



The Transformative Potential of Inquiry: Engaging With and Navigating Complex “Worlds”

ABSTRACT

I propose a model of the scholarship of teaching and learning that builds on and at the same time extends previous work. This article revisits the idea of inquiry as a collaborative social practice enriched by critical reflection and critical self-reflection on assumptions, making a case that among the various functions of inquiry (e.g., increasing effectiveness, enhancing understanding, etc.) is an important emancipatory one, which plays out on two levels: it fosters personal development and agency, but may also lead to social change in our institutions and wider society. This is the transformative potential of inquiry. Looking forward, I make two points: First, I suggest that through inquiry into genuine problems both students and academics not only come to know more, they are also changed in fundamental ways allowing them to better navigate their increasingly complex worlds. These complex worlds include the “big world” that we all inhabit and seek to better understand through our academic endeavours (learning and inquiring through our fields of study) and the “smaller world” of teaching in higher education. Both worlds are rife with “wicked problems” inviting multiple possible meanings depending on assumed viewpoint, thereby defying straightforward definitions, analyses, interpretations, and solutions. Second, to fully reach its emancipatory potential, inquiry into these two complex worlds must be grounded in a “situational ethos” that recognizes the needs and challenges of the larger world.

KEYWORDS

inquiry, complexity, transformation, adaptability, social change

INTRODUCTION

Twenty years ago, Huber and Hutchings (2005) offered several persuasive reasons for why it was imperative that academics engage in inquiry on teaching and learning. In the introduction to their book *The Advancements of Learning: Building the Teaching Commons*, they stated emphatically that “Educators need to engage in pedagogical inquiry so as to meet the challenges of educating students for personal, professional and civic life in the twenty-first century” (x). I still agree with this statement, but in this article, I intend to nudge the analysis of the reasons for engagement in inquiry a little further. In considering how and why inquiry is important, I shall broaden the notion of inquiry from academics exploring issues related to the “small world” of teaching in higher education (i.e., SoTL) to also include students engaged in inquiries about the “big world” we all inhabit. There are several motivations for discussing the two domains of inquiry together.

Inquiry, or scholarship, might be considered the *raison d’être* of the university, where, ideally, the various practices that can be observed there, especially teaching and student learning, are characterized by processes of explorations, argumentation and consideration of available evidence. By looking at inquiry into both worlds (i.e., the “small world” of teaching academics inquire into and the “big world” we hope students will come to know about and be prepared for), my intent is to

engage with three of SoTL's grand challenges (Scharff et al. 2023). By affording students opportunities to learn through genuine inquiry, I argue that we develop their ability to think creatively and critically (Grand Challenge 1) and encourage their engagement (Grand Challenge 2). Later in the article, I will say more about the transformational potential of inquiry when looked at through the lens of a "practice" (MacIntyre 2007). As a practice, that is an established collaborative activity requiring certain virtues and affording certain internal goods, inquiry encourages creativity, criticality, and engagement, which in turn leads to greater adaptability.

This argument is also directly linked to Grand Challenge 5, which involves taking a deeper look at SoTL, "expanding the questions asked, the aspects of learning it focuses on, and the methods by which it's conducted," and "strengthening its ability to effect change in higher education and extending its influence more broadly" (Scharff et al. 2023). I will make two related points. First, asking why both "academics' teaching" and "students' learning" should be construed and performed as practices of inquiry, I offer as an answer that it is through inquiry (i.e., academics' inquiry into aspects of teaching and learning and students' inquiry into the various problems we help them engage with) that both academic teachers and students develop adaptive capabilities needed to successfully navigate their complex "worlds."

Second, building on Booth and Woollacott's (2018) aspiration to "raise(s) awareness of what SoTL work can or should extend to, by bringing societal and moral/ethical aspects into view" (549), I will suggest that to reach its full transformative and, indeed, emancipatory potential, inquiry must address genuine problems. This requires not only that inquiry explore problems that are not yet resolved, but also that it be grounded in a "situational ethos" (Behari-Leak 2022, 33) that recognizes the needs and challenges of the world (e.g., Behari-Leak 2020, 2022; Chick 2022; Felten and Geertsema 2023; Gale 2009; Leibowitz 2010). Through such inquiry, we approach both teaching and student learning in higher education "as if the world mattered" (Kreber 2013, 13). The transformative potential of inquiry then includes, and extends beyond, the individual person and the development of their adaptive capabilities; it also refers to changes in our institutions and wider society.

