

Collection of Reflections 2023-24



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BEST is one of PEBC's intentional efforts to support and sustain BIPOC educators.

PEBC is an education nonprofit that provides training and support to cultivate highly effective K-12 educators who elevate student growth and achievement. Program offerings span a teacher's entire career including: new teacher preparation, on-the-job instructional coaching, institutes and seminars on pedagogy, and support for leading and managing change at the school or district level. PEBC emphasizes teaching for understanding, agency, and equity using research-based instructional practices across the curriculum.

Core Principles & Values

PEBC trains and empowers K-12 educators with effective strategies to create engaging learning environments so all students acquire the knowledge and skills needed to succeed.

PEBC believes:

- Every student can learn and be successful.
- Teachers are the primary facilitator of change for student success.
- Every student deserves a well trained and highly effective teacher and leader.
- A collaborative culture creates a continuous improvement loop.

PEBC knows:

- Highly-effective teachers drive student growth and achievement.
- Ongoing professional development is critical to improve teaching, learning, understanding and leading.
- When teachers and leaders are learning, students are learning.
- Improving the culture of a classroom, school and district takes time.

PEBC's Impacts

While PEBC works directly with teachers and leaders, student growth and achievement are our most compelling outcomes. Independent evaluations consistently show a positive effect on student achievement for PEBC-trained teachers.

On state reading and writing assessments, students of PEBC Residency-trained Teachers show statistically significant greater average growth than students of other new teachers, and greater proficiency levels in reading, writing, and math than their peers. At five schools where PEBC provided intensive professional development, all schools showed either higher growth or higher achievement as compared to other schools in the state in all the relevant subject area assessments.

PEBC staff are former classroom teachers, teacher trainers and leaders who have extensive teaching experience and knowledge of instructional best practices, as well as advanced training in adult learning strategies and coaching practices.



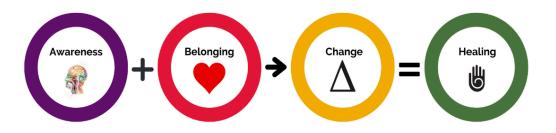
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Introduction

In the crisp embrace of a fall morning in 2022, Wendy, Jailyn, and I convened in a charming Denver coffee shop, each fueled by a shared vision: to revolutionize education through PEBC. As educators of color, Jailyn and I resonated deeply with the absence of representation in STEM—a void that begs to be filled. Delving into the stark reality of underrepresentation, we uncovered unsettling truths: a mere 21% of teachers reflect the diversity of our student body. We know the transformative power that BIPOC educators can offer to schools and communities - and also recognize the unique challenges that educators of color face working in predominantly white-run spaces. If we want to support and sustain BIPOC educators in the STEM fields, what might we do?

This question propelled us forward, igniting the creation of the BEST conference—a beacon of empowerment for BIPOC STEM educators. The mission of BEST is to amplify voices, dismantle barriers, and foster belonging and joy in STEM education. Here is our theory of action:



The inaugural BEST conference June 24 - 25, 2023 was hosted by our partner the Denver Museum of Nature and Science (DMNS) and stands as a testament to our collective resolve. We created a gathering place where BIPOC educators could shine, share, and shape the future of education. After our two days together,

2023 B.E.S.T. CONFERENCE

HOW DID IT GO?

WHO WAS IN THE ROOM? Teachers, school leaders, district personnel, community members, STEM professionals, students, and representatives from the Department of Education

Two-thirds of our participants boast over a decade of experience, compared to the average educator career of just 5 years.

It was refreshing to be in a learning environment with people that look like me. The knowledge I've gained along the way will contribute to improved outcomes for my students.







The joy, connections, and sense of belonging experienced in this inaugural meeting help reinforce the impact and necessity of such a cohort. I left invigorated and prepared to show up as my authentic self in executive spaces and continue forging forward with building capacity for the next iteration of BIPOC leaders.



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BEST

participants formed year-long affinity groups who met monthly to offer community, share resources, build strength and heal. We are looking forward to our second BEST conference in June 2024, again at DMNS.

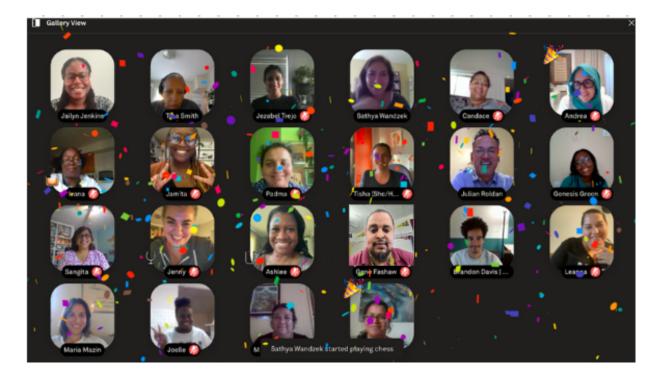
This booklet is our demonstration of learning, a collection of BEST participants' reflections on our journeys as BIPOC educators. The last section is dedicated to sharing some resources we found that align with the organizing idea of BEST: Belonging, Change, Awareness, Healing & Joy for BIPOC educators and our students.

We offer this booklet as a celebration of our community, a tool to empower BIPOC educators, spark dialogue and cultivate change. Together, we embrace the challenge, united in our quest for equity and excellence in education.

> - Sathya Wandzek, BEST co-founder



Inaugural BEST participants gathered at the Denver Museum of Nature and Science in June 2023.



BEST participants sustaining community virtually.

Unspoken Armor: Being the First and Only

Jailyn Jenkins, BEST co-founder

Attending a recent STEM meeting was a stark reminder of the prevailing lack of diversity in STEM, education and leadership roles. I logged into the virtual meeting and quickly realized that I was the only person of color in the space of about twenty different individuals. To an untrained eye, this dynamic may not be easily noticed, but as someone who often enters a room and feels the unspoken contention, the weight can be heavy. The isolating experience left me feeling deeply moved and underscored the critical need for spaces like BEST. The urgency for representation in various seats became even more apparent, fueling the imperative need for actual change in STEM education equity.

