

The CPED Framework as a Network-Level Signature Pedagogy:

Who Frames PoPs and Which Frames Count?

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ABSTRACT

The CPED Framework (CPED, 2022) envisions the EdD as a professionally-oriented alternative to the PhD. Within the framework, two professional aims are proposed: stewardship and scholarly practice. In this essay, I distinguish between the two terms, exploring how Erving Goffman's (1986) concept of frame analysis can be a useful approach to stewardship. I contrast Goffman's (1986) approach with that of frame alignment (Snow et al., 1986), noting that frames are useful for clarifying the improvement efforts of scholarly practice while also putting those who use them at risk of encapsulation. I explore how the signature pedagogy of the CPED Framework itself is such a frame. I hope this essay will be useful for faculty in CPED-informed programs designing courses to balance the dual development of scholarly practice and stewardship, and that it will be useful for CPED-informed EdD candidates integrating multiple frames into the definition and solution of PoPs.

KEYWORDS

Signature Pedagogy, framework development, frame analysis, transformation, stewardship

INTRODUCTION

In this essay, I consider the Carnegie Project on the Education Doctorate (CPED) Framework (CPED, 2022) as a signature pedagogy that guides EdD programs in the preparation of two professional identities: scholarly practitioners and stewards of the profession. These two identities balance the orientation of the EdD between technical improvement on the one hand and the discernment of intentionality on the other. My purpose in this essay is to explore the complexity of the interaction between these two identities, both in terms of how they structure the signature of the CPED pedagogy and in terms of how they integrate multiple frames brought to bear on naming and solving problems of practice (PoP) within the field of education more broadly.

By way of introduction, I lay out my intentions for using Erving Goffman's (1986) concept of frame analysis to contribute to what it means to frame a PoP within the CPED community. I outline how the CPED Framework (CPED, 2022) itself generates a constellation of frames that shape the perceptions of CPED-informed EdD graduates, and I explore the potential of these frames as organizational tools as well as the danger they pose of encapsulating those who utilize them within their logic.

Near the end of the essay, I clarify two approaches (frame alignment and frame analysis) to understanding the culminating project of the CPED-informed EdD: the dissertation in practice (DiP). I conclude by looking both inwards at the CPED Framework itself and also outwards towards the PoPs that EdD candidates engage in their DiP endeavors. Based on the argument constructed over the course of this essay, I situate frame alignment as an activity of scholarly practice and frame analysis as an activity of stewardship.

INTENDED SIGNIFICANCE OF THE ESSAY

The CPED Framework seeks to differentiate the signature pedagogy of the EdD in education from that of the PhD in education by orienting the CPED-informed EdD to active engagement in the leadership and practice of education. There has been a vigorous debate within the CPED community about whether or not the signature pedagogy of the EdD should include writing a dissertation. This debate culminated in the decision to modify the traditional dissertation of the PhD into a form referred to as a DiP (Perry et al., 2020). In the years since this decision was made, there has been much debate about how the DiP should be structured and how it should be different from the conventional dissertation written by PhD students.

A prevalent feature of the conventional dissertation written by PhD candidates is the organization of the scholarship around a single frame: specifically, a single theoretical or conceptual framework (Lincoln & Guba, 1989). The adoption of this single frame in the conventional PhD dissertation is often unproblematized. To one degree or another, it is expected that PhD candidates will specialize academically and follow the theoretical commitments that they lay down in their dissertations throughout their careers. As a part of the conventional dissertation writing process, PhD candidates learn to identify gaps in the existing literature base of a particular theoretical frame. This process situates the assumptions of the chosen theoretical frame deeply within the PhD candidates' approach to research practice.

In the EdD, by contrast, the situation of an inquiry within a single frame is problematic, and it is expected that students' selection of the frames they use will be responsive to the



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environments in which they work, engaging in field-based opportunities to name PoPs and employing multiple frames to frame and solve those PoPs. This makes the commitment to a single frame untenable. Schwab (1978) argues that a single theoretical frame is, by the very nature of its reductive function, incapable of sufficiently capturing the complexity of practice to guide practical action meaningfully. Schwab's (1978) thinking on this matter is highly pertinent to the CPED Framework through his influence on Lee Shulman, the teacher (and director emeritus) of the CPED community (CPED, 2009).

