JUNE 2022

Developing the Next Generation of Talent:

Perspectives from the Field on Equity and the Future of Work

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Suggested citation:

Malyn-Smith, J., Badertscher, E., Guilfoy, V., McCurdy-Kirlis, C., Pillai, S., & Waterman, K. (2022). *Developing the next generation of talent: Perspectives from the field on equity and the future of work.* Education Development Center.

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This material is based upon work supported by the National Science Foundation under Grant Nos. DRL-1312022, 1614697, and 1949200. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. EDC designs, implements, and evaluates programs to improve education, health, and economic opportunity worldwide. For more information, visit edc.org.

We would like to thank the many champions of equity who took the time to talk with us and share their insights and perspectives: David L. Blustein, Jacob Martinez, Juma Inniss, Marie Marquardt, H. Richard Milner IV, Ritu Raman, Matthew Kincaid, Stanley Andrisse, Syrita Steib, Venerable Tenzin Priyadarshi, and the Youth Focus Group. We want to say a special thank you to Bronwyn Taggart, who so eloquently brought together our notes, drafts, meeting takeaways, and research. We would also like to thank EDC's Digital Design Group for designing and editing this report and making it vivid and digestible. It took a village to bring this report to life, and we appreciate the support along the journey.

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Executive Summary

This is the third in a series of Education Development Center, Inc. (EDC), reports on the future of work and what it will take to prepare for it.

The first report, *Building the Foundational Skills Needed for Success in Work at the Human–Technology Frontier*, makes clear that dramatic and rapid developments at the human–technology frontier foster innovation at work, create new jobs, and change the very nature of how work is carried out. The report also highlights the significant impact of these developments on opportunities for employment, producing a high demand for people with specific STEM skill sets who can be nimble and flexible learners, adapting quickly to new roles and ways of working.

The second report, *K–8 STEM Career Competencies: Developing Foundational Skills for the Future of Work*, focuses on helping educators understand how they can begin preparing students in the early grades for an every-changing world of technology. It offers a framework for introducing K–8 students to a wide range of STEM learning experiences and career competencies that cultivate the art of "learning how to learn"—giving students tools they can carry with them and practice as they explore options and form their own career identities over time.

We began work on our third report in early 2020, just as the Black Lives Matter movement accelerated and COVID-19 was declared a pandemic—both of which brought to light some harsh realities and underscored the enormous challenges of addressing persistent inequities in every system in which people live, learn, and work. In this context, we chose to examine the issue of equity as it relates to the future of work. Knowing that the acceleration of technology impacts all work and all workers, we asked: Who really benefits from work at the human–technology frontier, who is left out, and how can we bridge this growing gap?

To gain a deeper understanding of current thinking about equity in the context of the future of work, we reached out to thought leaders working on equity issues in education, justice, media, and employment. We were eager to explore their perspectives on these important and relevant issues our country was facing and their implications for the future of work—not only for specific jobs at the human–technology frontier, but for all jobs.

Our interviews surfaced key concepts that were also supported in many forums held by private and public employers, labor unions, community organizations, educational practitioners, and the media. Central to these concepts were the firm beliefs that equity and diversity enhance success for all and create a win-win scenario; that equity

in work contributes to innovation and productivity; that addressing inequities requires both a deep understanding of systemic issues and a commitment to act, evaluate, and make continual improvements over time; and that achieving equity will require new communities of practice to think and work together. This report reflects these points of view.

Our work was guided by three questions:

- How can we best help educators and new, existing, and emerging private and public sector community members generate important equity questions related to the future of work?
- How can we facilitate a deeper understanding of inequity in employment, learning, and work preparation systems?
- How can we engage in actions that respond to human needs and promote human development for all?

This report tells the story of the evolution of our work and our efforts to produce and fine-tune the resulting tool, the Equity Systems Change Compass.

Background

The events of the past two years have caused all of us—as individuals and as a nation—to rethink how we live, learn, and work. We came to grips with how artificial intelligence and the quantum revolution found their way into the research, design, and production of goods and services, thereby adding new skill requirements to the workplace. The complications of COVID-19 drove companies to adopt further changes to the ways their employees engaged with work. Within this complex picture, the murder of George Floyd at the hands of police officers gave rise to a more urgent focus on equity and on the systemic structures that impede the inclusion of people who have historically been denied full participation in educational, economic, and social progress and other opportunities for success in the United States.

This report began as an opportunity to listen to thought leaders working on the front lines of equity in education, justice, media, and employment and to explore how their voices are influencing change in the world of work. From both our interviews with these individuals and our own research, there emerged a sense that this was an ideal time to capitalize on widespread hope for significant change toward a "new normal." In spite of—or perhaps because of—the many serious challenges confronting us during the COVID-19 pandemic, we repeatedly heard people asking such questions as, "How can we do better in the face of the twin pandemics of COVID-19 and racism? What has to change in order to break through historic and contemporary systems of injustice, intolerance, and deeply entrenched inequities?"

Equity was front and center in many of these conversations among individuals, companies, unions, educators, and communities, and so we asked ourselves: How might we effect real change on a systemic level? What would keep this momentum toward change moving forward? We believed that this was an opportune time to build on the widespread desire for a better, more equitable society. Our idea was to create a tool that would provide a framework for exploring equity issues facing our communities, imagining what equitable systems look like in practice, and identifying action steps that could lead to more equitable systemic structures. This tool had to make the process manageable for organizational leaders and collaborators (including those who must analyze complex systems), welcome different points of view, and minimize the frustration and sense of paralysis when facing seemingly overwhelming resistance from existing power structures.

We designed the Equity Systems Change Compass ("the Compass"), a tool to drive difficult conversations about equity in the context of life, learning, and work in a positive and proactive direction; to assist people in structuring their thinking about these issues; and to help people plan appropriate actions to address the challenges that are identified. This report highlights the interviews and research that led to our development of the Compass and presents two examples of how the Compass can be used in real-life settings.

This is the STELAR Center's third major report related to the future of work. In 2017, researchers from the STELAR Center wrote *Building the Foundational Skills Needed for Success in Work at the Human–Technology Frontier* (Malyn-Smith et al., 2017), which explored two key questions: (1) What do life and work look like at the human–technology frontier? and (2) What skill sets will workers need to succeed in those work environments? The report described the complexities of the labor market and the possible effects of emerging technologies—such as artificial intelligence, machine learning, and robotics—on a workplace where humans would constantly interact (and even collaborate) with machines. It was clear that these advances would require new skills and enhanced STEM knowledge, and the implications for K–12 education were profound.

Because ideas about careers and career development begin early and are nurtured in both in-school and out-of-school settings, we sought to identify key factors for encouraging and educating the young people who would become the future-ready workforce. We explored the "helix" approach of the NSF Innovative Technology Experiences for Students and Teachers (ITEST) program, which blends career and content learning to help young people master foundational skills for future STEM work success. We worked with educators and business and labor leaders to develop a framework of competencies that can be introduced and practiced in grades K–2, 3–5, and 6–8—skills, knowledge, and dispositions to interest students in future STEM careers and help them explore their talents. This framework, with examples of projects in action and instructional materials, was presented in our second report, *K–8 Career Competencies: Developing Foundational Skills for the Future of Work* (Malyn-Smith et al., 2021).

Why Equity?

When we began this study in 2019, we naturally did not anticipate the COVID-19 pandemic or its effects, both long- and short-term, on education for future work. As schools were forced to incorporate remote learning, technology became more essential to education than ever before. Access to reliable, high-speed connectivity was crucial to maintaining a positive schooling experience—but many households with incomes at or below the federal poverty level did not have that access. In addition, "thought economy" (white-collar) jobs were more easily adaptable to remote work; children whose parents were able to work from home (or who did not need to work) could benefit from their parents' direction and interaction during remote learning. Meanwhile, children whose parents had "essential" low-paying service-sector jobs that took them out of the home were left to fend for themselves; many children also had to care for their younger siblings during school hours. Programs to provide technology helped students who live in disinvested neighborhoods somewhat but could not compensate for all the additional demands placed on these children by their family situations during the pandemic.

> **"I think about equity and work and school, and I think it is hard to come up with a laundry list of what is needed because *so much* is needed."**
>
> —David Blustein,
> Professor and the Golden Eagle Faculty Fellow,
> Department of Counseling, Developmental, and
> Educational Psychology, Boston College

COVID-19 widened the educational gap between the "haves" and the "have-nots" and exacerbated pre-existing inequities. Those who suffered most were those already on the negative side of the equity equation—but despite the unprecedented obstacles, many families found creative solutions to these problems and ways to move forward. We acknowledged and admired the resilience and creativity of those young people and

their parents who faced all the demands placed on them and rose to the occasion with their own brand of determination and good work.

Just as these primarily income-based educational inequities were becoming more apparent, the murder of George Floyd and the rise of the Black Lives Matter movement shone an ugly light on the systemic racism that still pervades all areas of our country. The convergence of Black Lives Matter and COVID-19 revealed inequities that have persisted for generations in all aspects of American society, including education and employment. Our road to recovery from the events of 2020 and toward real progress demands a rejection of the injustice and systemic inequities that have pervaded "normal" conditions over many generations as we forge new social contracts and build toward a new view of education and work.

> **"I know the time was ripe for it to happen around the George Floyd murder, but we have had those incidents time and time again. It just brought to the forefront the same inequalities that we fight every day—lack of education, access to health care, and all of those things. . . . A transfer of power has to happen, and I do not think that people are really ready for that."**
>
> —Syrita Steib
> Founder and Executive Director of Operation Restoration

The events of 2020 convinced us that an examination of equity in the context of the future of work should be the topic of this, our third report. Our goal was to examine the factors that both cause inequities and maintain the structures that support them.

Our next set of questions dug more deeply into the issues of equity and work:

- What changes have occurred in the workplace, and how have they impacted equity?
- What additional research and development are needed to encourage new ways of teaching and learning that will advance equity?
- What are important elements of the new workplace that will affect the future success of our diverse students?
- What learning innovations and new content will support students in their learning, both now and in the future?

To begin to answer these questions, we extended our research by going directly to the thought leaders working on equity issues in their respective communities. We conducted one-on-one interviews with a variety of champions of equity representative of diverse cultures and organizations. (See Appendix A for further information on the interviewees and the process we used to capture their insights.)

As we reviewed the interviews, several common themes emerged. We sought to deepen our understanding of the complexity and interrelatedness of the power systems directly impacting the daily work of these community leaders and how these interconnections made it difficult to change existing inequities. We began to wonder whether we could create a process or a tool to help people in a wide range of roles and situations address inequities in their own lives. Was there a way to engage community members in examining and analyzing power systems and to guide them in identifying actions they could take to create lasting, systemic change?

The result was the development of the Equity Systems Change Compass, which we will describe in detail later in this paper. First, though, we will review what we discovered about the effects of the COVID-19 pandemic on the world of work.

> **"I see equity as a very interdependent phenomenon, meaning that one cannot speak of financial equity without power equity, without social equity, and so on."**
>
> —Venerable Tenzin,
> Director of the Ethics Initiative at the MIT Media Lab and President & CEO of The Dalai Lama Center for Ethics and Transformative Values at the Massachusetts Institute of Technology

Before and After COVID-19: How Work Has Changed

The workplace was changing even before the effects of the global pandemic began to be felt. The events of 2020 simply served to highlight—and perhaps to speed up—those changes. Attempting to define the "new normal" has become a popular and important subject for business, labor, government, and civic sectors of the economy. In fact, several wide-reaching changes—such as working and learning at a distance—have now become the norm for many and are likely to be here to stay. Because of this rising contact-free economy, consumers are shifting market behavior—and industry structures are changing as a result. Businesses are demonstrating resilience and efficiency in the face of totally unforeseen events and shutdowns. Government legislation and interventions, aimed at improving recovery and responding to significant job losses, are having a major influence on the economy. Business is also under greater scrutiny regarding socially responsible investments and care for the planet. As Sneader and Singhai (2020) wrote, "Where the world lands is a matter of choice—countless decisions across all sectors."

The question then becomes: *Who* is making those decisions? Who participates in the choices as to where investments will occur, what resources will be allocated, how success will be measured, and which successful outcomes will be maintained over time?

> **"All COVID-19 has done on the equity front was to underscore and to highlight inequities that were already wreaking havoc in the lives of people, particularly people of color [and] people of lower socioeconomic status."**
>
> —Juma Inniss,
> Founder and Director of The Message

Innovation is happening at a very high speed.

The COVID-19 pandemic has increased awareness of these harsh and devastating realities. And from this increased awareness, opportunities arose for people to devise better, more inclusive systems and innovative solutions to social problems, all while keeping a focus on equity. The search for solutions that make life better for those who have been under-resourced will open doors for people who work in hybrid jobs at the intersection of technology and on-the-ground knowledge—multidisciplinary efforts between content developers and engineers, for example, or between advocates

and power brokers. Those who work at the intersections of disciplines will be the new communicators and translators of data required to invent totally new things.

At the same time, it is important to note that although technology is often described as changing at breakneck speed and becoming obsolete after only a few months, many of the most recent innovations build on technologies that have been around for decades—with videoconferencing as a prime example. Underlying technologies persist, even as they are overhauled, refined, and upgraded, and new applications are built on existing foundations. To adapt technologies in novel ways requires an infusion of different perspectives bringing a diversity of thought into the design process, particularly from talented individuals who have previously been left out because of race, gender, age, or perceived limitations of ability. These workers can contribute new ideas around accessing, manipulating, transforming, and developing novel, complex solutions and inventions that will preserve and respect the integrity of all communities.

There is new flexibility in the workplace.

Working remotely and increasing flexible scheduling became necessary during the pandemic, and companies quickly put new policies and procedures into effect to maintain their operations as best they could. It appears now that many of these changes may persist for the long term or even become permanent. Despite the persistent skepticism about remote workers held by many businesses, data indicate that, in a number of cases, flexible work schedules have led to increased productivity, at least in many White collar and academic sectors (Gaskell, 2020).

However, even for jobs that can be performed remotely, remote work remains a struggle for many people—including those who are experiencing homelessness or who are living in poor or crowded housing where several generations, often facing poverty, must share very small spaces. To work remotely, these workers are expected to think, learn, and complete work in crowded and noisy environments, usually without adequate technology or Internet connection.

Working women were hit especially hard. In its December 2020 jobs report, the U.S. Department of Labor's Bureau of Labor Statistics (2021) reported a stunning loss of 140,000 jobs—*all* of which had been held by women (Henley, 2021; Kurtz, 2021). Women (especially Black women and Latinas) disproportionately work in some of the sectors hit hardest by the pandemic—including hospitality, education, retail, and health services (Kochhar & Bennett, 2021)—where it often is not possible to work from home and where jobs commonly do not offer paid sick leave. Also, women continue to bear most of the responsibility for child-rearing in our society; as schools and day care centers closed, many women—including those in professional positions—were forced to make hard trade-offs between working and parenting.

If women are to return to the workforce and begin gaining back the ground they've lost in employment equity, policies such as remote working, flextime, paid leave, and on-site child care will have to be *expanded*, rather than simply retained. In addition, if we are to help people pivot from their current jobs to new skills and responsibilities, employers need to support the notion that learning on the job is to be reimbursed.

