

## **Principled Innovation: An Interdisciplinary Approach to Moving from Theory to Practice**

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This is an unpublished conference paper for the 10<sup>th</sup> Annual Jubilee Centre for Character and Virtues conference at Oriel  
College, Oxford University, Thursday 8<sup>th</sup> – Saturday 10<sup>th</sup> September 2022.

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## **Principled Innovation: An Interdisciplinary Approach to Moving from Theory to Practice**

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### **Abstract**

We are experiencing moral dilemmas in education as we navigate new and existing systems while honoring the humanity of our students and faculty. Thus, educators must cultivate knowledge of virtue and take practical action based on their understanding of moral goods. Centering character, Principled Innovation (PI), and equity in our large-scale redesign of teacher and leader preparation is introducing cohorts of faculty and future educators to the value of theory and practice while developing the dispositions necessary to engage practical wisdom in the context of systems change. This leads to educators and leaders who are morally motivated to cultivate human centered organizations and engage practical wisdom in the critical moments that shape our rising generation.

### **Introduction**

As educators working in the midst of a global pandemic, we are encountering complex moral dilemmas as we attempt to navigate new policies and procedures while honoring the humanity of our students and colleagues. For educator preparation institutions, these dilemmas place faculty and future educators in positions in which they must grapple with their understanding of values and virtues and take practical action based on their own moral judgment, imagination, and reasoning. The high stakes of these emerging challenges have placed a renewed urgency on developing the essential dispositions educators need to employ practical wisdom and make human-centered decisions in their learning communities.

At Arizona State University's Mary Lou Fulton Teachers College (MLFTC), we have sought to support our own faculty and future educators as they navigate these changing moral landscapes. To help our community make moral meaning of their personal and professional contexts, we have been working—with the support of a Kern Family Foundation grant received in 2016—to integrate a distinct focus on character into both our college culture and our educator preparation programs. In developing this institutional and curricular focus, we have grappled with our own understanding of moral development, Aristotelian virtue ethics, and character formation through engaging with our constituency, working with experts in the field, and reviewing interdisciplinary literature across the fields of moral and character development and teacher preparation. We have recognized that, if we were to create sustainable change in both our own educator preparation programs as well as in the learning communities served by our graduates, we would need to connect this work with our college community's existing values and put theory into practice through a set of tools which foster a transformational college culture and which facilitate learning experiences designed to help our students make moral meaning of their personal and professional settings.

Emerging from this work is Principled Innovation, an approach to equitable systems change that is rooted in the character of the individual. Moral, civic, intellectual, and performance character are at the heart of Principled Innovation (PI), framing a set of core virtues which are then enacted through eight key practices (MLFTC, 2019). Leveraging PI as a coherent

framework for the demonstration and development of character and virtue within educational settings, MLFTC has introduced a set of institutional and curricular changes designed to foster the virtues we need as moral actors in educational systems change. In this paper, we locate character development within our context as an educator preparation institution and highlight several ways in which our institutional culture and programs have been aligned to foster our own dispositions for the work of Principled Innovation.

## **Educator Preparation and Character Development**

### **Dispositions as Virtues**

In the teaching profession, the virtues that are sought in an educator's professional character are described as "dispositions," and teacher evaluation and preparation professional organizations have long asked educator preparation programs (EPPs) to both identify and assess these dispositions within their programs (CAEP, 2019; CCSSO, 2013; NCATE, 2002; Saltis et al., 2021). While there has been debate as to what is meant by the term "dispositions" within teacher preparation, a general definition of teacher dispositions incorporates the notion of teachers' beliefs being demonstrated in life contexts that bear upon their professional work (Freeman, 2007; Misco & Shiveley, 2007; Sanger, 2017; Tatto, 1996; Tatto & Coupland, 2003). These beliefs constitute the values, knowledge, attitudes, or habits of mind that are manifest in teacher action (Katz, 1993; Katz & Rath, 1985; NCATE, 2002; Saultz et al., 2021; Villegas, 2007). A teacher who has a certain disposition is inclined toward or "disposed toward" acting in certain ways, which may look different depending on the context (Lamb et al., 2021; Tatto & Coupland, 2003). In this sense, the term "dispositions" reflects what Aristotle described in *Nicomachean Ethics* as *hexeis*: habits of mind that are expressed in daily life (Dottin, 2010; Freeman, 2007; Small, 2020).

Some dispositions are modes of operation that are not, in and of themselves, moral actions. For instance, a teacher's beliefs about the value of constructivist pedagogies would likely lead that teacher to incorporate active learning methods in the classroom. While this disposition in and of itself may not be implicitly moral, it might take on moral meaning if it were joined to another disposition with more explicit moral motivation, such as the disposition to help one's students flourish to the best of one's ability (Kristjánsson, 2015; Nucci & Ilten-Gee, 2021). In this respect, one's belief in working to create equitable human flourishing—justice—is a moral disposition that is being served by another disposition which enacts justice through teaching in the way one believes to be most effective.

In addition, as seen in this example, teacher dispositions are overlapping and interdependent and do not exist in isolation (Freeman, 2007). The context provided by a teaching internship, for instance, supplies the field through which one actively reconstitutes one's beliefs and settles into one's dispositions, collectively defining one's pedagogical character (Freeman, 2007; Kristjánsson, 2015). The entire dispositional complex, with dispositions that relate to what it means to live well and dispositions that support the performance of those beliefs, constitute the teacher in the context of the classroom. Working together, they supply the practical wisdom teachers need to make daily decisions that foster the flourishing of their learning communities.

This connection between values and beliefs and daily action—the essence of character—is seen in the definition of "dispositions" provided by the Interstate Teacher Assessment and Support Consortium (InTASC; CCSSO, 2013), a standards body responsible for establishing a set of teaching standards that are widely used throughout the United States. In

CCSSO's 2013 InTASC standards, the organization states that the inclusion of 43 "critical dispositions" for the profession is an explicit effort to the way that "habits of professional action and moral commitments that underlie the performances play a key role in how teachers do, in fact, act in practice." These critical dispositions are expressions of one's commitment to—or belief in the importance of—teachers' moral commitments.

These underlying moral commitments are found in the text of the InTASC standards themselves. For example, Standard 6v intimates virtues such as honesty and fairness through calling for ethical data use: "The teacher is committed to the ethical use of various assessments and assessment data to identify learner strengths and needs to promote learner growth." Similarly, the standards describe teachers who are disposed toward virtues such as humility and care, which is expressed through teachers' attempts to see the world through the eyes of their students and their families in Standards 2(m), through their openness to considering opposing views on the disciplines and pedagogy in Standard 4(p), and through seeking awareness of one's own biases in Standards 4(q) and 9(m). Thus, the standards express ideals not only for teacher action but direct our attention to the moral beliefs which underly those actions.

