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Moving graduate and professional education forward to develop leaders equipped to effectively address wicked problems

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Abstract
The modern era's wicked problems create an impending need to develop leaders through graduate education, professional degree programs, and campus-wide efforts. Shifts to leadership-as-practice and an eco-leadership discourse may help transform leadership education and surface new signature pedagogies for the professions. How might the current reality drive leadership educators toward collaborative learning that aligns with these frameworks?

INTRODUCTION

Cassuto's (2015) *Graduate School Mess* challenged higher education professionals to reassess the purpose of graduate education. Are graduate education programs only preparing future faculty, or are there other career paths? This question is a point of contention for many graduate faculty and others around the world (Elliot et al., 2020; Yudkevich et al., 2020). To understand why, it is helpful to consider graduate education enrollment trends, professional aspirations, and the expanding role in professionalizing leadership.

TRENDS IN GRADUATE AND PROFESSIONAL EDUCATION

In recent years, academic institutions have dealt with recessions, job market fluctuations, and a global pandemic (Sage & Matteucci, 2022). The recession of the early 2000s brought challenges to the job market, which surfaced questions about the value of graduate and professional degrees. If the goal is to ensure graduates have jobs, and there are no jobs, what purpose remains? However, amidst difficult times, higher education has pushed back and broadened access, opportunity, and pathways to pursue an advanced

degree. As a result, the number of students applying to and enrolling in graduate programs has increased significantly (June, 2022). Following the 2008 recession, the number of students pursuing a PhD across the United States increased by nearly 40,000 students (Statista, 2020). Fundamental to this process, though, is the bounds that tradition sets on student expectations. Reflecting on the past century, Cassuto (2015) remarked that little—if anything—has changed in the "familiar structure of graduate education" (p. 132). Even still, the varying criteria for what equals a dissertation among the disciplines has only further extended the criticism of graduate education (Loss & Ryan, 2017).

In *The Formation of Scholars*, Walker et al. (2009) proposed that graduate educators rely on a more progressive strategy for development, integration, and collaboration—words faculty often recognize in higher education but have difficulty putting into action. Additionally, they argue for a community-based model of graduate education, whereby students are exposed to and taught by several faculty instead of the traditional model of a singular faculty influence. These emerging and innovative strategies are already being demonstrated in many programs around the world (Boyd et al., 2019). However, even as new models of leadership education are implemented, the same kinds of questions still exist: What does it mean to develop an individual's leadership capacity, and how does that translate into academic and scholarly pursuits?

PREPARING GRADUATES FOR LEADERSHIP

In *Professionalizing Leadership*, Kellerman (2018) admonishes the "leadership industry" for failing to produce or prepare leaders for the societal challenges of today. Adding to the concern, higher education programs often fail to inspire the lifelong learning needed to meet the challenges of tomorrow (Weise, 2020). Indeed, the professional learning strategies required to address emerging challenges must leap beyond traditional, teacher-centered approaches. When disciplines use reality as a context for learning, they create space for adult learning through expertise, experience, and embeddedness (Kellerman, 2018). Furthermore, there is growing evidence that practices like team science are the future for developing collaborative work environments (Hall et al., 2018). How might faculty and administrators move such leadership learning into transformative graduate education?

The traditional view of academic work for the sake of advancing knowledge no longer holds; there are growing calls for what Hoffman (2021) has identified as *The Engaged Scholar*. The shift from status to impact has influenced many of the ways that scholars are developed today, including more attention to the transformative doctoral education model (Patterson et al., 2019). While leadership educators have long worked to transform society's workplaces, schools, and communities; they must reclaim higher education's purpose in leadership development (Guthrie & Osteen, 2016). Furthermore, what has worked in the context of undergraduate leadership development "may not cleanly translate to a graduate leadership program model" (Georges & Breen, 2016, p. 49). For many leadership educators, working with graduate and professional students presents a new challenge, in part because they must recognize and account for the developmental experiences of the learners. Werner explores this topic further within her article in this issue.

While all aspects of leadership education and leadership development remain important components, the emphasis in graduate education has slowly shifted to teams (Nguyen & Rowe, 2021). As noted by Onyura et al. (2019), "Leadership education needs to evolve to incorporate broader collective capacity building, as well as evidence-informed strategies for leadership development" (p. 133). Leadership educators cannot transform graduate and professional education without a clear focus on the skills and capacities that will

facilitate solving today's most pressing complex and wicked problems (Kawa et al., 2021; Onyura et al., 2019). Historically, many view science as an individual pursuit, but there is increasing recognition that today's problems cannot be solved with a singular scientific answer, and team science has become a priority for funding agencies. The *Collaboration and Team Science Field Guide* provides the basics for a scientist to acquaint oneself with teamwork in this context (Bennett et al., 2018). For leadership educators, though, the field guide provides a blueprint to create coursework and experiences that emphasize this growing need.