The hope is that these accommodations will be made without any reduction in pay or the creation of new gender or worker inequities. Unfortunately, data indicate that the women and minorities who currently bear the brunt of the unemployment caused by the pandemic cannot or will not benefit from such innovations.

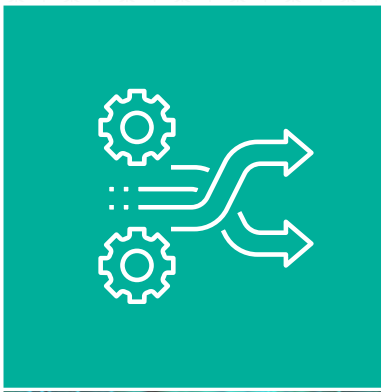
We've learned the meaning of "essential."

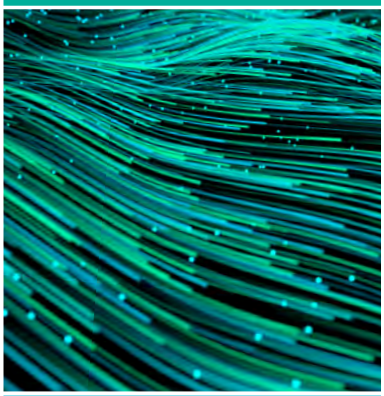
Another thing we learned during the COVID-19 pandemic is that "essential" workers are not the sophisticated technologists we had envisioned as the future workforce. Instead, they are the service workers whose jobs—in health care, food services, transportation, and other critical occupations—cannot be performed remotely. The new essential workers, often people of color, are frequently overlooked when applying the aspirational standard of *decent work*—a term developed by the International Labour Organization (2008) that refers to stability, fair wages, social protections, and other workplace features that promote well-being. These workers are also left out of important conversations, choices, and decisions about the future of work. It was important to us to ensure that their voices were included as part of our research for this study.

If these newly recognized essential workers are to benefit from future advances in technology, we must ensure equitable access to education, training, and employment *now*. Today's world of work already incorporates artificial intelligence, quantum computing, and many convergent technologies—which means that tomorrow's workers need to be grounded in these new skills and to become adept at new practices in order to succeed. Ensuring equitable access requires changes in both the education and the employment power systems.

> **"It's going to require a huge paradigm shift in terms of how we think about the purposes of education. So, if we thought about education as a vehicle to get young people excited about learning, that would be ideal. If we thought about education as a place to help young people build skill sets to approach different kinds of challenges or problems, that would be ideal."**
>
> —Rich Milner,
> Cornelius Vanderbilt Chair of Education in the Department of Teaching and Learning at Vanderbilt Peabody College of Education and Human Development

How Education Must Change





In a world driven by fast-paced changes in technology, helping students develop their capacities to succeed in future work can be challenging. New and emerging fields—including data science, artificial intelligence, quantum information sciences, and robotics—often give rise to new job titles that did not exist even a short time ago. As new jobs are invented, it is important that students of all ages and backgrounds become aware of the changing nature of work and are encouraged to imagine, explore, and keep expanding their ideas about what their own future careers may be.

> **"People do need postsecondary training or education, but it does not need to be in a university or college. When we offer Career Technical Education beyond high school, that should have the credentials; it should be matched with college-level metrics."**
>
> —David Blustein,
> Professor and the Golden Eagle Faculty Fellow,
> Department of Counseling, Developmental, and
> Educational Psychology, Boston College

Our 2021 report on K–8 career competencies discussed in detail the core competencies that students should develop (e.g., cybersecurity, digital citizenship, dynamic interdisciplinary teaming) in order to carve out a space in the workforce of the future. This report also provided K–8 educators, curriculum developers, policymakers, researchers, and other interested parties with learning objectives, resources, and examples to help students develop the foundational skills that are increasingly required to successfully live, learn, and work in a world driven by technology. But for all students to achieve widespread career competencies, educational access must be equitable, with training for the future-ready workforce made available to all.

Given how complex and intertwined the existing power systems are, especially those related to education, finance, and culture, how can we ensure equitable access under the current system? In simple terms, we cannot. Recent events have revealed that much of the current system is racist, ableist, misogynistic, and unjust on every level. It is the system itself that must be challenged and changed—but how? Although we cannot achieve equity as an outcome in the moment, we can and must begin the process of working toward equitable systems for the future.

Through conversations, stories, and the shared knowledge of leaders within various communities, we learned more about the challenges they face, how COVID-19 has affected their lives, and their hopes for the future.

> **"It has to start with directly asking the people who are affected the most. If you can't converse with those people who are being most targeted by [inequity], then there's no system that can be changed in a way that's actually going to help them in the future."**
>
> —Youth Focus Group participant

The Interviews

To gain a more nuanced view of the current state of work and workforce education, we decided to speak to thought leaders and representatives of the communities most affected by changes taking place due to the COVID-19 pandemic. From July through October 2020, we reached out to a wide range of organizations for referrals for "champions of equity" to participate in one-on-one interviews. (Details of the names and affiliations of interviewees can be found in Appendix A.) We ultimately interviewed ten highly recommended individuals (seven men and three women, of whom five are White and five are people of color) recognized as equity experts/ thought leaders and a panel of six youth (all of color, of different cultural backgrounds, and from historically underrepresented populations).

> **"What does it take to make a difference? Because that's really what came up in our interviews with the thought leaders. This is a different time. We have different things that we have to think about, understand, talk about, then translate into needs, and then do something about."**
>
> —Vivian Guilfoy,
> EDC Senior Advisor

Our interviewees were quite willing to openly discuss the large segments of our population who have experienced the effects of racism. There is an emerging consensus that we will not—and should not—return to the way things were in pre-pandemic times. The general sentiment was that institutions and assumptions must change in order to open access to those who are currently excluded, and that those who could contribute meaningfully to society, if given a chance, must know that such access is available and feel welcome to avail themselves of it.

> **"COVID has just exposed the deep-rooted illnesses in our society, economy, and equality."**
>
> —Marie Marquardt,
> Scholar-in-Residence at Emory University's Candler School of Theology, Author, and Immigration Advocate

There was an overall consensus that the COVID-19 pandemic ***exposed*** pre-existing inequities rather than created new ones. The message we kept hearing in the interviews, in conferences attended and in our research was that the pandemic forced many people to face the harsh realities that have been with us for a very long time, creating an "aha" moment so that they now saw these realities in sharp focus. For the victims of injustice, there was some relief in knowing that others could now understand more of what they have been living with all their lives. There was a feeling that things would never be the same again and that we had to define a new way forward—even if we didn't quite know how to do that. This moment in time also underscored the fact that every system has a responsibility to share in responding to human needs: If we really want to do something about inequity, we have to work together.

These were the overarching themes of all the interviews. Four other common themes also emerged and are summarized below.

Definitions of ***equity*** are wide-ranging.

> **"Equity is an action and a destination."**
>
> —Mathew Kincaid,
> Educator and Founder/CEO of Overcoming Racism

> **"I think that a lot of times we assume that we all have the same definition of equity, not even realizing that we are reinforcing those inequitable stereotypes and mindsets."**
>
> —Syrita Streib,
> Founder and Executive Director of Operation Restoration

Equity means many things to many people, including but not limited to the following: the inclusion of those who historically have been underrepresented or excluded from the conversation and providing them with a seat at the table; access to health care (including mental health care); access to education; equal pay; equal accumulated wealth; sharing of power; community building; access to quality food; and freedom of cultural expression (e.g., ethnicity, religion, spirituality) on an institutional level. Equity is seen as a basic human right shared by all.

> **"Looking at equity would mean ensuring access to health care, reducing food insecurity, reducing the housing insecurity and homelessness issues, reducing the economic challenges that individuals face."**
>
> —Stanley Andrisse,
> Endocrinologist Scientist and Faculty at Howard University College of Medicine, affiliate at Georgetown University Medical Center

A shift in thinking must occur within educational, political, financial, medical, and other institutions.

- The shift begins with the individual, moves to the community level, and then spreads to the organizational culture and structure of an institution. (Both data literacy and media literacy are important in this process.)
- Transparency is an essential part of this process, as all social institutions are interconnected, and we are part of them.
- The old individualist notion of personal agency and "grit" puts the onus for change on each person while ignoring specific barriers that some people face and not acknowledging how the education system has failed them. Collective action is required to make long-term improvements to social, economic, and political conditions—and, in effect, to improve our democracy.

> **"We have an adverse reaction to an egregious action. There is a lot of public stir, there is a lot of public discourse, there is demonstration. But then at the legislative level, where change is implemented structurally, I think that energy and that action often stops there—too often, in fact."**
>
> —Juma Inniss,
> Founder and Director of The Message

There must be a sharing of power that goes beyond what was done in the past.

- A distribution of wealth and a transfer of power to include those most affected by the inequities of the current system are urgently needed.
- The Black Lives Matter movement has opened the dialogue about inequity across institutions, communities, and workplaces.
- There must be more recruitment of people of color and women into positions of power. Underrepresented and historically excluded people must be included in the conversation and have a seat at the table.
- To achieve equity, we must challenge the idea of the zero-sum game. By sharing power, we are not decreasing the power of people, but rather changing our expectations from having "power over" to "power with" individuals and groups.

A great disconnect persists between education and both career development and civic empowerment.

- All students must have opportunities to explore their potential and to "try out" aspects of future careers, both in and out of school.
- Skills required for the future of work must be integrated equitably into the current education system. (See our report *K–8 STEM Career Competencies: Developing Foundational Skills for the Future of Work.*)
- Media literacy includes the ability to interpret information and media content. These skills are very important for the future of work.
- Continuing education, including both civic empowerment and work training, should be expected as the norm for all.

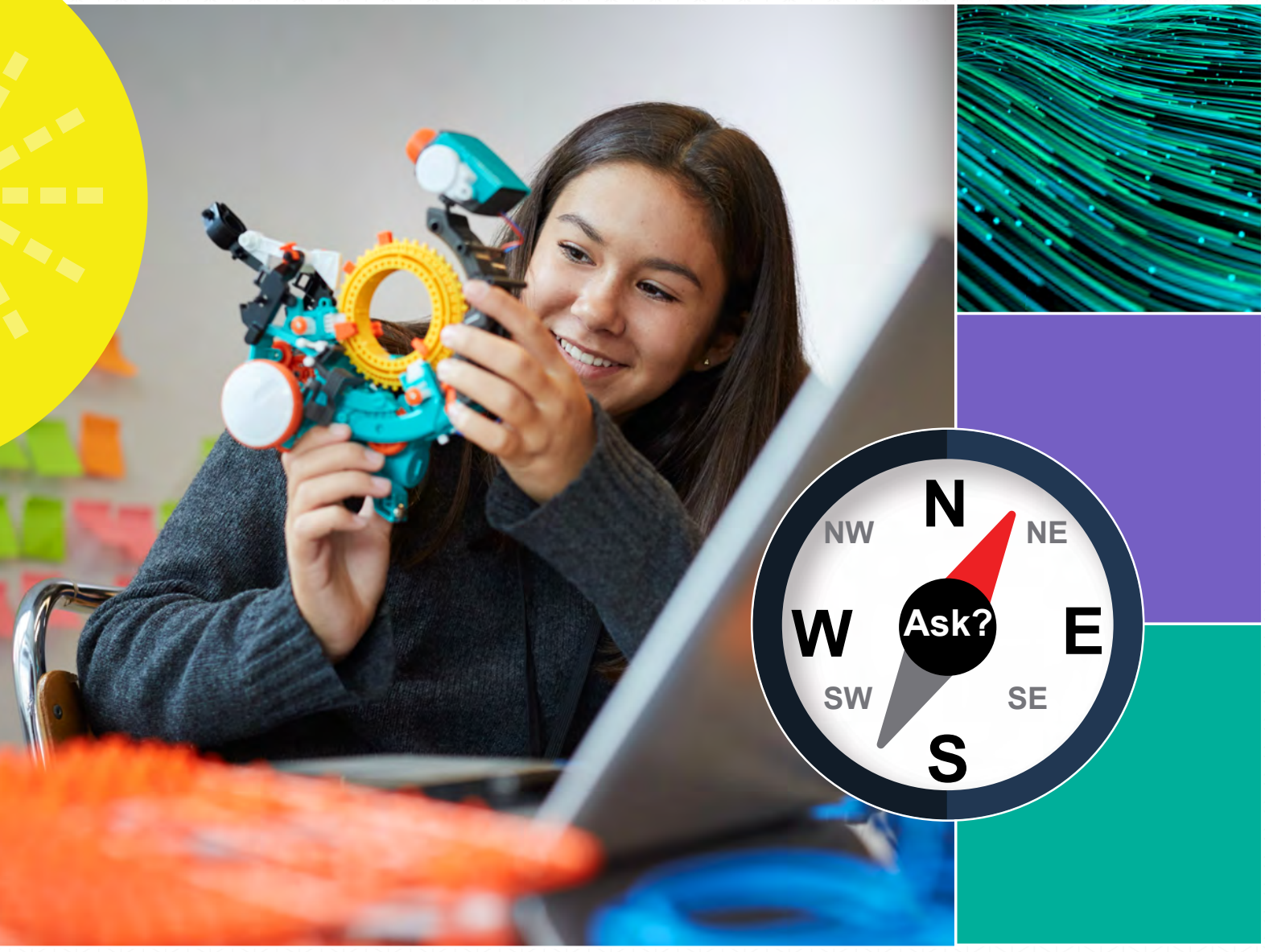
The Need for an Equity Framework

In general, interviewees expressed an urgency and a sense that the time for change is *now*. They emphasized that the events of 2020 shook the very foundation of our old narratives about race and class. While they did not minimize the enormous challenges ahead if real change is to occur, the interviewees also expressed the belief that this moment in time offers a unique opportunity for all of us, in community, to address the challenges in thoughtful and constructive ways. They held out hope for a "justice movement"—advocating for a just society, a just transition, human dignity, and human rights—tied to the sustainability of the planet. They underscored the role of education in this process, along with the need for creative and unbiased technology applications and innovations that are pooled across the business, industry, housing, nonprofit, and community sectors.

We then had to ask ourselves: How can we embrace all of this to help multiple members from all affected communities address the realities of power and systems, form new partnerships, and ultimately work together to make a difference? We also considered what roles federal agencies, private foundations, and others involved in STEM career and workforce development could take to help guide broadening participation and reduced inequity in STEM careers.