Returning to Aristotle's notion of "dispositions," Aristotle referred to such "praiseworthy dispositions" as "virtues" (Aristotle, 1934, p. 69) which he viewed as the foundational building blocks of character (Kristjánsson, 2015; Sanderse, 2012). These virtues work together in practical wisdom to achieve what our communities believe to be those human goods which best represent their vision of flourishing. In effect, flourishing flows from our praiseworthy dispositions. As MacIntyre (2006) writes, the link between virtue and human flourishing is "a chain of reasoning whose first premises concern the human good [and] whose intermediate steps specify what the virtues require, if the human good is to be achieved." (2006, pp. 158–159)

In this respect, within educator preparation, the assemblage of desirable dispositions that collectively define one's character, therefore, may be thought of as virtues (Carr, 2011; Sockett, 2009), which, in working together, supply the practical wisdom educators need to advance the equitable flourishing of their learning communities. In effect, in preparing educators for the work of the profession, EPPs are asked to find ways to help their students prepare themselves as candidates who demonstrate the praiseworthy dispositions of the profession and to engage these dispositions in the interests of equitable human flourishing (Biesta & Stengel, 2016; Carr, 2011, 2017; Sockett, 2009). This is, in fact, what MLFTC seeks to achieve through its Principled Innovation (PI) framework.

## **Cultivating Character Through Teacher Preparation**

At MLFTC, our approach to fostering PI and character has its roots in a broader, constructivist tradition of teacher preparation that emphasizes the way that teachers' dispositions develop through the learning opportunities provided by their EPPs (Sanger, 2017; Tatto, 1996; Tatto & Coupland, 2003). Prior research has found that preservice teachers' dispositions are most likely to align with those of their faculty if the faculty in those programs are aligned with each other on their own beliefs (Rodriguez et al., 2018; Tatto, 2019). While a certain level of coherence can be facilitated through EPP adoption of teacher evaluation frameworks, such as Danielson's (2013) or Stronge's (2018) or through standards such as those created by InTASC, it is the consistency of the faculty's own beliefs that are central, as students move from class to class and hear the same beliefs expressed with authenticity by their professors. Thus, when EPPs enact institutionally-developed frameworks which give voice to faculty's existing beliefs about the critical dispositions of the profession and work hard to develop a cohesive philosophy of

education, these EPPs are better positioned to see their students develop those beliefs themselves (Tatto, 2019). The Principled Innovation framework at MLFTC was developed with these organic aims in mind—to be an expression of the faculty’s belief that the work of educators is, ultimately, to bring about equitable flourishing through the agency of educator character at classroom, school, and systems levels. As we discuss in the following sections of this paper, this vision of the educator-as-Principled-Innovator follows students from class to class throughout their programs.

Since dispositions inherited from students’ own prior experiences are resistant to change (Hobson et al., 2008; Tatto, 1996), EPPs must be intentional in crafting opportunities that impact the dispositions of their future teachers. Research in teacher preparation has highlighted the value of inquiry-based, constructivist learning opportunities which provide opportunities both for reflection on one’s own beliefs and for the integration of those beliefs into real-world contexts (Rodriguez et al., 2018; Sanger, 2017; Tatto, 1996; Tatto & Coupland, 2003). Those opportunities to learn also include important program components—such as classroom discussions, field application, mentor modeling, and critical reflection—which emerge from the faculty’s efforts as creating learning experiences that best position their students to leave their programs with a clear and compelling vision of the aims of their profession and with the dispositions to support those aims (Rodriguez et al., 2018). Consistent with these findings, as we discuss below, our faculty’s multi-year curriculum revisions—like many others (Sanger, 2017)—has resulted in preparation programs which leverage learning opportunities such as these to support our students in their development of critical dispositions for Principled Innovation.

Thus, EPPs like MLFTC are highly focused on the character of future teachers through a transformative process that calls on learners to evaluate their own beliefs and to let their beliefs transform their classroom practice (Biesta, 2013; Mezirow, 1990; Saultz et al., 2021). In adopting the Principled Innovation framework, MLFTC has recognized the fact that teachers play agentic roles in impacting the lives of others and asks preservice teachers to consider to what extent the educational systems they are creating contribute to greater human flourishing—to what MacIntyre calls “human goods” (MacIntyre, 2006) and to what the PI framework describes as “positive change for humanity.”

The discourses of teacher preparation character development therefore share much common ground (Osguthorpe, 2021; Sanger & Osguthorpe, 2011). As an example of this, we find significant overlap between MLFTC’s PI implementation and a set of recent studies documenting the work of Oxford Global Leadership Initiative, a postgraduate program at the University of Oxford that, working within the framework of Aristotelian character formation, seeks to foster a set of core virtues associated with healthy leadership character (GLI; Brant et al., 2020; Brooks et al., 2019; Lamb et al., 2021). Importantly, both programs overlap in the way they incorporate character development as part of accomplishing overarching professional aspirations. Building on prior research that found that character formation embedded within larger programs of purpose tend to have greater efficacy (Lamb et al., 2021), the GLI program is intentional about drawing connections between leadership virtues and participants’ sense of professional purpose and an awareness of the role of individual character in achieving that purpose through one’s professional work (Lamb et al., 2021). Similarly, MLFTC’s redesigned educator preparation programs seek to cultivate in students an understanding that the role of the educator is to foster human flourishing through Principled Innovation, and it situates a set of practices and virtues—or “assets,” as we describe them within the PI framework—which spread across four dimensions of character (Bredemeier & Shields, 2019; Kristjánsson, 2015; Shields,

2011). Across their learning experiences with multiple faculty members, students in both programs connect these virtues with their sense of professional purpose. Beyond linking these dispositions to a larger sense of professional purpose, MLFTC's distributed and coherent framing is consistent with the prior research—discussed above—which found that EPPs with high faculty coherence were more effective in fostering educator dispositions.

In addition, both GLI and MLFTC share a number of pedagogical strategies in fostering character. The GLI program leverages what Lamb et al. (2021) describe as “seven Aristotelian strategies of character development,” drawn both from Aristotelian notions on character formation and from the growing base of research that supports that approach. These practices include components such as providing opportunities for practice to habituate participants to these virtues, reflection on experiences, exposure to exemplars who practice those virtues, dialogue and regular reminders within communities of practice (with both mentors and colleagues) that increase participants' understanding of the desired virtues, and mentoring to help participants understand the situations which pose the greatest challenges to their character. As we discuss below, MLFTC's redesigned educator preparation programs provide a web of inquiry-based, constructivist learning opportunities dispersed across a variety of contexts—such as classroom-based discussions of moral dilemmas or experiential learning through field work—which provide students the types of learning opportunities described in Lamb et al. (2021).