In this essay, I explore, in particular, the responsibility that the CPED community undertakes when we *frame* PoPs. I seek to emphasize that a certain situation can be framed either as problematic or as solvent depending on the frame utilized. Given this, it is part of our responsibility in writing and advising DiPs to ensure that our activity doesn't restrict who frames the PoPs around which DiPs are organized or which frames count. To articulate and explore this concern, I adopt the language of Erving Goffman (1986).

UNDERSTANDING THE FRAMES OF A DIP THROUGH GOFFMAN'S FRAME ANALYSIS

According to Goffman (1986), frame analysis involves identifying which primary frames are keyed to transform the meaningfulness of strips of activity. By frame, Goffman (1986) refers to how we view the world in ways that allow us to communicate with others and engage in collective action. A frame is a social affordance that serves as an intersection of similar perspectives, allowing for the co-construction and discussion of meaning within a shared culture. Keyed transformations, by contrast, are interpretations of the meaning of what Goffman (1986) calls untransformed strips of activity through reference to a primary frame or, in the case of rekeying, in reference to a previously keyed transformation of a primary frame. In less technical language, Goffman (1986) is asserting that when we try to make sense of the perceptions our senses provide us, we key a kind of pre-constructed schema or frame, which provides the context through which we transform our raw experience into something meaningful, both to ourselves and to those who share our experience.

Goffman (1986) refers to the empirical world itself, prior to the meaning we make of our perceptions of it, as *untransformed strips of activity*. For example, consider the utterance /ou/ /h/ /aɪ/ /ou/ as an untransformed strip of activity. This utterance involves air moving over vocal cords, which produces a sound that is then modulated into vocalizations through the contortion of the oral cavity into shapes of various dimensions. This utterance only takes on its socially held meaning as an informal greeting used in the morning (i.e., tid t = 3) when the frame of the Japanese language is keyed to transform the meaning of the strip of activity in a certain way. If the frame of the English language is keyed instead, the meaningfulness of the utterance is likely to be transformed to refer to one of the 50 states within the United States of America, namely Ohio.

Strips of untransformed activity are impossible to perceive directly because, by perceiving them, we transform them with whatever primary frames we key in order to make sense of our perceptions. What we can do is triangulate our awareness of how untransformed strips of activity can be variously framed, thus giving us more nuanced understandings of the underlying strip of activity. This is the purpose of Goffman's (1986) frame analysis. Keying one primary frame versus another transforms the socially held meaning of the strip of activity as well as the perspectives of those making meaning of that strip. Goffman (1986) introduces the term *lamination* to describe the layering of various frames that transform strips of activity in various ways. To draw on an example of language that can be understood through two laminated primary frames, consider the pun, "To the person who invented zero, thanks for nothing". One of the frames of this pun is rooted in the literal meaning of the sentence and the other rooted in the figure of speech *thanks for nothing*, hence the humor.

THE ROLE OF FRAME ANALYSIS IN THE CPED FRAMEWORK

In terms of how the CPED Framework organizes the inquiry of a DiP around a PoP, I noted earlier that Schwab (1978) argues against situating practical decisions within a single theoretical frame. Using the terminology of Goffman's (1986) frame analysis, Schwab (1978) is arguing for laminating multiple frames in order to understand PoPs in their full complexity. For EdD students, it is necessary to consider that the frames we key when transforming the meaningfulness of strips of activity matter to the stakeholders in the situations we engage in our DiP endeavors. Depending on the frame that is keyed, a strip of activity that represents one person's solution may very well be transformed into another person's problem or vice versa. In any situation where diversity is present, it is vital to be aware of the various frames being keyed to transform our collaborative interaction with strips of activity.