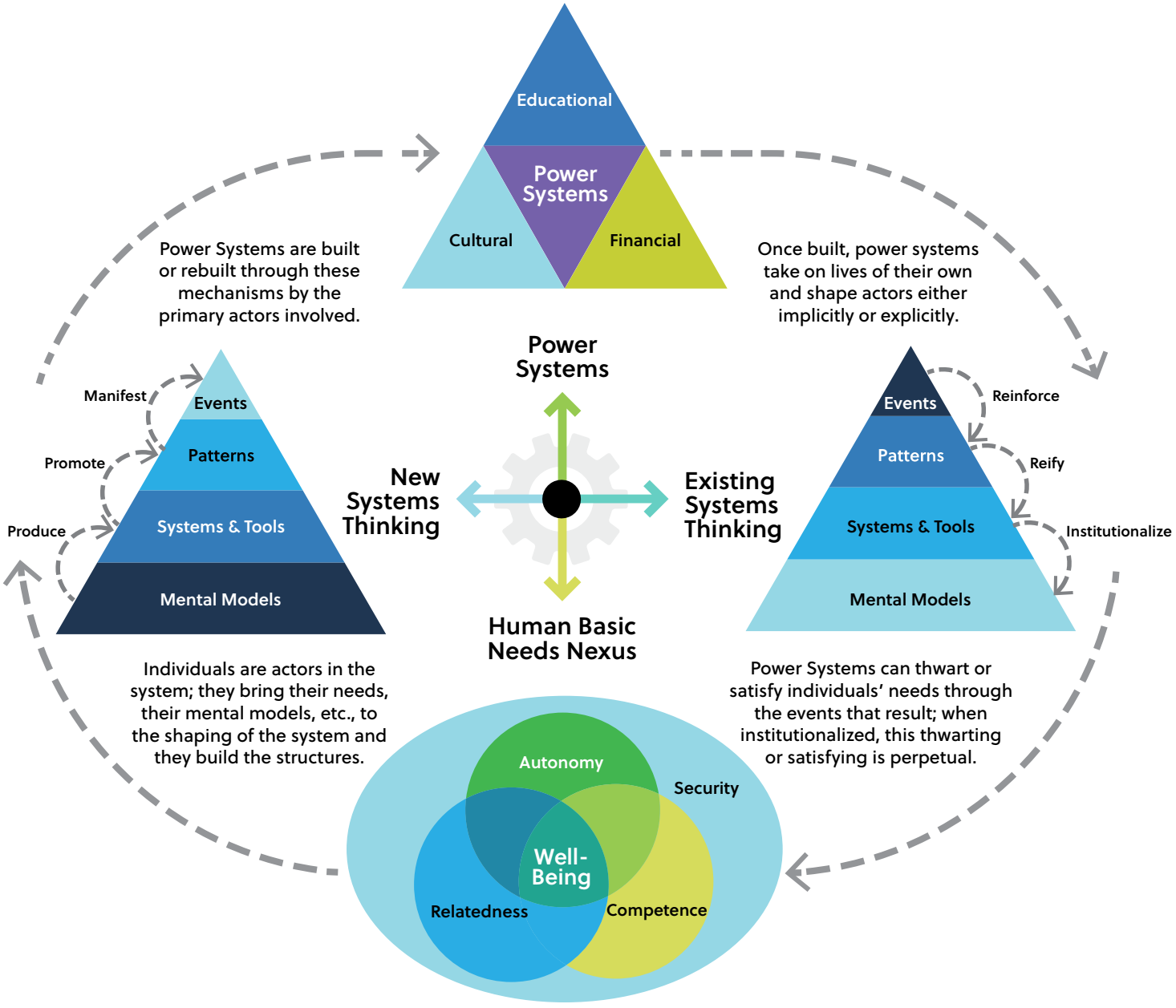
Everything we heard in the interviews seemed to reflect or elucidate a number of theories and frameworks that could help us think more deeply and make better sense of these complex issues. Indeed, an equity framework would clarify the relationships among complex systems and the individual drivers of these systems, which would give us a better way to understand the issues affecting them and the levers for change. We wondered whether we could devise a method of identifying concrete actions to address a variety of inequitable situations.

Creating the Equity Systems Change Compass



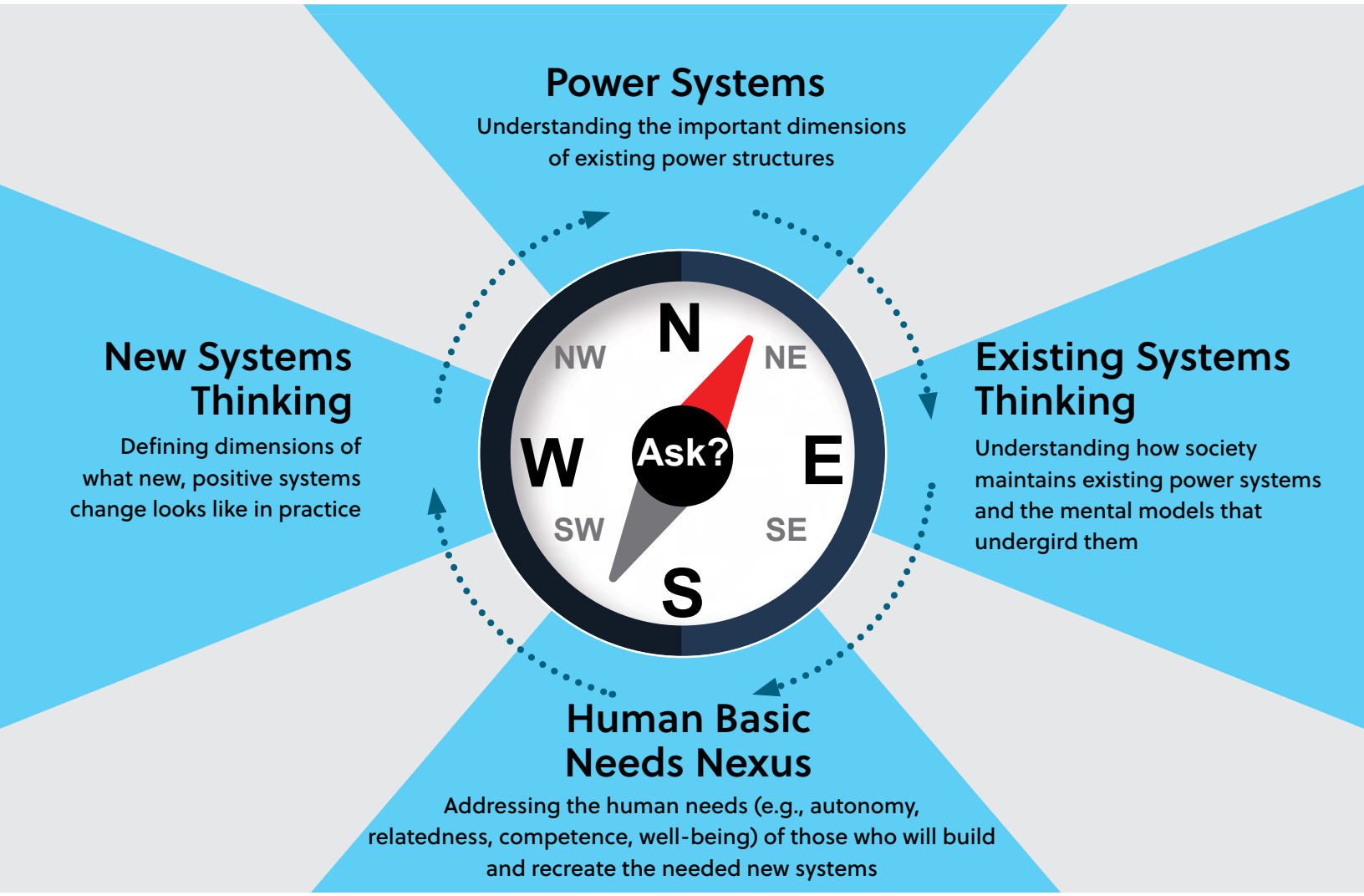
We began to explore and organize common themes around three key power systems (financial, cultural, educational) and five system production or reproduction mechanisms (mental models, structures, tools, patterns, and events). We started to see a new way of exploring equity that could describe not only what existing power systems look like but also what actions people could take to effect necessary changes in the status quo.

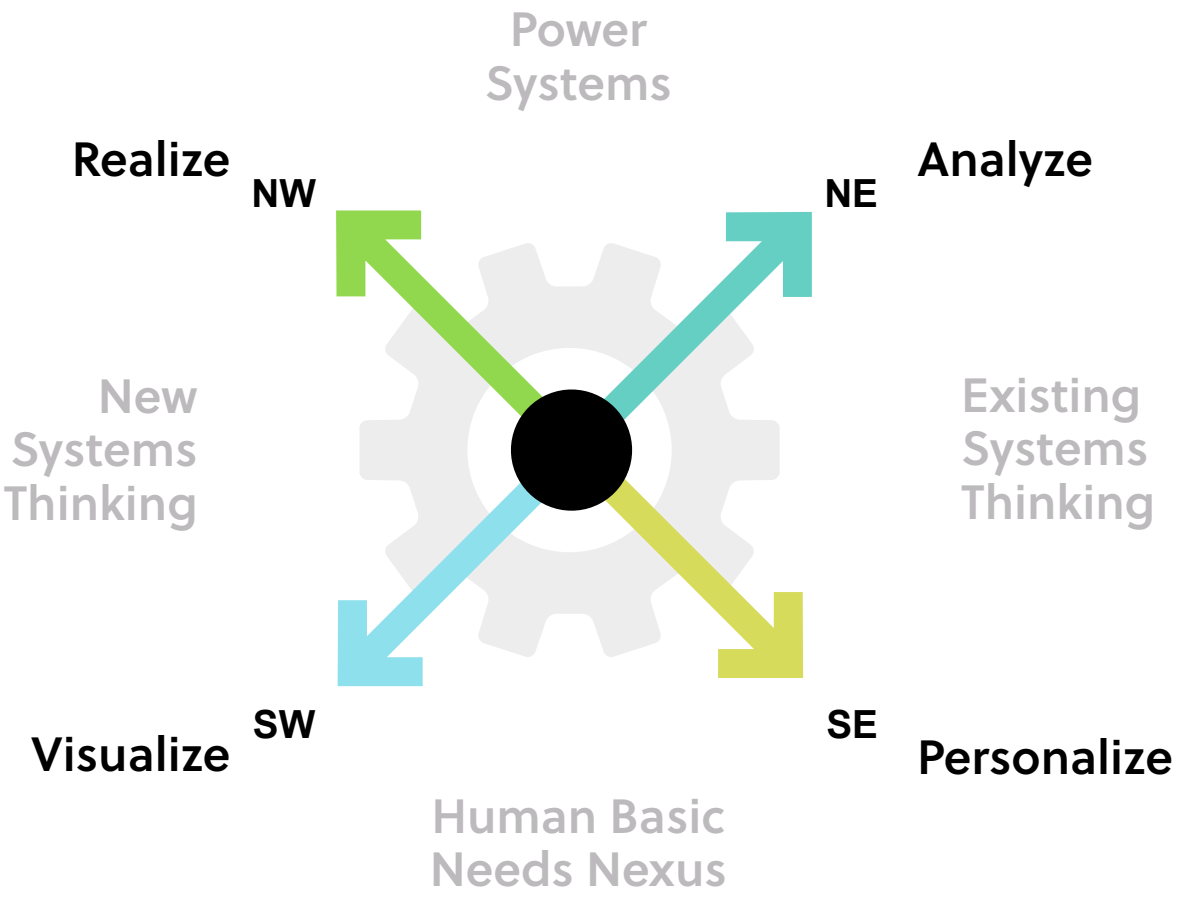
The first two categories we noted were the identification of existing power systems—one that defines and maintains the status quo and one that sounds a national call to address human needs. We saw these as two opposing viewpoints in the person–systems relationship, and we placed them opposite each other on our diagram to emphasize how they interact with and influence each other. These would become the North (power systems) and South (basic human needs) points on the Compass.



Next, we looked at the ways in which societies maintain or change systems, and we created descriptors of how power systems are open or resistant to such changes. These began to form the East and West points of the framework, with East defining how society maintains the existing power system, and West defining how people might change the existing power system.

As we explored and refined this work, we recognized the importance of seeking to understand the systems that are in place, how they self-perpetuate, and how they affect the diverse people involved. This was an essential first step in working toward solutions that disrupt counterproductive elements while also attending purposefully to how new systems can work for all involved. As such, we decided that North should focus on the nature of the system itself. Logically, it made the most sense to us to begin the work of developing solutions by examining the existing power systems. While some might see this as placing systems at the "top," we intend to emphasize, as we carry out this process, that it is *people* who build and can recreate systems; thus, a focus on the needs of people is located at the South point. This reinforces that people are at the foundation of the whole process, holding it up. These points, together with the East (Exisiting Systems Thinking) and West (New Systems Thinking) form the primary points of the Equity Systems Change Compass.





As we begin with North and the nature of the system in question, we then need to understand how that system acts to perpetuate or condone inequitable power structures and to seek elements that do the opposite. This is the role of Northeast—to **analyze** the underlying functioning of systems. As we continue around the Compass, a similar pattern occurs. Each cardinal point (North, South, East, and West) is focused on understanding the nature of something. Respectively, this includes (1) the elements of the system, (2) the mental models that undergird the system, (3) the needs of people participating in the system, and (4) the potential of proposed changes.

To move from one cardinal point to the other, though, we must engage in work—thought experiments, if you will—and this is the role of the ordinal (or intermediate) points of the Compass: Northeast, Southeast, Southwest, and Northwest. As stated, in the Northeast we more fully **analyze** the system and its functioning to enable us to get to East, where we emphasize the undergirding mental models that perpetuate our power systems. In the Southeast we strive to **personalize** the impact of these mental models by working to understand the impact of exclusion and inequity so that we can better understand the needs that must be prioritized in South.

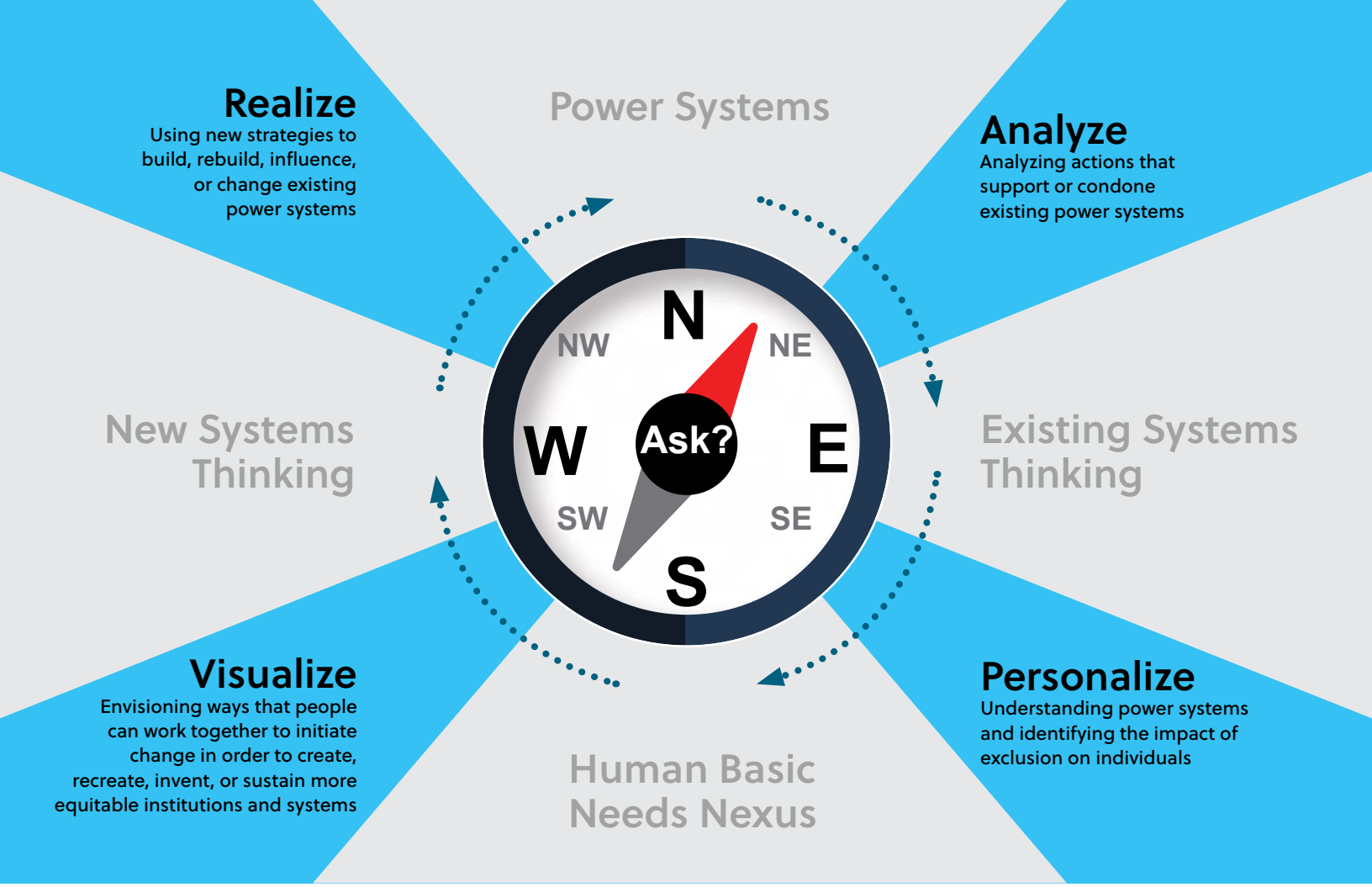
In the Southwest, once we have fully recognized the varied needs that people have in order to experience full inclusion and shared power, it becomes time to **visualize** what we can achieve together: What would a refined or alternative system entail? This process supports our progress to the West, where we characterize and explicate the proposed system's functioning.