Through practices such as these, the EPPs at MLFTC draw upon the discourses of educator preparation and character development in higher education, with the aim of preparing graduates to navigate complex dilemmas of policy and practice through practical wisdom. In the following sections, we situate our work toward Principled Innovation within these research-based practices for character formation in teacher and leadership preparation and highlight several ways in which our institutional culture and programs at MLFTC foster our personal and professional capacities for Principled Innovation.

### **Cultivating Character Through an Aspirational Sense of Professional Purpose**

As discussed above, prior research has found that institutions are more effective in fostering the character of their students when their programs connect character development to students' larger professional vision. Further, in line with research on educator dispositions, we recognize the importance of situating those professional aspirations within a vision that is organically rooted in the shared beliefs of a program's faculty members.

At MLFTC, the aspirational framing of Principled Innovation begins with the University's charter which guides us to assume “...fundamental responsibility for the economic, social, cultural and overall health of the communities we serve”, and the college's mission: “We create knowledge, mobilize people, and take action to improve education for the greatest possible number of people”. As a college of over 350 full-time faculty and staff and over 7,500 students around the globe, living out this mission collectively requires making thousands of individual decisions every day. In creating knowledge through research, new projects, and new initiatives, the mission directs college stakeholders to consider how they can create knowledge with the least amount of unintended consequence, how they can use that knowledge for greatest impact, and how well that impact is reaching its intended audiences. The mission directs the college to use its convening power, academic programs, and reputation to mobilize people and ask questions about how to be as inclusive as possible, how to ensure all voices are heard, and

how to mobilize its resources for the best outcomes. The mission asks stakeholders to consider whether its actions will benefit educators, learners, and civil society.

Thus, for students enrolled in MLFTC's programs, Principled Innovation situates the work of educators within this higher sense of professional purpose: the work of teaching and leading is seen within the context of taking "action to improve education." PI challenges MLFTC stakeholders both as individuals and as a learning community to examine whether their character assets provide the inputs needed for the systemic equity outcomes envisioned by these institutional statements on mission, vision, and purpose. Seen through this lens, then, the character of individual educators becomes the foundation for fostering an aspirational vision of human flourishing.

### **Cultivating Character Through Coherence in Culture and Curriculum**

The mission's call for faculty, staff, and students to leverage their character assets in bringing about this aspirational vision contributes to the formation of the college's culture and provides direction on what learning will look like for our preservice educators at MLFTC. Since the decisions we make, how we make them, and how we execute them are part of this mission, we have adopted in Principled Innovation a common language, framework, and approach for faculty, staff, students, and district partners to engage in conversations and activities around character formation. Both teacher preparation and character development traditions emphasize the importance of creating cross-curricular experiences in which faculty and students share common beliefs about what virtues are valued in the profession. At MLFTC, the Principled Innovation initiative has helped us build greater coherence into our institutional culture and course content, challenging faculty, staff, and students to demonstrate PI character in their decision-making across institutional contexts.

### **Coherence in Culture**

#### ***Developing Culture Through the Principled Innovation Toolkit***

A central emphasis in the effort to integrate Principled Innovation into college culture has been the development of an evolving, online "toolkit" that provides the community with an in-depth explanation of the PI framework and how it works. The toolkit contains multimedia case studies illustrating what PI might look like in action across learning environments and provides tools and resources for integrating the framework in various contexts. The application and modeling of these tools and resources across our individual and organizational practices, program curriculum, and communities of practice is supporting the development of a cohesive college culture that highlights the role of character in morally motivated educators. The toolkit bridges theory and practice, nurturing an understanding of how PI might be applied as educators innovate in educational systems to support the holistic flourishing of students and educators in a context fraught with new and unexpected moral dilemmas.

The toolkit is designed to be more than a repository of resources and activities. Rather, it is designed as a series of learning experiences in which educators can explore the PI framework through various lenses and learning pathways. An introduction to Principled Innovation, the purpose and the imperatives that drove the creation of the framework, and its foundation in the development of character are communicated through multiple modalities.

The toolkit scaffolds learning beginning with an introductory asynchronous course, titled *The Foundations of Principled Innovation*. This course provides an overview of the character

assets at the core of PI. Participants begin to cultivate knowledge and reflect on the assets in the context of decision-making. The course then leads them to additional resources in the toolkit that provide further opportunities to dive deeper into the four dimensions of character, the 16 assets that have been identified as vital to the practice of PI, and the eight practices of PI that are engaged to both demonstrate and develop the character assets. Each aspect of the PI framework is addressed through activities, multimedia resources, reflection opportunities, tools and protocols that are designed to cultivate knowledge, provide opportunities for reasoning and practice, and to ultimately put the theory of PI into practical action.

One example of a core tool that has been developed for this toolkit is the PI “card deck.” This resource contains a set of generative and reflective questions designed to engage the moral, civic, intellectual and performance assets through facilitation of critical and compassionate reflection both as individuals and in a group. The questions in the card deck are designed to help educators employ practical wisdom in their decision-making through reflection on the course of action they are about to take. By engaging the character assets in imagining solutions that “create positive change for humanity” (MLFTC, 2019), the card deck helps educators ask questions to better navigate the uncertainty of decision-making and mitigate the unexpected consequences of their actions.

The critical reflection prompted by the use of these card deck questions, whether individually or in group contexts, plays a central role in the process of learning (Mezirow, 1990, 1998). Critical reflection facilitates meaning-making by exploring lessons learned in past experiences, a process which triggers the moral imagination (Johnson, 1993; Cook-Sather & Baker-Doyle, 2017)—one’s vision for how the future could and should be—and guides future action (Mezirow, 1990). Other reflective practices included in the PI toolkit, such as journaling or questioning, also support this transformational process. Reflective techniques such as these have been linked to the development of a wide range of character assets in college-aged young adults, including PI assets such as humility, altruism (Brooks et al., 2019; Lamb et al., 2021), empathy, fairness, perspective-taking, critical thinking, and the practices of systems-thinking (Rodríguez Aboytes & Barth, 2020; Shor et al., 2017; Van Beveren et al., 2018) and moral and ethical decision-making (Astin et al., 2006; Rockenbach, 2020). Within teacher preparation, critical reflection has been specifically linked to the development of critical consciousness and multicultural competencies (LaBelle & Belknap, 2016; Sharma et al., 2011)—important teacher dispositions which build on the PI character assets of empathy, humility, and perspective-taking. Finally, when practiced in teams, critical reflection can lead to change within entire organizations, bringing organizational practice into alignment with institutional values (Gray, 2007; Henderson, 2002). The critical reflection prompted by the questions in the card deck encourages toolkit users to question assumptions and enter into discourse with taken-for-granted beliefs (Mezirow, 1997), triggering the meaning-making metacognition that has been linked to personal transformation (Kolb & Kolb, 2009). The card deck questions are “generative” in that they are designed to engage the moral imagination and cause one to look ahead to what the outcomes could be from a range of possible actions. By drawing across the spectrum of PI character assets, the questions aim to help the user develop the practical wisdom needed to align actions with values and mitigate the unexpected consequences of decision-making.

