding and behind growth-mindset, I already had a meaningful grasp on what it was and wasn't. Before the fancy name and definition made its way into my vocabulary I was already practicing and encouraging the aspects associated with growth-mindset. It came from my "can do attitude" and blossomed from there. Growth-mindset can be defined as believing that one's abilities and skills can be developed and enhanced through hard work and dedication (Dweck, 2006).

No matter how many academic and prestigious books and articles I delve into, the one book that stands out to me, as cliché as it

is, is *The Little Engine That Could*. This timeless children's book captures the true understanding on focusing on trying, growth, and the power of a positive mindset. It is every teacher's hope that this frame of mind continues from the young and confident age when the book is read on through middle and high school. At some point, sadly, it seems students lose the "think I can" sparkle and begin to use words like "he is smart," "he is good at basketball, I am not," and "why should I try if I know I am going to fail?"—all indications of a fixed-mindset, the devastating counterpart of growth-mindset. Dweck (2006) author of *Mindset: The New Psychology of Success*, defines fixed-mindset as students believing in their basic abilities, their intelligence, their talents, as fixed traits.

Recently, I have focused on the motivation, self-efficacy, and growth mindset around mathematics. My current position allows me to the opportunity to work directly with university level students through mathematics. It was observed that students consistently entered my classroom with negative attitudes towards mathematics paired with a fixed mindset on the topic. To understand the reasons behind this common phenomenon and to inspire change I developed

an action research project around this very topic.

However, I do not want the main focus on revolve around my design, intervention, and findings. Instead emphasis on how to preserve the winsome attitudes that young children encapsulate when experiencing learning and growth is desired. What actions and modeling needs to occur from the educators to reinforce growth-mindset in our society's daily learning engagement? Could it be replacing fixed praise of "you are so smart" to "I can tell you really tried and prepared?" Or even encouraging metacognition about one's own mindset and guiding student to a growth-mindset if needed.

When starting a position as a mathematics interventionist at a local elementary school, my first lesson with the students was not math content. Instead I strive to get to know the students on a personal level and discussion growth-mindset towards mathematics. I believe that addressing negative and fixed feelings towards math at a young age will have a positive impact on students when they enter my classroom at the collegiate level. Learning is on a spectrum and experiences and attitudes at a young age can have a lasting impact on the learner. I want to be involved at many levels of learning to best develop a

picture of what individual learners needs may be.

## **5.2 - Ignorance and Bliss - Growth Mindset in the Classroom**

Author: Heather Chapman

### I Am Ignorant And So Are You

Every year, I have to teach my students to embrace the word “ignorant”, and every year I have to redefine what this word means. Their culture has adopted this word as an insult, and they hear it hurled spitefully at anyone that who they perceive as “dumb”. They’ve learned that this word is bad; a label to be hidden and embarrassed for, and that simple fact makes them ignorant themselves.

Failure is inevitable. If you haven’t failed, you’ve managed to do the impossible and shirk one of the unavoidable things such as death and taxes. It is how learning happens. Burning

the brownies leads us to rationalize that we really should preheat the oven like the directions say. Getting the incorrect answer on a word problem implies that we should reconsider our strategy. By failing, students realize ways that do not work, like Edison and the light bulb. The tricky balance in this is establishing a school culture where failure is not only expected but a welcome part of the process. It is through failure that we achieve growth.

### Speaking of Growth (Mindset)

No student wants to fail. Especially at first. Countless frustrations and ripped up papers in my classroom stem from the feeling of failure. Students don't come to us with fond feelings of failing. Regardless, we tape the pieces back together and keep moving forward. This is possible only because I have fostered a growth mindset. The Growth Mindset is the belief that your intelligence is flexible – you can grow it. I am not my ACT score or the score I got on a test – I can grow and so can my mind. Students do not see their failure as the end of their journey, merely a stop along the way. Yes, they may get frustrated along the way; we all fluctuate between a fixed mindset and a growth mindset. Who hasn't felt like a failure on a bad day even if you strive toward positive thinking?

