

Justice-centered community–university partnering: Core tenets of partnering for justice epistemology

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Abstract

This paper is an introduction to and a synthesis of three papers in this issue written by scholars deeply committed to partnering with communities to understand and enact what it means to realize transformational ends in and through science education. Partnering for justice must be a conversation, a work in progress, and a critical examination that leads to intentional and careful forward movement. It is a beautiful effort at flattening power hierarchies so diverse voices and expertise can be interwoven in service of youth and communities who have been invisibilized and marginalized. Committed to realizing new, hope-filled futures, the three pairs of authors use their experiences and expertise to shed light on the work of partnering using a temporal lens: considerations related to the beginnings, middles, and endings of partnering, each of which requires special intentionality and care. Together the authors share core overlapping tenets with other critical scholars that could be considered a partnering for justice epistemology. This epistemology underscores how importantly different *learning through partnering for justice* is from traditional notions of academic research. I close the paper by sharing lessons learned from my own 20-plus years of partnering for justice, using the tenets of partnering for justice epistemology as a lens.

KEYWORDS

community–university partnerships, science education, social justice



A Thursday morning Zoom meeting in April began with all three partners authentically checking in with each other about the year and how life has been for each. The goal of the meeting is to plan for the upcoming summer, but we check in as people first. There is excitement in the air as the planning starts. It's that time of year. Shared pride and accomplishment for what we have collectively accomplished over the years mixes with a deep appreciation for both the person and the roles each of us takes up. Hazel, the assistant superintendent for the school district, Vickie, the director of summer programming, and I, as the director of a secondary science teacher education program at the university embark on the upcoming summer collaboration. "How many years has it been?" No one is quite certain, but the guesses are in the range of six or seven years. After acknowledging and appreciating our long-term partnership of the Get Real Science Environmental Action Camp as an innovative academic remediation program, I ask "What do you need from us this year?" "Math, math, math and more math," says Hazel. COVID has resulted in unpredictable gaps in her students' mathematical proficiencies and understandings. She describes how students hide these gaps for fear of embarrassment, and urges us, when teaching, to push a little extra and be very careful to explicate the connections between ideas and steps—don't make assumptions and move on. "We can totally do that."

1 | INTRODUCTION

Partnering for justice in and through science education must be a conversation, a work in progress, and a critical examination that leads to intentional and careful forward movement. It must involve a willingness to make mistakes with an acute awareness of potential harm we could cause along with a commitment to correct mistakes with authentic care for those who have been harmed in the past. It must involve a love for science partnered with an anger for the damage done to human and more-than-human others we care about. Partnering for justice in and through science education is a commitment to something that is evolving as we seek to understand epistemic plurality in local places and cultures. It is a beautiful effort at flattening power hierarchies so diverse voices and expertise can be interwoven in the service of youth and communities who have been invisibilized and marginalized.

I am excited and honored to introduce readers to a set of papers by scholars who have and continue to thoughtfully navigate partnering spaces as advocates for youth and communities often marginalized in and through science education. Committed to realizing new, hope-filled futures, three pairs of authors use their experiences and expertise to shed light on the work of partnering using a temporal lens: considerations related to the beginnings, middles, and endings of partnering, each of which requires intentionality and care. The authors assert that partnering is arguably the only way that holds promise for creating more just and equitable futures for youth and their families who have been pushed to the periphery or just plain ignored in science, science education, and other social spaces. The authors share a commitment to science education projects for equity and social justice, as they share stories, lessons learned, and priorities of their own partnering work. These papers draw out for us core considerations of the *what* of partnering for justice in and through science education as well as the *why*, *how*, and *when*. They address questions, such as what are the critical dimensions of partnering for justice? What roles do language and race play in partnering and how must these roles be addressed? What tensions might one expect at each stage of partnering work? How do institutions such as the university and academic journals need to change to eliminate barriers to justice-centered work? And how do we humanize the work we do together?