While some frames may be more relevant personally to our individual primary identifications than others, viewed broadly from the perspective of social justice (a pervasive element of the CPED Framework), no one frame is more legitimate in transforming the meaning of strips of activity than others; rather, each frame offers another lamination of enriching complexity to the of stewardship that CPED-informed EdD students learn to uphold. Learning to integrate multiple laminations when naming and framing a PoP can help EdD students transcend the factionalism of academic specialization in order to find meaningful solutions that appeal to the broad interests of diverse stakeholders.

I noted above that the legitimacy of frames cannot be compared, but this does not mean that all frames carry the same weight; some frames have more integrity than others. By this, I mean that all frames are incomplete forms of representation that both conceal and reveal aspects of that which they represent (Eisner, 1994). As other frames are laminated onto our emergent understandings, the meaningfulness of some frames is enriched, while the meaningfulness of others disintegrates. Goffman (1986) notes a particular type of truncated, incomplete frame, which he calls a fabrication. According to Goffman (1986), fabrications have been constructed with the intent to deceive some stakeholders in order to benefit others. The performance of magic tricks is an innocuous form of fabrication (Goffman, 1986), while the perpetuation of racism and other forms of oppressive social organization are pernicious forms of fabrication. Fabrications, by their very nature, lack integrity to a substantial degree as they are perpetuated by keeping certain aspects out-of-frame and imperceptible; the meaningfulness of fabrications tends to disintegrate entirely when out-of-frame facts are laminated on. For EdD students, an increased ability to discern fabrications seems likely to be one of the benefits of learning to laminate multiple frames when naming and framing PoPs.

The view of legitimacy and integrity expressed here raises an important point about how we can fully engage the social justice involved in the lamination of various keyed frames that transform strips of activity into PoPs and potential solutions. According to this view, the value of social justice that is embedded into the CPED Framework cannot be realized simply by claiming to champion a population that is under-represented in the success criterion of a single frame. Instead, we must examine who is empowered by DiP endeavors to key the frames by which PoPs are identified; we must also ask whether or not this empowerment is equitably distributed.

DEFINING A SIGNATURE PEDAGOGY

The view of social justice introduced in the previous section raises several key considerations about the nature of the signature pedagogy of the CPED Framework. Lee Shulman (2005) defines a signature pedagogy in the context of professional education for practitioners from a wide variety of sectors. In his introduction of the concept, Shulman (2005) explicitly considers the professional education of lawyers, engineers, designers, physicians, scientists, and members of the clergy, with a focus specifically on their preservice forms of education. Shulman (2005) also generalizes the concept to any professional education that "bridges theory and practice" (p. 56). Shulman (2005) notes that such education is never simple but rather is manifested in "highly complex performances of observation and analysis, reading and interpretation, question and answer, conjecture and refutation, proposal and response, problem and hypothesis, query and evidence, individual invention and collective deliberation" (p. 56).

The signature of a pedagogy is a kind of frame itself that shapes how practitioners engage their field. This frame is then keyed each time a practitioner encounters strips of activity in their practice. In terms of the signature of the pedagogy fostered by CPED Framework, students learn to organize their inquiry around naming, framing, and solving PoPs. As the CPED-informed EdD both engenders a particular frame of reference into the perceptions of its graduates and grants those graduates the rights and privileges that accompany holding a doctoral degree, it is imperative that CPEDinformed EdD students develop an awareness of and cultural humility (Tervalon & Murray-Garcia, 1998) regarding the frames of the network-level signature pedagogy of the CPED Framework itself. This signature pedagogy will influence their professional formation, judgment, and perception moving forward in their careers as educational leaders.