These card deck questions have played a central role in the efforts to integrate Principled Innovation into the college’s culture. Distributed to all faculty and staff members, the card deck has been used by groups throughout the college to prompt personal reflection as well as group



design sessions and dialogues around our curriculum (including our EPP redesigns), our equity and inclusion initiatives, and our response to the challenges provoked by the COVID pandemic.

### ***Principled Innovation in MLFTC's Pandemic Response***

As with other educational institutions, maintaining student engagement and providing comprehensive support for academic and holistic wellness during the COVID pandemic have been important priorities in the college. This required our college to improvise in the content and delivery of support services offered and led our stakeholders to grapple with the moral and ethical concerns associated with student engagement, student experience, and the college's responsibilities to its constituents. As the pandemic gained momentum, faculty and staff noticed dramatic increases among their students in mental health concerns and in food and housing insecurities—stress points for students which resulted in decreased motivation, increased anxiety, and poor academic outcomes. In response, MLFTC deployed several new strategic initiatives designed to support students enrolled in teacher preparation programs and increase persistence to graduation. While communicating care and leveraging technology for student engagement were central in that response, moral and ethical challenges nevertheless remained. To navigate these dilemmas, the college's Office of Student Services staff and the MLFTC faculty utilized the PI framework to review and revise policies, systems, structures, and processes and to consider what a meaningful and responsible response would look like when guided by PI's moral and ethical assets. In analyzing student needs data, the faculty and staff sought to design and deploy holistic, personalized student supports that were dispositionally aligned with the PI framework. These services included increased wellness and academic coaching, financial literacy supports, and peer mentoring. Within our value framework, maintaining student engagement and providing comprehensive support for academic and holistic wellness were (and remain) top priorities for MLFTC, and the pandemic has pushed us to intentionally leverage our organizational character assets in pivoting both the modality of delivery and the content of the support services we offer.

### **Coherence in Curriculum: Redesigning Educator Preparation Curricula**

In addition to fostering coherence in college culture, the PI framework provides a touchpoint for bringing greater coherence to our curriculum. Over the past three years, MLFTC has worked to introduce the PI framework into its undergraduate and graduate teacher preparation curricula. Through both curricular and pedagogical approaches, the PI framework and resources have been aligned with the content that students interact with every day, providing opportunities for students to cultivate knowledge and practice of the character assets through inquiry-based approaches such as individual and group reflection, habituation and learning through field experiences and mentorships, dialogue, and the use of cohorted learning—strategies which connect both to the practices of teacher preparation described above as well as to recognized practices in the field of character development (Lamb, Brandt, & Brooks, 2021).

### ***Undergraduate Curriculum***

All teacher preparation undergraduate students will participate in a newly-designed series of one-credit courses, titled the "Professional Educator Series" (PES), which scaffolds and spirals PI content through a sequence of eight required undergraduate courses, with students completing one per term throughout all eight terms of their degree programs. Students navigate

this series of courses in peer cohorts, allowing students to grow together as a community of practice with the same students and faculty members throughout the program. Concurrently, the faculty who teach these courses also work in a faculty-level community of practice in which MLFTC faculty members support each other's practice of PI in their teaching and learning throughout the experience. Students are introduced to the Principled Innovation framework in Term 1, i.e., the first semester of their freshman year, through engagement in introductory PI workshops facilitated by PI student mentors who have, themselves, completed a series of PI learning experiences. These workshops provide opportunities for students to begin cultivating knowledge of the character assets, while also introducing tools and resources from the PI toolkit which are put into deeper practice in subsequent terms. Students participate in project based learning in Term 2, collaborating in small teams on an "equity challenge" that requires them to engage in reflection using the PI framework to examine and clarify their values, beliefs and ideas. This provides students opportunities to reflect on the course content through the lens of the four dimensions of character, guided by resources that contribute to the habituation of reflective practices.

Students begin to connect theory to practice in Term 3 through readings, reflection and collaborative learning that highlights how character formation occurs in learning and teaching. This course is paired with a professional internship experience, providing a context in which students begin to identify the character assets in their fieldwork. This is followed in Term 4 by PES course content which connects PI assets and practices to inclusivity in learning environments. At this stage in their program, preservice teachers continue to make connections in the field between PI and its role in fostering inclusive learning environments that create the conditions for PK-12 students to flourish. Terms 5 and 6 address navigating conflict, building authentic relationships, and using PI tools in professional decision-making, as students contextualize PI through systems thinking and make connections between education and our broader society. In their final two terms in the program, preservice educators are challenged to pair Principled Innovation with purpose and action through a "Legacy Project" that addresses a big question in education.

### ***Graduate Curriculum***

At the graduate level, MLFTC's teacher preparation programs feature an "Educator Scholars Series" which parallels the undergraduate PES course sequence. This series of three one-credit courses provides opportunities for students to engage in mini-projects centered on employing PI creativity in PK12 classrooms, discussions in their communities of practice on challenges and experiences they encounter in their fieldwork, and in personalized learning experiences called "power-ups" which center on the implementation of PI assets and practices in their learning environments. Through "power-ups," students accumulate digital "badges" by exploring a specific topic of their choice and through reflecting on that topic through the lens of PI. To date, MLFTC faculty have created over 30 power-ups, all of which either focus directly on PI or implement the PI framework through the generative and reflective questions discussed above. In these experiences, PI serves as a model for educators to engage in what the framework describes as "navigating uncertainty" in working through the complex challenges that teachers face each day in schools and classrooms. Two student vignettes illustrate the way that these power-ups have impacted the practices of our students.

In one power-up, an MLFTC student—who was also a full-time teacher—reflected on finding more effective ways to engage with Spanish-speaking families to ensure greater student

support at home and better communication with families. In his reflection, he noted the school's high percentage of Spanish-speaking families and the lack of resources that were available to support effective, equitable communication with all families. The power-up brought his attention to this challenge at his school and, in his reflections, he described the way that this realization had helped him develop greater empathy—a PI character asset—for these families and led him to find new ways to connect and build meaningful relationships with them.