Growing up, I was always enamored with numbers and chemical reactions. My grandpa was one of the first people to positively cultivate my STEM identity; however, navigating the traditional school setting, both as a learner and educator, there were invisible barriers that had to be worked through, due to minimal visibility and representation. Initially, the vision I had for my life made sense, it involved being a secondary math teacher, then transitioning into a principal role. Life has a funny way of working out, because I am a walking reminder that *life is not linear*. Though I got the experience and attained the credentials, it wasn't until I met my district science coach - another Black woman- that I realized that my path was flexible and that there was space for me in the STEM world.

My journey has been marked by the sobering reality of being the sole educator or leader of color in departments, school communities and leadership roles. This has translated into a struggle to support students and



teachers of color who grapple with a lack of representation in lessons and leadership, contributing to a disheartening sense of assimilation. Despite my involvement in school committees to plan staff bonding, it became evident that there was an underlying exclusionary dynamic.

In response to these challenges, I embarked on a collaborative journey, brainstorming ways to create a supportive and sustaining environment for educators of color. The outcome was BEST—a space designed to provide educators with the resources and community needed to cultivate and sustain joy. This endeavor has been guided by valuable resources including Dr. Shawn Ginwright's *The Four Pivots*, emphasizing community, belonging, clarity, and intentional prioritization. Through these experiences, the significance of BEST addressing the current barriers to equity in STEM education becomes profoundly evident.

Over the past year, BEST has proven to be an invaluable sanctuary for educators, STEM professionals, and community members, providing a profound sense of visibility, acknowledgment, and community. In this space, individuals have not only felt seen and heard but have also experienced the transformative power of vulnerability. BEST has become a sacred space, fostering connections that extend beyond professional realms, offering solace and understanding. Recognizing the enduring value of this community is crucial, particularly in the face of persisting broken systems. As we navigate these challenges, preserving BEST becomes an essential commitment—a testament to its role as a haven for BIPOC educators amidst the complexities of the educational landscape.

NOT A LOVE STORY

Jamita Horton

My STEAM story isn't a love story with cupid and arrows. It's been more of a struggle love story. It's an on-and-off-again, it's not me - it's you, why don't you call me back type of story. I wish it were more of a rom-com, where the person [me] falls in love with my perfect person [STEAM], and despite obstacles, it all works out. It's more of a Tyler Perry movie with Shemar Moore in a bad wig.

I fell in love with math when I was five years old, stumbling through *Ten Apples Up On Top.* My love of reading came from my pride in being able to count. Watching the quantity of apple change on those creatures' heads made me feel like I was unlocking something new.

I fell out of love in middle school, when my algebra teacher told me I wasn't smart enough. I watched my love run off with other girls and boys in the class who felt more worthy of its attention. I drifted into the background, doubting my worth and my own abilities.

I rekindled the match with physics in high school. Balancing equations and learning about the elements sparked something in me that I was not sure was possible. Physics? Of all subjects? While others rushed to enroll in chemistry to create potions or biology to investigate organisms, I flirted with the different states of matter, drawn almost magnetically to the energy and intricacies underlying the universe's fundamental principles. It was as if I had stumbled upon a hidden treasure trove of understanding, where every concept unlocked a new realm of insight and possibility. Physics, with its elegant equations and profound theories, became my guiding star, illuminating my path toward a deeper comprehension of the world around me.

That is...until... I discovered that my [perceived] lack of mathematical capability would hinder my pursuit of physics. The incompatibility meant I had to let it go for a different path. It did not matter that I did well enough in both classes—never dropping below a "B." The world around me had already made up its mind. Just as it was about to catch fire, the spark was blown out, leaving the smell of sulfur and wisps of smoke.

I avoided STEAM for a while. Sometimes, I would get messages, little callbacks to memories of my love for it as a child. I tried not to think of it, really. What was the point of dwelling on something that just wasn't for me? I threw myself into humanities and eventually became an educator.

But I ran into STEAM during Praxis, and found I couldn't quite remember why I'd fallen in love with it in the first place, only the memories and misconceptions.

It wasn't until I taught that I fell in love with STEAM all over again. In my classroom, we raised butterflies, conducted experiments, and laughed at our mistakes. We took risks. I took risks! I let myself fall in love again and before I knew it, I fell hard. Sure, reading was important. I taught the kids to read and write and understand the world through the lens of words. Math and science created inspiration and incited exploration of what the world had to offer. We integrated the subjects together, finding wonderful ways to expand our understanding. We created art to explain global warming and used clay to mold the characters from our stories.

My love for STEAM held strong, but testing created a rift. I clung to my love, but since we no longer could make time for each other, we had to part ways. Now, STEAM and I are figuring out how we fit in each other's lives. We check in from time to time, reminisce, and laugh together. The time I spend with STEAM is joyful, full of love and leaves a sense of warmth and wonder. I no longer feel the need to avoid it; instead, we come together when it feels natural. As we continue to explore our connection, I don't need a rom com ending. STEAM may not be my soulmate, but that doesn't change the profoundness of our relationship. Our relationship has been a true journey of growth that has enriched both my mind and soul, creating the person I am today.

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From Honoring The Ancestors To Becoming An Honorable Ancestor Leanna Tolmich

I Am...Leanna, Chicana, Woman, Gifted, Educator, STEAM(er), Unit Co-Creator, Math Teacher, Social Justice Worker, Rebel, Revolutionary, Affinity Grouper, Fluffy, Daughter, Sister, Girlfriend, Best Friend, Fur Mamá, Granddaughter, Diabetic, My Ancestor's Wildest Dreams...

Talk about Intersectionality, I am ALL of these Identifiers all the time and every day. In the recent past, I have been on a personal and professional journey concentrating on my ancestors and becoming an ancestor myself.

