heterodox academy

White Paper

Improving the Intellectual Environment in High Schools

Samantha Hedges, Ph.D.
Program Manager, Heterodox Academy

May 2022

Table of Contents

About Heterodox Academy

Heterodox Academy is a nonpartisan nonprofit that works to improve the quality of research and education by promoting open inquiry, viewpoint diversity, and constructive disagreement in institutions of higher learning. The HxA community is made up of more than 5,000 professors, educators, administrators, and students who come from a range of institutions — from large research universities to community colleges. They represent nearly every discipline and are distributed throughout 49 states and across the globe.

HxA recognizes that scholars and students must develop the habits of heart (e.g., empathy, perspective taking) and mind (e.g., humility, curiosity) necessary to evaluate claims, sources, and evidence and to reason carefully and compassionately about the world. And HxA believes that the best way to prevent orthodoxy from taking root within learning environments is by fostering three key principles: open inquiry, viewpoint diversity, and constructive disagreement.

Open Inquiry

Open inquiry is the ability to ask questions and share ideas without risk of censure. In an environment that is sufficiently open, facts, opinions, and beliefs can be explored, important innovations can be discovered and problems solved, and personal and intellectual growth can flourish.

Viewpoint Diversity

Viewpoint diversity exists when members of a group or community approach problems or questions from a range of perspectives. When a community is marked by intellectual humility, empathy, trust, and curiosity, viewpoint diversity gives rise to engaged and respectful debate, constructive disagreement, and shared progress toward truth.

Constructive Disagreement

Constructive disagreement occurs when people who don't see eye to eye are committed to exploring an issue together, acknowledging their own fallibility and the limits of their knowledge, and being open to learning something from others who see things differently than they do. Learning from our differences, and modeling how to engage despite them, is the foundation of healthy academic practice and of democratic society itself.

Executive Summary

High school students have been arriving on college campuses unprepared to participate in a learning environment that values open and rigorous debate, even going so far as to declare ideas with which they disagree to be harmful. HxA spent nearly two years exploring the extent to which a variety of barriers prevent HxA's core principles of open inquiry, viewpoint diversity, and constructive disagreement from being embraced and implemented in American high schools, resulting in high school students' lack of preparedness to live out these principles on college campuses.

In 2020, HxA began soliciting and creating tools and resources for K-12 educators, primarily those working in high schools; in the summer and fall of 2021, we conducted a listening tour to learn which barriers prohibit school leaders and teachers from embracing and promoting our principles in high schools. We spoke with nearly 40 thought leaders in the field of K-12 education, including school principals and teachers, school of education faculty, nonprofit leaders, and university and think tank researchers. The participants provided insights into the barriers that schools face and what support and resources they need to embrace these principles. This paper describes those barriers and offers recommendations for high school leaders and teachers who have noticed similar issues or want to align teaching and learning with our principles in their schools.

The participants identified four primary barriers to open inquiry, viewpoint diversity, and constructive disagreement in high schools:

- Safetyism — the focus on taking care of students over academics — and political polarization are hindering efforts to introduce or increase viewpoint diversity in classrooms.
- Diversity, equity, and inclusion initiatives that don't also include viewpoint diversity as a valuable asset restrict or close off the possibility of diverse perspectives.
- School leaders are under pressure from a variety of stakeholders and often default to curriculum and programs that conform to what is socially favorable.
- School structures, accountability methods, and lack of teacher preparation push teachers away from inquiry and toward a stand-and-deliver approach to instruction.

This white paper offers four primary recommendations in response to these problems:

- Collect district-, school-, or classroom-level data to determine the extent to which barriers to open inquiry and viewpoint diversity pertain and use the data to make changes to the instructional design of the school.

- Adopt the HxA Way as the guiding principles of a district, school, or classroom.
- Implement instructional design models that embody HxA's principles and the HxA Way.
- Create professional learning communities for school leaders and teachers to aid in implementing the instructional design and learn new, relevant practices.

As HxA concludes its exploration into the field of K-12 education, we hope that administrators, educators, nonprofit leaders, and policy makers will pick up and use the recommendations outlined, continuing this work.