And then, to have a new system functioning at the North as we cycle around, the Northwest emphasizes the collaborative work needed to **realize** the new or revised system.

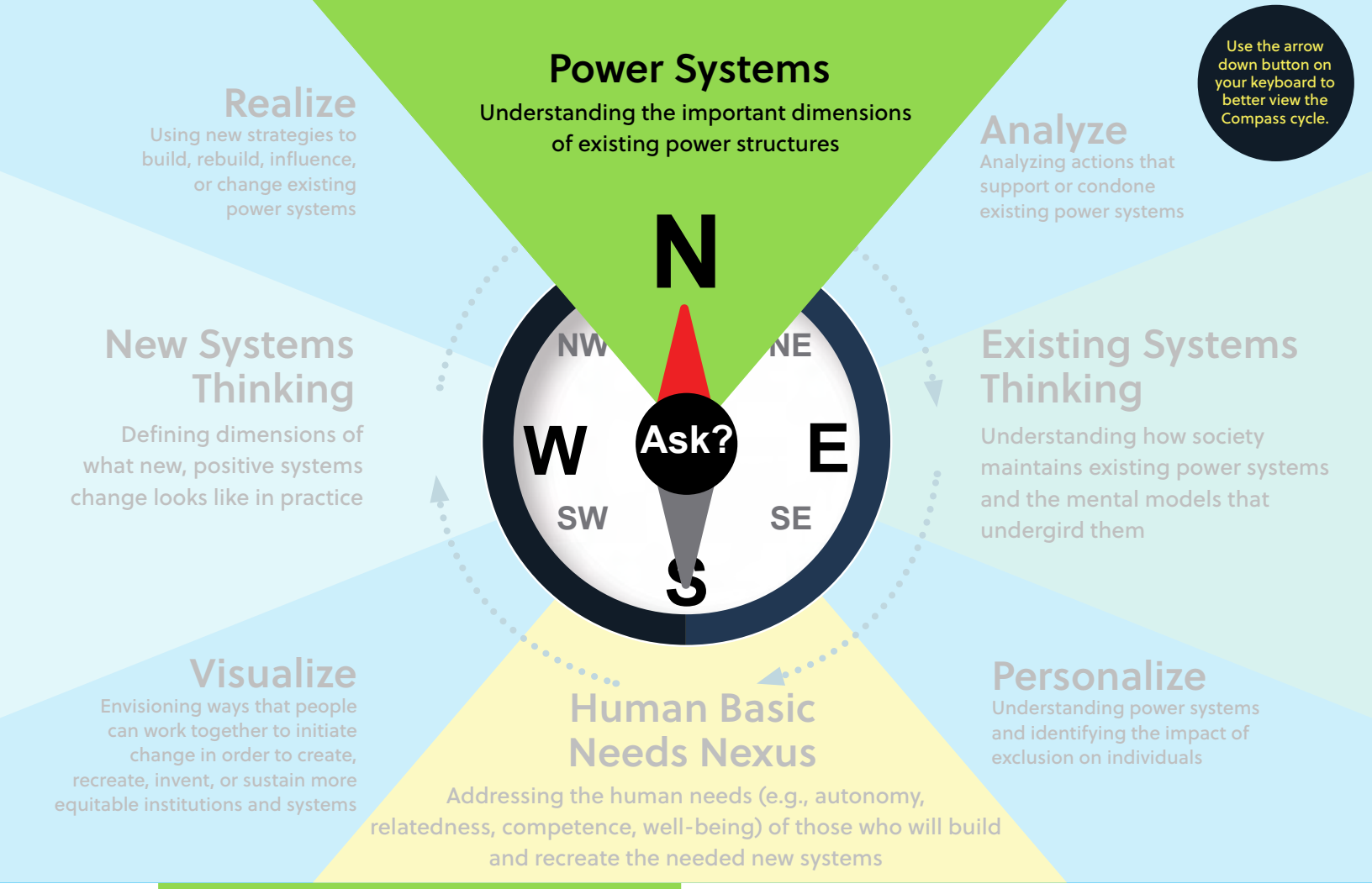
Naturally, as systems are created and maintained by people, it will typically take more than one cycle to truly transform a system. Thus the process begins again, each time coming closer to equitable power systems and participation in the system in question.

The diagram that emerged—the Equity Systems Change Compass—can be used as a tool to guide conversations and thinking about equity and action in many contexts, addressing topics that are very broad (e.g., the disparity in academic performance between groups of students) and those that are very specific (e.g., the low number of minority students in medical schools).

The Compass points and key concepts associated with each are described in more detail below.



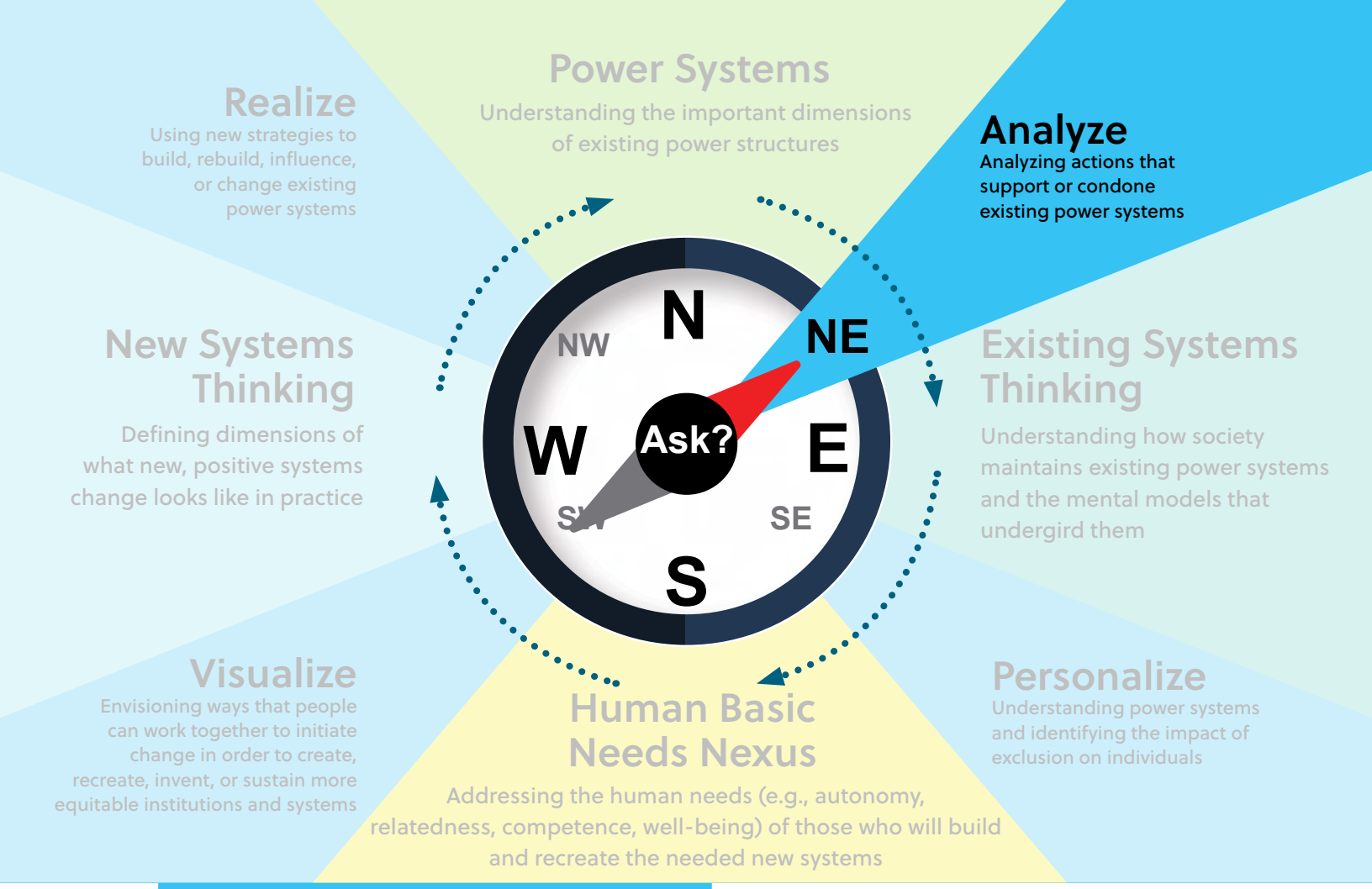
The addition of the Northeast, Southeast, Southwest, and Northwest points incorporated ideas about steps that could help people move from one point to another on the Compass. The main Compass points—North, South, East, and West—remained *descriptive*, while the four intermediate points came to designate *actions* that defined the connections between points.



NORTH Power Systems

Understanding the important dimensions of existing power structures

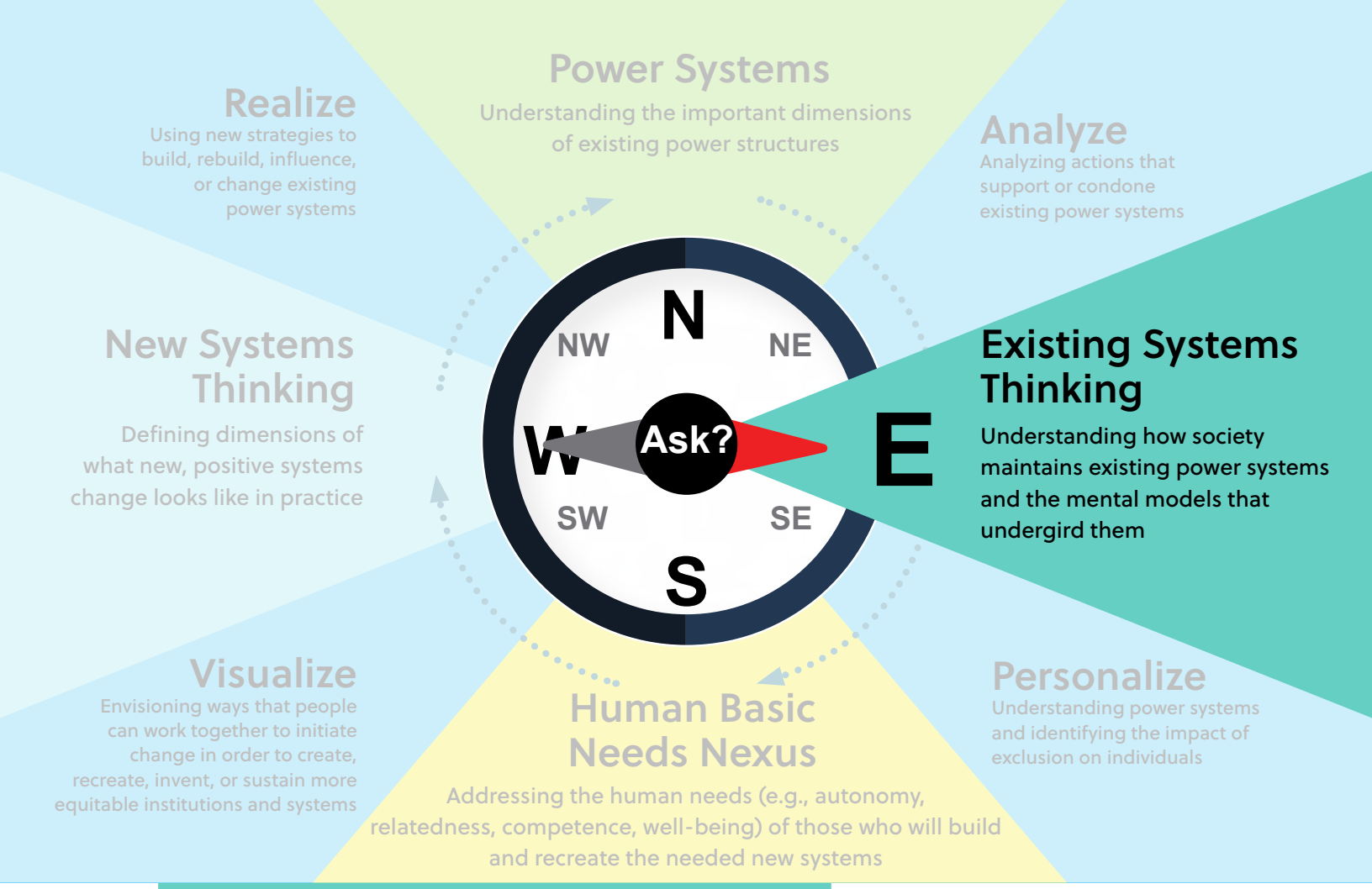
- **Inertia prevents change.** Existing power systems compose and maintain the status quo, perpetuating inequities.
- **Power is entrenched in financial, educational, and cultural domains.** Other power domains exist, certainly, but these three are present and central to the vast majority of issues.
- **Systemic racism is endemic.** All three power domains have deeply entrenched rules and processes that were founded with racist intent.
- **The powerful act to maintain their power.** Power domains are dominated by highly resourced individuals and those with privilege related to race.
- **The disempowered see attempts to change as futile.** Many people who have little to no power in a system assume "it is what it is" and can't be changed.