Another student shared in her power-up that, as a result of reflecting on one of the PI generative reflective questions, she had taken several actions that she would not have otherwise done. Specifically, one PI question, “What actions did I take to get to know the community or context in which I am operating?”, sparked the student's interest in better understanding the community in which her students live. Just a few weeks into the program, she explored the neighborhoods, local parks, small businesses, churches, and more to deepen her understanding of the students and families she serves. This context elicited a deeper understanding of how to better support her students in the classroom context and to be more intentional about learning design tailored to the strengths, abilities, and assets of her students.

Through these undergraduate Professional Educator and graduate-level Educator Scholars series of courses, students encounter a spiraling curriculum across learning contexts and faculty members which provide a coherent framework for dispositional formation. Working together as communities of practice throughout their time in the program, students apply their classroom learning within the context of their fieldwork and support each other through peer discussions that debrief students' experiences in their learning communities. Students also revisit their reflections from past courses and experiences to monitor their own growth in moral understanding, judgement, and reasoning. In the next section, we describe how communities of practice have been organized within the college.

### **Cultivating Character Through Communities of Practice**

MLFTC has emphasized the importance of developing communities of practice (CoPs) among both its faculty and students. This design feature is consistent with both prior research in teacher preparation—research which demonstrated the effectiveness of dispositional formation when faculty individually and collectively tailor their curriculum around a core set of shared beliefs (Rodriguez et al., 2018; Sanger, 2017; Tatto, 2019)—and with the findings of Lamb et al. (2020) that virtue is best fostered in shared communities of mentors and peers.

#### **Faculty CoPs**

At the faculty level, the MLFTC teacher preparation faculty at both undergraduate and graduate levels have organized either weekly or biweekly CoP meetings in which faculty members share their experiences and learn from each other's reflections, feedback and ideas. In these meetings, faculty members might share on specific topics of interest, or they might invite colleagues from other areas of the college to share their work and consider how that work might support the faculty members in their own teaching and learning. For teacher preparation graduate faculty CoPs in particular, Principled Innovation has played a prominent role, with the first 15-20 minutes of CoPs' weekly meetings organized around PI resources, tools and reflection questions that prompt inquiry and dialogue, supporting the cultivation of knowledge, reasoning and practice around the character assets and PI practices.

One CoP focused directly on Principled Innovation is the PI Faculty Fellows experience. This CoP began early in the pandemic with a two-week exploration of Principled Innovation,

grounded in the generative and reflective questions as applied to an existing activity or assignment. Faculty worked through a heat-mapping process and workbook (found in our PI toolkit) to identify where PI currently exists in their assignments and where it might be bolstered to be made more explicit. Through engaging with the heat-mapping activity individually and meeting as a group to participate in PI “Support Studios,” the faculty in this CoP were able to take a deeper dive into their own learning around the PI framework and simultaneously adapt their assignments to be PI-centered. The faculty in this CoP have become catalysts of PI by organizing additional CoPs to introduce their colleagues to PI concepts, practices, and resources.

### **Teacher Preparation CoPs**

CoPs are also formed in students’ fieldwork, as preservice teachers work alongside fully licensed, full-time mentor teachers in the field who model personal and professional dispositions for students and who provide feedback to students as they attempt to enact those dispositions in their own fieldwork. These practicum experiences provide opportunities for preservice teachers to observe modes of practice that match or conflict with their emerging mental models of praiseworthy dispositions within the profession of teaching. Since dispositions become habituated through these field experiences, students are challenged to think about which dispositions are reflected in their practice and whether those dispositions align with their beliefs about the teacher they want to become: as mentor teachers and MLFTC clinical faculty debrief field experiences with students, these students engage in critical reflection designed to support personal transformation (Mezirow, 1990) and character development. This is followed by opportunities to enact new beliefs, developing what Aristotle described as “settled dispositions” (Aristotle, 1934, p. 95).

Furthermore, these mentor-student relationships commonly engage more than the traditional dyad of one mentor teacher working with one preservice teacher through its team-centered “Next Education Workforce” (NEW) initiative, through which MLFTC has sought to recenter the teaching profession around teaching in teams rather than teaching independently. More specifically, the NEW aims to “provide students with deeper and personalized learning by building teams of educators with distributed expertise, and empowering educators by developing new opportunities for role-based specialization and advancement.” Since 2018, all MLFTC student field placements have been in the context of NEW teaching teams, allowing students to build communities of practice in the field setting with multiple mentor teachers and with other preservice teachers. Thus, the CoPs in which students participate in the field involve both multiple mentor teachers as well as other MLFTC preservice teachers, allowing for a rich network of colleagues with whom students can share the experience of dispositional formation.

Working in these teams, MLFTC apprentice teachers in an upper elementary school recently used the PI deck card for topics in their closing circle several days a week, while apprentice teachers in a lower elementary program facilitated whole-group class discussions around PI topics, opening up child-friendly spaces designed to help children feel safe in sharing their thoughts and concerns. Such conversations provoked comments from participating mentor teachers who expressed their surprise at how knowledgeable the children were on the challenges facing their communities. In this way, these field-based CoPs allow opportunities for PK12 teachers in MLFTC’s partner school districts to become familiar with PI, as well. In one partner school, an elementary teacher recently took time at a staff meeting to share a PI video and the PI deck cards in using the framework as a model on how staff might better support their students’ social emotional development. In another partner school, a secondary teacher has used the four

corners of the classroom to represent the four domains of character. In this activity, students choose which domain they want to work on depending on how they are feeling that day. The teacher provides PI card deck questions for that domain and encourages the students to reflect on their lived experiences through the lens of character. This has become a weekly practice for the students in the classroom. As a result of this organic movement of the PI framework into the college's partner districts, MLFTC was recently asked to make a "kid-friendly" PI card deck, as well as adapt additional resources from the toolkit for K12 learning environments. Through communities of practice such as these, MLFTC students have been able to support the practice of PI within their teaching teams, even without the direct support of MLFTC faculty members.

### **Principal Preparation Program CoPs**

In the principal preparation program, students form cohorts with "leadership coaches"—mentors—who meet with small groups of students on a monthly basis to debrief challenges of practice and to relate course content to their educational practice. These small group meetings provide the context for developing a trusting relationship with both leadership coaches and with other colleagues who will create a support network to which students can turn in their present and future professional lives. In its leader development programs, the college has emphasized a PI-centric practical wisdom, building on Halverson and Gomez's (2001) description of practical wisdom as that which every good leader needs to advance organizations and solve problems in an ethical manner. Describing practical wisdom, Halverson and Gomez explain that it (1) is the capacity to act, that (2) it is the essence of "character in action" and as such is displayed over time, that (3) it is dependent on context as a situated form of knowing, that (4) it appears as an individual and an organizational practice, that (5) it constitutes the ability to discern the good in a situation, and that (6) it gives meaning to action agendas (Halverson & Gomez, 2001, pp. 4-5). To foster the development and refinement of practical wisdom, the leadership coaches have created a collection of situational dilemmas focused on the role of the principal in ethical leadership. In their meetings, the interns and leadership coaches walk students through these scenarios using a set of generative and reflection questions outlined in a PI "Decision-Making Guide" (Appendix A). By working through these dilemmas in CoPs, both students and their leadership coaches come to better understand how character works as a dispositional network of complementary virtues which together open up the practical wisdom needed to navigate professional dilemmas in an ethical manner.