Introduction: HxA and High Schools

High school students have been arriving on college campuses unprepared to participate in a learning environment that values open and rigorous debate in the pursuit of knowledge and truth, even going so far as to declare that ideas they disagree with are harmful.[1] HxA spent nearly two years exploring the extent to which a variety of barriers prevent our core principles from being embraced and implemented in American high schools, resulting in high school students' lack of preparedness to live out these principles on college campuses.

We recognize that universities do not exist in a vacuum and that students do not arrive on campuses as blank slates. A cycle exists in which high school educators and leaders earn degrees and certifications from preparatory programs at universities, and then go on to teach and mentor the high schoolers who soon become college freshmen.

If educators and school leaders value open inquiry and viewpoint diversity in addition to traditionally understood forms of demographic diversity (e.g., race, gender, sexuality), they are likely to pass those values onto their students through their teaching methodology, leadership, curricular choices, classroom discussions, and so forth. When students learn to welcome viewpoint diversity and practice constructive disagreement in high school, they will be better prepared to embrace these values in university classrooms and on college campuses, thus helping shift the culture of high schools and higher education to one of true heterodoxy, where competing ideas can be explored constructively and respectfully.

With this cycle in mind, in 2020, HxA began soliciting and creating tools and resources for K-12 educators, primarily those working in high schools, and conducting a listening tour, interviewing thought leaders in the field of K-12 education. This white paper provides an overview of those barriers and recommendations for high school leaders and educators who value and embrace HxA's principles to implement in their schools. The recommendations are also valuable for nonprofit and foundation leaders, elected officials, and researchers to consider.

Barriers High School Leaders and Teachers Face

During the summer and fall of 2021, HxA's program manager conducted a listening tour and spoke with nearly 40 leaders and practitioners in the field of K-12 education, including school principals and teachers, school of education faculty, nonprofit leaders, and university and think tank researchers. The participants provided insights into the barriers that schools face to creating learning environments that are open to inquiry, viewpoint diversity, and constructive disagreement and what support and resources they need to embrace these principles.

The listening tour was conducted during a time when diversity, equity, and inclusion (DEI) initiatives were taking root in schools across the United States[2] and concerns about students' mental well-being were on the rise.[3] Although participants did describe how open inquiry and viewpoint diversity have manifested in K-12 institutions historically, most of them responded to the questions as a teacher, administrator, researcher, or leader in the field within this cultural context. What follows are leading examples of barriers faced by educators and school leaders in private, charter, and traditional public schools.

Safetyism

Safetyism — a concern on the part of adults for the emotional safety of students — was described as hindering efforts to introduce or increase viewpoint diversity in classrooms. Often, providing safe spaces for students translates into protection against ideas that teachers perceive as harmful — the ever-expanding definition of bullying is one example.[4] This places limits on exploring new perspectives in an open educational environment. Participants described instances when students were also placing limits on one another. They observed that while students are becoming more politically involved due to social media, which is a positive development, such heightened political awareness is leading students to be more politically polarized, similar to society at large, and as such, attempts to police the speech of their peers rather than listen to their views are on the rise.

DEI Initiatives

DEI initiatives were perceived as narrowly focused on demographic identity and not inclusive of diverse viewpoints, such as religious or ideological perspectives. Teachers fear that particular viewpoints will offend students who are considered marginalized (based on race, ethnicity, gender, and so forth), but by placing confines on speech, students are less likely to be exposed to viewpoints different from their own and thus are less prepared to enter a diverse university environment or workforce. Protecting students from speech, or allowing students to censor one another, limits the knowledge students can gain as well as opportunities to practice constructive disagreement and become more resilient.

Stakeholder Pressure

There are many stakeholders involved in K-12 education, in both private and public schools. A district or school leader may want to adopt curricula or programs that promote open inquiry and viewpoint diversity, but their desires may run counter to those of their board, alumni, teachers, and/or parents, and high-level administrators and policy makers in the case of public schools. School leaders must navigate the competing perspectives regarding what schools should teach, in addition to complying with laws and regulations, often leading to socially favorable ideas, such as DEI initiatives, to win out over efforts to be more inclusive of diverse perspectives.