NORTHEAST Analyze

Analyzing actions that support or condone existing power systems

- **Power systems reinforce one another.** Actions that originate within each power system mutually reinforce one another across power systems, perpetuating the status quo.
- **Implicit bias sustains power systems.** Predetermined references or rules and built-in biases effectively prevent change.
- **Power is seen as zero-sum.** Sharing power is equated with relinquishing it. Power is seen as finite, so people act to retain it.
- **It is easy to claim that individuals are to blame.** By blaming vulnerable individuals for their own lack of progress, often citing unsupported claims that silence underserved populations, power brokers absolve themselves of responsibility, thereby protecting dominant power systems.
- **Many fear that change can bring unintended consequences.** The worry that advocating for change will in fact make inequities worse further perpetuates silence and inaction.

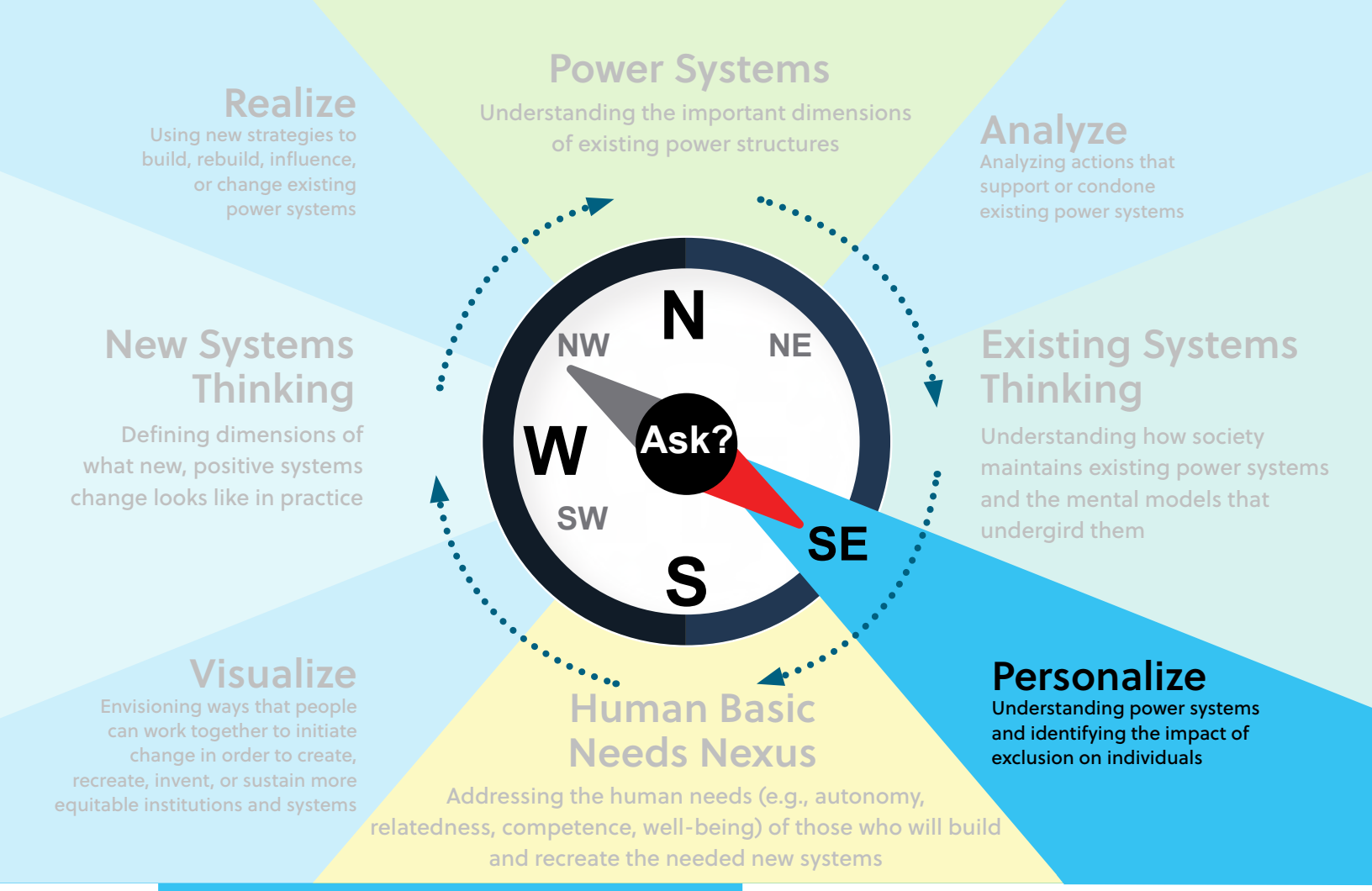


EAST Existing Systems Thinking

(Mental Models, Structures, and Tools that Perpetuate Power Systems)

Understanding how society maintains existing power systems and the mental models that undergird them

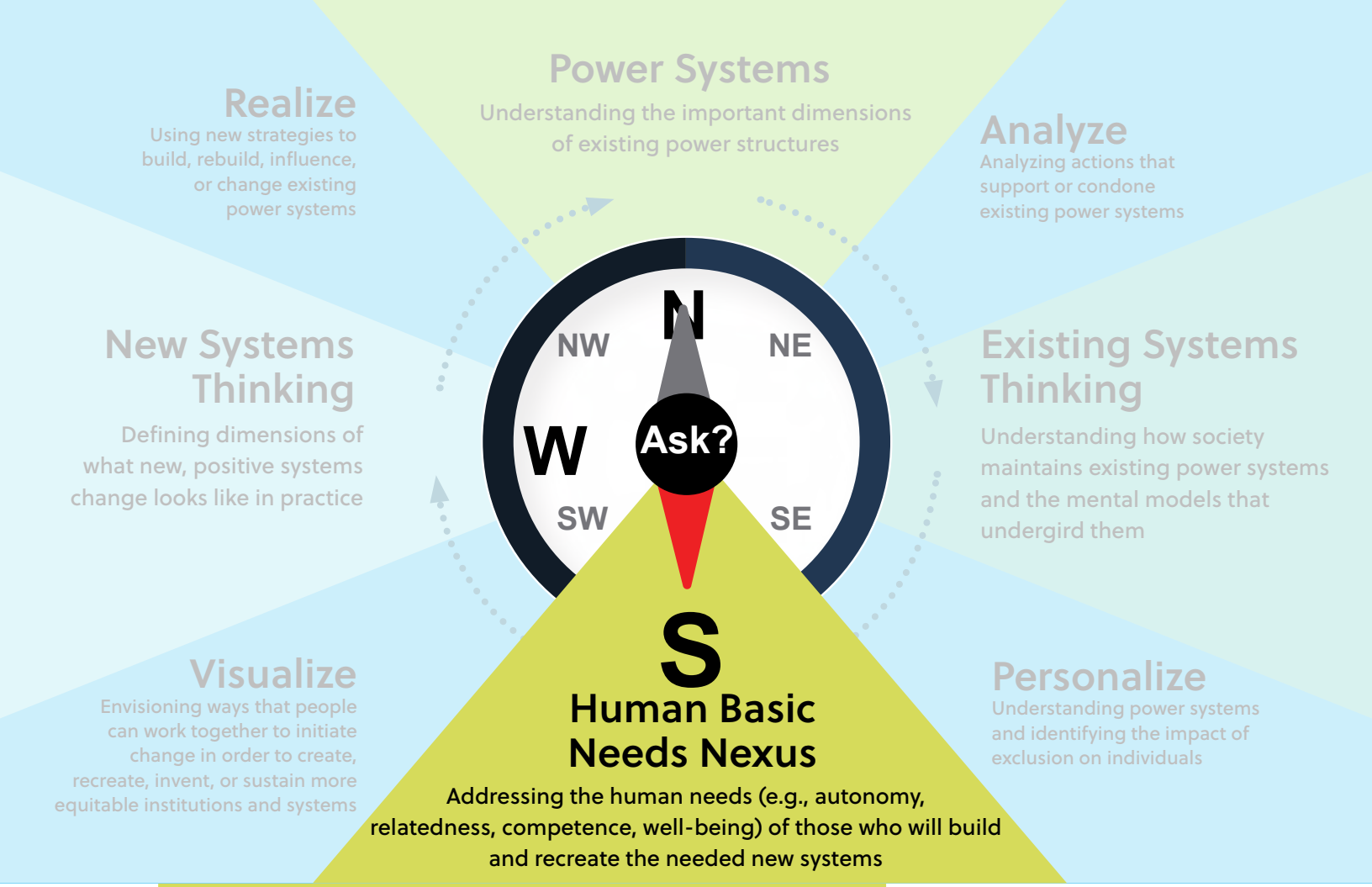
- **The rich get richer.** A one-way flow of resources creates a privileged or elite group or class.
- **Existing mental models target underrepresented populations.** The mental models that shaped the structures and tools built within existing complex power systems disproportionally target certain populations and actively exclude them from full participation.
- **Market valuation takes precedence over human needs.** Financial power brokers focus on the value of companies' stocks, often to the detriment of employees and other affected people.
- **Cultural norms give preference to dominant groups.** Implicit dominant social and cultural norms do not support most people because they are shaped by the mental models of those with power; thus, they undervalue and disrespect nondominant groups.
- **Misinformation feeds negative biases.** Gossip, rumors, half-truths, and convenient rhetoric give credence to existing negative biases, influence beliefs, and perpetuate existing power bases.



SOUTHEAST Personalize

Understanding power systems and identifying the impact of exclusion on individuals

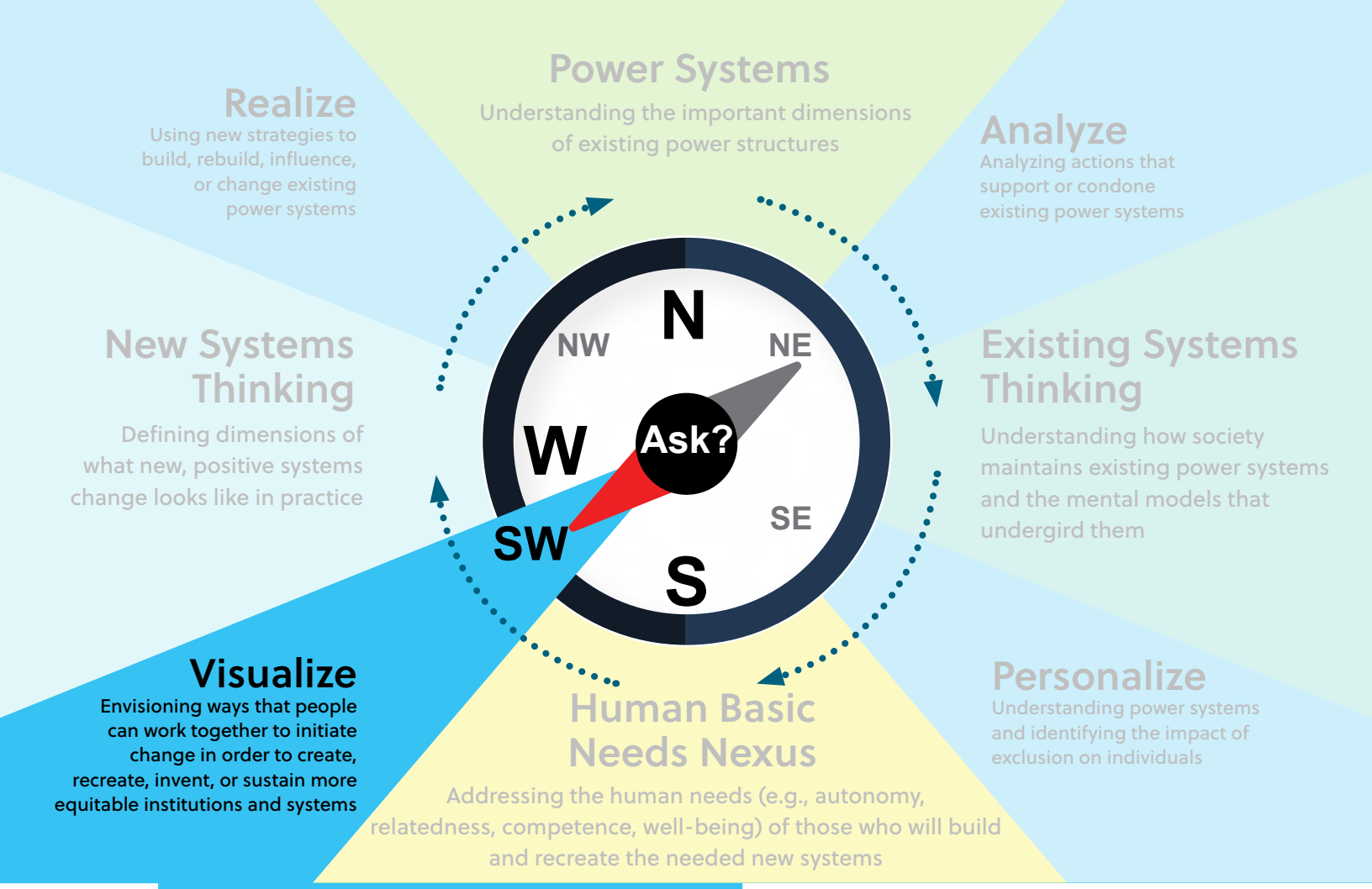
- **Bureaucracy resists change.** Power systems and legislative processes grounded in precedence shape bureaucratic systems to be resistant, rather than responsive, to calls from individuals to reflect changing social mores, new ideas, innovations, and the needs of the community or population.
- **Power is zero-sum.** Dominant narratives, whether implicit or explicit, generate or reinforce a zero-sum discourse where there must be winners and losers: for an individual to succeed, another must lose.
- **Stereotypes blur the complex systems that generate them.** Research, history, and discourse often favor mental models that value efficiency, simplicity, and quick benefits, leading to a focus on surface-level observable phenomena rather than on the underlying complex systems that create them.
- **Individual success is valued over community success.** The promotion of the "self-made man" privileges those with financial, educational, and cultural capital and opportunities, placing blame for lack of success on the individual.
- **People underestimate their individual and collective power.** Many people, particularly those from nondominant groups, may not recognize, embrace, or exert their ability to change power systems, either alone or as a group.