As discussed above, programs that have been found to be effective at supporting students in dispositional formation emphasize the importance of classroom interactions which connect classroom contexts to real world scenarios (Brant et al., 2020; Brooks et al., 2019; Rodriguez et al., 2018). Through CoPs, faculty and students in both teacher and leader preparation programs have the opportunity to work through problems of practice together, developing their knowledge of character itself and of the ways in which it applies to daily work of educators.

### **Conclusion**

Through this large-scale redesign of our teacher preparation and education leadership programs, students enact the dispositions and practices of Principled Innovation through teaming, cohorts, and functional models in education settings and infuse content and practices into courses and curriculum at both the undergraduate and graduate levels. The PI framework recognizes that the cultivation of character cannot happen through coursework alone and that, as has been found in the literature of both educator preparation and character development,

“praiseworthy dispositions” must also be experiential and modeled in the environment through practices, systems and culture which allow students to make these virtues their own—to let the *taught* become *caught* (Berkowitz & Bier, 2005; Jubilee Centre for Character and Virtues, 2017; Lamb et al., 2021; Rodriguez et al., 2018; Sanger, 2017). As faculty and students engage in spiraled, cohorted learning experiences that provide opportunities for the continued cultivation of knowledge, they integrate PI tools and activities designed to engage and model moral and ethical reasoning and practice, applying Principled Innovation to their deliberation processes.

Introducing deeper, cohorted learning, applying the framework through habituated practices, and creating opportunities for authentic and continuous reflection builds a bridge between theory and practice with the aim of cultivating the character of both individuals and the organization. Through these bridging efforts, the college is beginning to see anecdotal evidence of the development of morally motivated educators and leaders who are evolving in individual thought, behavior, and actions. As next steps, our program teams are developing assessments to comprehensively evaluate the effectiveness of the PI approach to character development in our EPPs, and are beginning to expand our focus to the broader K12 community in order to better meet the needs of the communities we serve. In these efforts, we seek to cultivate human-centered educators in our community who value character. We seek to create the conditions in which theory and practice come together as practical wisdom—as Principled Innovation—which can help educators navigate the critical moments of today and which can guide the thinking, learning, and experiences of future educators who will influence our rising generation.

### ***Acknowledgements***

*We thank our MLFTC faculty and staff who have contributed to this work, especially Dr. Gina Conner, Tera McDonald, Eoline Cary, Terrilyn McCoy, Heather Villarruel, and Dr. Abby Brown, and Hannah Jennewein. We are grateful to the Kern family Foundation for their generous support that has made this work possible.*

## References

- Aristotle. (1934). *The Nicomachean ethics* (H. Rackham, Trans.; 2nd edition). Harvard University Press.
- Astin, A. W., Vogelgesang, L. J., Misa, K., Anderson, J., Denson, N., Jayakumar, U., Saenz, V., & Yamamura, E. (2006). *Understanding the effects of service-learning: A study of students and faculty*. Higher Education Research Institute, University of California, Los Angeles.  
[https://heri.ucla.edu/PDFs/pubs/Reports/UnderstandingTheEffectsOfServiceLearning\\_FinalReport.pdf](https://heri.ucla.edu/PDFs/pubs/Reports/UnderstandingTheEffectsOfServiceLearning_FinalReport.pdf)
- Berkowitz, M. W., & Bier, M. C. (2005). *What works in character education: A research-driven guide for education*. Character Education Partnership.
- Biesta, G. J. J. (2013). Becoming educationally wise: Towards a virtue-based conception of teaching and teacher education. In A.-L. Østern (Ed.), *Teacher education research between national identity and global trends* (pp. 29–51). Akademika Publishing.
- Biesta, G. J. J., & Stengel, B. S. (2016). Thinking philosophically about teaching. In D. H. Gitomer & C. A. Bell (Eds.), *Handbook of Research on Teaching* (5th ed., pp. 7–67). American Educational Research Association.  
[https://doi.org/10.3102/978-0-935302-48-6\\_1](https://doi.org/10.3102/978-0-935302-48-6_1)
- Brant, J., Lamb, M., Burdett, E., & Brooks, E. (2020). Cultivating virtue in postgraduates: An empirical study of the Oxford Global Leadership Initiative. *Journal of Moral Education*, 49(4), 415–435. <https://doi.org/10.1080/03057240.2019.1682977>
- Bredemeier, B. L., & Shields, D. L. (2019). Social justice, character education, and sport: A position statement. *Quest*, 71(2), 202–214.  
<https://doi.org/10.1080/00336297.2019.1608270>
- Brooks, E., Brant, J., & Lamb, M. (2019). How can universities cultivate leaders of character? Insights from a leadership and character development program at the University of Oxford. *International Journal of Ethics Education*, 4(2), 167–182.  
<https://doi.org/10.1007/s40889-019-00075-x>
- CAEP. (2019). *2013 CAEP standards*. Council for the Accreditation of Educator Preparation.  
<http://caepnet.org/~media/Files/caep/standards/caep-standards-one-pager-0219.pdf?la=en>
- Carr, D. (2011). Values, virtues and professional development in education and teaching. *International Journal of Educational Research*, 50(3), 171–176.  
<https://doi.org/10.1016/j.ijer.2011.07.004>
- Carr, D. (2017). Virtue and character in higher education. *British Journal of Educational Studies*, 65(1), 109–124. <https://doi.org/10.1080/00071005.2016.1224806>
- CCSSO. (2013). *Interstate Teacher Assessment and Support Consortium (InTASC) model core teaching standards and learning progressions for teachers 1.0: A resource for ongoing teacher development*. Council of Chief State School Officers.  
[https://ccsso.org/sites/default/files/2017-12/2013\\_INTASC\\_Learning\\_Progressions\\_for\\_Teachers.pdf](https://ccsso.org/sites/default/files/2017-12/2013_INTASC_Learning_Progressions_for_Teachers.pdf)
- Cook-Sather, A., & Baker-Doyle, K. J. (2017). Developing teachers' capacity for moral reasoning and imagination in teacher education. In D. J. Clandinin & J. Husu (Eds.), *The SAGE handbook of research on teacher education* (Vol. 2, pp. 354–368). SAGE Reference. <https://doi.org/10.1002/9781118785317.weom020036>