I have learned to notice my surroundings, and I am able to blend in and code-switch with the best of them. While I know that I am so fortunate to have a lovely school community where I am valued, have a sense of belonging, and feel seen for all of the attributes and gifts I bring to the table, I have been struggling to find a support



system in my professional life. For as long as I can remember, and even more, while working in a private school, I have always been one or few in a predominantly white space. I have opened my eyes to the fact that there is a difference between feeling seen and, "If I can see it, I can be it." I have continued to advocate for myself, our few BIPOC faculty and staff members, and, most importantly, our students of color. There is such power, hope and importance in representation. In the past few years, I have attended the People of Color

Conference (NAIS) and the BEST conference, I have also recently been attending our newly formed Diversity, Equity, Inclusion, and Belonging community at my school. The People of Color National Conference that I have attended for the last two years was inspiring to see so many Latiné educators in one room during our affinity group sessions. I craved connection; I needed that connection on a local level.

The BEST conference and the affinity groups associated with it have gifted me a connection to a community. It was so energizing, powerful, and uplifting at the inaugural BEST Conference, and in our work over the past several months, to see so many educators of color in one space. It has been in my intentional work within the Community and Belonging affinity group as well as the study of our grounding text, The Four Pivots: Reimagining Justice, Reimagining Ourselves by Shawn A. Ginwright, Ph.D., that I have found my local



community. Not only have I had the privilege and opportunity to connect with other educators, but with a meaningful text as well. Both have been preparing me for the Journey that I did not even know The Universe and The Ancestors had in the works for me.

Storytelling and passing down of ancestral knowledge have been a part of my story since forever. We have been taught that the decisions we make today should result in a sustainable world seven generations into the future. The Reimaging, The Dreaming, and The Possibilities I set in motion today will indeed help make me an honorable ancestor and My Ancestors' Wildest Dreams.

For the Love of Science

Candace Lewis

As far back as I can remember, I loved science. I wanted to be a doctor. I operated on my dolls, made concoctions to heal them from imaginary ailments, and looked at their "cells" under the microscope my mom bought for me.

My science brain needed to know how everything worked, but being a black girl, my questioning everything was looked upon as disrespect to adults in my world. Unfortunately, I ended up dropping out of high school when I was sixteen, making me a statistic. That didn't stop me, though. I went on to get my GED and took classes to become a medical assistant before most of my friends graduated from high school. All of the imaginary play was becoming reality. I later decided to study biology with a minor in chemistry. I worked in the hospital as a phlebotomist while taking classes.

Life has a funny way of showing us that there is already a plan in place for us. Being a doctor was my plan, but it wasn't "the plan." I had my daughter and became a single mother. That changed the course of my life in a great way. It shifted my area of study; I became an educator. That didn't stump my science brain. It ignited it. I decided to get my degree in education and open a childcare center. My program required me to work in a school setting. I fell in love with a space I never wanted to enter again... school. I taught kindergarten and incorporated science across all content areas; I planned and mapped out units of study, and I set up my classroom community in a way that encouraged students to take risks, ask questions, and learn about the world around them. I carried the belief that my students deserved to be exposed to science - even when it was no longer a priority - into every building and every grade level I was in.

Attending the BEST Conference not only reignited my passion for STEM, but I was in a space with people who have had similar experiences. I felt affirmed and a sense of belonging. I often wonder where STEM lives in my career as a Culturally and Linguistically Diverse (CLDE) Teacher Leader. I am reminded that I continue using my science brain while studying linguistics, coaching and educating aspiring teachers. After all, teaching is a science.

Reimagining - Where I'm From

Sangita Patel

A story in prose-form intertwining my life and my calling, when my calling failed me in life... and my life searched for healing in BEST. I chose to write in prose-form for two reasons. My name, Sangita, means a line of verse or prose... and when I was first learning English my sentences came out fractured and disjointed... It was only through poetry that my words made sense. Listen here =>



Najīka āvō (Come closer...). I invite you to hear my story. This is a story of courage... rooted in the narratives of my ancestors, in the journey of my parents... in the eyes of my sons.

Telling this story... my voice cracking... my hands, shaking... That is when I know I am activating the courage that lies deep... Buried deep in my DNA...

I am both East & West...

South Asian from the Indian Subcontinent and American, born in the Nation's Capital. My feet tied to both lands, and yet, accepted by neither Denied by both lands, and seen tainted by the other

This story of courage is about what I was destined to do... What I was called to do...

I am a teacher, an administrator, a leader... an educator From Sanskrit, a **Guru**... More than a teacher: a dispeller of ignorance, illuminating the minds of others...

My voice, stronger in my classroom... I was visible then. My voice, silenced in my building... made to be invisible then.

Searching and struggling... to find a way to become one... Finding my way in the quiet moments with BEST In those important conversations with BEST. In community with BEST.

I am from one community, one world, one humanity... From engaging in <u>The Four Pivots</u> and searching for what all us crave: Connection & Belonging. Truth & Possibility.

Pivot... Reflection, Truth, Clarity

I am from *mitaie & masala,* from spicy *chutneys* and ginger-mint *chai,* cheap dishwashing liquid, and Dove soap.

I am from the cherry tree that grew in our backyard, so vast that I could climb it past the rooftop... A fancy-free spirit -

Dreaming... for countless hours that I could be anything

Fearless and adventurous... I was both the *Rani* [queen] and Astronaut... all rolled into one. I was everyone that came before me and everything I could imagine to be.

I am from curiosity and tradition,

Sewthī mōṭī chōkarī - eldest daughter of the eldest... and the eldest Timeless Indian customs to uphold for the sake of all my generations to come. Intertwined below the surface of the worlds I was living in, like a vast system of roots that trickled into hair-like strands, looking for connection between my identity and my profession... looking to belong.

It was through BEST - always together in community. In collaboration... A collective of souls working as one... that gave me the courage to share this story. Learning to be one in all of our shades, in all of our stories of triumph & tribulation... It's then I felt known. Talking about STEAM... Talking about Community... Talking about taking moments to pause & belong.

I am from a career trajectory that has seen many ebbs and flows From others' judgments: "That's not how a career is supposed to be" I fought tooth & nail... blood, sweat, & tears.

Gave years of my life - for a seat at their table Only to be excluded from seats at the tables I deserved to join Unwelcomed... Undeserving... Unneeded... Underrepresented... For my race... for my color... for my ethnicity

My identity was both the blessing and the curse: "You think you're so smart..." Seen at the top of the color line: "Asian data is not a priority" Seen at the bottom of the white line: "You will never be one of us..." No one to take me under their wing, to hold my hand... to guide my way. I had to be self-made in a system that was not built for the likes of me.