Classroom Structure and Expectations

Often, the school structure, teacher expectations, and teacher training hinder the ability to provide learning environments that are open to inquiry. The time that teachers spend with a class of students, especially in a high school environment, often restricts the depth of inquiry on a given topic, and accountability methods (such as standardized testing) may push teachers away from inquiry and toward a stand-and-deliver approach to instruction. Some teachers, and school leaders, prefer the latter approach because then they can avoid controversial topics or control how they are discussed. Training on how to introduce controversial topics in a way that is productive and inclusive of diverse perspectives, and the value in doing so, is often lacking, leaving teachers unprepared to take on such a task.

These barriers are impeding the principles of open inquiry, viewpoint diversity, and constructive disagreement from being adopted in schools and classrooms, even when school leaders and educators see their value. Classrooms that are more open to inquiry invite a free flow of ideas and perspectives, enriching the learning experience, building positive relationships among students, and encouraging resilience in students. The recommendations section provides an overview of how school leaders and teachers can overcome these barriers.

Research on Student Perspective

HxA's K-12 listening tour sought to learn about the barriers to open inquiry, viewpoint diversity, and constructive disagreement in K-12 classrooms and school campuses from scholars and practitioners. We spoke with a range of school leaders, educators, researchers, and nonprofit leaders. The insights they shared are further affirmed by a limited but growing body of research on how students perceive the implementation of these principles in classrooms.

A survey of New York City high school students conducted by Next Generation Politics offers a glimpse into the experiences of high school students regarding the concerns described during the listening tour.[5] The survey of 250 public and private school students found that 60% of students surveyed felt they could not express their opinions on a subject because of how students, teachers, or the administration would respond, similar to results of surveys of college students.[6] When asked about expressing their views in classroom assignments, just 17% of students said they felt comfortable expressing disagreement with their teacher on a controversial topic in written assignments, while 42% of students said they were uncomfortable doing so. And students were split on how comfortable they felt expressing their views on political issues in classroom discussions. These findings contrast with the finding that three-quarters of high school students felt comfortable sharing their views on controversial political topics in informal in-person settings, such as dining areas and social spaces. The juxtaposition of these findings suggests that if students feel comfortable in the learning environment, they might be more inclined to share their views and listen to their peers' perspectives. Teachers and school leaders can implement a variety of practices to create such an environment.

Recommendations for Future Action

This section outlines the four primary recommendations that emerged from input from thought leaders in the field of K-12 education and from the expertise, experience, and research conducted by HxA staff. These recommendations are in response to the barriers presented by a hyperfocus on safetyism, DEI initiatives that don't embrace viewpoint diversity, stakeholder pressure to conform to social trends, and rigid classroom structures and expectations. First, districts and schools can assess the extent to which barriers to open inquiry and viewpoint diversity exist in their context through survey research. Second, schools can establish norms and values that establish and guide an environment open to inquiry. Third, schools and classrooms can be designed in such a way that the norms and values are embedded in every aspect of teaching and learning. Finally, educators and school leaders can create professional learning communities dedicated to implementing and advancing such norms and values.

Assess the Problem

HxA created and validated the Campus Expression Survey (CES),[7] which is administered every year to measure self-censorship on campus by clarifying the extent to which students feel comfortable or reluctant discussing various topics ranging from politics to religion. The survey is motivated by the reality that any institution responsible for providing an education benefits from an open learning environment where students can ask questions, express their ideas, and debate important issues. The censoring of opinions — whether self-censorship or censorship imposed by others — deprives students of the opportunity to learn from counterarguments and constructive debate.

High schools can work with an experienced researcher to develop a similar survey. Before a school leader or teacher can adapt the learning environment to embed the values of open inquiry, viewpoint diversity, and constructive disagreement, they need to understand the extent of any barriers prohibiting these values from taking root and what those barriers are. The CES may be adapted for administration in school districts, independent schools, or classrooms to glean the sorts of data that HxA has collected from colleges and universities, such as: How reluctant are students to discuss controversial issues? What is the quality of interaction among students? What consequences do students fear if they express their views on a given topic?[8] An experienced researcher can then help school leaders understand the data and interpret the findings so that any necessary changes can be made to create more open and inclusive learning environments.

Adopt the HxA Way

To best promote open inquiry, viewpoint diversity, and constructive disagreement, HxA embraces a set of norms and values called "the HxA Way."[9] The five norms listed below have been adapted from the version on HxA's website and can be adopted in any school or classroom to guide open, inclusive, and constructive learning environments.