The authors of this paper set share a passionate aim for justice-centered transformational ends. The partnering work conducted by the authors of this set of papers involves disrupting and reconstituting the core assumptions that have shaped and continue to shape science education, leaving many students marginalized, uninspired, underserved, and invisibilized. Project development for anti-oppressive purposes involves interweaving the creation

of new practices with a simultaneous, ongoing critique of often-invisible but powerful forces that keep injustices in place (Bang & Vossoughi, 2016). Partners in these projects use what we collectively know about building collaborative structures while simultaneously holding space for new ways of relating, all grounded in the commitment to name and flatten power hierarchies that are camouflaged in the fabric of the everyday, accepted norms of relating and working.

2 | A TEMPORAL LENS

Partnering, like many forms of authentic work, follows an identifiable temporal arc that begins with goal and norm-setting, leading to the doing of the work replete with making mistakes and adjusting, and ending with an intense readying for a final performance at which recognition of achievements occurs by those within and outside of the partnership (Brice-Heath, 2001). Kang and González-Howard (2022) focus their paper on the beginning of projects as efforts to establish and focus on partnering. Cheuk and Morales-Doyle (2022) center their reflections on the “messy middles” of partnering as spaces of negotiating, relating, and role-remediation. Finally, Santos and Scipio (2022) explore intentional endings of “partnering projects” as something importantly distinct from “partnering,” as the latter offer persists long beyond a given project. Though isolating stages of partnering in these ways may feel artificial and forced, (e.g., all three papers address cross-cutting considerations), the temporal lens brings to light sometimes overlooked features that hold immense potential for achieving transformational ends.

As Kang and González-Howard (2022) focus on the beginning of partnering projects, they bravely share personal narratives about their lived tensions in partnering for justice in science education as pre-tenure women scholars of color. Grounding their work and reflections in the three key dimensions of participatory design research (Bang & Vossoughi, 2016), these authors share their experiences with leaning into considerations of critical historicity, power, and relationality with schools and districts toward transformational change. Commitments to realizing science education for youth that expansively ‘centers students’ lives, interests and questions about the world’ (p. 1179) can sit at odds with co-constructing goals with community stakeholders accountable to different and seemingly more immediate outcomes. Investing in relationships and beginning projects with partners’ needs can be in tension with an academic’s pre-tenure clock. Being perceived as an outsider because of one’s race can counter efforts to find solidarity. The rewards of successful partnering exchange poorly and slowly to the currency of academia. Despite these and other challenges, these scholars answer the question of whether partnering is worth it and wise for pre-tenured faculty of color with a courageous “yes.” They share strategies that allow them to effectively navigate tensions with their partners, strategies that include finding common ground and beginning with like-minded colleagues. That said, they charge us to advocate for changes to reduce the tensions, amplify the efforts and honor the uniqueness of this essential and powerful form of scholarly work: “Substantive changes need to take place at all levels so that school–university partnerships working to reimagine and make more just science education can begin and thrive” (p. 1192).

In the second paper, Cheuk and Morales-Doyle (2022) explore the “messy middle” of partnering. It is here where people as partners engage in relating, trust building, and negotiating emergent conflicts to take incremental steps toward transformative change. “The middle is where the bulk of the work happens, where plans change, where unexpected negotiations and compromises crop up” (p. 1200). Flexibility and adaptability are key to organically create as partners who learn in spaces of tension. “It [the middle] is where relational ties are strengthened, and where boundaries are contested as participants engage in sense-making and knowledge construction within the local contexts” (p. 1199). Like Kang and González-Howard, the authors emphasize the fully human work of partnering that involves humility, honesty, and trust as well as tapping into the potential of their organizations to provide structures and resources that offer projects unique access to power. Also, like Kang and González-Howard, Cheuk and Morales-Doyle call on the university to enact structural changes that make partnering less challenging for academics. Specifically, they argue that the individualism of academia nurtured



through pressures for lead and solo-authored work is at odds with the collaborative and humility-requiring nature of partnering. In addition, universities need structures that recognize the evolving and relationship-centered nature of partnering grounded in communities over metrics such as dollars secured through grants, which, at their capitalistic and nationalistic core, can counter the social transformation we seek.

