

Asking What If?

Kick-Starting the Future of the EdD Dissertation

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ABSTRACT

The long-standing traditions of the dissertation are long overdue for a challenge. Creative and disruptive thinkers operate with a default what if? mindset that helps them challenge the status quo (Carter & Krahenbuhl, 2022). It is time for creative minds in higher education to kick-start how and why they see new opportunities beyond the traditional dissertation. What if the five-chapter format could be broken and replaced with a physical or digital portfolio that showcases students' evolution as scholar-practitioners? What if EdD students could create a docu-dissertation film, one that allows students to uncover and highlight powerful stories? These whatifs still retain the core competencies of a traditional dissertation: a relevant, timely research question, literature review, taking action in the field, gathering results, and drawing conclusions. We offer reasons for change and what the future of the EdD could be if we take what Beghetto (2018) calls beautiful risks.

KEYWORDS

EdD, dissertation, creativity, risk, risk taking, what if, change

In 2013, Stacey Patton began a piece for the Chronicle of Higher Education with an arresting opening: "The dissertation is broken, many scholars agree. So now what?" This Impacting Education special issue calls us to explore this "now what" head-on, and it is up to the intrepid, creative minds within higher education to lead the conversation of how and why to press the long-standing boundaries of the traditional dissertation. The most creative minds regardless of discipline or domain—share a signature trait to help us toward this end: an openness that allows them to move from the inconceivable to the conceivable with aplomb (Cronin & Loewenstein, 2018; Csikszentmihalyi, 2013). Creative and disruptive thinkers operate with a default "what if? and maybe" mindset that helps them challenge the status quo no matter their domain (Carter & Krahenbuhl, 2022). Much of this mindset is also driven by dissatisfaction, which can be a powerful creative catalyst and driver of improvement (Cronin & Loewenstein, 2018; Heath, 2020). While some professors and program directors may have indeed become dissatisfied with the status quo of the traditional dissertation, upending a centuries-long staple of doctoral degrees will be neither easy nor overnight. Cronin and Loewenstein (2018) provide a glimpse into why change is so challenging:

Our commitments to our assumptions build over time...We do not just make assumptions, we rely on them extensively and commit deeply to them. In this context, changing our perspective is no small act. It can be world changing, if not universe changing. (p. 71)

As students and now program directors or doctoral faculty members, many of us have been deeply committed—and for some time nowto the assumption that the dissertation is the penultimate rite of

passage for students. It is, to borrow a phrase from Feldman (2023), a core element of our "web of belief," meaning that the dissertation is often the intractable centerpiece of what it means to earn a doctoral degree.

Rosenburg's (2023) timely and aptly named Whatever it is, I'm Against it: Resistance to Change in Higher Education explores the deep roots of change-aversion in universities and colleges and the need to "reimagine the model from the ground up—to question many of the implicit assumptions that have shaped higher education for a millennium and gone largely unchallenged and unchanged" (p. 143). He candidly discusses, from the vantage point of an experienced former college president, the visceral reaction not only to change in higher education but even the balking that occurs for having the audacity to bring it up at all. Rosenburg laments the time, effort, and energy it takes to meaningfully discuss and debate change and how it often feels worthless for the rancor it often reveals. Similarly, Feldman (2023) notes that some issues—in his case classroom assessment—are like a train's third rail, meaning that the topic or issue is so controversial or disruptive that people fear being shocked by the current. Merely starting a conversation about alternatives to the dissertation may likewise draw the ire of those who want to uphold rigor. Even after co-authoring a book on classroom creativity, Kevin and I have been hesitant to change our own minds on the need for the crucible that is the traditional five-chapter dissertation. So we reflect, as we write this very piece, upon the roots of our resistance to change in this particular instance and why we remain so open to innovation in other areas of higher education and our Doctor of Education (EdD) program. For example, we readily served and led a multi-year effort to redesign general education at our