The difference is we don't stop pushing our students toward this.

### What It Isn't

Growth mindset isn't effort. My students and I have all experienced the "bootstrap theory". Hard work doesn't necessarily end up in a big payout. Students should not be getting praised for "trying their best". GASP! They need specific feedback to help them reach the high standard you hold them to. Their strategy may not be working no matter how much effort they are putting forth. My mother always said you can't squeeze blood from a turnip, usually when we were trying our hardest to talk our way into an extra snack. Spoiler alert – effort did not equal reward – despite our puppy dog eyes. Some students may have a little farther to climb, but if you believe all students can truly succeed, praising effort only gives students an excuse to work so hard. They may not reach the failure expectations that you want them to in order to keep growing.

### What It Is – Implications for the Classroom

To foster a growth mindset in the classroom, teachers must be willing to forgo their role as expert with all the answers.

Students need to see you admit to failure and ignorance and strive to keep learning anyway. Model what it is like to fail at a problem, only to talk about ways that you changed. Redefine what ignorance means. Brandish it as a proud symbol of what you don't know and how you're going to learn it. Students should be reflecting on what they don't know and planning how they are going to find the answers. Reflection is key. Talk about growth – talk about failure. Change failure from “x marks the spot”, to pit stop along the way. Give students the opportunity to revise their mistakes instead of the end all be all of assessments. Growth isn't growth if it is stunted.

To achieve true Growth Mindset, there may be some resistance and wailing and gnashing of teeth. Your students might be a little upset too. But remember, failure is unavoidable – we might as well make the best of it.

## 5.3 - Growth Mindset - Implementation

Author: Jordan Clemons

I'll admit, the first time I took a Growth Mindset Quiz, I was a little offended. I mean, who has the right to tell me that I have a *Fixed Mindset*? And what does that even mean? It can be challenging for us to acknowledge things about ourselves that aren't necessarily perfect or admirable. The irony is, my reaction to the Growth Mindset Quiz is a pretty accurate representation of a Fixed Mindset. The good news is, I learned more about this term, what it means, and what it looks like in a school setting. Of course, I didn't learn about it on my own—this is in thanks to my school administrators!

Adopting a Growth Mindset as a school, or even as an individual class can be a bit challenging. As with anything new, I think the

key is to reiterate the concept often, and actually put it into practice. One of our school goals/initiatives/visions at my high school of employment is to help each student adopt a Growth Mindset. So, every year, it is up to the faculty, staff, and upperclassmen to demonstrate this mindset.

One of the ways teachers can demonstrate a Growth Mindset is to be open to being wrong, which sounds frightening. After all, as teachers, we are supposed to be the “authority” on all matters pertaining to our content area! I think one of the implications of having a Growth Mindset is being willing to let go; to be seen as an actual human being who makes mistakes; to take off the “I know this and you don’t” mask of teaching. This doesn’t mean you don’t teach your kiddos what you know is right, but it does mean you are open to their suggestions and constructive criticism.

Another implication is to rethink the way learning and grading takes place. Learning needs to be viewed as a process—an opportunity to edit and revise until the concept is mastered. A great way to implement this type of learning is with project-based learning (PBL). In PBL, students collaborate with their peers to think critically and create projects to demonstrate their knowledge, rather than

always showing their work via paper assignments. These projects are also supposed to be ones that connect to the real world. This process would allow students to try, fail, try, fail, and eventually succeed. The failure is not supposed to be viewed as a negative, devastating experience, but rather as an opportunity for growth.

An easy change that can take place in classrooms and schools is changing up the traditional first day of school. Many secondary school teachers go over syllabi with students on the first day. I've been guilty of this too. It wasn't until I got my new teaching job that I realized just how critical the first day is in setting the tone for a positive, Growth Mindset environment. One of the things I've done with students for two years now is give them a few tasks that require a Growth Mindset for success. One of them is a marshmallow challenge, where students have to build a tower out of uncooked spaghetti and tape that can support a marshmallow. In addition, I've asked them to complete a cup stacking challenge, where they must build a tower out of plastic cups while only using string and rubber bands. These small challenges set the stage for a Growth Mindset experience on the first day of school!