1. **Make your case with evidence.** A learner who is intellectually careful and thorough strives for accuracy and provides explanations for the claims they make.
2. **Be intellectually charitable.** A learner who is intellectually charitable has positive relationships with peers and is attentive to their peers' point of view, even when they disagree.
3. **Be intellectually humble.** A learner who is intellectually humble takes seriously the prospect that they might be wrong and accepts their limitations while owning up to their mistakes.
4. **Be constructive.** A learner who is constructive is open-minded and has an eye toward deeper understanding and finding solutions to problems, not toward winning.
5. **Be yourself.** A self-aware learner follows their curiosity, demonstrates honesty and integrity, leads by example, and displays courage in the face of fear, including fear of embarrassment or failure.

These values and norms incorporate the habits of heart and mind that are sprinkled throughout the recommended instructional design strategies described in the following section.

Design High Schools for Success

For the HxA Way to be embedded in a school's culture, the norms and values need to be a core element of the instructional design — materials and methods for successful student learning[10] — and integrated in other school practices like hiring, codes of conduct, formulation of school leader and teacher professional development, creation of curricula, organization of course offerings and classrooms, and so forth. Such an overarching strategy requires a sound framework flexible enough to speak to the different areas of school operations. The most effective instructional design will remediate the problems described earlier in this paper: the materials and methods will build resiliency in students, be inclusive of diverse viewpoints, and provide the skills necessary to engage in dialogue and constructive disagreement, mitigating polarization. Existing instructional frameworks and models that have embedded within them the principles of open inquiry, viewpoint diversity, and constructive disagreement are described in this section.

The models and frameworks recommended are neither mutually exclusive nor discipline specific. A school leader or educator can mix and match elements from each framework or model to create a school or classroom environment centered around open inquiry and inclusive of diverse viewpoints. In many ways, they each focus on different aspects of the learning environment, which can be linked together: social and emotional learning is interested in school culture and developing habits of heart; intellectual virtues are learner dispositions and the habits of mind; thinking routines inform instruction; and the theory of knowledge emphasizes learning how knowledge is created. This section ends with an example of an instructional design that considers many aspects of these models and frameworks.

Social and Emotional Learning

The social and emotional learning framework[11] provides students with the habits of heart for constructive engagement with others who hold views different from one's own. Such frameworks help build a school and classroom culture that values empathy and perspective-taking — key competencies for constructive disagreement to take root. Empathy is concerned with how one reacts to the observed experiences of another, and perspective taking is the extent to which individuals adopt others' points of view to achieve greater understanding. The competencies are practiced by students in their relationships with others and when learning content in the classroom.

Notably, there is debate surrounding whether teaching social and emotional learning competencies is the proper role of schools[12] and whether such efforts are even effective.[13] But elements of the framework, including the emphasis on self-awareness, are necessary precursors for understanding the perspectives of others. For example, one cannot put themselves in the shoes of another without first understanding their own perspective,[14] such as by mapping their worldview.[15]

Intellectual Virtues

Intellectual virtues are habits of mind. They are the character traits or personal qualities of a good thinker or learner that prime students to ask challenging questions in an environment open to inquiry and to understand the perspectives of those who think differently.[16] One framework identifies nine intellectual virtues vital for education: curiosity, attentiveness, open-mindedness, and intellectual autonomy, carefulness, thoroughness, humility, tenacity, and courage. These virtues are intended to guide the disposition of learners, and when properly implemented in a school or classroom, they are routinely modeled by educators — through authenticity, self-awareness, and an ethos of trust and acceptance — and practiced by students.[17] Notably, the

model acknowledges that no one possesses all virtues all the time and that individuals will embody the virtues to varying degrees — each student will be more or less curious, open-minded, intellectually autonomous, intellectually humble, or intellectually courageous.