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university. Within our EdD program, we have embraced continuous curricular changes related to coursework, assignments, and experiences we want students to have. We are consistently striving for a coherent coursework sequence that purposefully swings the scholar-practitioner pendulum across the program timeline in order to achieve our program mission: "To develop scholar-practitioners who are change agents for improving learning for all." Our most radical change, however, was our eager dismissal of the traditional approach to comprehensive exams in favor of formative benchmarks to not only celebrate student success but also to coach students on areas for growth. Students receive feedback that helps them continue sharpening their strengths while also receiving the coaching they need to grow throughout the program. Even the new language used to describe our comprehensive exams—formative assessments—sends our students signals that the high-stakes, often one-and-done exam is done in our program. Instead, our multiple rounds of formative assessments paired with forward-looking feedback helps us tangibly realize our program mission for each doctoral candidate. Thus, we have had to reflect upon our openness to change in these areas juxtaposed with our reluctance to change around the dissertation. Perhaps our resistance to change related to the dissertation stems from the fear of critique from our Doctor of Philosophy (PhD) counterparts; without the dissertation as it has always existed, we would not be worthy to exist as a valid doctoral program. And yet is the de facto dissertation the best way to achieve our aforesaid mission?

Innovators and risk-takers forge ahead nonetheless—even in the face of not knowing how it will turn out. After all, creative thinking has its own entrenched traditions, one of which is troublemaking (Beghetto, 2018; Cronin & Loewenstein, 2018; Csikszentmihalyi, 2013; Kettler et al., 2018). At the core of this immemorial mischief is asking what if? Thus we ask: What if there was another way to challenge students? What if there was another crucible through which to pass besides the traditional dissertation? What if there was a different rite of passage or even passages that students could engineer and experience for themselves? What if this is our way to truly make the EdD distinct from the PhD? In the case of the EdD dissertation, it is time for creative minds in higher education, which includes Kevin and I heeding our own creative advice, to kick-start how and why we see new opportunities beyond the traditional dissertation. Drawing from the research base on creativity and divergent thinking as well as from innovative programs around the country, this entry for the special issue will offer not only reasons a change is needed but also showcase what the future of the EdD could be if we take what Beghetto (2018) calls "beautiful risks."

WHAT IFS AND MAYBES BEYOND THE TRADITIONAL DISSERTATION

Slow and steady change can be a successful approach to reimagining the status quo in higher education. Eyler (2024) notes that "incremental change is still change, though, and it is often essential to move slowly at first in order to ensure that the results are lasting" (p. 8). EdD programs have made incremental headway with pivots to Dissertations in Practice (DiP) as seen at the University of Central Florida and Southern Indiana. Patton (2013) highlighted universities such as City University of New York, Michigan State, Emory, and others who were rethinking the dissertation more than a decade ago. These universities were making moves to collaborative research, creating dossiers with multiple publications instead of the

single monograph style, and writing for a wider audience. Some efforts have helped make small edits to the source code of the dissertation; for example, perhaps the written dissertation remains static but innovation can happen in the area of the dissertation defense. But what if the five-chapter format could be broken, opening the door for novel approaches instead of mere complementary or ornamental add-ons (Kettler et al., 2018)? Collaborative capstone projects as seen at the University of Louisville and team portfolios as seen at Virginia Commonwealth University have shown promise for innovation in EdD programs. Sometimes the students themselves challenge the status quo and help us see—if we can stay open—how to break the frame, just as Hash (2022) describes in her article in Impacting Education. It is time to capture the winds of these wins and continue to push the boundaries and make the inconceivable conceivable. According to the late Sir Ken Robinson (2009), "Human achievement in every field is driven by the desire to explore, to test and prod. to see what happens, to question how things work, and to wonder why and ask, what if" (p. 135)? Breakthroughs indeed begin with what-ifs and maybes, and to begin this process we recommend casting the widest net possible, meaning capturing all ideas—even the half formed or implausible. The five categories of alternative dissertation possibilities below do just that.