Inspired by the discussion between Horton and Freire (1990) that interrogates the question, “Is it possible to just teach Biology?” Cheuk and Morales-Doyle also explore the necessarily situated nature of scientific phenomena in sociopolitical contexts and the *urgency* for marginalized youth and communities of considering these sociopolitical relationships with science in education. They argue that we cannot “just teach biology” if we care about justice. Challenging the responsibilities and therefore aims of science education fundamentally challenge everything else about how we think about and design for the teaching and learning of science. Science is shaped by sociopolitical and historical forces in which it is conducted—forces that keep some in power and others at the margins. Science education must do more than teach that science; it must critique it and counter it so science can benefit from diverse participation and so *all* people see themselves represented in the work and implications of science.

In the third paper of the set, Santos and Scipio (2022) argue for the use of the term “partnering” and “partnering relationships” over “partnerships,” as a way to highlight the active, engaged, and emergent nature of people working in relationship with one another. This choice of language holds special significance for the endings, as *partnering relationships* have the potential to and often do extend far beyond the life of any one project. Thus, Santos and Scipio challenge us to co-construct project endings in ways that sustain both the efforts of the relationships between partners as well as the ongoing work of our partners, honoring the unique histories, trajectories, and futures of the different partners and their organizations. Endings of projects invite the construction, sharing, and recognition of stories of impact and success. In partnering work committed to social transformation, how do we hold the construction of endings to the same standard of flattening power hierarchies as we hold for the goal setting at the beginning and the negotiations of messy middles? Whose stories do we look for and tell? In particular, Santos and Scipio challenge the field to take up the core principles of data feminism (D'Ignazio & Klein, 2020), intentionally looking for and amplifying stories that reveal inequities when it might be tempting to only share stories of “success” that continue to mask what really matters. This push for deeper, more critical stories through data analyses has implications for funders, reviewers, editors as well as those directly involved in partnering. Justice-centered work requires a vulnerability of all stakeholders to share what was learned when the equity mark was missed or to underscore the magnitude of what is left to do. Justice-centered work also requires the vulnerability of those in positions of power such as university leadership or journal editors to admit that practices that recognize a narrow definition of accomplishment limit understanding and progress and courageously challenge and change the taken-for-granted norms that they themselves have effectively benefitted from.

3 | TOWARDS A PARTNERING FOR JUSTICE-CENTERED EPISTEMOLOGY

Together these authors share core overlapping tenets with other critical scholars that could be considered a partnering for justice epistemology. Research is only one aspect of partnering work and, arguably, not the primary aim. Just, joy-filled, expansive science education is the primary aim. Partnering toward this aim involves so many different aspects of work that can include but is not limited to research: relationship-building, instructional design, data analyses, and recognition work. Too often, research, narrowly defined, is over-prioritized in both the name and description of partnering work, thus nurturing a misconception that research findings are the ultimate goal. San Pedro and Kinloch (2017) draw from humanizing research to challenge traditional conceptions of educational research. They offer “Projects in Humanization” as an alternative name and frame that better aligns with the priorities and practices of partnering for justice work:

Projects in Humanization center the daily experiences (e.g., storytelling, story gathering, relationship building, reciprocal engagements) we have with people in ways that, on the one hand, emphasize our shared desires for racial, linguistic, educational, political, and social justice in schools and communities and, on the other hand, emphasize those same desires in our professional and personal lives. (San Pedro & Kinloch, 2017; p. 3748).

Projects in Humanization value and honor many of the same priorities foregrounded by the authors of this paper set as essential for partnering for justice, including the need for multiple perspectives, vulnerability, co-constructing knowledge, agency, and listening and learning from one another (Kinloch, 2015).

If we were to choose a name for a partnering epistemology that intentionally includes and orders words, we might create JCUP-SE: Justice-centered Community–University Partnering in and through Science Education. “Justice-centered” fundamentally changes and shapes partnering work by centering equity while consciously distancing ourselves from the intrusive, extractive, and exploitative manner typical of university engagement. “Community” comes before “university” as a way to prioritize local and flatten power hierarchies. Finally, “in and through science education” acknowledges the unique positionalities, responsibilities, and core challenges of science education as a place of and for equity. Core tenets that cut across the papers include:

- *Relationships are the power* of partnering—we need each other, who is (and is not) in the room, and how we are in a relationship with each other matters. “At the core are the reciprocal relationships that get built in the moments of togetherness partners have with one another. Clustered within these reciprocal relationships are two parts. One is building relationships with people over time so that we can trust each other and understand each other's priorities, principles, and commitments. The second is to be understanding and adaptable to each other's institutional constraints, pressures, and opportunities” (Cheuk & Morales-Doyle, 2022; p. 1199).
- *Holistic partnering* is site of authentic care. Like holistic pedagogy (Burgess & Patterson Williams, 2022; Patterson & Gray, 2019) and holistic advising (Dodo Seriki & McDonald, 2022; Suárez & Beatty, 2022), holistic partnering acknowledges, celebrates, and honors the beauty and needs of the humans involved. “Authentic care is about caring for students as humans—valuing their full humanity. This is true for partnership work too. We have to practice authentic caring in partnerships. We can't just value partners for their measurable contributions to the work, but we have to care for each other as humans” (Cheuk & Morales-Doyle, 2022; p. 2204).
- *Intentionality and vigilance* are required for redistributing power. Kang and González-Howard (2022) remind us that “human relationships are inevitably shaped by histories of race and differential power that set the stage for partnership formation. From this perspective, it is crucial to consider the various identity markers (such as race, ethnicity, gender, language, etc.), as well as the status and positionality of the researcher and “the researched” who become involved in a school–university partnership” (p. 1181). All three papers argue for vigilance in examining the ways in which our partnering either “maintains or disrupts ... normative hierarchically powered decision making in local contexts” (p. 1181).
- *Role remediation and role fluidity* are required for partners. All partners must be learners and teachers. Academics, as those perceived to have power, have unique responsibilities: “we have to enter these partnerships with humility, honesty, and integrity—conscious of our positionality as academics” (Tolbert et al., 2018). We have to find creative ways to flatten those uneven power relations and secure resources for smaller organizations and schools” (Cheuk & Morales-Doyle, 2022; p. 1205).
- *Recognition work* is how particular aspects of participation are reified and integrated into identities and memories that carry forward particular interpretations of project experiences, shaping and potentially empowering future experiences. The ways experiences and impacts of partnering are interpreted, the people with whom the results are shared, and the formats used to share these outcomes all require intentionality and vigilance related to power. “What many well-meaning statisticians forget is that there are humans behind each and every number or datum, and as soon as data are aggregated, humanity and identity can be lost” (Santos & Scipio, 2022; p. 1224).
- *Science and social are inseparable*. Science plays important roles in society that can be both productive and problematic. For science as a discourse to be an agent of equity and social justice, it must be a site of inquiry,



open to critique and transformation. One core challenge of traditional science education centers on the fact that scientific phenomena must be engaged with as situated in sociopolitical contexts; science education for justice must merge the study of science and social.... We can no longer “just teach biology” (Horton & Freire, 1990 as cited in Cheuk & Morales-Doyle, 2022).

A set of tenets such as these can serve as an organizational structure to explain, explore, and expand various partnering projects and practices. Our various partnering projects can, in turn, continue to shape the tenets of a justice-centered partnering epistemology.

4 | POSITIONALITY AND ACKNOWLEDGMENTS

These core tenets resonate strongly with my own lessons learned from justice-centered partnering projects in and through science education. As a humble and grateful partner in long-term projects in my communities for the past 20 years, my partners have taught me many particular lessons about JCUP-SE that align with these tenets. I have learned that partnering can begin with a small number of people who draw on and draw in their institutions. I have learned that places of partnering matter, as physical places are both teachers of histories and culture. Places also mediate relationships that position some as learners and others as experts. I have learned that recognition work is the core of equity work, for adults as much as for youth. I have learned that the science that gets done is inextricably linked to the people who conduct it and the context in which it is conducted. I have learned that social concerns (e.g., “You are not alone: the science of teen depression,” Science STARS, 2014) draw people to science and motivate conversations about science among diverse stakeholders. I have learned that the activity structures that are sustained through multiple iterations of a project can hold space for intentionally different ways of being with each other. I have learned that social transformation can happen through science, and when it does, it fills the room with joy that radiates outward into society and forwards into futures!