SOUTH Human Basic Needs Nexus

Addressing the human needs (e.g., autonomy, relatedness, competence, well-being) of those who will build and recreate the needed new systems

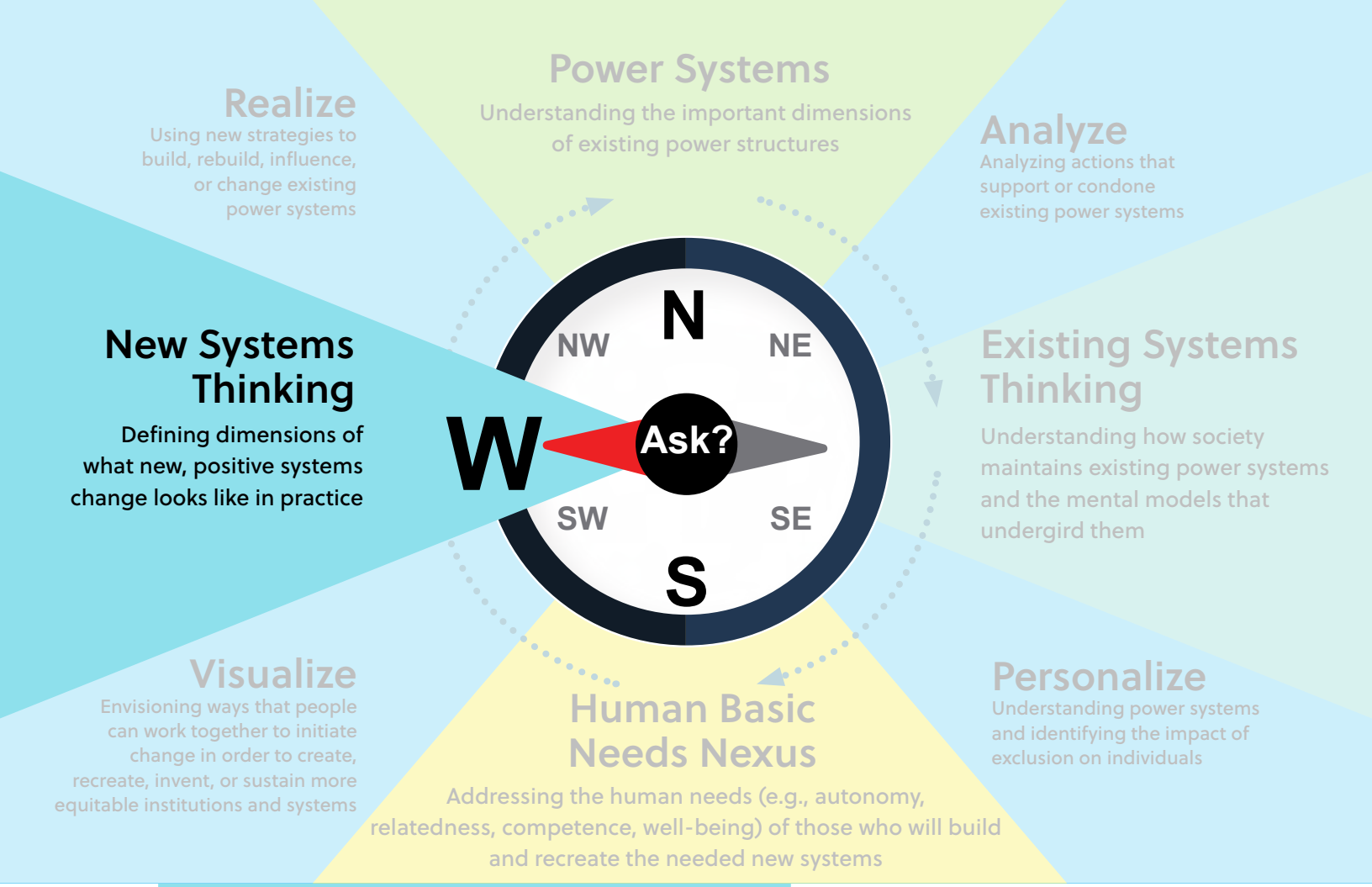
- **The individuals affected by a problem are not heard.** Actively working to solicit and include the voices of those who are closest to and experiencing the problem is essential to understanding the needs that have been disregarded.
- **Representation is vital.** Existing role models of "success" do not represent all communities, so including role models who look like the people most affected is key to redefining perceived needs and building the needed confidence to forge new paths in lives and careers.
- **"Success" is narrowly defined.** Criteria for success, both personal and collective, must be established from human needs rather than limited, stereotyped mental models. As everyone is given opportunities to learn and engage in meaningful ways, "collective genius" improves the likelihood of equity and success in visualizing a new system.
- **Autonomy is valued over collaboration and connectedness.** Connecting and working with others who bring different knowledge and experiences around a shared purpose is key. People can collaborate with and educate one another through all forms of interaction, including social media.
- **A narrow focus on individual grit misses the importance of compassion.** Broadly speaking, thinking through new, diverse cultural commitments to health and well-being, for both the population and the planet, could promote equitable justice and opportunity across sectors, moving toward human compassion.



SOUTHWEST Visualize

Envisioning ways that people can work together to initiate change in order to create, recreate, invent, or sustain more equitable institutions and systems

- **Reimagine the American dream and what it would take to achieve it.** What would it mean to change systems by eliminating institutional racism and bias, making dreams of success and upward mobility truly possible for everyone?
- **Prioritize research skills.** Educating people to conduct research that reflects the real needs and realities of all people, and to support their claims with evidence as opposed to simply demanding that others "prove me wrong," would have multiple benefits, including the abatement of misinformation and conspiracy theories.
- **Include those affected by a problem in developing its solution.** Commit to multicultural perspectives that honor wholistic views of justice and fairness by including those who most directly experience the problem to be involved in collaborating on and co-leading efforts to identify and implement new solutions.
- **Keep the big picture in mind.** When developing action plans to address critical equity issues and coordinate change, consider all relevant systems and the interplay among them. Engage in social activism.
- **Welcome paradigm shifts.** Highlight and value new mental models that support justice and benefit all. Use a variety of methods (including grassroots efforts) to communicate new ideas and celebrate interim successes.

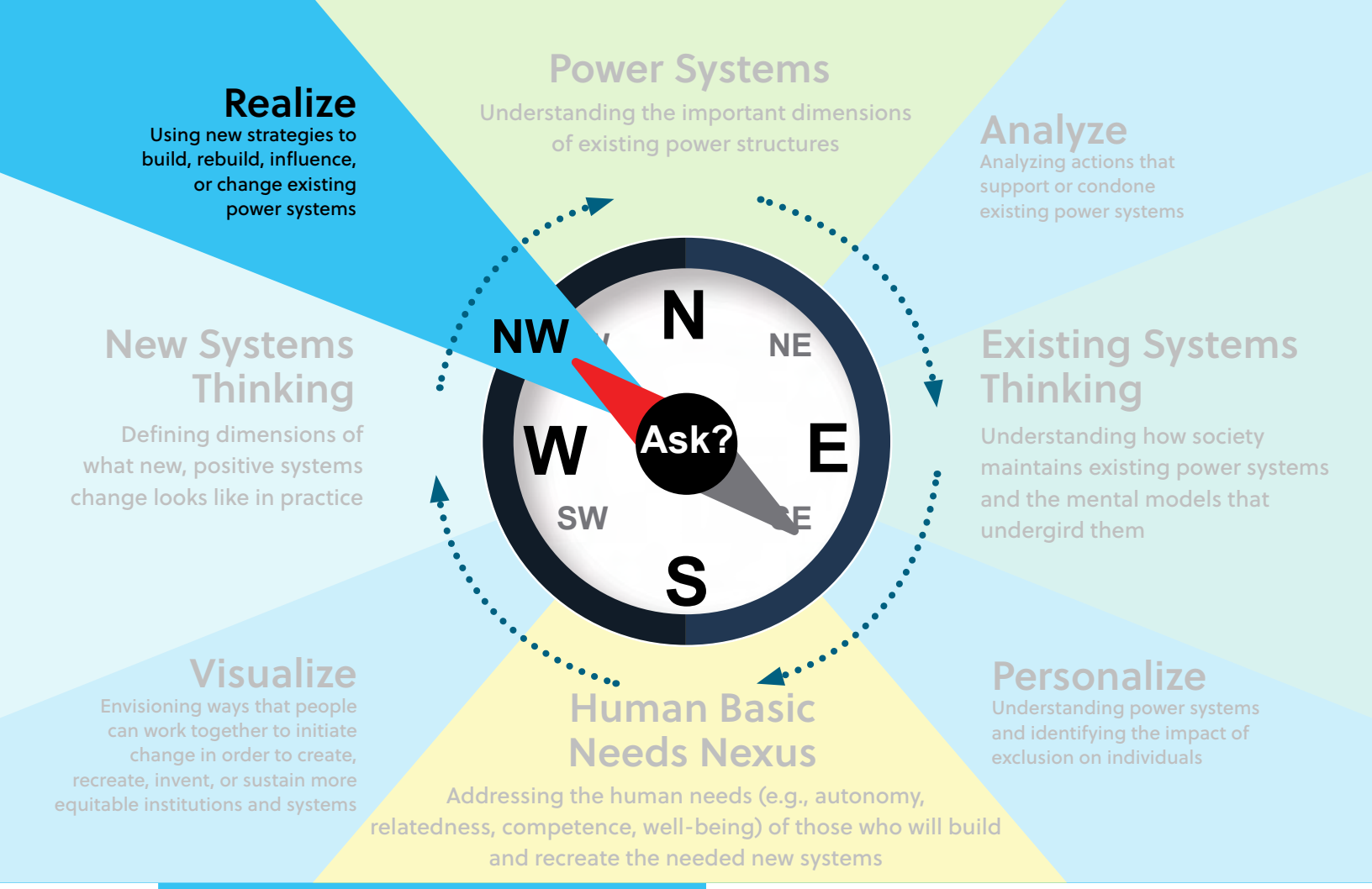


WEST New Systems Thinking

(Power Systems Change That Disrupts Mental Models, Structures, and Tools)

Defining dimensions of what new, positive systems change looks like in practice

- **Culturally responsive teaching is the prevalent model.** Education should be transformed at all levels to bolster students' digital fluency (which includes both data fluency and media literacy), helping them understand the impact of technology and artificial intelligence and preparing them to be nonbiased, socially responsible data analyzers.
- **Focus is on the opportunities we owe young people.** Mental models need to honor all humanity as valuable and brilliant and to override undesired patterns in the system that blame individuals for their deficits. We must find new ways to measure the lived experience of students and working people.
- **Rewards support engagement in equitable practices.** Incentivized equity actions recognize those who contribute to transformation (e.g., increasing grants and loans to those who have historically been denied access to them, holding slots on corporate boards for representatives of underrepresented populations and financially supporting a diversity of candidates in local and national elections).
- **Systems privilege high-quality solutions.** Human needs must be supported beyond the bare minimum. For example, instead of aiming to eliminate hunger, ensure that nutritious and tasty food is easily and perpetually accessible to people in need.
- **Social media systems reform their practices.** We envision a new social media system that elevates positive actions, driven by data analyses, ethical use, and an underlying commitment to justice and fairness.



NORTHWEST Realize

Using new strategies to build, rebuild, influence, or change existing power systems

- **Translate new institutional concepts into policy and legislation.** The systems identified in the West must be formally adopted to support desired institutional norms, and their progress must be continually monitored.
- **Ensure that power is shared.** Support advocates that serve at the intersection of various power systems and engage community members to make sure that this power is shared.
- **Become socially and politically active.** Commit to long-term change, not just a time-limited agenda. Promote the need for shared accountability and ongoing monitoring of who benefits from laws, policies, and practices.
- **Communicate benefits and celebrate successes.** Monitor, document, and widely publicize the new ways of behaving and the resulting outcomes. Spotlight successes that are driven by those who were formerly under-resourced and underrepresented.
- **Be transparent about challenges or mistakes.** Tell powerful stories about the real work of implementing systemic change. Develop a new narrative of the evolution of change and the benefits that enrich all communities.

Equity Systems Change Compass

Power Systems

Understanding the important dimensions of existing power structures

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Using the Equity Systems Change Compass: Two Examples

The Compass is designed to generate fruitful dialogue among members from across the affected communities exploring questions about equity (e.g., How do we build a more diverse STEM workforce? How do we ensure equitable health care? What does it take to break the glass ceiling?). But it is also versatile enough to be used when considering equity in the context of more concrete, operational issues (e.g., What does it take to create and implement an equitable pathway to computer science careers? How do we increase the numbers of students in STEM courses?).

The two examples that follow are not meant to provide all, or even the best, solutions and possible actions for each instance. The bullet points listed under each Compass point demonstrate what community members might articulate as they attempt to address their particular equity topic. In our upcoming publication, *The Equity Systems Change Compass: A Guidebook to Dialog on Equity Systems Change*, we will provide more explicit guidance and specific questions that facilitators and participants can use to engage in deep discussions and create targeted and appropriate actions to meet their particular needs.

Example 1 illustrates how the COVID-19 pandemic exacerbated equity issues in our education system and how concerned community members might use the Compass to explore the issue and imagine a system that would help students catch up on learning lost during the pandemic. Example 2 focuses on how interested parties might have responded to each point on the Compass as they tackled the issue of school desegregation.

Example 1: Learning loss due to COVID-19

Though many students grew in unexpected ways, recent studies have shown that a great number of students fell behind in their learning during the disruptions caused by the COVID-19 pandemic. Hardest-hit subjects include the STEM skills at the forefront of the future of work. How can we help these young people catch up academically without diminishing the gains they may have made in other personal growth areas?

North (Power Systems)

- State education agencies (SEAs) and local education agencies (LEAs) make decisions about the use of recovery dollars in ways that maintain the status quo, and they invest in learning activities that favor higher-resourced students with access to technology and support. STEM courses that often captured the interest of under-resourced students are deemed "extras" and not essential to recovery.
- Education power brokers assume that certain students are not worth pursuing because they were likely to drop out anyway or would take advantage of loopholes or changes brought about by COVID-19.
- SEA policies indirectly exert pressure on LEAs to promote all students, even those with deficits, in order to maintain the proper student populations and faculty.

- Education funding mechanisms rely (at least in part) on the local tax base, so the districts that have been under-resourced end up with the fewest education resources. The myriad of local, state, and federal programs to support high-needs districts that have been under-resourced results in many regulations that can stymie innovation or cause implementation delays that leave these students even further behind.

Northeast (Analyze)

- Education decision-makers fail to coordinate with other systems (e.g., housing, economics, family support) to understand the pressures and demands on students who have "disappeared" from the system or who have many absences.
- Students who are struggling with additional responsibilities because of COVID-19 stop trying to explain the competing demands they face to people who can't fathom why they are not able to adjust to new realities for family and school life.
- School administrators urge teachers to continue with the next grade's curriculum even though not all students are ready to move on. (Standards-based curricula often assume prior year learning or mastery.) Time and resources for remedial teaching may be lacking.

East (Existing Systems Thinking)

- Teachers who are overwhelmed by virtual school demands and changes tend to work with students who are already doing well or are easier to deal with.
- Under increasing pressure, educators often reproduce or intensify biased approaches in their virtual classrooms—including in the areas of discipline, talking with parents, and grading.
- High-stakes testing continues to assess students, even those who fell behind the most, with existing benchmarks, thereby furthering the gap between students who were able to maintain their learning and those who were not.
- Distance learning makes it difficult or impossible to judge students' effort, so many teachers become more reliant on simple performance and not giving credit for the work involved to get there.
- Project-based learning and assessment, which are more typical of STEM and collaborative coursework, are minimized or overlooked when technology is not working or not available.

Southeast (Personalize)

- Parents "see" what is happening in class but don't have easy ways to mobilize in order to recommend changes to time-honored ways of doing things (e.g., evaluating progress, testing, scheduling).
- The education system (sometimes with business partners) provides extra help but does so in ways that cannot be accessed by all students, due to lack of technology (or lack of access to technology), lack of time, increased responsibilities, and/or overtaxed mental health.
- Students with parents who work outside the home (particularly those who are low-wage front-line workers) and who are dealing with multiple issues (such as having to take care of the household and younger children) are simply unavailable to attend class regularly—but may then be portrayed as "delinquent" from school.
- Students who are already operating with deficits may have those deficits magnified by those teachers who are less able to "see" their whole class, making certain instructional moves (differentiation, equitable discipline, etc.) more difficult.