THE FRAMES OF THE HEART, HAND, AND MIND

Shulman (2005) lists three primary frames to consider when examining how a signature pedagogy transforms the perceptions and judgment of students. These three frames have been integrated into the CPED Framework. Shulman (2005) calls these the frames of the heart, hand, and mind. In other words, signature pedagogies cause us to consider: (1) our heart, which refers to the ethos we bring to our practice and, transcending ourselves, the ethe we encounter in our practice, (2) our hand, which refers to the technical structure of our engagement in practice, and transcending ourselves, our commitments to the institutional logic that coordinates our efforts with the efforts of others, and (3) our mind, which refers to how we must learn to challenge the assumptions we have come to hold through our formal and informal participation in the education of our lives, and transcending ourselves, the various theoretical and sometimes disconcerting frames of academic scholarship. Each of these frames can support a transcendent understanding of the field of education, serving as a kind of library through which to access and organize generated knowledge. It is also possible that these frames can become culturally encapsulating (Huebner et al., 2020; Bergkamp & Ponsford, 2020), cutting off the possibility of complex understanding by confining the sense-making of our perceptions to a single frame.

The Frame of the Heart

The CPED-informed EdD program fosters the development of leaders within the field of education. Unlike the ideal of objective detachment that has been traditional in disciplinary scholarship, leadership requires direct personal, subjective engagement. This means that CPED-informed EdD students are expected to bring to bear on their studies what Phenix (1964) calls a synnoetic frame derived from their experience as a person interacting directly with others in the field of education. These synnoetic frames allow CPEDinformed EdD candidates to learn to be living bridges between theory and practice. At the same time, however, not every member of the education community will pursue an EdD; those who do represent a kind of elite as they are afforded the rights and privileges that accompany holding a doctorate. Thus, there is a responsibility for CPED-informed EdD students to come to know their own synnoetic frame explicitly and to understand how their personal experience and outlook will come to influence the field of education as a whole. Failure to become self-aware in this way represents a potential source of encapsulation.

The Frame of the Hand

CPED-informed EdD programs typically draw their students from a pool of candidates with several years of professional experience in the field as educators. This professional experience has formed a practical frame reliant on the specific institutional logic of the organizations from whence the population of EdD students is drawn. Through these practical frames, EdD students can both envision the complex nature of the PoPs they learn to identify and propose solutions that are compatible with the agency needed to carry those solutions out. At the same time, however, induction into the institutional logic of a professional workplace also represents another potential source of encapsulation that the EdD student must resist in structuring their DiP by adopting a critical stance.

The Frame of the Mind

As noted above, the conventional PhD is typically situated in a single frame, and the impetus towards mimicking the academic specialization endemic to the structure of the university is something that CPED-informed EdD programs intentionally push back on. The accumulated knowledge that has been rendered accessible through disciplinary inquiry represents a true treasure trove for the scholarly development of practitioners who undertake their doctoral studies in CPED-informed EdD programs. At the same time, however, academic specialization within a single theoretical frame represents one potential source of encapsulation that the CPED-informed EdD candidate must resist in structuring their DiPs.

FRAME ALIGNMENT VS FRAME ANALYSIS: TWO CONTRASTING APPROACHES TO STRUCTURING A DIP

In this essay, I am not arguing that routinizing the program design of the EdD through the CPED Framework into the established habits of the heart, hand, and mind will result in encapsulation, but I do think we must be aware of the risk that this may occur and take intentional steps to counter that risk. As Shulman (2005) writes:

[E]veryone understands the danger of routine, but routine also has great virtues. Learning to do complex things in a routine manner permits both students and teachers to spend far less time figuring out the rules of engagement, thereby enabling them to focus on increasingly complex subject matter (p. 56).

Shulman (2005) also notes that while ideal signature pedagogies encompass the frames of the mind, hand, and heart; in practice, it is easy for at least one of these frames to be neglected in program design.

As the CPED Initiative moves forward in its development and discussion, the various tensions between the frames of the heart, hand, and mind will continue to influence the various considerations that go into designing CPED-informed EdD programs. One approach is to design the program in such a way as to bring the various aspects of the CPED Framework into what is described by Snow et al. (1986) as frame alignment. Pape et al. (2022) describe an effort in their program to align the frames of the mind and of the heart to the frame of the hand. This is accomplished through an institutional requirement that "students identify an Executive Sponsor within their organization" (p. 60) when proposing a PoP as part of their admission into the program. The Executive Sponsor promotes frame alignment by ensuring "that the PoP matched the concerns of the organization" (p. 60). The Executive Sponsor requirement also helps "the student in navigating organizational barriers... [and ensures] the support of the organization" (p. 60).