A school that teaches and cultivates intellectual virtues recognizes that knowledge and intelligence are key components of good thinking and learning but not the whole story. Good thinking and learning is partly how a person is "disposed to *act, think, and feel*," which is "largely independent of how much knowledge the person has or of how naturally intellectually gifted the person may (or may not) be."[18] Cultivating intellectual virtues in students involves a three-part model: (1) learning the ability or skill associated with each virtue, (2) having the motivation to practice the abilities characteristic to any given virtue, and (3) having the ability to judge when it is appropriate to switch perspectives, think for one's self, and so forth. A student displaying curiosity, for example, asks thoughtful and insightful questions; a student displaying open-mindedness is able to switch perspectives; and a student who is intellectually autonomous thinks and forms beliefs for themselves.[19]

Thinking Routines

Thinking routines guide and direct mental action and activate, encourage, and support thinking.[20] Like any other classroom routine, they consist of a few steps; are easy to teach, learn, and support; and are iterative. But unlike classroom routines, such as raising one's hand to use the restroom or ask a question, thinking routines are applicable throughout life. They can be summed up in three questions: (1) How are ideas discussed and explored within a class? (2) How are ideas, thinking, and learning managed and documented? (3) And how do students find out and come to know new things in the class?

As with schools centered around intellectual virtues, classrooms that employ thinking routines do not view thinking as content agnostic. Students need something to think about that will engage them mentally and motivate them to do the hard work of thinking well, such as to reason, connect, and expand on ideas. Thinking routines help students slow down to understand the perspective of an author, an historian, or another classmate and develop their own argument. For example, when a student is tasked with reading multiple perspectives on a topic, they might ask themselves: How are the ideas and information presented connected to what I know and have studied? What new ideas extended or pushed my thinking in new directions? What is still challenging or confusing for me? And what questions, wonderings, or puzzles do I still have?[21]

Theory of Knowledge

The theory of knowledge is concerned with the nature, conditions, and first principles of knowledge in general and, in some instances, the truth value, or reliability, of knowledge.[22] The theory of knowledge is at the core of International Baccalaureate programs[23] but is a useful way to think about how knowledge is produced in any learning environment interested in such an exploration. It is a thoughtful and purposeful inquiry into different ways of developing knowledge and different kinds of knowledge. The central question that undergirds the model is: How do we know? By approaching learning through the theory of knowledge, students are expected to achieve six objectives: (1) analyze knowledge claims, their underlying assumptions, and their implications; (2) generate questions, hypotheses, alternative ideas, and possible solutions in response to knowledge issues; (3) demonstrate an understanding of different perspectives on knowledge issues; (4) draw links and make effective comparisons between different approaches to knowledge; (5) demonstrate an ability to give a personal, self-aware response to a knowledge issue; and (6) formulate and communicate ideas clearly with due regard for accuracy and academic honesty.[24]

The theory of knowledge prompts students to be aware of themselves as thinkers, similar to the intellectual virtues model, and encourages them to become more acquainted with the complexity of knowledge. It also provides coherence for the students by linking academic subject areas and disciplines as well as transcending them.

Inquiry-Based Learning

Inquiry-based learning is an approach that dictates how content is delivered and learned and how students are assessed, with roots in the natural sciences and the scientific method. But the approach can be implemented in any course that aims to address high-level questions, test hypotheses, and make observations[25] — essentially, any course designed to produce knowledge and develop problem-solving skills — and aligns well with the principles of open inquiry, viewpoint diversity, and constructive disagreement. Students develop content-based questions that pique their curiosity, work independently or with others to seek answers, present what they have learned, and reflect on the process of inquiry.[26] Science courses, for example, follow the "5 E's" of engage, explore, explain, elaborate, and evaluate.[27] Through inquiry, students engage with new perspectives, discover truth, and formulate new questions to explore.

The frameworks and models described in this section are not tied to specific curriculum; rather, they are meant to be applicable to any discipline. But a content-rich curriculum must undergird each approach, because to

think well, students need something to think about.[28] Knowledge acquisition is the primary goal of a K-12 education, and thinking routines, for example, help students think well about the knowledge they are acquiring. But students need to know the different perspectives on an historical event, for instance, to draw conclusions about the causes and outcomes of the event. A content-rich curriculum married with the instructional designs described in this section will help prepare students for higher education and a democratic society.[29]

Example: Classical Education

Social and emotional learning, intellectual virtues, thinking routines, and the theory of knowledge emphasize the school culture, the disposition of students as learners, and approaches to thinking deeply and acquiring knowledge. Classical education offers an illustrative example of how the disposition and skills of learners combine with curriculum and pedagogy. The curricula of modern classical schools are inspired by the ancient Greek and Roman traditions of art, literature, and language, and include texts up to modern times that have shaped American history and culture,[30] similar to core knowledge sequences.[31] They take a unifying liberal arts approach to intellectual and moral formation by developing the habits of both heart and mind through reading and discussing texts.