There is a growing trend to bring leadership learning to the forefront of academic programs; the technical skill base is no longer enough. Kellerman (2018) points to many disciplines that are expanding support to leadership learning, as well as institutions investing significant resources into leadership development programs. However, the caution of these programs—and their anticipation of transformation as a leader—is that this transformation cannot happen quickly or cheaply. Creation of meaningful leadership development experiences requires a long-term intentional and strategic process, and that task is best curated by professional leadership educators.

Too many times, leadership development is approached through a 2-day seminar lens. Decades ago, Townsend (2002) purported those one-shot programs add awareness but do not meet the standard for true behavior change. Even then, she showcased the value of long and sustained exposure to leadership concepts. The complexity of emotional intelligence, teamwork, and understanding the nuances of different situations requires equally complex instructional methods. Simulations and assessments are not easily conducted or debriefed, and they are often expensive to do well. Guthrie and Jenkins (2018) outlined the key elements of leadership education in their book, *The Role of Leadership Educators: Transforming Learning*. What was essential to this work was identifying a framework for leadership learning.

While much has already been written about the value and place of a coordinated and intentional leadership development strategy, the idea of transformative leadership education is still growing and developing. Many institutions are relying upon years of trial and error with leadership learning, which says much about the importance and value of that process. Guthrie and Jenkins (2018) outlined with great specificity the characteristics of these programs, and the notion was clear that there is something distinctive about quality leadership learning that is truly transformative.

With the growing sentiment that society is in fact in a leadership crisis, it is essential to empower academic programs to engage in leadership learning. Yet, with that empowerment comes the recognition that not all leadership learning is equal; it is not all transformative. If graduate education programs want to make a mark on the future of the professionals they graduate, leadership learning must have a seat at the table, as Gleason and Moss Breen found in the results of their focus group (see their article in this issue). Involving leadership development professionals will change the nature of graduate and professional education, but it will also create significant impacts on the way those graduates approach the work of the world. It is through these transformative leadership experiences that humanity will solve the world's most complex and challenging problems.

TACKLING WICKED PROBLEMS THROUGH LEADERSHIP EDUCATION

"We are, apparently, living in unprecedented times, an Age of Uncertainty, when wicked problems whirl all around" (Grint, 2022, p. 1). While Grint's elaboration on this observation casts some doubt on the "unprecedented" nature of current circumstances, he does

not dispute the need for focused attention on wicked problems. In a typology of problems, power, and authority (Figure 1), Grint (2008) distinguishes between critical, tame, and wicked problems. With increasing uncertainty about the solution to a problem, the problem moves from being categorized as critical, to tame, to wicked. In parallel, Grint (2008) argues the appropriate response is to shift from coercion (that is, hard power) to more normative and collaborative approaches (that is, soft power). And, it is in the uncertainty and "soft power" where leadership is found.

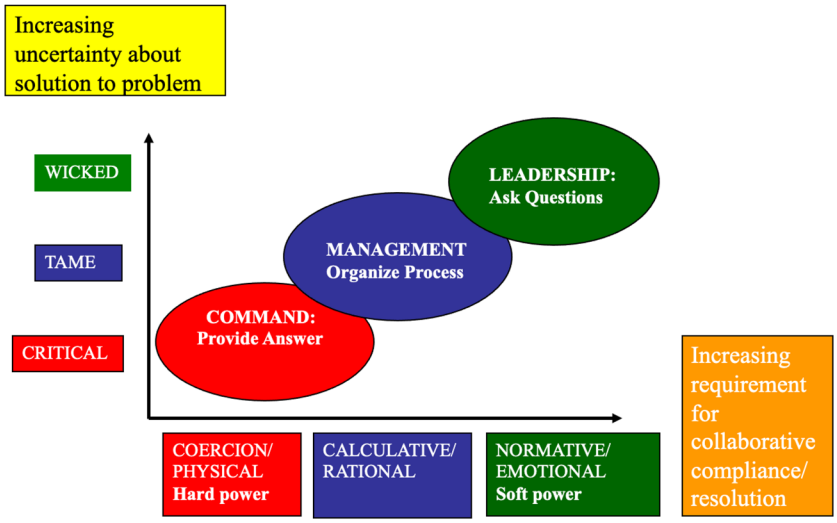

FIGURE 1 A Typology of problems, power, and authority. *Note*: From "Wicked problems and clumsy solutions: The role of leadership," by K. Grint, 2008, Clinical Leader, 1(2), p. 58. Copyright by Keith Grint. Reprinted with permission.