SOLVING WICKED PROBLEMS

According to Epstein (2019), "wicked" problems—ones that are chameleonic in nature and have no discernable solution—reside within wicked environments, meaning that the rules to the game change by the minute—unlike chess where the rules are "kind" and stay static. The school and the classroom, where so many of our students wrestle with wicked problems, may be one of the most wicked environments of all. What if students were challenged to solve one of the many wicked problems in the world of education? What if students were encouraged to explore a problem of practice that presses them to navigate the nebulous nature of wicked problems and lean into what has long been considered an impasse for schools and scholars alike? The range and combinational opportunities for creative projects under this framing are myriad: Inequity in K12 schools, tracking and curricular quality, residential segregation and zoning. These types of protracted problems demand that students learn through disorientation, ambiguity, and critical thinking. These types of problems also force students to explore areas where the experts have long toiled, giving the work a missiondriven focus and urgency.

Rosenberg (2023) notes that mission-minded education aimed at solving wicked problems is showing promise in start-up undergraduate universities in Africa. He notes that at African Leadership University (ALU), students select a mission instead of a major and shape their learning experiences around a list of "grand challenges and great opportunities for the African continent, including urbanization, education, climate change, governance, agriculture, and design" (p. 151). EdD students could be asked to tackle grand challenges related to equity, inclusion, justice, diversity, leadership, assessment, and more.

What is often an undergraduate, culminating event or task can be leveraged for alternatives to the dissertation. The University of Rhode Island, for example, offers "grand challenge" courses that expose students to "complex problems and the ethical perspectives to unpack them early in their academic career. Students have the opportunity to meld topics and concepts in an applied setting in their

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field of study and career interests" (General Education – Grand Challenge, 2024). In taking a page from an undergraduate program, EdD programs can similarly dose layers of wicked problems across coursework and time in order to build toward something grand indeed. The tangible product associated with the end-game result may look like one of the what-ifs or a fusion of the ideas below.

MAKER PROJECTS

The slow build of the maker movement, led recently by Martinez and Stager (2019) and teams from the Stanford d.school among many others, has helped open the doors to makerspaces and other creative media labs so that students can explore their ideas in formats beyond a paper. The time is ripe to celebrate the constructivist and constructionist roads cut by Seymour Papert and extend them from Science, Technology, Engineering, and Math (STEM) fields to the EdD.

Not unlike borrowing from the grand challenge, EdD programs can utilize these often undergraduate and STEM-focused spaces to create something we have never seen before. What if the dissertation could be replaced by a deep-dive podcast series not unlike Emily Hanford's Sold a Story, complete with historical tours through the literature, engaging point-counter points between scholars, and a presentation of results from the field capped with recommendations for future practice? Perhaps students could model from Anna Stokke's Chalk and Talk podcast series where the goal for each episode is to engage with a different expert on a critical topic. What if the dissertation could be replaced with a physical or digital portfolio that showcases students' evolution as scholars and practitioners across time? Students could also explore digital media projects such as Jamie Clark's popular "Teaching One-Pagers" series. What if EdD students could create a docu-dissertation film, one that allowed students to uncover, highlight, celebrate, and share powerful stories?

Maybe students can collaborate on a wicked problem to create a new magazine or zine that explores problems of practice as they arise. This is what Beghetto (2018a) calls a "legacy challenge" that could extend beyond students' time within the program: "Legacy challenges are student-directed creative endeavors that aim to make a positive, lasting contribution. Students' overarching goal is to identify and develop a solution to an open-ended problem facing them, their school, their community, or the world beyond" (p. 55). Another legacy approach could have students explore their problem of practice and take action by creating a computer program that helps teachers become assessment literate instructors and could be remixed by future students in the program in order to continue its educative impact for the long haul. Mitch Resnik (2017), while directing the Massachusetts Institute of Technology (MIT) Media Lab, has helped countless students learn how to code with Scratch, a user-friendly program that does not require expertise in computer science. According to Martinez and Stager (2019), the "Media Lab...became a grand center for tinkering across the lines of traditional disciplines" (p. 23). It is in these "grand centers" that students can reach the high bar of the "grand challenges" mentioned above and make their mark.