I am from my first middle school classroom where I excited students about the past... Never forgetting my why: Creating thinkers who could read and write across the world and time. From that elementary room where students learned to voice their ideas... imagine their possibilities... writers, historians, scientists, leaders

I am from my first Assistant Principalship...

Thinking I had finally made it... Only to be told, "You were our second choice" From privileged principals warning me, "You will never be a leader here." From privileged words telling me, "Loyalty goes both ways" - but not my way - not here Telling me, over & over again... "You can go toe to toe with any building leader... but it's not a good fit... Trust the process... we'll find a place..." But not here or there...

I bounced from school to school... looking for a place to belong, A place to be seen... to build community... But, I was wrong What I got was "Why not go back to the classroom and rock it?" **Go BACK?** What makes it okay for you to say that?

Pivot... Belonging, Care, Vulnerability

I am from navigating systems not built for the likes of me From pushing forward and never giving up... From knowing my place to finding my place



From my first Principalship In a place that saw my potential, at first…and then wondered how I had gotten there… Landing in spaces and places as an unknown and pointing out: "You're not from here" Comments made from backhanded curiosity Fighting systems not built for the likes of me And then, stripped of my title… stripped of my potential… stripped of my dignity.

I am from being the first...

The first woman in my family to graduate AND with multiple degrees.

The first Indian Teacher in this community

The first Indian AP here in this district. The first Indian AP there in that district. The first Indian Principal... here, ever?

Being the first... but making sure, I am not the last...

I am from marginalized communities. From being invisible and not heard...

to being brazenly told "You're adversarial and not a team player." Unbelievable. Unnourished. Unwanted. Unseen...

I am from the next leg of my journey... bouncing again From being pushed out of systems not built for the likes of me Systems that oppressed and stripped my dignity And, experiencing what being "woke" really means in the world of fragility. Focused on individuality. Giving up pieces of my humanity

I saw success as being one with those who are in power...

I thought success was to behave like those from the dominant culture

Racking up degrees to be seen as an equal -

"See! I know what I am talking about..." Only to be seen as a threat -

I learned success was something different altogether.

I am from systems that were not built for the likes of me Taking a side-step from administration. Stepping away after thirteen years. Stepping away from all I had fought for; feeling burned and burned out... Overlooked and overwhelmed... and over it all.

Unnourished. Unwanted. Unbelievably Unseen

Have hum sum karī sakum? (What do I do now?). A career over. Now what?

Pivot... Perspective, Possibility, Outlook

What more can I lose... and still have everything to gain? My story continues across more places before landing here... In this BEST place ever!

Isolated... and tired, I needed a community to heal from these oppressive systems. Heal from these systems of traumas. Triggering and retriggering my traumas. Through BEST, I learned to give myself permission... Give myself the space... the grace and self-compassion to BE... To Reimagine myself

I know who I am... Even if I am not the right color... Or the right gender Even if I am too smart... Or not smart enough

l know who I am... An outlier in my own right... without a trajectory Too bold and too intimidating... Too outspoken and too much... Too caring and too passionate

I know who I am...

I am stepping away from systems that were not built for the likes of me...

Surrendering the control for outcomes Stopping the hustle to be seen, heard, valued

for the gifts I bring.

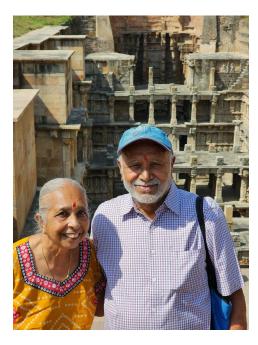
Transformed and stepping into systems that matter.

And what matters is this:

I am from a small Indian village with no running water dating back countless generations in the land of my ancestors holding the stories of creation.



From the college town in India that paved the way through science & engineering, math & slide rulers. Education was the key to salvation... and STEM was the way out.



From the legacy of my parents for being the first to pack up and leave - ever. Traversing four continents in order to be restored in a "New World"... From those who crossed oceans and risked it all for a better life Never forgetting their sacrifices, so that I could have a better life Being the first... but making sure they were not the last

I am from ensuring the work I do in this life transcends into the next. Paving the way for others to follow... for others to lead. That's my karma...

How dare I let others' - Who only know what has always been given to them Who have benefitted from systems built for them Who see themselves mirrored in others around them

- mere spectators in the arena

Who will never know what it's like to be in the arena... to walk in my **chumples** How dare I let them tell me that I am not enough... I take back my power now!

Pivot... Flow, Rest, Wild... STOP-PAUSE-BREATHE

I am from reincarnated souls. From the elephant God and survival stories of courageous lives that created ripples in history. I am from all of these stories that have merged into this story

Narrating both East and West, insider and outsider, up and down... The words of wise spirits directing my way... guiding my way... showing me the way. To come into my own... through stars & stripes and crimson powder

I am from those moments, from those memories, from those trajectories... Up and down... not traditional... not how it's supposed to be... That once defined who I was meant to be. But no more...

Where am I from? Not from their words, their beliefs or their biases. I am not from their judgements and criticism about my skills, my knowledge, or experiences.

Naaa... naaa

I am from the BEST of those who see me. Those who know me. Those who heal me

Those who care and treat me... with dignity. In BEST, I found a community...

A renewed interest in STEAM & a remembrance of wanting to be the Rani Astronaut and build a machine that flew through the outermost reaches of space... Now, my children follow the stars I long since abandoned... and reignited and reimagined.

I am from those who have given me sacred spaces.

Giving me hope where once was shame...

From those who heard my story without judgment and elevated me without prejudice. From those who supported me to write what has been in my soul for so long.

So now... I am telling this story... my voice cracking, my hands shaking... that is when I know I am activating; the courage that lies buried deep in my DNA... What is your story? Where have you made pivots in your life when your life intertwined with a calling that failed you? Where did you search for healing...

Where are you from? Where I am from... Where am I really from?

I am from the **Gurus** before me... the dispellers of ignorance, From their legacy illuminating the minds of others...

Just look into my sons' eyes, the hope for humanity shines there. I am from them... for them...

for their livelihood.