In the context of graduate and professional education, disciplinary knowledge typically falls within the realm of critical and tame problems. For example, when a trained healthcare professional interacts with a patient, they may be asked to eliminate the patient's pain. Acute pain is likely a critical problem that can be addressed with medication, and chronic pain may be a tame problem that can be addressed through therapy. In contrast, though, healthcare professionals must also respond to societal issues, like a global pandemic, which is fraught with wicked problems that are not so easy to solve. The environment is filled with wicked problems. "If humanity truly aspires to address the grand challenges of today and tomorrow, then graduate education must be redesigned" (Kawa et al., 2021, p. 1).

Regardless of whether someone wants to be identified as a leader and regardless of whether they have a degree in leadership studies, they are going to be asked and expected to engage in leadership—collaborative leadership that is characterized more by questions than answers. That is the inevitable fate of students in graduate and professional schools around the world. As a result, leadership education is needed now more than ever. Furthermore, because command approaches tend to be addictive, extra effort is needed to root leadership education in strategies for "persuading the collective to take responsibility for collective problems" (Grint, 2010, p. 306).

The 2022 crisis in Ukraine presents an insightful case study for those who may doubt the critical importance of access, opportunity, and necessity of broad engagement in collaborative leadership. At the time we are writing this manuscript, Russia has invaded Ukraine and many outcomes remain unknown. However, the Ukrainian president who rallied his

people began that work long before Russian troops crossed the Ukrainian border. In his 2019 inaugural address, President Zelenskyy (2019) proclaimed: "Each of us is the president…. This is not just mine; this is our common victory. And this is our common chance that we are responsible for together" (para. 1). As the crisis in Ukraine unfolded, people around the world compared "Two Men at War" (presidents Putin and Zelenskyy) and noted a potential shift in the collective understanding of effective leadership (Joseph, 2022).

While Zelenskyy's inauguration speech was met with some healthy skepticism, it reflects the sentiments of a modern leadership discourse, one that Western (2020) calls "eco-leadership." Based on a meta-analysis of leadership from historical, socio-political, and economic perspectives, Western (2019) identified four discourses of leadership during the past century: (a) controller, (b) therapist, (c) messiah, and (d) eco-leadership (Figure 2). The discourses name the major shifts in the aggregated understanding of what leadership is, and what a leader should be. The strength of the four discourses is that they offer historical and social context for various conceptualizations of leadership. Considering the potential application to higher education, Redekop and Schleifer (2017) noted that the eco-leadership paradigm "lays the groundwork for a general theory of leadership that is suited—and urgently needed—for our time" (p. 27).

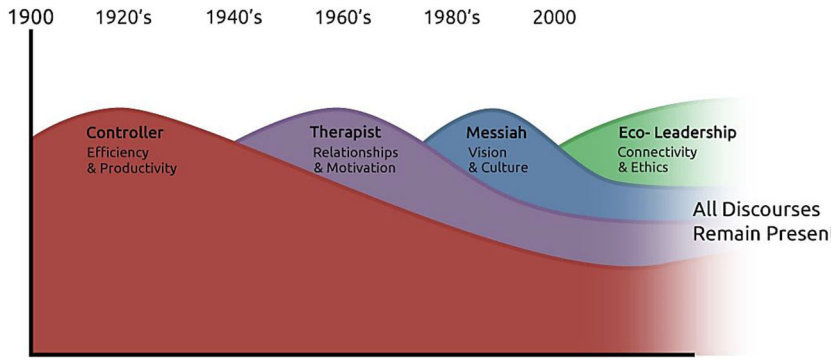

FIGURE 2 Discourses of leadership over time. *Note*: From the discourses of leadership by Simon Western (2015) (https://en.everybodywiki.com/File:Discourses_of_leadership.png). In the public domain.