Small activities, faculty and staff modeling, and alternate grading and learning can all contribute to establishing a growth mindset. If this concept is reiterated, it is likely to stick with the students and, hopefully, influence their lives long term!

## 5.4 - Growth Mindset - Focusing on Progress and Potential

Author: Josh Sparks

Growth Mindset is game-changing when it comes to students' feelings on their worth, their potential as human beings, and their positive attitude towards new challenges. Growth Mindset essentially says, "Hey, it's OK to fail. Failure is a natural part of the learning process and we learn and grow for next time." Fixed Mindset says, "I didn't meet an absolute bar the first time! I'm not good at X, Y, or Z, and I never will be. So, I'm not going to try it again."

In schools, students are expected to meet an absolute bar of proficiency in many subjects. For instance, in math and reading, students are assessed almost every year between 3-8 grade and are expected to meet the proficiency bar. Now, what I'm not saying is

setting the goal for proficiency for all students is bad- it's not. However, when students don't meet that absolute bar they shouldn't be made to feel awful. Their growth should be showcased and celebrated instead. Also, students should reflect on their progress to build the personal reflective habits that lead to students possessing a growth mindset.

One way I have seen schools lean into and live out Growth Mindset with their students is by utilizing standards-based grading. In this system, homework, participation, etc. is not graded. The only things that students receive marks on are what they prove they know independently. After each assessment, students reflect on their progress for each learning target and have the opportunity to re-take any learning targets they missed until they master it. Of course, students have to show effort by making note-cards, coming to tutoring, etc. before they re-take it. This is to instill that students must take action to grow and not simply retake the test until they get lucky.

Overall, it's working. It shows that the brain is malleable – it can be shaped and changed depending on the actions we take to improve it. It also reiterates that our abilities are not innate – we're not simply born with the ability to do "good" math, but rather we must

work hard each day to do "good" math.  
Creating a school environment of growth  
mindset for everyone (administrators, teachers,  
students, etc.) goes a long way to enabling  
experimentation, failure, and innovation.

## **5.5: The Growth Mindset - Pretend to Believe it...Even if You Don't**

Author: Kyle Curry

As someone who is new to the realm of educational research, I do not have the experience nor knowledge to definitively state that all individuals can learn anything/everything as a result of implementing a Growth-Mindset in situations in which learning is to take place. It is acknowledged that researchers are split with regards to the idea of a growth-mindset, which creates an atmosphere in which advocates on both sides are passionate regarding their views and beliefs that are supported by their analyzed data. What I can say, however, is that I once had a teacher who believed in a Growth Mindset, and it literally turned my life around as a student.

Prior to 8<sup>th</sup> grade, I was simply an “average student”. In elementary school, I was content with making C’s in Social Studies and English while making B’s in Science and even D’s in Mathematics. I never really care for homework, nor did I really care about what I was learning in school. In all honesty, nothing in school really interest me, nor did it seem to have any effect in my life. I was, however, in middle school, a well behaved student who did complete work in class whenever given the opportunity to do so.

At the beginning of 8<sup>th</sup> grade, I was placed within a cohort of students and specific team of teachers. The cohort that I traveled with from class to class was hellacious at best; behavior was out of control, the students were rude towards one another, and the atmosphere was not conducive to learning from my personal perspective. Within three days of spending time with my peers, my mother had requested that I be moved to a different cohort of students so that I could enjoy school at peace. The only option, however, was to be placed with a group of students known as the “8<sup>th</sup> Grade Algebra” students; these students took Pre-Algebra in 7<sup>th</sup> grade while the other students completed “7<sup>th</sup> Grade Math”, and these students were always one grade level ahead in Mathematics starting from 5<sup>th</sup> grade. As a

student who was used to making C's and D's in Mathematics, it was a scary moment for me; I did not even take the Pre-Algebra course that was evidently needed for success in Algebra. My mother and father, who are VERY successful to this date, never worked in industries in which mathematics was used beyond arithmetic. Essentially, if I was to take 8<sup>th</sup> grade Algebra, I was to be on my own with only the help of only the teacher.