Classical education typically focuses on three tools of learning, or skills, to develop the habits of mind, which occur in progressive stages: grammar, dialectic, and rhetoric.[32] First, students learn the structure of language (grammar) to aid in knowledge acquisition. Second, students learn how to use the language (dialectic), including how to define terms and make accurate statements, how to construct an argument, and how to detect fallacious arguments. Finally, students learn how to express themselves using language, including how to speak eloquently and persuasively. Teachers in classical schools rely heavily on the Socratic method of instruction, mirroring the goals of inquiry-based learning through which high-level questions are asked of students, such as how one comes to know something, and ideas are pitted against each other in pursuit of knowledge and truth. Students in such schools leave with a deep well of knowledge and the skills to engage in environments open to inquiry and committed to respectful dialogue and treatment of diverse viewpoints.

Create Professional Learning Communities

Using an instructional design embedded with the principles of open inquiry, viewpoint diversity, and constructive disagreement is ideal for ensuring these principles are practiced in schools and beyond. Professional learning communities (sometimes referred to as communities of practice), alongside professional development, can play a pivotal role in advancing these values and creating instructional designs that adopt all or pieces of the strategies mentioned above.

A professional learning community (PLC) is a group of educators who have shared goals or responsibilities, meet regularly, share expertise, and work collaboratively to improve teaching skills and student learning. Essentially, PLCs are professionals coming together as a community to learn. They tend to serve two broad purposes: "(1) improving the skills and knowledge of educators through collaborative study, expertise exchange, and professional dialogue, and (2) improving the educational aspirations, achievement, and attainment of students through stronger leadership and teaching."[33] Within a school, a PLC may exist as an institutionally defined community, or one may crop up informally, but in both cases, PLCs are often self-selecting.[34]

A relevant use for PLCs is to create a place where school leaders or teachers from the same or different schools can congregate to share ideas about how to ensure that learning environments are open to inquiry and that diverse perspectives are honored and engaged constructively. Such communities can meet in person or virtually to share ideas and expertise around how to embed these principles in learning environments. Virtual networks, such as listservs, can also serve as a means to ask questions of fellow practitioners with similar goals and share success stories. These networks can include similarly situated schools, such as those with a similar mission or governance structure, or disciplinary.

Conclusion

The recommendations in this white paper are meant to help school leaders and educators, and the organizations that work with them, create and sustain learning environments that embrace the different perspectives offered in texts and by students and not shy away from constructively engaging competing views that may arise. Student fragility has become a concern among educators and school leaders, and many educational environments are fractured due to competing views of diversity and inclusion, thus feeling less like a community. By following the recommendations in this paper, and reading the sources cited, school leaders and educators will be better equipped to create schools and classrooms that foster deep understanding about how to think well and understand knowledge and the perspectives of others, ultimately building the resilience necessary to enter a college campus and our democratic society. Although HxA has concluded its exploration into the field of K-12 education, we hope that administrators, educators, nonprofit leaders, and policy makers will pick up and use the recommendations outlined in this paper, thus continuing the work. For recommendations on classroom activities, sequential unit plans, and professional development resources, check out "HxA's Compendium of Resources for High School Educators."

Acknowledgments

I would like to extend a warm thank-you to the K-12 thought leaders, many of whom were HxA members and friends, who took time from their busy schedules to share the barriers to open inquiry, viewpoint diversity, and constructive disagreement they have observed and how they think the field of K-12 ought to overcome those barriers.

We would also like to thank the HxA High School Advisory Group, who shared their invaluable expertise to help develop and refine the recommendations in this paper: Ashley Berner, associate professor and director of the Johns Hopkins Institute for Education Policy, Johns Hopkins University; Matt Byrnes, head of school, Wooster School; Peter Hatala, history instructor and director of curriculum and innovation, Emma Willard School; James McGrath, founding director, Intellectual Virtues Academy; Jessica Minick, English language arts teacher, Suffern High School; Ian Rowe, cofounder of Vertex Partnership Academies and American Enterprise Institute Scholar; and Adam Seagrave, associate professor and associate director of the School of Civic and Economic Thought and Leadership, Arizona State University.