The eco-leadership discourse holds promise for a wide variety of graduate and professional degree programs. While not every student needs to major in leadership studies, it is difficult to imagine an advanced degree that would not benefit from eco-leadership's focus on connectivity. In their article in this issue, Gigliotti and Spear share the importance of preparing students for a future of increasing uncertainty. In a poignant article on "Training Wicked Scientists for a World of Wicked Problems," Kawa et al. (2021) observed that expertise in a given field is no longer sufficient. Instead, scientists must be adept at collaborating with a broad range of stakeholders. The unique nature of wicked problems requires an adaptive approach, allowing for insight that emerges only through collective inquiry and engagement with the problem at hand (Hull et al., 2021). Accordingly, there is increased attention to leadership studies in professional schools, including programs for educating lawyers (Brogan, 2021), physicians (Stoller, 2020), business professionals (Sowcik & Allen, 2013), veterinarians (Elwood, 2021), religious professionals (Clark, 2021), engineers (Klassen et al., 2020), pharmacists (Reed et al., 2019), and dental professionals (Grocock, 2020). In their article within this issue, Lubker and Petrusa offer timely examples that illuminate how developing leaders in graduate and professional school settings is increasingly vital for the professional student. The common thread across all programs is a recognition of the importance of collaboration and teamwork.

For example, in the context of dentistry, Grocock (2020) advocated for "shared and collective leadership" in the form of "well-structured teams" (p. 884). In the context of law schools, Teague (2022) observed that leadership education "elevates professional formation from a focus on singular client matters to broader societal implications" (p. 17). In short, the task is to prepare these professionals to address wicked problems. And, of course, the work associated with wicked problems is not limited to select professions. According to Hull et al. (2021), leadership for wicked situations involves an array of professionals working in three key practices: "(1) coordinate the actions of widely dispersed actors who do not have authority over one another; (2) collaborate across widening differences of opinion, expertise, and culture; and (3) manage confounding uncertainties that otherwise cause analysis-paralysis and fear of failure" (p. 152). With this in mind, the connection between wicked problems and eco-leadership is clear. It is time for leadership educators to rise to the challenge, working to better meet the needs of graduate and professional education.

CHARTING A PATH FORWARD

A recent column in *The Economist* outlined "A Guide for Wannabe Leadership Gurus" (Bartleby, 2022). The sarcastic advice includes "striking the right note of unreality" (para. 3) and looking for opportunities to "connect dots even (perhaps especially) when there are no dots to join" (para. 6). While such a strategy might produce higher book sales, it is not the formula for tackling wicked problems. Instead, leadership educators must be more intentional with attending to the desired results for leadership (Kellerman, 2018).

In the context of graduate and professional education, leadership educators must be pragmatic in their work, drawing upon practical, real-world experience. "Graduate students flourish through learning experiences that tap into the richness of their lived experience, prior knowledge, and direct application to current endeavors" (Simen & Meyer, 2021, p. 115). While it is true that the work involves preparing students for positions that may not yet exist (Weise, 2020), it is also true that leadership educators can prepare students with skills and cognitive capabilities that are broadly applicable (Cassuto & Weisbuch, 2021). Toward this end, Bloomquist et al. (2018) propose creation of interdisciplinary leadership graduate programs that embrace andragogy (that is, principles of adult learning) in the development of scholar-practitioners, and they offer four specific recommendations:

1. "Structure the learning environment to encourage interdisciplinary interactions,"
2. "Build reflection directly into each course,"
3. "Expect students to bring their work and life into the conversation," and
4. "Build instructor capacity to be comfortable with ambiguity" (p. 62).

The last point (that is, developing comfort with ambiguity) may be particularly challenging during a time when universities are trying to market the expertise of their faculty. The cultural environment might demand more certainty, especially among the "expert" leadership scholars and professionals. In his article within this issue, Martin elaborates on the many time constraints on those working in higher education. However, institutions of higher education also encourage the generation of new knowledge through active experimentation, and leadership educators can leverage that value in their approach. As an example, consider Pianesi and Hufnagel's (2017) book, *Teachable Moments of Leadership: Case-in-Point Resources for Daring Leadership Educators*. Importantly, graduate and professional leadership programs must instill an appreciation for experimentation and actively learn within the ambiguity.

Leadership-as-practice (LAP) holds particular promise as a framework for leadership education in graduate and professional schools. LAP represents a modern approach to leadership challenges, conceiving of "leadership as occurring as a practice rather than residing in the traits or behaviors of particular individuals" (Raelin, 2016, p. 3). While some may perceive LAP as a "leaderless" approach, it is actually "leaderful," characterized by four tenets of leaderful practice.