INTERDISCIPLINARY POP TEAMS

With the stage set for solving pressing educational problems in a variety of innovative ways, we can turn our attention to the teaming element of the alternative dissertation because, after all, "creativity is a team sport" (Burkus, 2014, p. 117). What if the dissertation could be completed in interdisciplinary *Problem of Practice (PoP)* teams? PoP teams could leverage the Salas et al. (2006) collaborative framework to build not only shared cognition around a key problem but also work to interdependently—the core signature of a true team—and engage with schools and community partners to get "upstream," as Heath (2020) would say, of those problems in tangible ways. These collaborative teams could rally together to create think-tank type products such as series of research briefs around the impact of food deserts on student learning or a series of white papers, an approach we have noticed from the University of Connecticut, on the ongoing debate about direct instruction versus discovery learning. Teams could don a consulting role, as seen at the University of Southern California, to complete an archival project tailored to the history of local zoning lines or create public-facing documents such as parental pamphlets based on retrieval practices and the science of learning. All of these what-ifs could then be showcased and housed in a digital portfolio that can live beyond their time in the program.

PoP teams can allow students to combine their talents around a shared problem to solve, but PoP teams can also be made of a combination of faculty from multiple domains across campus. At our institution, for example, the doctoral classes in literacy are taught by a mixture of experts in literacy, psychology, and linguistics. These polymath-type mixtures often lead to the creation of a traditional dissertation committee for a student, but what if they were also poised to do something a little bit different? For example, this interdisciplinary team could swarm a student with support, expertise, and resources in order to tackle a wicked problem head-on and persist with it along the trajectory of a grand challenge. This motley team could also help connect an EdD student with the experts from the makerspaces and labs available on campus to create one of the projects mentioned above.

One of the key benefits of these collaborative approaches—whether it is a mixture of students or faculty or both—is the chance for fusing knowledge, talents, skills, and resources across disciplines to create a one-of-a-kind mixture where "programs are designed to be interdisciplinary and collaborative, creating opportunities for cross-pollination that grad students may not encounter elsewhere in their programs" (Larson, 2022, para. 8). According to Burkus (2014), some of the most innovative companies face their most pressing challenges by helping their teams "cross-pollinate ideas from different industries, life experiences, and cultural perspectives" (p. 119).

EMBRACING THE ARTS

Some may argue that inviting the arts to the academic table may be the riskiest move because of a misconception about the work of artists. Art is rigorous work. It demands persistence and deserves to be more than an add-on. Kettler et al. (2018) note that the add-on mindset is quite common "where adding a picture, a border, or simply adding color to a project is emblematic of creative thinking" (p. 22). Instead of an art piece to accompany a traditional dissertation or a poem to preface the first chapter, we want to keep the door open to

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art being *the project* and not a part of the project. Nick Sousanis, a Columbia University's Teachers College graduate, showed us the way over ten years ago by creating a dissertation about comics where the comic-book style is not just imbued into the project but is the medium of the project (DeSantis, 2012).

Challenging EdD students to study a PoP through artistic expression can and should include the same depth and breadth of study, planning and re-planning, and tinkering and prototyping as all of the projects outlined above. Instead of a traditional dissertation, a grand challenge track for students could entail a culminating exhibition of artistic work after a multi-year program of study. This exhibition could include photo-essays or stories about the careers of local teachers who have left their imprint on the district or community. It could also include portraits of these same educators paired with a reading of vignettes and a question-and-answer panel with the profiled educators. Works of creative writing such as novellas and poetry collections could be displayed in reading rooms in campus or local libraries. The makerspace and digital design projects mentioned above have a home in the exhibition approach as well. This could include a screening of a documentary or the unveiling of an art or technology installation paired with discussions in-person or virtually.

Partnering with the campus and local galleries can provide a great chance to create new partnerships for EdD students. Perhaps students could partner with a district and have their art travel to multiple schools. Pop-up exhibits can also be an opportunity to collaborate and create inroads to local businesses and governments. Schools themselves, since so many EdD candidates are actively working in schools and linking their projects to their contexts via action research, may be open to hosting an exhibition or setting up an installation to honor this work as well.