And, I will live a thousand years... to ensure their legacy changes the world...

So that we all can belong in the BEST way possible.

For my boys, Devan & Jaiden... the dew drops that are already creating ripples...



My Calling to Be An Educator

Jenny Hochmiller

Hello! My name is Jenny Hochmiller, and I feel so honored to share my personal story with you, as the result of being a part of such a powerful affinity group community this past year.



Educator Identity

As an educator, I worked in the Montbello community for the entirety of my career (10 years) as a teacher, track & cross country coach, instructional leader, and assistant principal. My whole heart was invested in this work; I was so intimately connected to this community, and my identity is still very much wrapped up in the experience of those years. In the same vein, the volatility that took place across those years, rooted in heavy layers of the politics of

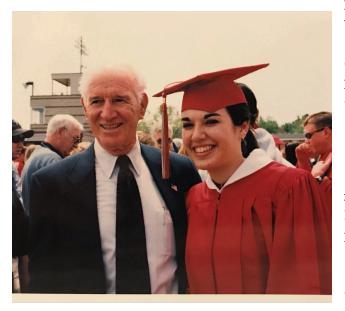
school turnaround, surfaced deeply traumatic elements. I feel so

proud of the work our school, Northeast Early College, accomplished by the final years, as a result of collectively building a cohesive unit of educators in the name of increasing opportunity and breaking barriers for our students. Through our Career Technical Education (CTE) programming and Early College model, our school had the highest rate of associates' degrees coming out of Denver Public Schools, while countless higher leaders in our district held deficit mindsets about the level of achievement that was possible in our community. Seeing and building this firsthand increased my belief in what is possible in schools.



My Roots

The main influence to become an educator surfaced from my grandpa Guillermo Gonzalez, who rose from the depths of poverty, got the GI



bill after serving in the Korean War, and made it all the way through graduate school to eventually become an assistant principal. This was all after dropping out of school in the 8th grade to support his family financially. He was an English language learner, and had to teach himself how to do basic math, reading, and writing once he jumped back on the horse to pursue his education and career. I saw his story in many of my students and families when discouragement would seep in.

STEM Journey

My mom and dad have been in STEM fields their full careers, so this pathway felt attainable to me as a kid. But stepping into my math program in college, I started to recognize firsthand the intensity required, and how challenging it was to fully support my way financially through school, while also hitting the performance requirements to sustain in a rigorous program. That's why working intentionally at the secondary and college level to increase access for BIPOC students and educators is something I feel so passionate

about. Due to these experiences that required a strong level of resilience, the element of leaning into my story and identifying the values that have carried me through this journey has been a treasure of a resource to turn to as an educator in the classroom, as a school leader, and now as a DEI practitioner who supports PEBC's staff in supporting educators. I've learned the importance of not only sharing my story, but also holding space for others as they experience turbulence in their own stories; I can offer encouragement and empathy for their unique journeys.



What STEAM was Supposed to be About

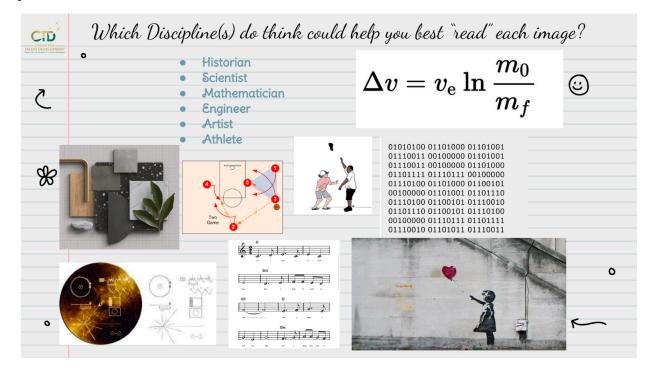
Sheldon Reynolds

"Do you consider yourself to be a scientist?"

This was an unscripted question that I asked my staff during the launch of our professional learning at the start of the year. That question, while seemingly straightforward in nature, led my staff down a path of nuanced and complex learning about what it means to be an educator in this 21st-century, post-COVID education landscape that we live in now.

I often say that your strength is also your weakness and have been fortunate enough to design and implement a successful school model based on this belief. As a school leader, I've learned over time that my vision is one of my talent areas, but that the ability to see the big picture from a 30,000 foot view makes it very hard to come down to the ground level and give the details and minutiae for others to understand and execute on to make that vision a reality. So, for years I've worked on different ways to continuously improve at letting my talent remain a strength and not a hindrance. As a result, we've engaged in an innovative process for strategic planning, and from March to May, we implement design theory and improvement science practice to Research, Design and Develop (RD&D) smaller prototypes of what we think might be the instructional change for the following school year. Last year, I had a prototype focused on how we could adapt our Talent Development instructional model to move away from content-based teaching to having our instruction center-around disciplinary literacy practices.

As we wrapped up the school year, I ran into Sathya Wandzak, a dynamic colleague and friend of mine in the education space. I learned about the PEBC BEST conference that she was codesigning and facilitating during the summer break. At first, I went more to support her, as I've been, quite honestly, jaded by our collective work around STEM education in schools. However, quickly into the session, I found a great sense of belonging being around educators of color and started to see the natural alignment that disciplinary literacy has with STEM education. The challenges with STEM are similar to the misunderstandings that people have about disciplinary literacy: basically, we look at STEM as a content area to teach rather than teaching students to understand how Science, Technology (or Invention), Engineering and Mathematics are four separate fields disciplines that act, communicate and see the world through very different ways. In other words, we teach things like science and engineering, but we don't teach people to think or act like scientists or engineers. This experience at the PEBC BEST conference gave me the tools to start to translate this 30,000 foot view of disciplinary literacy, based teaching as an abstract concept, to something concrete that my teachers could implement. During our professional learning launch, I showed images from different disciplines and asked them to "read." The reaction that my staff had after seeing the slide deck image below spurred what I think will become a standing practice for all who work with me in education.