- Danielson, C. (2013). *The Framework for Teaching Evaluation instrument, 2013 edition* (2nd edition). Charlotte Danielson.
- Dottin, E. S. (2010). *Dispositions as habits of mind: Making professional conduct more intelligent*. University Press of America.
- Freeman, L. (2007). Teacher dispositions in context. In M. E. Diez & J. Rath (Eds.), *Dispositions in teacher education* (pp. 121–138). Information Age Publishing.
- Gray, D. E. (2007). Facilitating management learning: Developing critical reflection through reflective tools. *Management Learning*, 38(5), 495–517.  
<https://doi.org/10.1177/1350507607083204>
- Halverson, R., & Gomez, L. (2001, April 10–14). *Phronesis and design: How practical wisdom is disclosed through collaborative design* [Paper]. Annual Meeting of the American Educational Research Association, Seattle, WA.  
[https://www.researchgate.net/publication/241616375\\_Phronesis\\_and\\_Design\\_How\\_Practical\\_Wisdom\\_is\\_Disclosed\\_through\\_Collaborative\\_Design](https://www.researchgate.net/publication/241616375_Phronesis_and_Design_How_Practical_Wisdom_is_Disclosed_through_Collaborative_Design)
- Henderson, G. M. (2002). Transformative learning as a condition for transformational change in organizations. *Human Resource Development Review*, 1(2), 186–214.  
<https://doi.org/10.1177/15384302001002004>
- Hobson, A. J., Malderez, A., Tracey, L., Giannakaki, M., Pell, G., & Tomlinson, P. D. (2008). Student teachers' experiences of initial teacher preparation in England: Core themes and variation. *Research Papers in Education*, 23(4), 407–433. <https://doi.org/10/fchz9m>
- Johnson, M. (1993). *Moral imagination: Implications of cognitive science for ethics*. University of Chicago Press.  
[https://www.google.com/books/edition/Moral\\_Imagination/Df1iL-uGgdUC](https://www.google.com/books/edition/Moral_Imagination/Df1iL-uGgdUC)
- Jubilee Centre for Character and Virtues. (2017). *A framework for character education in schools*. University of Birmingham.
- Katz, L. G. (1993). *Dispositions: Definitions and implications for early childhood practices* (No. 4; Perspectives from ERIC/EECE: A Monograph Series). ERIC Clearinghouse on Elementary and Early Childhood Education. <https://eric.ed.gov/?id=ED360104>
- Katz, L. G., & Rath, J. D. (1985). Dispositions as goals for teacher education. *Teaching and Teacher Education*, 1(4), 301–307. [https://doi.org/10.1016/0742-051X\(85\)90018-6](https://doi.org/10.1016/0742-051X(85)90018-6)
- Kolb, A. Y., & Kolb, D. A. (2009). The learning way: Meta-cognitive aspects of experiential learning. *Simulation & Gaming*, 40(3), 297–327.  
<https://doi.org/10.1177/1046878108325713>
- Kristjánsson, K. (2015). *Aristotelian character education*. Routledge.
- Lamb, M., Brant, J., & Brooks, E. (2021). How is virtue cultivated? Seven strategies for postgraduate character development. *Journal of Character Education*, 17(1), 1–50.
- LaBelle, J. T., & Belknap, G. (2016). Reflective journaling: Fostering dispositional development in preservice teachers. *Reflective Practice*, 17(2), 125–142.  
<https://doi.org/10.1080/14623943.2015.1134473>
- MFLTC. (2019). *Principled Innovation in the systems of educator and leader preparation* (2nd ed.). Mary Lou Fulton Teachers College, Arizona State University.  
[https://pi.education.asu.edu/wp-content/uploads/2021/04/19\\_20-Framework-for-Principled-Innovation.pdf](https://pi.education.asu.edu/wp-content/uploads/2021/04/19_20-Framework-for-Principled-Innovation.pdf)
- MacIntyre, A. C. (2006). *Dependent rational animals: Why human beings need the virtues*. Open Court.



- Mezirow, J. (1990). How critical reflection triggers transformative learning. In *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning* (1st ed, pp. 1–20). Jossey-Bass Publishers.  
[https://www.colorado.edu/plc/sites/default/files/attached-files/how\\_critical\\_reflection\\_triggers\\_transfo.pdf](https://www.colorado.edu/plc/sites/default/files/attached-files/how_critical_reflection_triggers_transfo.pdf)
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 1997(74), 5–12. <https://doi.org/10.1002/ace.7401>
- Mezirow, J. (1998). On critical reflection. *Adult Education Quarterly*, 48(3), 185.  
<https://doi.org/10.1177/074171369804800305>
- Misco, T., & Shiveley, J. (2007). Making sense of dispositions in teacher education: Arriving at democratic aims and experiences. *Journal of Educational Controversy*, 2(8), 1–9.
- NCATE. (2002). *Professional standards for the accreditation of schools, colleges, and departments of education*. National Council for the Accreditation of Teacher Education.
- Nucci, L., & Ilten-Gee, R. (2021). *Moral education for social justice*. Teachers College Press.
- Osguthorpe, R. D. (2021). Historical perspective on the moral character of teachers. In F. Oser, K. Heinrichs, J. Bauer, & T. Lovat (Eds.), *The international handbook of teacher ethos: Strengthening teachers, supporting learners* (pp. 9–24). Springer International Publishing. [https://doi.org/10.1007/978-3-030-73644-6\\_2](https://doi.org/10.1007/978-3-030-73644-6_2)
- Rockenbach, A. N. (2020). Character education for the public good: The evolution of character capacities in and beyond college. *Journal of College and Character*, 21(1), 6–13.  
<https://doi.org/10.1080/2194587X.2019.1696834>
- Rodríguez Aboytes, J. G., & Barth, M. (2020). Transformative learning in the field of sustainability: A systematic literature review (1999–2019). *International Journal of Sustainability in Higher Education*, 21(5), 993–1013.  
<https://doi.org/10.1108/IJSHE-05-2019-0168>
- Rodriguez, M. C., Tatto, M. T., Palma, J., & Nickodem, K. (2018). A comparative international study of differences in beliefs between future teachers and their educators. In M. T. Tatto, M. C. Rodriguez, W. M. Smith, M. D. Reckase, & K. Bankov (Eds.), *Exploring the Mathematical Education of Teachers Using TEDS-M Data* (pp. 165–192). Springer International Publishing. [https://doi.org/10.1007/978-3-319-92144-0\\_6](https://doi.org/10.1007/978-3-319-92144-0_6)
- Saltis, M. N., Giancaterino, B., & Pierce, C. (2021). Professional dispositions of teacher candidates: Measuring dispositions at a large teacher preparation university to meet national standards. *The Teacher Educator*, 56(2), 117–131.  
<https://doi.org/10.1080/08878730.2020.1817217>
- Sanderse, W. (2012). *Character education: A Neo-Aristotelian approach to the philosophy, psychology and education of virtue*. Eburon.
- Sanger, M. N. (2017). Teacher beliefs and the moral work of teaching in teacher education. In D. Clandinin & J. Hsu, *The SAGE handbook of research on teacher education* (Vol. 2, pp. 339–353). SAGE Research. <https://doi.org/10.4135/9781526402042.n19>
- Sanger, M. N., & Osguthorpe, R. D. (2011). Teacher education, preservice teacher beliefs, and the moral work of teaching. *Teaching and Teacher Education*, 27(3), 569–578.  
<https://doi.org/10.1016/j.tate.2010.10.011>
- Saultz, A., Lyons, A. I., Aronson, B., Sander, S. A., & Malin, J. R. (2021). Understanding preservice teacher dispositions: Implications for social justice and educational policy. *Teacher Education Quarterly*, 48(1), 7–32. <https://eric.ed.gov/?id=EJ1285082>