More specifically, I learned that nothing important happens without snacks (holistic partnering). I learned that small beginnings with colleagues I care about can lead to transformative, long-term impacts (relationships as the power of partnering). I have learned that kids are passionate; this passion serves as the best starting place for project design (science and social as inseparable). From my girls in the afterschool club, I have learned that science is not immune to the power dynamics of society who passionately argued to do science without boys so they could take on leadership roles (science and social are inseparable). Like Daniel Morales-Doyle (Cheuk & Morales-Doyle, 2022), I have come to expect to carry ladders, buy crickets weekly to feed frogs, and be suspected of growing marijuana because of my hydroponic purchases (role-remediation and fluidity). I have learned that the invitation list for the public showcase best includes the significant narrators (those whose opinions mean the most, Sfard & Prusak, 2005) for all those in the room (intentionality). Relatedly, I invite the press to each showcase (recognition work). I have learned that the best place to hold a final project debrief is at a favorite *local* restaurant (intentionality and vigilance, structures, holistic partnering). I learned the importance of committing to buying t-shirts for every *body* (holistic partnering). I have learned that the “What is science to STARS?” chant and “I have a recognition y’all” have become predictable and public programmatic structures that invite diverse partners’ stories of impact (intentionality, recognition work).

No doubt, I have much more to learn. As I finish this essay, the *nerva-sitedness* (a combination of nervousness and excitement, my daughter’s word) of a new community partnership fills my thoughts and imaginings. Responding to a number of shifting circumstances, I found myself needing to build a new partnering project with a new principal and community at a school where I had partnered in the past. When key stakeholders remain in their positions, partnering projects often need only to be renewed and refined. However, with new core stakeholders like in this case, all aspects of partnering work must be negotiated, beginning with the question, “What do you need and want from us?”

As a teacher educator committed to justice-centered ambitious science teaching (JuST), I am deeply aware of my need for partnering work. Everything I have learned about JuST practice over my relatively long career, I have learned from and with the youth, families, teachers, administrators, and others who have patiently redirected me, inspired me, worked with me, failed with me, and celebrated with me. The diverse experiences I have had, though varied, deep-seated, and valuable, are limited and will always be limited. There is never a time when any of us have lived or learned enough; the JuST work we are called to requires partnering. The complexity and intensity of understanding and addressing deep-seated injustices requires partnering. Practicing vigilance toward power and care to repair and not perpetuate harm requires partnering. Maintaining a commitment to realizing hope-filled futures for youth of Color requires partnering. As I start this new justice-centered afterschool science club focused on urban reforestation in response to local reporter Justin Murphy's (2022) call for equity, "Rochester's trees are celebrated, but not everyone gets to have their time in the shade," I have many questions: How can I use what I've learned while humbly staying open to new and better ways of partnering? How will we work together to center the lives, goals, and experiences of this new particular group of youth, none of whom I have yet met? How do I open channels of communication that position my graduate students and me as ongoing learners of a community that is relatively new to us in ways that we own the bulk of the labor? There is much more to learn. And there is no better or more joy-filled way to learn than together.

I am so very grateful to each and all of the authors of this paper set for partnering with me on this project. I am inspired by your honest, brave, grounded, and insightful reflections on JCUP in and through science education. You have shaped the ways I see and engage in my own work; you have fueled my passion to argue for the changes you have identified as necessary steps, and you have amplified my hope of realizing equitable, transformational outcomes through partnering. Thank you to Brian Williams and John Settlage who modeled each of these justice-centered partnering tenets in your leadership of the NSF-funded project that motivated and allowed us to engage in this unique partnering work. You have shown us by example how to partner in justice-centering ways and works, and you have given us the opportunity to experience the joy that comes from investing in the work.

5 | CONCLUSION

JCUP in and through science education involves creating spaces of joy and belonging in science classrooms and with members of our communities, being fully in the storied places that matter to the youth we serve. It means sharing a vision, sharing the load, and enjoying the relationships. Cheuk & Morales-Doyle, (2022) describe the work of partnering for justice in a way that I will hold onto for all projects moving forward: "partnering offers a series of opportunities for learning and growing, (authentic) caring for one another, and building solidarity spaces together" (p. 1200).

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CONFLICT OF INTEREST

The author declares no conflict of interest.

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