While it wasn't planned, I asked my staff who considers themselves to be scientists, engineers and experts in many other disciplines. Most of the responses that came back were resounding, "NO," and I knew that in order to truly teach STEM or disciplinary literacy practices, we first have to see ourselves as practitioners of that discipline. So, for the rest of the year, I focused on trying to put my staff in the practice of looking at our work not only through the eyes of educators (which is our natural discipline), but also looking as if we were scientists, engineers and innovators. While bringing up this work with some of my colleagues not on staff, I started to see that my people's beliefs as practitioners of disciplines (related to STEM) aligned with where people generally fall on the Intercultural Development Continuum (IDI). This inventory describes our progress to understanding new perspectives as a progress from Denial to Polarization to Minimization to Acceptance and, finally, Adaptation (idiinventory.com). I recognized that in order for my staff to make these adaptive shifts, I needed to understand and honor where people fell on the continuum and give them time, resources and a supportive environment to move them along the continuum.

Along with finding a place of belonging and gaining a deeper understanding of teaching STEM through disciplinary literacy practices, my experience with PEBC's BEST conference expanded my network by introducing me to two amazing thought partners. Turns out that our local museum, the Denver Museum of Nature and Science (DMNS) has a very strong educational outreach program. Over the school year, I've worked closely with our DMNS partners, Brandon Davis, Manager of ExcitEd Educational Programs, and Maria Mazin Perez Sandion, Director of School Programs and Community Engagement on our BEST problem of practice. Our work culminated with DMNS hosting both of my schools for a professional learning day focused on what it means to be a scientist. We were able to co-create a very non-traditional professional learning day where my staff got to experience the world not as educators, like we typically do, but rather as scientists. They got to talk to a real scientist who works at the museum and see how he confirmed or countered their views of what a scientist does, and then they got to explore the unseen side of DMNS, where the real work and artifacts of the museum are housed. The experience led our staff to internalize and shift on the IDI continuum in their understanding and application of disciplinary literacy to their instructional practices. They've had semesters of designing and implementing their own problem of practice related to this instructional shift with their own selected thought partners.

This shift towards disciplinary literacy based teaching around STEM practices is just beginning but trending towards having some positive impacts on how instruction and professional learning develop in our Center for Talent Development (CTD) schools. I'm looking forward to seeing where this work takes us.

In 2023-2024, Sheldon Reynolds was selected as Denver Public Schools Principal of the Year.

STEM Learning, STEM Challenges, STEM Journey Dr. Ashlee Saddler

I have always enjoyed learning and being in a collaborative space with others. My mother and grandmother were both educators, and I grew up around literature. During the summers, I was mandated to spend several hours in school in the kitchen where my mom brought out math, science and lots of content books so that I would be prepared when school resumed. While I resisted this forced learning at the time, it fueled my passion for learning.

Both of my parents earned their master's degrees, and the example of being scholastic was established early on for me and my siblings. I believe it is essential that children have examples of the plethora of educational and career possibilities so as to not limit their options.

As a school principal, I wanted to remove limits and barriers from what was possible for students. As a mother, I want to ensure my own children know they have limitless options and possibilities. In school leadership and as a parent, I introduced children to STEM options and opportunities.

Prior to my involvement with BEST, my perception of STEM was limited. When I introduced robotics as an elective for intermediate and middle school students, engaged students in various types of sciences, and encouraged students to broaden their respective careers, I thought this was a vast scope of STEM. Over this past year, I learned that I had a limited idea of STEM and that it involves and includes so much more than robotics and engineering. My STEM journey has evolved to understanding that STEM involves adjusting my thinking to dissect real life problems, think through processes differently, and see the world through a new lens. If given the opportunity to re-engage in school leadership, I would maintain my joy and love of learning but also lean into knowing more about student interests and ideas. I would want to



develop learning experiences in collaboration with students and ensure students see themselves in the learning. Over the course of this year with BEST, I saw myself represented in a myriad of activities, engagements and learning opportunities.

During this incredible year, we engaged in a variety of texts that have pushed me in new ways. I've shared these texts to expand the learning of those around me. BEST continues to ignite learning and demonstrates that everyone is capable of revamping their STEM journey.

Growing Optimism: My Quest to a Deep Appreciation for STEM Gisa McCray Simmons

It was October twentieth when I faced the Math Praxis exam for the sixth time. As I finished the test, I braced myself for another potential disappointment. With bated breath, I clicked "continue," and I was stunned to see a score of 170! I passed! Utter disbelief washed over me as I reflected on my tumultuous relationship with math, my unwavering perseverance, and my newfound respect and admiration for the subject.

The memory of receiving my first "C" in third grade flooded back, a result of an anxiety-ridden mixed fraction test. Excelling in all other subjects, I was quickly humbled by this unexpected setback. This feeling persisted as I navigated through elementary, middle, high school and even my undergraduate studies. Though unsure of the concept I initially missed, I constantly struggled to grasp mathematical ideas, pushing myself to the limit to master them.

After completing my education, I joined Teach for America, aspiring to become a special education generalist. This required endorsements in various areas, including mathematics.Unlike other subjects, math demanded extra effort and grit to build confidence and proficiency. Despite two failed attempts, I refused to give up. Hiring a tutor and studying harder than ever, I persisted through three more unsuccessful tries until, finally, I conquered the Mathematics Praxis.

This journey not only instilled in me a deep appreciation for mathematics but also inspired me to nurture confidence in my students who faced similar challenges. Though I've since left the classroom, I departed my charter school network on a high note. Connecting with students deemed hard to reach, I served as a role model, setting high expectations and assuring them they could achieve anything.

During my time in the classroom, I witnessed my students surpass expectations, outperforming their peers and experiencing remarkable academic growth, particularly in mathematics. I take immense pride in having contributed to the success of students with disabilities, knowing that I played a pivotal role in their achievements.

A Journey in Transformative Leadership: Courage Over Comfort



Julian Roldan

"We need more transformative relationships in our lives, work, and institutions to create a healing-centered society. These are the relationships where you both take emotional risks and share things that aren't neat, clean, and tidy about yourselves."

- Shawn Ginwright, The Four Pivots, pg. 135.