- Sharma, S., Phillion, J., & Malewski, E. (2011). Examining the practice of critical reflection for developing pre-service teachers' multicultural competencies: Findings from a study abroad program in Honduras. *Issues in Teacher Education*, 20(2), 9–22.  
<https://eric.ed.gov/?id=EJ954551>
- Shields, D. L. (2011). Character as the aim of education. *The Phi Delta Kappan*, 92(8), 48–53.  
<https://doi.org/10.1177/003172171109200810>
- Shor, R., Cattaneo, L., & Calton, J. (2017). Pathways of transformational service learning: Exploring the relationships between context, disorienting dilemmas, and student response. *Journal of Transformative Education*, 15(2), 156–173.  
<https://doi.org/10.1177/1541344616689044>
- Small, W. (2020). Practical knowledge and habits of mind. *Journal of Philosophy of Education*, 54(2), 377–397. <https://doi.org/10/gmx2d8>
- Sockett, H. (2009). Dispositions as virtues: The complexity of the construct. *Journal of Teacher Education*, 60(3), 291–303. <https://doi.org/10.1177/0022487109335189>
- Stronge, J. H. (2018). *Qualities of effective teachers* (3rd edition). ASCD.
- Tatto, M. T. (1996). Examining values and beliefs about teaching diverse students: Understanding the challenges for teacher education. *Educational Evaluation and Policy Analysis*, 18(2), 155–180. <https://doi.org/10.2307/1164554>
- Tatto, M. T. (2019). The influence of teacher education on teacher beliefs. In G. Noblit (Ed.), *Oxford Research Encyclopedia of Education*. Oxford University Press.  
<https://doi.org/10.1093/acrefore/9780190264093.013.747>
- Tatto, M. T., & Coupland, D. B. (2003). Teacher education and teachers' beliefs: Theoretical and measurement concerns. In J. Raths & A. C. McAninch (Eds.), *Teacher beliefs and classroom performance: The impact of teacher education* (pp. 123–182). Information Age Publishing.
- Van Beveren, L., Roets, G., Buysse, A., & Rutten, K. (2018). We all reflect, but why? A systematic review of the purposes of reflection in higher education in social and behavioral sciences. *Educational Research Review*, 24, 1–9.  
<https://doi.org/10.1016/j.edurev.2018.01.002>
- Villegas, A. M. (2007). Dispositions in teacher education: A look at social justice. *Journal of Teacher Education*, 58(5), 370–380. <https://doi.org/10/dcwmj9>

## Appendix A

### Decision-Making Guide

# A Guide for Decision-Making through Principled Innovation

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## What is Principled Innovation?

Principled innovation is the ability to imagine new concepts, catalyze ideas, and form new solutions guided by principles that create positive change for humanity. The question, **“We can innovate, but should we?”** places values and ethical understandings – our own character – at the core of the practice. Principled innovation recognizes four interconnected character assets – moral, civic, intellectual, and performance – that are developed over one’s lifetime through self-reflection, working with others, and learning through experiences.

### About this Guide

One way to integrate principled innovation into our decision-making is through the use of generative and reflective questions. They help us explore situations from multiple angles and anticipate consequences before taking action. Below is a suggested process to guide your decision-making using principled innovation. Starting a new reflective practice can be challenging – try to continue moving through the process without getting stuck on one specific step or getting overwhelmed.



# 1 Immerse

Immerse yourself in the challenge and clearly state the facts.

**What is the dilemma or challenge you are facing?**

Describe the challenge as if you are an observer. Focus on the relevant facts, removing opinions and emotions from the equation.

# 2 Reflect

**Reflect** using the questions below to prompt your thinking about the dilemma or challenge. These are suggested questions to get you started. Frame the questions in the context of your situation and reflect either individually or as a team. Try journaling to deepen your reflection.



## Moral

*Guides decision-making with open-mindedness, integrity, and justice*

- What assumptions or judgements am I making? How do I maintain self awareness?
- What are my intentions? How are my values motivating my decision?
- What ethical concerns exist in the decision I need to make?
- Why do I believe this is the right decision?



## Civic

*Supports collaboration to address systemic problems for the public good*

- Whose perspective, different from my own, do I need to solicit?
- How might I effectively receive feedback from others and ensure their needs and concerns are being addressed?
- Am I considering how the wider community is affected by this decision?
- Do I have additional relevant information I need to consider in this situation?



## Intellectual

*Informs problem-solving by combining creativity, evidence, and critical thinking*

- What data, resources, and learning are informing this decision?
- What information did I gather? What information do I still need?
- What evidence do I have to support my perspective?
- Do I understand how data biases or perspectives may influence the decisions I make?



## Performance

*Enables navigation of uncertainty with initiative, courage, and resilience*

- What kinds of unanticipated issues could emerge with this decision?
- How will I know my decision is effective?
- How will this decision support the well-being of the individual, community, and society?
- How might this action be perceived by others? How can I implement this decision with care and compassion for others?

**Almost ready...** Close your eyes and imagine yourself taking this action. Ask yourself: What emotions are coming up for me? Why am I feeling this way? Does this action align with my values? Is there something else I need to consider? Am I ready to act?

## Act

Make the decision that feels like the right fit and take action. It's better to try a solution than be paralyzed by the fear of making a mistake.

Afterwards, examine your choice... How did it go? What have I learned from this specific situation? What would I do differently next time?

Reflection is a continual process and key to the development of practical wisdom as we learn from our experiences.