Finally, thank you to the Walton Family Foundation and Triad Foundation for their generous support, without which HxA's exploration into the field of K-12 described in this paper would not have been possible.

Endnotes

[1] Lukianoff, G., & Haidt, J. (2019). *The coddling of the American mind: How good intentions and bad ideas are setting up a generation for failure*. Penguin.

[2] Examples include Pennsylvania Public Schools (www.education.pa.gov/Schools/safeschools/equityandinclusion/Pages/default.aspx), New York Public Schools (www.nysed.gov/diversity-equity-inclusion), and Calhoun, a private school in New York City (www.calhoun.org/who-we-are/diversity-equity-inclusion). To learn more about the strengths and weaknesses of K-12 DEI programs, read: Hedges, S. (2020, September 30). Diversity, equity, and inclusion in K-12 professional development: The mission versus the reality. *heterodox: the blog*. https://heterodoxacademy.org/blog/diversity-equity-and-inclusion-in-k-12-professional-development-the-mission-versus-the-reality/.

[3] Thompson, D. (2022, April 11). Why American teens are so sad. *The Atlantic*. www.theatlantic.com/newsletters/archive/2022/04/american-teens-sadness-depression-anxiety/629524/.

[4] Cascardi, M., Brown, C., Iannarone, M., & Cardona, N. (2014). The problem with overly broad definitions of bullying: Implications for the schoolhouse, the statehouse, and the ivory tower. *Journal of School Violence* 13(3), 253-276. www.researchgate.net/publication/271927871_The_Problem_With_Overly_Broad_Definitions_of_Bullying_Implications_for_the_Schoolhouse_the_Statehouse_and_the_Ivory_Tower. See the following article for an example: Hedges, S. (2021, May 27). Coddling young minds: When vigilance to bullying and political polarization intersect. *EduThirdSpace: The newsletter*. https://eduthirdspace.substack.com/p/coddling-young-minds?s=w.

[5] Abrams, S. (2021, August 25). The self-silencing of American students. *New York Daily News*. www.aei.org/op-eds/the-self-silencing-of-american-students/.

[6] Zhou, S., Stiksma, M., & Zhou, S. C. (2022). Understanding the Campus Expression Climate: Fall 2021. Heterodox Academy.

[7] Visit the following web page on HxA's website for all Campus Expression Survey reports, analysis, research methods, code books, and data files: https://heterodoxacademy.org/campus-expression-survey/.

[8] Zhou, S., Stiksma, M., & Zhou, S. C. (2022). Understanding the Campus Expression Climate: Fall 2021. Heterodox Academy.

[9] See https://heterodoxacademy.org/library/the-hxa-way/.

[10] Purdue University. (n.d.). *What is instructional design?* Purdue Online https://online.purdue.edu/blog/education/what-is-instructional-design.

[11] The nonprofit organization, Frameworks, illustrates the social and emotional learning competencies: https://myframeworks.org/framework/.

[12] See the following two articles to learn more about the debate surrounding social and emotional learning: Pondiscio, R. (2021). The unexamined rise of therapeutic education: How social-emotional learning extends K-12 education's reach into students' lives and expands' teachers' roles. American Enterprise Institute. www.aei.org/research-products/report/the-unexamined-rise-of-therapeutic-education-how-social-emotional-learning-extends-k-12-educations-reach-into-students-lives-and-expands-teachers-roles/. Mahfouz, J. (2022). NEPC Review: The unexamined rise of therapeutic education: How social-emotional learning extends K-12 education's reach into students' lives and expands' teachers' roles. National Education Policy Center. https://nepc.colorado.edu/thinktank/sel.

[13] Cipriana, C., Horowitz, S. H., & Rappolt-Schlichtmann, G. (2021, December 6). Does social-emotional learning help students who could benefit most? We don't know. Education Week. www.edweek.org/leadership/opinion-does-social-emotional-learning-help-students-who-could-benefit-the-most-we-dont-know/2021/12. And Jesse Singal highlighted the reproducibility of psychological studies on traits like grit and the growth mindset, which are competencies of social and emotional learning frameworks: Singal, J. (2021). *The quick fix: Why fad psychology can't cure our social ills.* Farrar, Straus, and Giroux.