South (Human Basic Needs Nexus)

- Students whose household responsibilities were magnified during COVID-19 need to be re-engaged in the education system. They need customized, intensive learning experiences that capitalize on their strengths.
- Even if they have technology available, students need to be taught how to access and take advantage of innovative virtual resources and readily available, free, or low-cost high-quality learning sites that build on the STEM skills students acquired pre-COVID.
- Students need a safe, culturally sensitive, and culturally responsive environment in which to define their needs and hopes.
- Students need a safe place to process their experiences and the negative effects on their social and emotional learning.
- Students need to leverage new and nontraditional ways to learn, especially in learning about and accessing new social media and virtual approaches for learning, problem-solving, and career development, outside of traditional class time.
- Students need a no-judgment reentry process that capitalizes on the new maturity and positive skills they gained during COVID-19. We also need to redefine how students' work and progress are assessed and measured. Students should not be negatively judged on their competence because of external pressures and inadequate access to needed resources.

- While students gained autonomy during the pandemic, they often had limited direction or support. Students need *measured* autonomy with adequate support and direction.
- Relatedness was almost eliminated, as students were isolated and their ability to cooperate and communicate was strongly limited. Students need to connect and collaborate with other students, teachers, and outside resources in order to work, study, plan, and build on their achievements.

Southwest (Visualize)

- Colleges and businesses work together to find formal ways to give students credit for helping others—including their family members—during the pandemic.
- Teachers work with students to develop a reentry plan: using formative assessment to understand where students are, setting new short-term goals, and charting a path toward those goals.
- Educators, in partnership with parents, students, and other community leaders, develop new ways to re-engage students and motivate them to work aggressively toward learning goals.
- Community members identify mental models that promote positive actions, drawing on lessons learned during the pandemic and from Black Lives Matter, and addressing the realities of racism head on.
- School board discussions focus on the intense preparation needed to overcome COVID-19 learning loss for all students.
- Business leaders and educators coordinate activities to help students develop the foundational skills needed for future careers (including a heavy emphasis on STEM).

West (New Systems Thinking)

- All participants work together to reimagine how learning could occur, given the best solutions that surfaced during the pandemic—including tutoring, learning pods, community learning labs supported by business, and businesses providing relevant resources to employees (e.g., supplemental payments for childcare and housing, mental health programming).
- Schools provide a provocative and engaging learning environment that attracts students and reignites their interest in problem-solving projects that are consistent with future work at the human–technology frontier.
- Testing is halted or overhauled for the year, and promotion and graduation policies are revised.

- Colleges adjust acceptance criteria—for instance, giving students credit for helping others during COVID-19—and offer specific scholarships to honor superior efforts by students in practicing social justice and supporting their families.
- Businesses create new internships that combine learning and working and that highlight skills of the future—paying students to learn and work and to acquire foundational skills in STEM. Businesses also partner with educational institutions to create related curriculum.
- Business and labor support the creation of learning pods that operate 24/7 to accommodate student needs (e.g., enlisting employees of color to assist with tutoring and STEM learning challenges and reimbursing them for this work).

Northwest (Realize)

- Policymakers authorize national panels and local efforts to rethink how rescue dollars will be used to intensify culturally responsive learning in classrooms, communities, and workplaces.
- Businesses initiate ongoing programs to repurpose their good-quality unused equipment for students and create new kinds of "learning spaces" that students can use to explore and discover STEM and other learning opportunities year-round.
- Students use their digital fluency for social justice and social activism projects that are documented, rewarded, and shared widely through innovative business and higher education resources.
- Foundations and federal agencies fund research that documents effective methods to re-engage students and keep them interested. Researchers broadly share their efforts through national research organizations and the media.
- Student organizations provide both their dollars and volunteers to assist communities with specific needs (e.g., personal protective equipment, subscriptions to education sites, assistance with new technology). The management, engineering, technology, and science skills acquired through this work are documented and honored.
- To ensure that students have the proper support to overcome learning deficits and to ease their transition back to the classroom, state and local agencies adjust their policies for what education dollars can fund.

Completing the Circle: North Again

As we complete the circle and return to North again we can imagine a system where culturally responsive learning is the norm, where all students are engaged in learning and have the resources/supports needed to ensure their on-going success in school.

Example 2: Desegregation (a retrospective analysis)

In this example, we use the Compass as an analytic tool to examine the historic question of school desegregation. Although desegregation was wrestled with across the country in a range of contexts, we are focusing on urban contexts in this example. Our attempt to place onto the Compass the events and analyses that occurred is of course incomplete and cannot be considered "correct" or "exhaustive"; different communities would likely list different key elements. This is precisely why it is so critical to include many diverse perspectives. However, when that is not possible, the Compass can be a useful tool in helping us dig more deeply.

Please note that some of the concluding bullets are in italics and have a different symbol. This denotes something we've included as a step that, had it occurred or if we engaged in it now, would have supported more productive engagement with school desegregation.

As urban districts grappled with the mandate to desegregate schools—and the loopholes they exploited to delay addressing the mandate were closed—many quick-fix solutions were put forth with little or no attention paid to the complete systemic picture. Without a holistic (or authentic) approach, these solutions often made problems worse, or introduced new problems that caused more harm to the very students whom desegregation was rhetorically intended to help. As we look at this historical example, we see how those in power skipped much of the "analyze" and "personalize" activities that help get to the roots of a problem or the impact of those roots: In effect, they jumped from a superficial statement of the problem (schools were not racially integrated) to visualizing varied superficial solutions and policies to realize new systems. In the context of the Compass, they jumped from the Northeast quadrant to the Northwest quadrant with little regard to the South, thus ignoring the needs of the people who were most impacted by their decisions.

North (Power Systems)

- **Educational:** "Separate but equal" was the key doctrine legalized in *Plessy v. Ferguson* 163 U.S. 537 (1896). In school districts, this supported enforced separation. However, history bears out that the results were never actually equal and that Black citizens were deprived of potential power and opportunity. In *Brown v. Board of Education of Topeka*, 347 U.S. 483 (1954), the U.S. Supreme Court ruled that "separate but equal" in education was inherently unequal because it caused psychological harm to learners of color. This ruling drove municipalities across the country to make plans for desegregating public schools. Regardless, powerful leaders at the local, state, and national levels who supported segregation still urged separation of the races and for many years did not comply with this ruling.
- **Cultural:** People naturally cluster with others who are similar to themselves. In the U.S., race is an especially common characteristic along which people tend to cluster, primarily due to the history of slavery and the slave trade. This natural tendency, as well as the need for security, led to significant segregation of neighborhoods.

- **Financial:** Geographic segregation was institutionalized by those in power through pernicious policies such as redlining and the denial of loans to people of color to buy houses in "White" neighborhoods. This reinforced the institutionalized divestment of educational, financial, and cultural capital, and limited opportunities for anyone outside the power systems.

Northeast (Analyze)

- Because "separate but equal" was legal precedent, attacking it required an approach that was grounded in information that had not already been considered in *Plessy v. Ferguson*. The new approach was to focus on the psychological harm caused by this precedent. However, this had the unfortunate consequence of suggesting not that the beliefs supporting the original doctrine were wrong but rather the outcome of psychological harm was wrong and therefore the technical solution of "integration" would remedy the situation. Dominant models were still condoned.
- In the *Brown* decision, the U.S. Supreme Court cited only the psychological harm that the research documented in Black students. The fact that psychological harm also impacted White students was not mentioned in the decision (perhaps due to fear of backlash against the court). The unintended effect was to convey that desegregation benefited ***only*** Black students, thus silently supporting the idea that desegregation would not benefit White people.
- In *Brown v. Board of Education II* (1955), the Court included "all deliberate speed" in their order to desegregate, which was widely perceived to provide a legal justification for resisting desegregation for years.
- Since many neighborhoods were geographically segregated, and *Brown* did not dictate desegregating them, many leaders leaned on the idea of "neighborhood schools" as a rationale to keep students within their local, segregated districts, especially in light of the substantial cost required to integrate across neighborhoods.
- Some Black leaders argued for maintenance of segregation on the grounds that it supported more opportunities for success among Black students, citing the excellent records of historically Black colleges and universities. Additionally, many Black people anticipated physically dangerous and mentally unhealthy educational environments for their children if desegregation occurred.
- Many powerful or wealthy liberal leaders verbally supported the rhetoric of integration to level the playing field in education, but they did not model this rhetoric by encouraging the integration of their own districts.

LOOKING BACK

In both wealthier and predominantly White areas and poorer Black and Latino communities, residents held strong neighborhood identities. Black families who owned homes in Crown Heights, Brooklyn, for example, had often lived in those same homes for generations. In poorer communities that were predominantly occupied by renters, the populations (whether White, Black, or Latino) may have been more transient, yet the neighborhoods themselves often developed a strong and enduring community culture, such as the Avenida Guadalupe neighborhood in San Antonio, Texas. School desegregation meant that children would be sent out of their community, which was inconvenient and even frightening. Parents asked questions such as, "Why does my child have to be bused across town when there's a perfectly good school down the street where they're with all their friends?" However, such arguments were also rationalizations meant to disguise opposition to bringing "outsiders" into White neighborhoods.

East (Existing Systems Thinking)

- Media widely touted specific "burdens" of desegregation, fomenting concerns among people in both formal and informal settings, while typically minimizing the "benefits" as philosophical or idealistic, thus reinforcing the mindset that integration was detrimental.
- Many White people believed that integration would lower the standards of education and thus keep White students from maintaining excellence in their predominantly White schools—despite evidence that many all-White schools were performing poorly compared to predominantly Black schools. This demonstrated the dominant mental model of institutional and cultural racism (i.e., the "natural superiority" of White people and culture).
- Across all economic and racial groups was an undercurrent of discomfort and fear that school desegregation, and the social integration that could go along with it, would lead to interracial dating and marriage, the destruction of existing cultural systems, a likely escalation of interracial violence, and the creation of new problems and pariahs. The desire to keep the two races separate highlights an underlying mental model that "people are better or safer if they keep to their own."
- Wealthy Black parents feared the loss of their own status in Black communities if races and neighborhoods came together to share resources and schools.

Southeast (Personalize)

At this point in this example, we begin to differentiate between an examination of some of what we know happened in the 1970s and our theorizing on the kinds of discussions that would have taken place had a full-faith effort been made to address the systemic issues of segregation. We first present a review of what *actually* happened, with commentary on the shortcomings of those actions, and then offer our thoughts (in italics) on what *could have* happened had a good-faith systemic approach been taken.

- Resource-rich systems—media, government, religion—planted and spread negative stories of the future if desegregation were to be implemented, which included the destruction of neighborhoods, an increase in violence, the erosion of community values, and the loss of America's economic place in the world. These narratives undermined people's sense of security and shifted attention from their ***actual*** needs (autonomy, relatedness, and competence) to their *perceived* needs (segregation and White dominance).
- While the participation of minority groups was somewhat welcomed in desegregation deliberations, their perspectives and needs often were disregarded or minimized when concrete or innovative solutions were designed. For example, as plans to integrate schools took shape, school leaders disregarded the needs and perspectives of Black community members and educators by firing Black educators *en masse* to assuage White parents who did not want their students taught by Black teachers.
- Parents in White neighborhoods mobilized their own children to fight desegregation by rejecting the presence of Black people in their neighborhoods and schools and by hurling insults at them or demeaning them when they appeared. These actions directly undermine the basic needs of all people.
- Power brokers highlighted legislative, financial, and fiscal barriers to desegregation which, in turn, resulted in fewer choices and options for voluntary desegregation. This led to court-ordered solutions (such as busing), which typically overburdened Black communities and undermined their needs.
- *Cities and states could bring together different communities to talk about the impact of the systems on individuals and groups. Such discussions could foster a shared understanding of the fears and hopes of the different groups, such as how exclusion arises from the undermining of basic needs, including the need for security. This could lead to discussions of who truly experiences psychological harm in response to segregation. Ideally, the same (or similar) groups would participate in developing a shared agenda for integration within a state or municipality.*

South (Human Basic Needs Nexus)

In reviewing the history of how people addressed the basic needs of the affected people, it became clear to us that despite the very nature of the problem at hand, the needs of those in power remained privileged over others. We review this disconnect and offer an example of how the needs of all interested parties could have been considered.

- As community leaders and public agencies worked to meet the demands of *Brown v. Board of Education*, the (White) people in power turned their focus to meeting their perceived need to maintain dominance and power. It is important to note that these perceived needs are ***not*** the same as basic human needs—in fact, meeting these needs often means depriving others of their basic human needs, particularly when security is in question.
- The perceived needs of White people (e.g., needing to separate their children from children of other groups) dominated discussions and approaches, obscuring or relegating the basic human needs of all affected people.
- The security needs of White education professionals (teachers and principals) were privileged. The security needs of Black educators were ignored.
- *All education professionals have a need for security—not only in their jobs but also in their persons—while also having their basic needs met.*
- *The needs of all children (relative to autonomy, relatedness, and competence) could be clearly stated in conjunction with security. These needs include excellence in education, robust learning environments, and opportunities for learning, achievement, and human development. All children need to experience a diversity of ideas, work collaboratively across races, and have access to supplemental and innovative programs.*
- *Students need to see themselves represented among the faculty and administrators who teach them (which supports both relatedness and competence). Integration and diversity of the educational staff should be just as important as diversity of the student body.*

Southwest (Visualize)

Instead of working collaboratively to visualize how to effectively integrate students within the district, many solutions simply focused on building the machinery to force desegregation. This included developing a federal mandate for states to comply, despite massive local resistance in many areas.

- States and local areas were tasked with developing integration solutions to preserve states' rights. Some developed such plans, but many planned how they could avoid or not carry through on integrating their schools. Where

desegregation plans were developed, many included ways to keep the races separate within their buildings, such as allowing Ruby Bridges to enter the school but teaching her alone in her own classroom.

- A number of other plans emerged to diversify the racial makeup of schools. Most common was busing, where students would be assigned to schools based not on geography (i.e., those nearest to their neighborhood) but rather on a formula that sought to racially balance all schools across the district. Given that neighborhoods themselves were not going to be integrated, this solution was deemed by many to be the only way to ensure integration on a school-by-school basis. The effectiveness of these plans varied, and they rarely managed to assuage the fears of the different groups affected by the policy changes.
- *Through their growing understanding of each other, the groups involved in making sense of the basic needs of students and educators were able to make progress on solutions that addressed as many of these needs as possible. When a fully equitable solution could not be envisioned, compromises were made by both sides.*

West (New Systems Thinking)

Several changes were proposed and enacted to drive toward solving the systemic issues. It is not always clear whether these solutions were made in good faith but had unintended consequences or were made in bad faith, designed to appear to positively disrupt the system while actually perpetuating the existing problems.

- New institutional systems were created as a result of busing and transformed racial ratios in some school districts. While this benefited some students, it also increased tensions and undermined the meeting of students' basic needs and security in other ways. For example, Black students who were bused to historically White schools may have had greater educational resources, but typically they lost teachers who looked like themselves and who modeled Black excellence on the faculty.
- New educational configurations were constructed, such as magnet schools, to improve the quality of public education for all and to increase students' choices related to their interests and potential. However, as has historically been the case (e.g., as with affirmative action), policies and structures meant to support integration, student choice, and so on ended up providing more benefit to White families and communities. More financially resourced White parents set up networks of "segregation academies" and sent their children to private schools to avoid integration mandates.
- White people also had the power to move to less diverse municipalities, causing "white flight" from urban areas.