The teacher for the course was an individual who sat me down, told me that I could easily learn Algebra, and informed me that I was ready for the class regardless of my background in Mathematics. She acknowledged that my Mathematics scores were not as high as they should have been to meet the criteria for entering the class, but I could catch up with my classmates with a minimal amount of extra work and preparation. Regardless of my past history with Mathematics, I was in the "big league", which meant that I was to take the class seriously and studiously. This was my only option to escape the terrors of the typical cohort of students. For the first time in my life, a teacher had explicitly told me that she did not care of my background, she did not care of my previous grades, and she did not care of how prepared I was for the course. She only cared that I rise up to the challenge and prove myself

that I was worthy to hold my own against the well-behaved students.

I buckled down. I completed homework at home for the first time in my life. My mother tried to learn Algebra with me to teach the content for whenever I struggled at home. I studied for quizzes. I studied for tests. I answered questions in class. I did everything that I could do in order to show the teacher that I was prepared for her course. By the end of the year, it was me who earned the “8<sup>th</sup> Grade Algebra Award” for the highest grade point average in the course. However, it was also me who won the same award for Science, Social Studies, AND English. Something about that academic school year clicked for me, the light switch has been on ever since.

I went on to be the top student in each course that I took in high school, and I went on to be the top student in the school by the time of graduation. This same obsession with grades and studied carried me into my undergraduate studies in which I walked away with the “Scholar of College” award for two different colleges and degree programs at Western Kentucky University.

My life as a student forever changed simply because I had a teacher who thought that I could grow as a mathematics student and who thought that I could grow as a human being. Her simple belief was enough motivation in my life to finally prove what kind of academic that I could be. This belief, a Growth Mindset, changed me as a person...forever. Therefore, whenever I became an educator, I always kept this notion in mind.

Even if a Growth Mindset is deemed inaccurate in the near or distant future, it still served as a HUGE motivator in my academic career. As a teacher with almost six years of teaching experience at the time of this publication, I can state, with confidence, that explicitly stating to students that they are capable of learning difficult material at least provides some bit of motivation to give students the confidence to rise to the challenges that are established by difficult expectations that are placed on the students.

As an educator, even if you inherently do not believe in a Growth Mindset, I encourage you to at least be convincing enough to your students that they should believe in it. Even if this only affects a single student, a student like me, then you have positively impacted that

student's life forever. If this inspiring story happened to me, it can happen to anyone.

The Growth Mindset. Pretend to believe it...even if you don't.

# Conclusion

Author: Justin Bathon

The stories from this book are the stories of real educators struggling with the professional questions of how best to educate children in our digital, global world but retain the local, authentic nature of schooling. We are moving, as the title implies, “outside the lines” of traditional schooling and the everyday leaders such as those that authored the chapters of this book will be the trendsetters in this grassroots revolution.

Every time another teacher sees the couches in Jorge’s classrooms or witnesses the projects in Jordan’s, for instance, a subtle but important message is delivered that we can school a bit outside the traditional lines. Malissa reminds us that the culture of a building starts with the culture amongst the adults and embracing our role as professionals.

Behaving professionally, causes us to engage in new conversations about the meaning of our foundational documents, such as the diploma, and to change our perceptions. The focus on STEM articulated by Bailey and

Josh, the meaning of the certificate of completion from Tiffany, or just the consideration of adult life skills from Jorge collectively causes us pause and adjust our behaviors as school and classroom leaders.