[14] Griffin, E. M. (2017). Turning division into discourse: Educating adolescents about viewpoint diversity. University of Pennsylvania, Master of Applied Positive Psychology (MAPP) Capstone Projects. https://core.ac.uk/download/pdf/214204924.pdf.

[15] Hedges, S., & Redstone, I. (n.d.). *Beyond bigots and snowflakes: Discussion questions and classroom activities.* Heterodox Academy. https://heterodoxacademy.org/library/beyond-bigots-and-snowflakes-discussion-questions-and-classroom-activities/.

[16] Baehr, J. (2015). Cultivating good minds: A philosophical and practical guide to educating for intellectual virtues. *Educating for Intellectual Virtues.* https://intellectualvirtues.org/why-should-we-educate-for-intellectual-virtues-2-2/.

[17] Baehr, J. (2021). *Deep in thought: A practical guide to teaching for intellectual virtues*. Harvard Education Press.

[18] Baehr, J. (2015). Cultivating good minds: A philosophical and practical guide to educating for intellectual virtues. *Educating for Intellectual Virtues.* https://intellectualvirtues.org/why-should-we-educate-for-intellectual-virtues-2-2/.

[19] Baehr, J. (2021). *Deep in thought: A practical guide to teaching for intellectual virtues.* Harvard Education Press.

[20] Ritchhart, R. (2002). *Intellectual character: What it is, why it matters, and how to get it.* John Wiley & Sons.

[21] Ritchhart, R., & Perkins, D. (2008). Making thinking visible. *Educational Leadership*, 57-61. www.ronritchhart.com/new-page.

[22] New Catholic Encyclopedia. (n.d.) *Theories of knowledge.* www.encyclopedia.com/religion/encyclopedias-almanacs-transcripts-and-maps/knowledge-theories.

[23] See the International Baccalaureate's website for more information on their program and how the theory of knowledge is implemented: www.ibo.org/programmes/diploma-programme/curriculum/theory-of-knowledge/what-is-tok/.

[24] Cole, D. R., Gannon, S., Ullman, J., & Rooney, P. K. (2014). IB programme: Theory of knowledge (TOK): Exploring learning outcomes, benefits, and perceptions. University of Western Sydney. https://researchdirect.westernsydney.edu.au/islandora/object/uws:22519/datastream/PDF/view.

[25] Pedaste, M., Mäeots, M., Siiman, L. A., De Jong, T., Van Riesen, S. A., Kamp, E. T., ... & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational Research Review* 14, 47-61. www.sciencedirect.com/science/article/pii/S1747938X15000068.

[26] Wolpert-Gawron, H. (2016, August 11). What the heck is inquiry-based learning? *Edutopia.* www.edutopia.org/blog/what-heck-inquiry-based-learning-heather-wolpert-gawron. Kidman, G. (2019, April 30). Explainer: What is inquiry-based learning and how does it help prepare children for the real world? *The Conversation.* https://theconversation.com/explainer-what-is-inquiry-based-learning-and-how-does-it-help-prepare-children-for-the-real-world-115299.

[27] Northern, S. (2019, August 30). The 5 E's of inquiry-based learning. *Knowledge Quest: Journal of the American Association of School Librarians.* https://knowledgequest.aasl.org/the-5-es-of-inquiry-based-learning/.

[28] Hirsch, E.D. (2016). *Why knowledge matters: Rescuing our children from failed educational theories.* Harvard Education Press.

[29] Hirsch, E. D. (2020). *How to educate a citizen: The power of shared knowledge to unify a nation.* Harper.

[30] McCoy, B. (2021). Classical education: An attractive school choice for parents. Manhattan Institute. www.manhattan-institute.org/classical-education-attractive-school-choice-parents.

[31] Core Knowledge, a nonprofit organization, outlines a sequence for grades K-8: www.coreknowledge.org/our-approach/core-knowledge-sequence/.

[32] Sayer, D. (2007). The lost tools of learning. In R. M. Gable (Ed.), *The great tradition: Classical readings on what it means to be an educated human being* (pp. 602-616). ISI Books.

[33] The Glossary of Education Reform. (2014, March 3). *Professional learning communities.* www.edglossary.org/professional-learning-community/.

[34] Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge University Press.

great minds don't
always think alike