CREATING SIGNATURE WORKS

As creative thinking advocates, we take pride in a project-based approach in our coursework that allows students to "zig-zag," as Sawyer (2014) would say, within the helpful constraints we provide. We often leverage Resnik's (2017) project model he details in his book *Lifelong Kindergarten*. His model asks that teachers ensure that a project has a low floor or entry point, meaning that anyone can play and play well from the onset. Next, he recommends that projects have wide walls that allow students to productively tinker, ask what-if, and create works tailored to their interests and aptitudes. Finally, he suggests that teachers make sure that projects have a high ceiling that affords students the chance to reach a high bar such as a grand challenge. Our improvisation to this model relates to the high ceiling approach and advocates instead for a breakable ceiling, meaning that we encourage students to break the very game we have built for them to play (Carter & Krahenbuhl, 2022).

Because we are ready for students to shatter our very game, that is what they often do. One of our signature assignments in the collaborative teaming class in our EdD program is called *The Missing Team*. Students are tasked to catalogue all the teams in their respective schools and determine what team does not exist but should. More often than not, students create teams that we have never seen and then put them into action in their schools. What we have realized, however, is that the team does indeed become real for many students, but our EdD candidates are not afforded the time and energy beyond the collaborative teaming course that it takes to truly make that novel and needed team last.

Another example is the *Mock Book Project* where students are challenged to create a book title, table of contents, and dust jacket synopsis for a book they would write based on course content. What would they write to showcase all that they learned in the cognitive learning class or the formative assessment class? Once again, this is a course-bound creative activity where students often strike us with their insights and rarely gets revisited. Thus, we argue now for the chance for signature works that students create within coursework to have the staying power they often deserve and to become the culminating work, grand challenge, or collaborative project that could replace the traditional dissertation.

WHAT-IFS AND WHAT-ABOUTS

This wave of what-ifs still retains the core competencies of a traditional dissertation: the formulation of a relevant and timely research question, the extensive detective work necessary to find a gap in literature, the call to take action in the field, gather results and draw conclusions, and the urgency to publicly share the work with an audience. The worry about depth and breadth also fades once we see the time, dedication, and scope of the efforts needed to bring any of the aforesaid alternative dissertations to the finish line. However, these what-ifs are accompanied by many "what-abouts" that should be considered.

- What about assessment?
- · What about accreditation?
- What about departmental, college, and university policies?
- · What about faculty workload?
- · What about timelines?
- · What about credit hours?
- What about scaling such ideas?
- · What about institutional culture?

Larson (2022) reports that efforts to change the humanities dissertation through Next Generation Humanities grants echo many of these same concerns: "Rethinking the dissertation stirs up tough questions, both intellectual and practical: What counts as knowledge creation? How effectively can scholars judge adequacy (let alone excellence) in genres like the podcast, the video game, or the rap album?" (para. 17). Regarding the rap album as a viable dissertation format, look no further than A.D. Carson, a game changing Clemson graduate who created a 34-song album-as-dissertation in 2017 aimed at highlighting how enslaved people helped construct the buildings at Clemson (Young & Martin, 2017).

The playbook for change in higher education is still being written, and the temptation to fall back to the familiar is strong. Jonas Salk, the creative mind behind the polio vaccine, had a dream to create the Salk Institute. It was to be a creative haven, one filled with the most brilliant thinkers from a variety of fields. Together, just as Salk himself did, they would ask the beautiful questions needed to break through the next challenge of our time. However, making the dream a reality was rife with disappointment. Csikszentmihayli (2013) recounts the story:

Unfortunately, when time came to begin transforming the laboratory into the center of his dreams, Salk found out that traditional scientists had no sympathy for his novel vision. His colleagues preferred to devote all of the resources of the institute to pursuing safer, more orthodox biological research.