Frame alignment is powerful approach to program design, but vigilance is necessary. When we seek to align conflicting frames, we risk subordinating one to the other. For example, in the approach described by Pape et al. (2022), the ultimate power to frame PoPs is granted to the executive branch of partnering institutions (the frame of the hand), which raises the risk that the EdD candidate will become encapsulated in that frame. In addition to an impetus towards frame alignment, I think there is also value in exploring how various frames laminated onto the same strips of activity can key situational interpretations that diverge and conflict in their meaningfulness.

Frame alignment allows for CPED-informed EdD students to focus primarily on improving a situation. This means there is a clear normative framework within which improvement can be measured. I believe we must ask who is empowered to key this normative framework. The frame analysis approach described in this essay is a tool that can be used to do so as it allows for CPED-informed EdD students to focus primarily on discerning what normative interpretations are at play (or to use Goffman's (1986) terminology – what frames are being laminated within a situation.

LOOKING INWARD

I began this essay by describing the CPED Framework as a network-level signature pedagogy. According to Shulman (2005),

who coined the idea of a signature pedagogy, the signature of a profession's pedagogy is the frame that it instills into the profession's practitioners. This frame is not dogmatic or static, but rather is generated in part by the students themselves as they interact with the architecture of their education (Wenger-Trayner & Wenger-Trayner, 2015). As the CPED Initiative expands the meaning of what the doctorate of education encompasses, practitioners of an expanding number of professions are being enfranchised through the engagement with scholarship that the CPED-informed EdD entails. Each of these professions represents a unique frame that keys the meaningfulness of the various strips of activity in which EdD students engage in myriad ways.

As we, the CPED community, continue to discuss and develop the CPED Framework, I am sure that a variety of alignments will emerge and shift over time. As our scope expands, the tensions and frictions generated by multiple frames will sometimes feed the impetus toward frame alignment. By contrast, when frame alignment becomes reductive and exclusionary, it will again be time to recommit to frame analysis. Reviewing the discussion and development of the CPED Framework over the past decade and a half already provides evidence that this type of pendulum swing has already begun to occur in various ways. I hope that the frame analysis approach that I have described in this essay will also contribute to the forward discussion and development of CPED Framework, giving us ways of seeing how a strip of activity framed as a PoP for one member of the network might be framed as a cherished solution for another member of the network. In promoting diversity within the CPED Framework as well as alignment, I wanted to offer the following way of thinking about the various signatures of CPED-informed pedagogies.

We can think of the CPED Framework as a signature pedagogy at a network level. Within that network, there are many different programs, and each program laminates its own signature to the overarching pedagogy of the CPED Initiative. The frames imputed by these various signatures differ, keying the strips of activity by which EdD students engage in the common elements of the CPED Framework to slightly different tunes of meaningfulness. Zooming in further, the individual professors within the programs and the students they interact with also laminate on further signatures to the pedagogy of the CPED Initiative. Thus, depending on the level of specificity with which we view the CPED Initiative, it can be conceived of as both a unified whole representing a normative framework within which improvements can be made as well as a dynamic field of conflicting and complementary frames in productive tension with each other through which we can discern deeper understandings about the field of education as a whole. For an image of how to hold both ideas in mind at once, consider looking at the unified object you might perceive as a single droplet of river water when you view it through the naked eye (a lower level of specification); now, imagine the diversity of microscopic life you might find when viewing that same droplet through a microscope (a higher level of specification).