- *There was a new public understanding of the realities of what was happening in schools and classrooms across cities for all children and an increased focus by researchers on how to measure achievement (or lack of it), regardless of where students went to school.*

Northwest (Realize)

As entities drove toward enacting their new policies, the true goal of desegregation failed to be realized, and officials resorted to more draconian measures to force this effort. We start by listing the outcomes that were in fact realized by the attempts at changing systems from the West, then offer alternatives that could have been realized had more equitable policies been attempted.

- Officials exerted judicial and executive pressure (such as court-ordered busing and forcing compliance through federal marshal escorts and the National Guard) rather than engaging in productive community approaches to understanding and problem-solving. The resulting removal of autonomy at all levels not surprisingly gave rise to protests, violence, and resistance from many quarters. Some schools even closed rather than succumb to the order to desegregate!
- The process of desegregation fostered evolving structures to support systemic racism, even as it addressed one symptom of racism (segregation). Little attention was given to addressing root causes (e.g., beliefs in differential value, capacity, and humanness based on race). This is a typical result of efforts to transform a system when the root causes, particularly counterproductive mental models, are not a key consideration.
- Busing was implemented as a foundational tool in desegregation, and, though considered controversial, it resulted (at least initially) in some racial integration in a number of cities.
- Since the funding of public schools in most areas is based on property taxes, white flight had a direct impact on how school districts were funded: More affluent White people left the district, taking their tax money with them. Many of those who stayed pulled their children from public school and enrolled them in private school. While this did not immediately impact the tax base, those parents lobbied for remedies (such as voucher programs) through which they could redirect their property tax dollars from the public district to the private school of their choice.
- *Capturing and replicating the successes of desegregation led to some promising and lasting innovations in policy and legislation related to redistricting, finding new ways to measure student achievement, opening up new opportunities to students of all backgrounds, the creation of magnet schools, and an emphasis on the need for culturally responsive teaching and learning.*

Completing the Circle: North Again

As we come full circle and return to the North, schools have mostly been "integrated," legally speaking, but what is left is a new form of segregation, just as destructive overall and without the positives of the previous system. The simplistic solution of moving students around to create more diversity across school districts was always going to be met with resistance because of how it conflicted with neighborhood pride and families' sense of community. The underlying systems that kept the various neighborhoods segregated continued to pull progress back to the status quo. This illustrates how understanding the right side of the Compass (from the North through the Southeast) is essential if there is to be lasting change. A "simple" solution might be just fine, as long as it is presented in the context of all other big realities so that it doesn't appear to be the "silver bullet"—which often happens when steps in the process are not fully engaged.

The experiences of desegregation, both positive and negative, illustrate that the fight for racial and social justice is never over. It is essential for people to work together, with shared accountability, to rethink the root cases of inequity, create new and more equitable norms, disrupt the power structures that perpetuate inequities, and engage communities to change negative narratives and advance more equitable systems.

Using the Compass: Implication for Talent Development

By putting questions at the center of the framework, we can use the Compass to spur discussion of important equity issues in a different way. Rather than focus solely on what is wrong, the Compass allows us to step back and explore issues from both an institutional and a human perspective, asking questions to guide discussion away from complaining and finger-pointing toward actions that can change the status quo. Our forthcoming publication, *The Equity Systems Change Compass: A Guidebook to Dialog on Equity Systems Change*, will outline implementation strategies and enable facilitators to work from a set of guiding questions customized to the equity topics identified by participating groups.

In summary, groups can use the Compass to guide equity-focused conversations in a number of ways, for example:

- **Analyze:** Better understand the complexities of equity issues and the systems that maintain the status quo; generate and sustain dialogue on equity
- **Personalize:** Gather feedback on the human needs driving stakeholder dissatisfaction with the status quo; guide difficult conversations around equity in our communities; give a voice to disenfranchised communities and populations
- **Visualize:** Work inclusively with members of affected communities to explore and discuss solutions to various equity problems; provoke people to think about or use some of the existing research and models for engaging in difficult conversations; connect people with one another to move them toward action or disruptive systems change
- **Realize:** Identify concrete action steps to mobilize communities and change the status quo; explore specific equity challenges and create action plans to address them

Conclusion

This report has shared the story of how the Equity Systems Change Compass was developed and what the authors learned about the importance and urgency of addressing equity issues from frontline champions working to make the world a more equitable place for all. It looked squarely at the experiences of the COVID-19 pandemic and the injustice that pervades our systems of learning, living, and working. Our hope is that we also captured a vision for a world that could produce more just and sustainable solutions for all.

What began as a simple research paper designed to identify equity issues facing our communities and workplaces post-COVID-19 pandemic evolved into a discussion tool that can result in systemwide, inclusive, equity-focused conversations that drive change in positive directions. The authors wish to thank everyone who contributed to this report and who helped transform the interviews on equity into an important and useful vehicle for change. As we move this work forward, we anticipate including additional voices and experiences and sharing the results of our combined efforts with all who are committed to effective ways to make a lasting difference.

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Appendix A: Interviews

The Equity Compass team canvassed their professional and personal networks seeking recommendations for individuals working on the front lines of equity in their communities, and academic, public, and private organizations. In particular, the team sought individuals who were informed and had personal experience working on equity issues. Over a period of two months, five members of the Equity Compass team interviewed 10 individuals identified as "equity champions" by their peers. The team also conducted a focus group of youth. The interviews ranged between 30 and 60 minutes, and the subjects were encouraged to express themselves fully. Each interviewee touched on the main points of our questions, and we identified a number of common themes from their answers that informed the report and the Equity Compass that emerged as a result. The questions were as follows:

1. If you had the ear of world leaders for five minutes to convince them that equity must be a core pillar of society, particularly in a post-COVID-19 world, what would you say and why?
2. Are you able to point to a community that has achieved greater equity? What steps did they take to achieve that equity? Please explain.
3. What have you seen over the past few months that has affected your perspective on equity and urgency? Explain how these events influenced your views.
4. From your perspective, what will be the essential elements of an equitable society (workplace, school, community) in a post-COVID-19 world?
5. What will be the greatest challenges to equity, post-COVID-19?
6. What strategies would you employ to overcome those challenges?
7. Who are three people who influenced you most in your equity work?
8. Who would you recommend that we interview to spark dialogue and interest in equity issues post-COVID-19?
9. Have you come across a piece of work from a colleague in the field that has challenged your thinking around equity? How did it shape your current views?
10. Is there anything else you would like to share?

Interviewer Biographies

1. **Joyce Malyn-Smith** is a national expert on STEM career development and workforce education. She leads a body of work that explores how to enhance STEM learning and support people in using their STEM skills, knowledge, and dispositions to pursue productive and rewarding careers. Malyn-Smith's research focuses on the future of work and its implications for lifelong learning. She investigates the dispositions humans will need as they partner with machines in problem-solving, what it means to be human in the age of AI, and the foundational skills K–20 students need to prepare for work at the Human-Technology Frontier.

2. **Vivian Guilfoy** has designed and led innovative programs and research focused on workforce development, learning and literacy, and community development. At the heart of her work are ways to grow the talents of diverse learners—especially those who face multiple obstacles in their journey to further education, civic participation, and promising employment. At EDC for four decades, she now serves as EDC Senior Advisor.

3. **Eden Badertscher**, a nationally recognized expert in equity and social justice in mathematics education, leads a body of work that focuses on strengthening our system of mathematics education to promote all students' proficiency. She has extensive expertise in systems change, addressing race-based inequities, instructional design, professional development, and advancing effective mathematics instruction in urban school districts. Badertscher co-edited, and wrote selected chapters of, a jointly published EDC/NCSM monograph, *Acknowledging Our Role in the Education Debt*. She leads the National Science Foundation (NSF) INCLUDES Alliance: STEM Opportunities in Prison Settings, leads Designing for Equity by Thinking In and About Mathematics, and supports teachers in engaging in inquiry-based mathematics in the NSF-funded Mathematics Immersion for Secondary Teachers (MIST).

4. **Kevin Waterman** is a STEM education expert and educational innovator. An experienced project director and instructional designer, he leads education R&D initiatives that broaden participation to underserved or underrepresented student populations and support teachers in improving students' learning and achievement. He is a member of Education Development Center's Equity, Diversity, and Inclusion committee and co-chairs its Communications Subcommittee. Waterman holds a BA in Mathematics from Trinity College and an MAT in Mathematics Education from Boston University.

5. **Clara McCurdy-Kirlis** is a project manager with expertise in program development and management at state, tribal, community, and international levels. She is especially interested in instructional design for adult learners, e-learning, higher education, and creating and sustaining communities of practice on topics that include health disparities, substance misuse prevention, and NSF's Innovative Technology Experiences for Students and Teachers (ITEST) program. McCurdy-Kirlis holds a MA in International Development.

Interviewee Biographies

1. **David L. Blustein** is a professor and the Golden Eagle Faculty Fellow in the Department of Counseling, Developmental, and Educational Psychology at Boston College. Dr. Blustein is the author of *The Psychology of Working: A New Perspective for Career Development, Counseling, and Public Policy* and *The Importance of Work in an Age of Uncertainty: The Eroding Experience of Work in America.* To learn more about Dr. Blustein, click here.

2. **Jacob Martinez** founded Digital NEST in 2014—a technology workforce development hub providing youth in rural communities with high-demand technology skills, mentoring, and hands-on experience. Before starting Digital NEST, he ran a successful program funded by the National Science Foundation, with a focus on encouraging underrepresented Latina girls in the Pajaro Valley Unified School District to study computer science. To learn more about Mr. Martinez, click here.

3. **Juma Inniss** is a youth culture expert, media literacy educator, and recording artist/producer from Boston, MA. He is also the founder and director of The Message. He uses popular media to engage and uplift young people and has worked extensively in his local community, helping teens develop social consciousness and media literacy skills through music. To learn more about Mr. Inniss, click here.

4. **Marie Marquardt** is an author of young adult novels, a college professor, and an immigration advocate. She believes in storytelling as a powerful tool against the hatred and fear that plagues our society and had written several novels that address the challenges and misunderstandings that face our society today. To learn more about Ms. Marquardt, click here.

5. **H. Richard Milner IV** is Cornelius Vanderbilt Chair of Education in the Department of Teaching and Learning at Vanderbilt Peabody College of Education and Human Development. He is a researcher, scholar, and leader of urban education and teacher education and has spent hundreds of hours observing teachers' practices and interviewing educators and students through a lens of equity and diversity. To learn more about Mr. Milner, click here.

6. **Ritu Raman** is an engineer, innovator, writer, and the d'Arbeloff Career Development Assistant Professor of Mechanical Engineering at MIT. She runs a lab that designs adaptive living materials for applications and she currently focuses on engineering the neuromuscular system to restore mobility and power robots. To learn more about Ms. Raman, click here.

7. **Matthew Kincaid** is the founder and CEO of Overcoming Racism, an organization that works with schools to develop culturally responsive educators and practitioners. He is also an educator and activist who has been leading anti-racism workshops for over fourteen years. To learn more about Mr. Kincaid, click here.

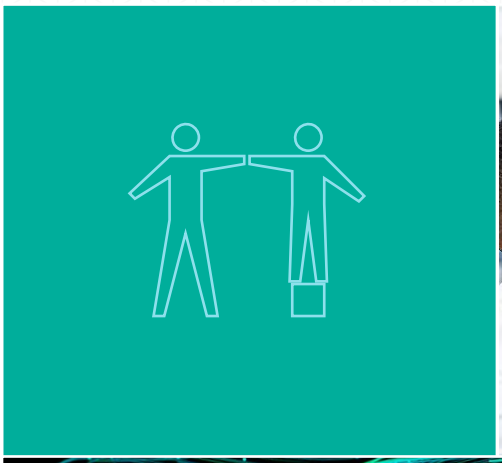
8. **Stanley Andrisse**, MBA, PhD, is a formerly incarcerated person with three felony convictions, and who was sentenced to ten years in prison. He was told by the prosecutor that he had no hope for change, however, he turned his life around and is now an endocrinologist scientist and faculty member at Howard University College of Medicine and affiliate at Georgetown University Medical Center. To learn more about Mr. Andrisse, click here.

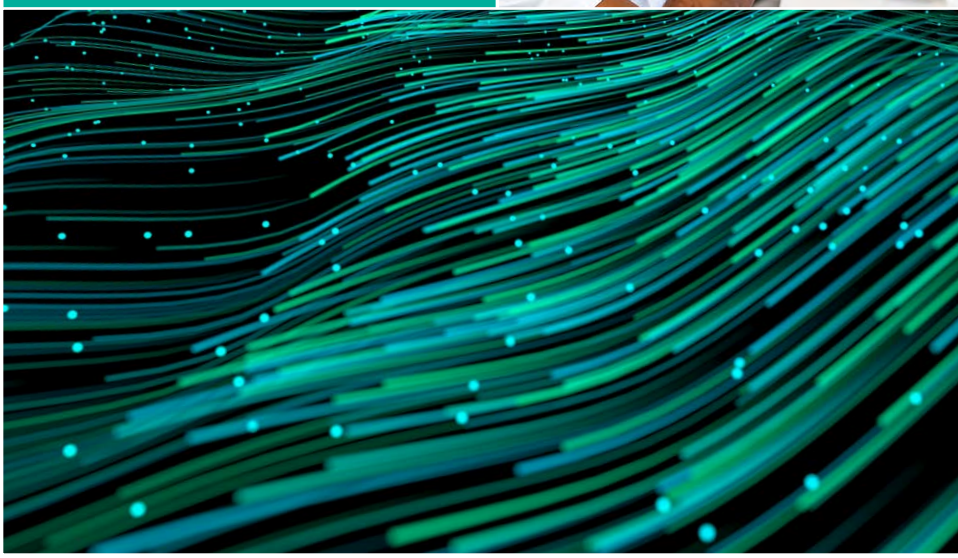
9. **Syrita Steib** is the founder and executive director of Operation Restoration, a nonprofit that creates opportunities for formerly incarcerated women. She wrote and advocated for Louisiana Act 276, which prohibits public postsecondary institutions from asking questions relating to criminal history for purposes of admissions. She is a policy consultant for Cut50's Dignity for Incarcerated Women campaign and she worked on the passage of the First Step Act. To learn more about Ms. Steib, click here.

10. **The Venerable Tenzin Priyadarshi** is a philosopher, educator, and a polymath monk. He is director of the Ethics Initiative at the MIT Media Lab and president & CEO of The Dalai Lama Center for Ethics and Transformative Values at the Massachusetts Institute of Technology. He is a Tribeca Disruptive Fellow and a Fellow at the Center for Advanced Study in Behavioral Sciences at Stanford University. To learn more about The Venerable Tenzin Priyadarshi, click here.

11. **The Youth Focus Group** comprised a small group of Young People's Project (YPP) high school Math Literacy Workers (MLWs) and College Math Literacy Workers (CMLWs) in the greater Boston area.

For more information contact: Joyce Malyn-Smith, Distinguished Scholar | jmalynsmith@edc.org





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