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The idea of bringing in astronomers and physicists, not to mention musicians and philosophers, for serious discussions seemed to them mere self-indulgence. The ensuing conflict played itself out along the lines of classical mythology: The creator was dethroned by his offspring. Salk retained an office and ceremonial status but could not implement the ideas that made the institute possible in the first place. (p. 283)

The Salk story reminds us that change—even change that is openly supported and well-funded—is always challenging and also highly contextual. Each university and then each college and program will have its own headwinds to face. But progress is being made in higher education in some of the most entrenched positions, so we counter the "what-abouts" with proof that change in higher education can happen. What about—and what can we learn from the progress made related to assessment in higher education? Movements toward ungrading and alternative grading, led by Blum (2020), Clarke and Talbert (2023), and Eyler (2024), are taking hold at universities. More and more faculty members are opening up to the fair, accurate, and empowering assessment practices that emerged because of the sudden constraints of the pandemic. According to Burkus (2014), "creativity loves constraints" (p. 14). Meanwhile, efforts in this same area in K12 schools have not been as successful. A "problem blindness" remains, as Heath (2020) would say; we cannot solve a problem we cannot see (p. 23). Further, what about the inroads being made toward equitable and equity-minded teaching in higher education classrooms? What can we learn? Led most recently by Artze-Vega et al. (2023), faculty are showing sustained, post-pandemic interest in teaching and curricular experiences that both honor the humanness of students and hold them to high expectations. The odds of highly-supportive, highlychallenging learning experiences in university classrooms across the nation are getting better and better. These two examples are encouraging because we can see the dial actually moving—even if slightly—toward something different. And we may be forced to think differently about the dissertation sooner than later with the rise in artificial intelligence. Doctoral programs are not immune to these challenges. According to Rosenberg (2023).

shifting to more experiential learning is one way to respond to the effects of artificial intelligence on higher education. Chatbots like ChatGPT have become increasingly adept at producing research papers and answering exam questions, but they cannot (at least for now) replicate actual human experiences. (p. 150)

How many of the five chapters of a dissertation can Al produce for students? Perhaps a turn from the traditional dissertation to an embrace of the high impact, experiential examples explored above is a necessary step-not a what-if-for the future of the EdD experience.

CONCLUSION

We return to Patton's (2013) question that began the piece for the Chronicle of Higher Education: "The dissertation is broken, many scholars agree. So now what?" She goes on to make the case that "Rethinking the academic centerpiece of a graduate education is an obvious place to start (para. 1)." Now, just over a decade later, we are challenged to ask beautiful questions through talking in what-ifs and maybes about that same centerpiece, hoping to pave the way for taking what Beghetto (2018) calls beautiful risks:

Doing things differently is at the heart of creativity. But doing things differently is also risky. These risks are particularly pronounced in educational settings because schools and classrooms tend to not be places where thinking and acting differently is always encouraged or rewarded. (p. ix)

Although Beghetto is speaking about the classroom in this instance, it could easily be overlaid to the university as a whole. He further states that the uncertainty that comes with such creative leaps often leave students "caught between doing nothing and facing the uncertainty of taking action" (p. 6). Rosenberg (2023), however, notes that "sometimes the greatest risk lies in doing nothing" (p. 153).

Therefore, the signature trait of creative thinkers that runs in tandem with asking what-if is openness. In the case being made for these alternative dissertations, we provide the following caveats to the necessary openness needed. First, we must stay open to novel ideas such as the ones presented in this special issue. Second, we must stay open to testing many of these ideas once we have cast the widest net possible. Third, we must stay open to many of those ideas failing in our test runs. Sawyer's (2014) sage advice is helpful here: "To be creative, you have to generate boatloads of ideas. To be creative successfully, you have to let most of them sink, because the real genius lies in picking good ideas" (p. 173). Indeed, we must stay open beyond the what-if phase and throughout the ugliness and uncertainty of the piloting phase to make a careful decision about what is worthy of pursuit: "Choosing is essential, because not all ideas and combinations are ideal for your purposes" (Sawyer, 2014, p. 7). Because an artistic or collaborative approach is not immediately working does not warrant a return to the comforts of the five-chapter dissertation. Alternatively, guarding against the excitement and initial promise of a novel idea is also important. Staying open to both polarities while pressure-testing these what-ifs is critical. This is how we can decide which new rites of passage for the EdD are right for each of us.