Reaching those more clearly articulated outcomes in the foundational documents, though, necessitates a reconsideration of the assessments needed. Josh, for instance, does a marvelous job of understanding the purpose of assessment, something lost over the previous decades. Patrick asks us to consider entirely new structural models for aggregating assessments, even, in the introduction of standards based grading and Jorge asks that we investigate performance assessments as a more viable mechanism.

Shifting to growth mindsets, also, are powerful as Kyle articulated in his own story. Heather, in her chapter, does a good job of showing how this change can take place practically at the classroom level.

Technology, itself, must undergo a reconsideration. The euphoric embracing of digital technologies of the previous decades must evolve into the reasoned and careful selection of the best tools for learning. Heather declarations, perhaps, sum up this shift. It will have broad implications also. From how we operate productive schools from Anna to the pace of learning itself articulated by Patrick, we

must adjust our perceptions and embrace new roles, new tasks, and a new future for schools.

The story of this book, collectively, is one of adjustments. Those adjustments, multiplied by millions, is the implementation of the revolution. Each of the stories highlighted in this book are simple in their own way, but collectively complex. Achieving a growth mindset is accelerated by smarter assessments. Those assessments must be guided by a deeper understanding of desired outcomes. Smoothing the way are adjustments to culture. Finally, all of these are impacted by advances in technology and will continue to be forever. The constant is change. And, the story here, in this book, is of change leaders ready and willing to embrace the task.

This has been a rewarding project for me, personally, in seeing leaders emerge. Watching quality educators embrace their professional responsibilities to advance their own profession and in so doing advance the future of our nation's children. I have no doubt that the students served by the authors of this book, the students in the class, will be well served. There is, indeed, a bright future ahead as we all collectively learn to school outside the lines.

Dr. Justin Bathon



Photocredit: William M Ferriter

## Author Bios

Patrick Avery, of Louisville, KY, is a special education teacher at Shelby County High School in Shelbyville, KY. He has a B.A. in journalism from the University of Kentucky and a M.A. in special education from Campbellsville University. He is currently pursuing his M.S. in Library Science with a school librarian certification at the University of Kentucky. Passionate for helping tear apart traditional schooling in ways to help create a student-centered learning environments, Patrick currently works in a self-paced learning program, called 3PT, in an effort to differentiate learning for all students. He is married to Michelle Avery and is the father of two kids, Stella and Daniel.



Tiffany Bailey, of Louisville, KY is a special education teacher at the Binet School in Jefferson County where she serves as the team leader and teacher for Kindergarten through third grade of students with cognitive disabilities and aggressive behaviors. She earned a B.S. in Special Education from the University of Kentucky. She is passionate about helping students with disabilities tap into their potential despite their labels. She is currently pursuing a Master's in Educational Leadership at the University of Kentucky.



Heather Chapman is an elementary school teacher in Lexington, KY. Native to Eastern Kentucky, she was born in Corbin and attended Berea College for her degree in Elementary Education. Passionate about STEAM and bringing those concepts to students in the classroom, she is currently pursuing her Masters in STEM at the University of Kentucky. Working with the CRIOP program at Georgetown College, she is also



striving to bring culturally and linguistically responsive instruction to underserved populations.

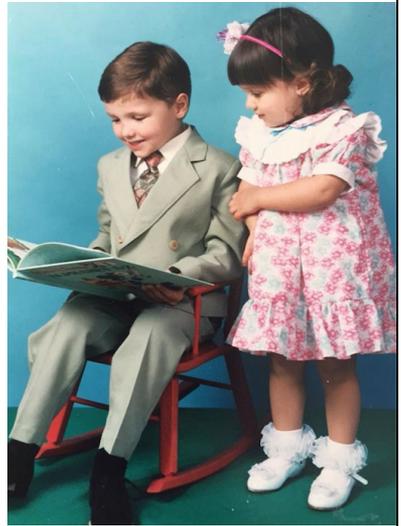
Anna L. Clements was born and raised a small farm in Springfield, Kentucky. She received her B.S in Middle School Mathematics and Science Education and she is currently pursuing her M.Ed. in Educational Leadership at the University of Kentucky. Anna is in her fourth year teaching 6th grade mathematics and science at Georgetown Middle School. Anna enjoys the challenge of exploring the rugged outdoors and strives to improve environmental awareness amongst her students.