The view of signature pedagogies I am suggesting here, with this function of levels of specification, is similar to the hierarchical organization of analysis found in ecology, with each level of analysis constituting a component unit of a more abstract level (Pavé, 2006). For example, in ecology, the community is a component unit of the landscape, while populations are a component unit of communities, organisms are a component unit of populations, and so forth. Evans (1956) argues that the ecosystem be considered the basic unit of ecological analysis. "In any given case, the particular level on which the ecosystem is being studied can be specified with a qualifying adjective-for example, community ecosystem, population ecosystem, and so forth" (p. 1127). This is the treatment I propose we apply to signature pedagogies and frames when discussing the development of the CPED initiative and when analyzing PoPs in order to capture their varied, ecological nature.

In the case of signature pedagogies, the hierarchy of organization I am suggesting can be thought of as follows: professors advise committees and design courses (advisor-level), courses are integrated into a course of study (course-level), the course of study is institutionalized over time into a program (program-level), and programs network with each other (networklevel). At each level, the organizing unit (advisor, course, program, network, etc.) leaves a signature upon the pedagogy generated and another lamination of meaningfulness. As Shulman (2005) notes in the article in which he coined the term, "signature pedagogies are both pervasive and routine, cutting across topics and courses, programs and institutions" (p. 56).

LOOKING OUTWARD

As noted at the beginning of the paper, the CPED Framework fosters both an identity of scholarly practice and of stewardship through a focus on using multiple frames and on solving PoPs. For programs or students that primarily adopt a frame analysis approach to structuring DiPs, it is necessary to consider how an element of frame alignment can be laminated in. Welch (2013) elaborates on an intriguing design for accomplishing this, using "yes" to affirm the concerns of the teachers she leads and discern the various frames in play while using "and" to laminate them. Welch (2013) reserves the act of frame alignment for after this "yes, and" process and attributes it to the leadership of generating a consonance of frame. Similarly, for programs or students that primarily adopt a frame alignment approach to structuring DiPs, it is necessary to consider how an element of frame analysis can be laminated in. For example, I used the program design described by Pape et al. (2022) to highlight the frame alignment approach above. At the same time, however, the discipline of improvement science around which they construct their program design does laminate in an opportunity for EdD candidates to engage in frame analysis under its third core principle: "see the system that produces the current outcomes" (CFAT, 2023).

As students in CPED-informed EdD programs enter the candidacy phase of their studies, they will have proposed a PoP. Whether they choose a frame alignment approach or a frame analysis approach, the hierarchy of organization I suggest above is likely to be useful. As we look outwards from the CPED Initiative into the PoPs situated in this variety of fields, we might do well to consider organizations similarly to how I presented the network-level signature pedagogy of the CPED Framework above - namely, as complex and conflicted spaces that have multiple laminated frames at various levels of specificity, each of which informs how the organization as a whole understands itself. Just as I suggested we describe the various signatures of the pedagogy of the CPED Framework by the multiple levels at which those signatures are generated, EdD candidates can do the same for the frames they identify in the PoPs they frame in their DiP endeavors.

To the extent that the organizations or initiatives we engage with can be considered unified wholes, there will be some aspects in which the frames and the signatures of a pedagogy we take note of align, allowing for improvement to be measured within a single frame. At the same time, there will also be aspects in which these frames and signatures diverge, meaning that we must analyze the field to discern how the various laminated frames interact and produce emergent, and perhaps unexpected outcomes.

CONCLUSION

My hope is that this essay will contribute to the considerations available to EdD candidates grappling with how to "blend practical wisdom with professional skills to name, frame, and solve problems of practice" (CPED, 2022., para no. 7) while also upholding the responsibilities of stewards of the field of education by engaging in "field-based opportunities to analyze problems of practice and use multiple frames to develop meaningful solutions." (CPED, 2022., para no. 5).

I see frame alignment as situated within the identity of scholarly practice. A scholarly practitioner understands how the frames that have been laminated onto a strip of activity align and can use this understanding to chart a course towards improvement. By contrast, I see frame analysis as situated within the identity of stewardship. A steward understands how a variety of frames can structure the meaningfulness of a single strip of activity in radically different ways and can use this understanding to help stakeholders discern each other's intentions more clearly.