> Collective leadership: Everyone in the group can serve in leadership; the team is not dependent on one individual to take over. The members of the group co-create the enterprise.
> Concurrent leadership: There can be more than one person operating in leadership at the same time. Members contribute to leadership in different and important ways.
> Collaborative leadership: Anyone can speak for the entire team. All members commit to each other's learning. Together they engage in a mutual dialog to determine what needs to be done and how to do it.
> Compassionate leadership: All participants commit to preserving the dignity of every member of the team, regardless of their background, social standing, level, or point of view (Raelin, 2021, p. 283).

To study LAP is to be curious about how leadership emerges and unfolds through practical experience (Raelin, 2016), and that is a laudable goal for graduate and professional education.

Advancing LAP from an interesting theory of leadership to a useful leadership development approach requires both intentionality and collaboration. Toward that end, Denyer and Turnbull James (2016) introduced leadership-as-practice development (LaPD), which involves four principles:

1. "Reviewing and renewing the leadership concept held by learners and their organizations" (p. 264),
2. "Surfacing and working with leadership processes, practices, and interactions" (p. 265),
3. "Working in the learners' context on their organizational problems and adaptive challenges" (p. 266), and
4. "Working with the emotional and political dynamics of leadership in the system" (p. 267).

In short, LaPD "introduces an element of inquiry whereby learners and tutors collectively search for potential solutions to the problem or issue to be addressed" (Denyer & Turnbull James, 2016, p. 269). While LaPD aligns with interdisciplinary pedagogies and has been used in some professional learning contexts, the opportunity remains for embedding LaPD in graduate and professional education to meet the challenge of wicked problems.

Pedagogically, LaPD can be facilitated through facilitation of collaborative leadership learning groups (CLLGs), which are "anchored in practice, bringing together learners who can identify and work together on the challenges they face collectively" (Denyer & Turnbull James, 2016, p. 269). In fact, CLLGs may hold promise as a signature pedagogy for graduate and professional education. In the seminal work on "Signature Pedagogies in the Professions," Shulman (2005) observed that signature pedagogies have three dimensions: surface structure, deep structure, and implicit structure. The surface structure involves dialogues and interactions entirely under the control of an authoritative professor (for example, lectures and reading assignments); the deep structure is reflected in long-standing theories

and principles associated with the subject matter; and the implicit structure is the expected interactions among individuals, including assumptions about roles and responsibilities. As displayed in Figure 3, signature pedagogies refer to the ways of teaching that require students "to do, think, and value what practitioners in the field are doing, thinking, and valuing" (Calder, 2006, p. 1361). So, if graduate and professional education require more attention to teaming, and the eco-leadership discourse is recognized as an appropriate response to wicked problems, CLLGs may be the signature pedagogy leadership educators need.

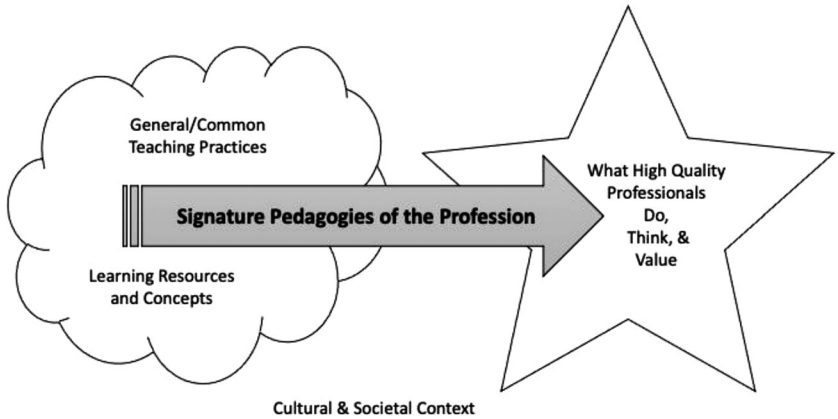

FIGURE 3 Relationship between signature pedagogies and professional preparation

So, how can leadership educators advance the collaborative learning needed to address wicked problems? An important first step is to promote and facilitate the eco-leadership discourse, not only with students but also with colleagues and other stakeholders. In essence, we need to be "stewards of the leadership discipline" (Malakyan, 2021, p. 457). Then, as opportunities arise, leadership educators should encourage application of LaPD and CLLGs in coursework and professional learning forums that extend beyond the traditional reach of social science. Our institutions and our world depend on our success with this effort. In the final article of this issue, Moss Breen and Gleason elaborate on future directions of the leadership field as we progress within graduate and professional school settings.

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