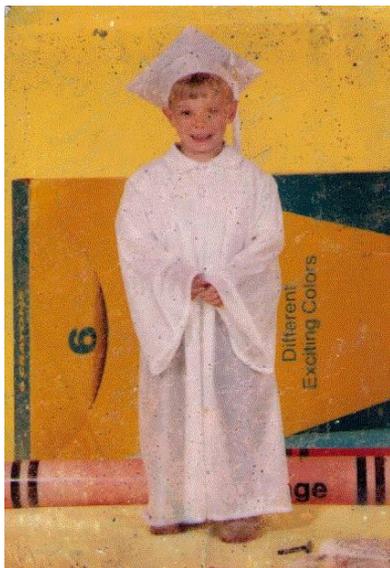
Josh Sparks is a native to Eastern Kentucky. He attended Berea College, received an M.Ed. at the University of Kentucky, and is currently pursuing his Ph.D. in Educational Leadership at the University of Kentucky. Josh began his career in education teaching middle school science at Gallup Middle School in rural New Mexico where he worked side by side with great educators and his fearless and brilliant students. He then returned home where he joined the charter Teach For America staff as a teacher coach and helped to launch the Appalachia region. For the past three years, he has been the head of program where his team has worked to increase student achievement results and culture across the corps. Josh is now excited to lead the work of Teach For America in his home region and work beside the great leaders and teachers in Eastern Kentucky as Executive Director.



Jordan Clemons was raised in Leitchfield, a small western Kentucky town. She received her B.A. in English and a secondary education teaching certificate from Georgetown College in 2012. After completing her undergraduate education, she moved back to her hometown to teach standard, honors, and AP English at Grayson County High School. After three years of teaching and coaching softball at GCHS, she applied and was selected to teach at Elkhorn Crossing Career and Technical School in Georgetown, Kentucky. Jordan became a member of the Introduction to Media Arts Village at ECS in 2015, where she still teaches ninth grade English. She is currently pursuing her M.Ed. in Educational Leadership at the University of Kentucky.



Kyle Curry is a former Physics teacher from a public high school in Kentucky who has successfully completed his 5th academic school year as an educator. After graduating High School, he attended Somerset Community College for one academic school year before he began to pursue degrees in Physics and in Education. In the Fall semester of 2009, he officially enrolled as a Hill-Topper at Western Kentucky University to acquire a Bachelor's of Science Degree in Physics and a Bachelor's of Science Degree in Science/Mathematics Education. He is a student in the first cohort of SKyTeach graduates from Western Kentucky University. He is currently enrolled as a graduate student at the University of Kentucky's STEM Education program with the aspirations of earning a Doctoral degree as he works for the Kentucky Science and Technology Corporation and the National Mathematics Science Initiative to increase student enrollment and success in Advanced Placement Science and Mathematics courses.

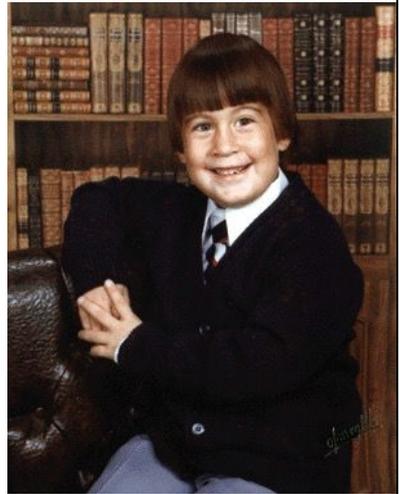


Malissa Eaves is enjoying serving as a 6th grade special education teacher at Summit View STEAM Academy in Independence, Kentucky. She holds a B.S. in Secondary Education with emphasis in Biology and M.S. in Education, both acquired from The University of Tennessee. Currently she is pursuing her Ed.S. in Educational Leadership with Emphasis in Technology at The University of Kentucky. Malissa served her first thirteen years as a teacher in northwestern Tennessee from 1995-2008. There she taught 8th grade science, biology, special education, and gifted education. During her eight years as leader of gifted education for Dyer County School District in Tennessee, her students competed in Destination Imagination at the international level three consecutive years. She also trained teachers in gifted and differentiated instructional strategies. Malissa began as a Kentucky teacher in the Kenton County School District in 2008. She taught students enrolled in a special mental health educational