In other words, sometimes, it will be important for EdD candidates to lean into their roles as scholarly practitioners, stepping in to engage deeply with promoting an alignment of frames toward a specific goal, and sometimes it will be important for EdD candidates to take the broad view in their roles as stewards (Perry, 2013), stepping back to consider how the ecology of the field as a whole is interacting towards emergent patterns of its own.

REFERENCES

- Bergkamp, J., & Ponsford, M. (2020). Cultural encapsulation. In B. Carducci, C. Nave, J. Mio, & R. Riggio (Eds.) *The Wiley encyclopedia of personality* and individual differences: Clinical, applied, and cross-cultural research. (pp. 239-241) John Wiley & Sons, Ltd.
- Carnegie Foundation for the Advancement of Teaching (CFAT). (2023). The six core principles of improvement. Retrieved July 20, 2023, https://www.carnegiefoundation.org/our-ideas/six-core-principlesimprovement/
- Carnegie Project on the Education Doctorate (CPED). (2022). The CPED framework. Retrieved July 20, 2023, https://www.cpedinitiative.org/theframework
- Eisner, E. W. (1994). Cognition and curriculum reconsidered / Elliot W. Eisner (2nd ed.). Teachers College Press.
- Evans, F. C. (1956). Ecosystem as the basic unit in ecology. *Science*, 123(3208), 1127–1128. https://doi.org/10.1126/science.123.3208.1127
- Goffman, E. (1986). Frame analysis: An essay on the organization of experience. Northeastern University Press
- Guba, E. G., & Lincoln, Y. S. (1989). Fourth generation evaluation. Sage.
- Huebner, D., Hillis, V., & Pinar, W. F. (2012). *The lure of the transcendent: Collected essays by Dwayne E. Huebner.* Routledge.
- Pape, S. J., Bryant, C. L., JohnBull, R. M., & Karp, K. S. (2022). Improvement science as a frame for the dissertation in practice: The Johns Hopkins experience. *Impacting Education: Journal on Transforming Professional Practice*, 7(1), 59–66. https://eric.ed.gov/?id=EJ1331739
- Pavé, A. (2006). Biological and ecological systems hierarchical organisation. In *Hierarchy in natural and social sciences* (pp. 39-70). Springer.

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- Perry, J.A. (2013). Introduction: Developing stewards of practice. In J.A. Perry, & D.L. Carlson, (Eds.), *In their own words: A journey to the stewardship* of the practice in education. (pp. 1-14) IAP.
- Perry, J. A., Zambo, D., & Crow, R. (2020). The improvement science dissertation in practice: A guide for faculty, committee members, and their students. Myers Education Press.
- Phenix, P. H. (1964). Realms of meaning; a philosophy of the curriculum for general education. McGraw-Hill.
- Schwab, J. J. (1978). Science, curriculum, and liberal education: Selected essays. University of Chicago Press.
- Shulman, L. S. (2005). Signature pedagogies in the professions. *Daedalus*, 134(3), 52–59. https://www.jstor.org/stable/20027998
- Snow, D. A., Rochford Jr, E. B., Worden, S. K., & Benford, R. D. (1986). Frame alignment processes, micromobilization, and movement participation. *American sociological review*, 464–481. https://doi.org/10.2307/2095581
- Tervalon, M., & Murray-Garcia, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved*, 9(2), 117–125. https://doi.org/10.1353/hpu.2010.0233
- Welch, O. M. (2013). Interrogating our practice: Enacting a "yes and" CPED agenda at Duquesne University. *Planning and Changing*, 44(3/4), 149– 161.
- Wenger-Trayner, E. Wenger-Trayner, B. (2015). Learning in a landscape of practice: A framework. In E. Wenger-Trayner, M. Fenton-O-Creavy, S. Hutchinson, C. Kubiak, & B. Wenger-Trayner (Eds.), Learning in landscapes of practice: Boundaries, identity, and knowledgeability in practice-based learning. Routledge.