Before BEST, I lived in a space of constantly doubting, questioning, and *gaslighting* myself at my current place of work. I've always taken pride in being values-oriented, but felt ungrounded and insecure in often being the only person of color in Zoom meetings. Was I going crazy? Was it because I was working remotely? Was it isolation? BEST showed me validation, affirmation, and community. I was not only validated, but people in my affinity group shared very similar experiences and supported each other—lots of "aha" moments were had. My book study grounded in <u>The Four Pivots</u> was life-giving. In the book, the author speaks about shifting from transactional to transformative relationships. Why wouldn't we want to share our humanity with others? Especially in our line of work, what is the point if we don't work to be vulnerable and transform? Why the hell would we do this job any other way? We show up to transform. What's the point otherwise? The book has affirmed my core values. Teaching is messy, imperfect, vulnerable, powerful and transformative.

As author Shawn Ginwright explains, "The only way we transform our relationships is by sharing pieces of our humanity with one another, in a safe space, and listening with our hearts. Over time, when we connect like this, organizational culture will shift to deeper, more meaningful connections among people." <u>The Four Pivots</u>, page 143.

As leaders and educators of educators, we need to show up in the same way. Otherwise, we are just scratching the surface, and teachers deserve better. As a fellow teacher residency program put it, "What are you willing to risk to protect and care for your candidates and your staff?" (Nashville Teacher Residency, 2024)

Lunch Science: How Science Can Bring a Community Together

Sathya Wandzek

This year I am an STL, which means Senior Team Lead in Denver Public Schools (DPS) acronym-speak. I work at Beach Court Elementary; 92% of the students we serve receive free or reduced lunch. As an STL, I not only get to coach and lead professional development, but I also get to teach small groups and run recess duty - something I wasn't so sure about, but what a blessing in disguise! It was September when I realized how many students just walked around or didn't have anyone to talk to during recess, and that bothered me, as I know how important it is for each of us, especially students, to feel like they belong and have purpose.

First, I just started bringing those few kids together at recess to walk around noticing the garden and the weather, inviting to have them make connections to what was in the playground area and to each other, until one of them asked a scientific question, "Can we explode a watermelon using rubber bands?"

I laughed, of course, then responded with "We should try it!" And that is how Lunch Science began. Soon, I had a group of more than twenty students, nearly all learners of color, excited to talk about science at lunch and wanting to do experiments. I only have twenty minutes with them at recess, so we had to figure out how to make this work as well as make it sustainable, so here's the routine I developed:

• Tuesday: As a group, we named some experiments we'd heard of and then choose one as a group to do, always dictated by kids, never by me. I just thought about the needs of their suggested experiments and whether we could complete them on the blacktop outside.

• Wednesday - Friday: Students collected and brought in materials we would need for the experiment. I bought anything that didn't seem reasonable for them to provide, like the watermelon.

• The following Tuesday: One last day to bring in materials.

• Wednesday or Thursday: Experiment days!



Sometimes we were able to talk more about the experiment on Thursday, and sometimes - like with the watermelon - our experiment would take two days: we spent twenty minutes to get 200 rubber bands on the fruit, but nothing happened. We needed another day. I also recognized that this wasn't a science class where we needed to go into depth with the learning; this was really just about kids having fun doing science and having the autonomy to bring up ideas they wanted to try.

So far at lunch recess, we have experimented with exploding a watermelon with rubber bands, making elephant toothpaste (scientificamerican.com), adding Mentos to Coke (Steve Spangler's Geyser Tube), creating oobleck, producing stained glass candy, playing with bouncing bubbles (onelittleproject.com) and exploding volcanoes (kindercare.com).



Diverse, flexible, and fun, Lunch Science offers huge benefits to Beach Court's diverse student community: it brings different students together, no matter what group they typically hang out with. It's free and optional, not a club that kids have to sign into or attend every time; it's up to them if they want to be a part of the experiment and join in. ALL are welcome. Lunch Science also gives students the opportunity to look forward to something and be a part of something, a sense of excitement about coming to school. Most importantly, Lunch Science inspires kids -

some of whom might not typically identify as "science people" - to get excited about science and asking questions.

If you want to bring Lunch Science to your school, here are my suggestions for success:

- Let kids choose the experiments.
- Allow anyone to join at any time.
- Do one experiment every other week so you don't get tapped out.
- Remember that science really is everything around you!

How did BEST get me here? BEST helped me remember the joy in doing science and having fun with kids. Not everything we do needs to be narrated by a curriculum, but through a love of learning and experiencing the world around us. BEST reminded me to be who I am and encouraged me to share my passion for STEM with others.



Recommended Resources

Belonging			
Resource	Description	URL	
СНІС	Builds women's economic, social, and cultural capital because powerful women build healthy families and thriving communities.	chicdenver.org	
СМОСС	Strategically supports the development of men by increasing social mobility, social emotional well-being, and career advancement through community building, partnerships, networking, and service.	cmocc.org	
Dignity Consulting	Partners with organizations to build cultures of dignity and belonging.	dignityconsulting.com	
SACNAS	Takes a radical approach to lead with culture and identity as the means to achieve true diversity in STEM.	www.sacnas.org	
Struggle of Love Foundation	Provides opportunities for underprivileged youth and families to access year-round services and programs in Colorado.	struggleoflovefoundation .org	

Awareness			
Resource	Description	URL	
Black Artists Amplified	Invites people of color to change our narratives using poetry, theater, music, and fine art to capture the imagination, warm the heart, and uplift the spirit.	kenyamahogany.com	
Crowley Foundation	Supports young men of color to overcome racism, generational trauma, lack of resources, false narratives to become leaders.	crowleyfoundation.org	
CSU SPUR	Provides a free public learning destination focussed on food, water, health and innovation	csuspur.org	
Denver Museum of Nature and Science	Offers free programs to school groups, free admission to teachers and a variety of professional development to educators.	dmns.org/teachers	
Denver Public Schools Foundation	Provides grants to fund learning opportunities that wouldn't have been possible with teachers' existing budgets.	dpsfoundation.org/educ ator-funding	
Denver Urban Gardens	Partners with communities, schools and teachers to educate about healthy food production.	dug.org	
Denver Zoo	Offers facilitated learning programs for FREE to schools in 2024.	denverzoo.org/teacher-r esources	
Generation Teach STEAM Academy	Highly diverse staff offers summer programs in Denver for STEM learners for grades 3-8.	generationteach.org/lear n	
Post Pigeon Edu	Connects students and teachers with National Park rangers virtually.	postpigeonedu.com	
Rungano Montessori on Wheels	Creates Montessori-based learning environments within Black and Brown Communities, ensuring that children and families can learn, play, and dream together.	montessorionwheels.org	
Sims Fayola Foundation	Works to improve personal and academic success for young men and boys of color through programs, partners and mentors	sffoundation.org	