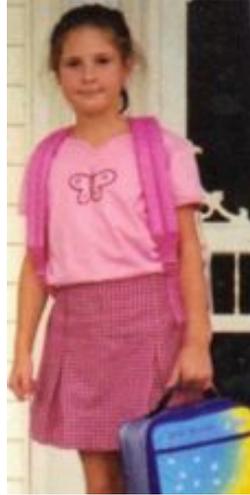
program at Summit View Middle School. Currently, she works with 6th grade special education students in collaborative and special settings. Finally, she is coach for the STEM Bicycle Club at Summit View Academy, which is sponsored by Greater Cincinnati STEM Collaborative.

Jorge Pierce was born and raised in Cincinnati, Ohio. He first attended the University of Kentucky, later transferring to Northern Arizona University where he received both his B.S. in Social Studies Education and M.Ed. in Human Relations. Currently he is pursuing his Ed.S. in Educational Leadership with an Emphasis in Technology from the University of Kentucky. Jorge is in his 21st year teaching at Dobson High School in Mesa, Arizona. He has taught psychology for the last 15 years. He started the A.P. Psychology program at Dobson in 2004 and the Sports Psychology program in 2013. He currently teaches Introductory, Advanced, A.P., and Sports Psychology, as



well as PSY101 and Cultural Psychology at Mesa Community College.

Bailey Ubellacker is a second year master's student in Educational Leadership at the University of Kentucky. She graduated from the University of Kentucky in May of 2015 with a BA in Elementary Education and a BA in Spanish. She enjoys traveling and teaching in diverse settings, including Spain, Costa Rica, and New Zealand. Bailey student taught abroad in New Zealand and currently serves as mathematics instructor at the University of Kentucky and an elementary school mathematics interventionist.

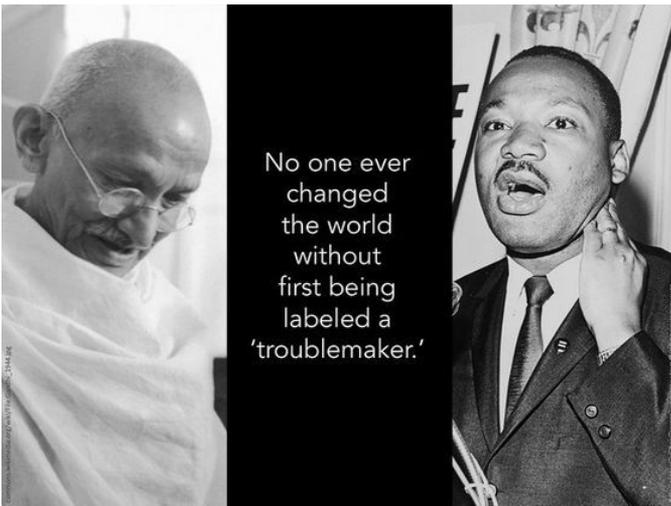


Justin Bathon is an Associate Professor in the Department of Educational Leadership Studies at the University of Kentucky and Director of Innovative School Models at the College of Education. Justin focuses on the underlying code of education and the changes necessitated by the digital, global age. This work looks at the intersections of education, law, and technology and translates research into specific actions for local learning communities. Justin has legal and educational experience at the local, state, national, and international levels including as a high school teacher in southern Illinois. He holds a J.D. from Southern Illinois University and a Ph.D. in Education Policy from Indiana University.



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