REFERENCES

- Artze-Vega, I., Darby, F., Dewsbury, B., & Imad, M. (2023). The Norton guide to equity-minded teaching. Norton.
- Beghetto, R. A (2018). Beautiful risks: Having the courage to teach and learn creatively. Roman and Littlefield.
- Beghetto, R. A (2018a). What if? Building students' problem-solving skills through complex challenges, ASCD
- Blum, S. D (2020). Ungrading: Why rating students undermines learning (and what to do instead). West Virginia University Press.
- Burkus, D. (2014). The myths of creativity: The truth about how innovative companies and people generate great ideas. Jossey-Bass
- Carter, J. L., & Krahenbuhl, K. S. (2022). Teaching signature thinking: Strategies for unleashing creativity in the classroom. Routledge.
- Clark, D., & Talbert, R. (2023). Grading for growth: A guide to alternative grading practices that promote authentic learning and student engagement in higher education. Routledge.
- Cronin, M. A., & Loewenstein, J. (2018). The craft of creativity. Stanford University Press.
- Csikszentmihalyi, M. (2013). Creativity: The psychology of discovery and invention. Harper Collins
- DeSantis, Nick. (2012, April 1). The dissertation will be comic. The Chronicle of Higher Education.
- Epstein, D. (2019). Range: Why generalists triumph in a specialized world. Riverhead.
- Eyler, J. R. (2024). Failing our future: How grades harm students, and what we can do about it. Johns Hopkins University Press

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- Feldman, J. (2023). Grading for Equity: What it is, why it matters, and how it can transform schools and classrooms. Corwin.
- Hash, P. (2022). ARTful design: Disruptions within the dissertation in practice. Impacting Education – Journal on Transforming Professional Practice, 7 (1), 26–31.
- Heath, D. (2020). Upstream: The quest to solve problems before they happen. Avid Reader Press.
- Kettler, T., Lamb, K. N., & Mullet, D. R. (2018). Developing creativity in the classroom: Learning and innovation for 21st century schools.
- Larson, Z. (2022, June 29). Doctoral training is ossified: Can we reinvent it?

 Lessons from the short-lived Next Generation Humanities PhD program.

 The Chronicle of Higher Education.
- Martinez, S.L, & Stager, G. (2019). Invent to Learn: Making, tinkering, and engineering in the classroom. Constructing Modern Knowledge Press.
- Patton, S. (2013, February 11). The dissertation can no longer be defended. The Chronicle of Higher Education.
- Resnick, M. (2018). Lifelong kindergarten: Cultivating creativity through projects, passion, peers, and play. Cambridge, MA: The MIT Press.
- Robinson, K. & Aronica, L. (2016). Creative schools: The grassroots revolution that's transforming education. Penguin Books.
- Rosenberg, B. (2023). Whatever it is, I'm Against it: Resistance to change in higher education. Harvard Education Press.
- Salas, E., Rosen, M. A., Burke, C. S., Goodwin, G. F., & Fiore, S. M. (2006). The making of a dream team: When expert teams do best. In K. A. Ericsson, N. Charness, P. J. Feltovich, & R. R. Hoffmann (Eds.), *The Cambridge handbook of expertise and expert performance* (pp. 439-453). Cambridge University Press.
- Sawyer, K. (2014). Zig zag: The surprising path to greater creativity. San Francisco, CA: Jossey-Bass. The University of Rhode Island. (2024). General education – Grand challenge. https://web.uri.edu/general-education/grand-challenge/
- Young, A., & Martin, M. (2017, July 15). After rapping his dissertation, A.D. Carson is UVA's new hip-hop professor. NPR.