Healing & Joy			
Resource	Description	URL	
Black Emotional and Mental Health Collective	Healing is our birthright; Offers resources to build your wellness toolbox: educational tools, journal prompts, and reflection questions.	beam.community	
Desmos	Helps everyone learn math, love math, and grow with math by providing free resources.	desmos.com	
Make a Chess Move	Disrupts the school to prison pipeline by developing tenacious learners, compassionate leaders, and ethically driven critical thinkers.	makeachessmove.org	
The Nap Ministry	Invites us to find ways to connect back to our body and mind, intentionally slow down, re-imagine and snatch rest right.	thenapministry.wordpres s.com	
Peace Medi Moves	Develops compassionate beings through wellness disciplines, mindfulness and martial arts.	instagram.com/peacem edimoves	
People House	Teaches us to accept our total self as we are now and the experience of life as an opportunity for growth.	peoplehouse.org	
Prodigy	Powers creativity or invites us on adventures with Prodigy Math and English games.	prodigygame.com	
Urban Sanctuary Love	Offers magical yoga + wellness in the heart of Five Points; love, power, + community. Black woman-owned; BIPOC operated	instagram.com/urbansa nctuary.love	

Change			
Resource	Description	URL	
Along	Provides resources to help transform your school into a community.	along.org	
Beyond100K	Unites leading STEM organizations to co-develop and implement solutions that will end the STEM teacher shortage by 2043, especially for those most excluded from STEM opportunities.	beyond100k.org	
Exploratorium	Invites the public into a learning laboratory where you can explore the world through science, art, and human perception.	exploratorium.edu/snac ks	
The Jekl Institute	Offers programs for students designed to expand understanding of how Art + Design help us achieve STEM learning goals.	thejeklinstitute.org	
Metro Deep	Works to improve the health and socio-economic standing of African-descended communities.	metrodeep.com	
PEBC	Advocates for policies in support of educators and students.	pebc.org/policy	
Project Lead the Way	Motivates, prepares and supports teachers as they strive to make every child in every grade STEM-successful.	pltw.org	
Teach Plus	Supports teachers from across Colorado to learn how policy is made and how it impacts our classrooms.	teachplus.org/co	

Meet the Facilitators



Jailyn Jenkins, (she, her, hers) Manager of Resident Development, Innovation and Coaching at PEBC

Jailyn Jenkins has built her career on a foundation of belonging, equity, joy, and the daily adventures of learning, striving to instill a passion for science, especially among students of color. Inspired by curiosity, nature, and exploration, her dedication focuses on cultivating joyful learning experiences and authentic visibility in the STEM field. Growing up, she navigated diverse spaces and actively carved out room for advocacy and representation in areas where they were scarce and undervalued.

Facing Arizona's early teacher shortage, Jailyn started her teaching career before officially earning her STEM Education degree from Arizona State University. After a few years of teaching in Phoenix, she returned to her hometown of Denver to teach and complete her Masters in Education Administration at Grand Canyon University. She then ventured into spaces that allowed her to influence and enhance equity-centered communities. Becoming a PEBC lab host provided her with another platform for advocacy, complementing her roles as a science instructional coach, staff developer, district facilitator, and public speaker.

After more than a decade of dedicated service, Jailyn identified a need to explore and expand into an organization committed to enhancing education systems and student access comprehensively. Joining the team at the Public Education and Business Coalition, she currently serves as the Manager of Resident Development, Innovation and Coaching. Jailyn also is the co-founder of the fruitful BEST (BIPOC Educational STEM Thinkers) Conference and affinity groups, an initiative rooted in connecting, supporting, and sustaining educators, both locally and nationally, because, "It is hard to be what you can't see."



Sathya Wandzek (she, her, hers)

PEBC Staff Developer & Senior Team Lead in Denver Public Schools

Sathya Wandzek focuses on being a voice for all students, especially those of color, through her love of math. Sathya received her bachelor's degree in mathematics from University of Colorado, Boulder but knew that her expertise would be better used in a classroom than an office. As a person of color who grew up in the "Boulder

Bubble," Sathya didn't see many teachers who looked like her. From a young age, she was an outlier trying to fit in and wants to help other kids do the same. Working for a summer at San Juan Del Centro in Boulder, she found her passion: teaching the underserved. She applied to the Public Education & Business Coalition (PEBC) Teacher residency program in 2001 and was accepted into their first class, where she received her masters degree in Urban Education. She taught for ten years in Thornton, Colorado, supported district math curriculum development, and became a PEBC lab host, inviting teachers from around the country to visit her class. She cultivated relationships with families through parent nights, home visits and engaging math lessons that were meaningful to students.

After ten years in the classroom, Sathya joined the PEBC as a staff developer. For the past thirteen years, Sathya has traveled the country supporting teachers in best practices and helping them and their students find the joy that comes with mathematical understanding. Facilitating professional development in different states, she saw a gap in representation. "Where are the teachers of color?" she wondered. For the last three years as a Dean of Instruction at Beach Court Elementary in Denver, she worked to launch PEBC's first bilingual learning lab. But this is just one classroom; she wants to see more teachers of color thriving in our schools.

As a person of color who lacked representation in her own life, Sathya knows the importance of students seeing people like themselves in school. That is why she is passionate about supporting BIPOC (Black Indigenous People of Color) educators as we learn how to navigate a dominantly white system. The BEST conference represents everything Sathya strives to accomplish in her career and life: Belonging, Awareness, Healing, and Change. The BEST 2023-24 Collection of Reflections may not be copied in whole or in part without express written permission of PEBC.

For information on PEBC Professional Development, please contact info@pebc.org 303.861.8661 www.pebc.org