Before continuing, I would like to clarify two points that arose during the review process of this article. First, while I appreciate the tremendous value of students becoming partners in SoTL, this is a different idea and not what I am concerned with in this article. Second, while I distinguish between the small world of teaching and the big world students have to navigate, and associate the small world as the domain of inquiry of academics and the latter that of students, I am not suggesting that academics have it all worked out and that only students still need to better prepare for the complexities of the big world. Clearly, this is not the case. None of us can say that we are prepared for the challenges of the world, and so all of us, academic and students, are constantly challenged to face and engage with the complexity of the big world. As teachers, many of us do this by engaging the class, which by definition includes us, with the complex challenges of our time. When I distinguish between the small world of teaching and the big world in this article, I am making a different point. My point is, firstly, that the challenges associated with teaching have become increasingly complex, making it more important than ever to engage with it in an inquiry-based way. Navigating these challenges requires a certain adaptability, in ourselves and our higher education institutions, that is supported or enabled through inquiry (in other words through SoTL). My second point is that both SoTL scholars and students are engaged in a similar type of practice, namely the practice of inquiry into complex problems, although the problems we help students engage in are different from those we engage in as SoTL scholars. (And I acknowledge that there is some overlap as together with students we inquire into the big world as we teach our courses).

In this article, I will explore the transformational potential of inquiry when enacted as a “practice” (MacIntyre 2007), and when supported by critical reflection and critical self-reflection on assumptions, beliefs, and values in relation to self, disciplines, communities, institutions, and society. I will now turn to the challenges students and instructors confront as they seek to navigate their respective “worlds.”

The complexity of the “big world” and the “smaller world” of teaching

The world students need to navigate

British philosopher of higher education Ron Barnett uses the term “supercomplexity” (Barnett 2000) as a shorthand to describe a world that is characterized by multi-level challenges students must grapple with as they try to make sense of their experiences. Specifically, he discusses two distinct challenges which are related hierarchically. The first is the challenge of epistemological uncertainty brought about by ongoing and rapid advancements and changes in knowledge leading to a sense of unpredictability. The second, which basically floats above it, arises from the surge of disciplinary specialisations and multiple, often conflicting, positions or frameworks by which to make sense of the world. The “super-complex” world we live in, therefore, is characterized not only by “uncertainty” and “unpredictability,” but also by “challengeability” and “contestability” (Barnett 2000, 159), causing ontological uncertainty. “This is an age that is replete with multiplying and contradicting interpretations of the world,” says Barnett (2007, 36–37), one where facts and skills do not provide clear answers for what to think and how to act. It is because of these profound challenges of the modern world, he argues, that universities should see their role principally in cultivating certain dispositions and qualities in students—we might also say certain ways of “being.”

At a concrete level, we and our students feel the unpredictability and contestability of the world on a daily basis as we are confronted by undeniable and staggering social and economic inequalities in our local communities and wider society (often linked to racism, bigotry, or simply entitlement based on privilege, etc.), the climate crisis, incidents of environmental pollution, health crises, and famines and political crises, the latter two intersecting with the others. These and other troubling issues are real challenges which genuine efforts to prepare students for the “world” cannot ignore. These matters present as super-complex (Barnett 2000), ill-defined (King and Kitchener 1994) or “wicked” (Rittel and Webber 1973), with multiple possible meanings depending on assumed viewpoint, defying straight-forward definitions, analyses, and interpretations, let alone solutions.

Dispositions needed to navigate the “world,” according to Barnett (2009), are: a will to learn; a will to engage; a preparedness to listen; a preparedness to explore and to hold oneself out to new experiences; a determination to keep going forward. Required qualities, he proposes, include courage, resilience, carefulness, integrity, self-discipline, restraint, respect for others, openness, generosity, and authenticity (Barnett 2009, 433–34). Barnett (2007) argues that while a disposition refers to “an orientation to engage with the world in some way,” qualities are the particular ways in which the dispositions may play out in an individual (102). Qualities speak to character, they “find their expression in the student’s activities” (103). The distinction is perhaps somewhat vague, but I will come back to it later. More important than the distinction between dispositions and qualities is Barnett’s (2009) essential insight that, given the “supercomplexity” of the modern world, students need to grow in complexity themselves.

If coming to understand the “big world” has become super-complex, what about the “smaller world” of teaching in higher education? Is this “smaller world” perhaps also replete with multiplying and contradicting interpretations (to appropriate Barnett’s words). If so, what demands does such a world make on academic teachers? This is the issue I will turn to next.

The world academics need to navigate

Clearly, our various “smaller worlds,” including that of teaching in higher education, are inseparable from the “big world” we live in. This is evident in some of the challenges I note below. However, I would like to suggest that despite, and indeed because of, the inevitable interaction between these worlds, the “smaller world” of teaching in higher education is complex in and of itself. Examples of challenges contributing to this complexity include:

- A very diversified student population as a result of various widening participation initiatives, intensified recruitment of international students, and degree inflation;
- Increased expectations that universities “produce” graduates with certain types of skills, some specific for particular types of work and others transferable;
- Greater student enrollment leading to increased class sizes despite a heightened rhetoric of student-centeredness;
- Expansions in various student support services (offering help with writing, advising, study skills, counselling, etc.) that still cannot keep up with growing demand;
- Technical and emotional challenges arising from the COVID-19 pandemic (for example a sense of powerlessness many academics felt due to not being able to support students who lacked either the material or personal resources required to learn in an online environment);
- Advances in generative artificial intelligence bringing with it increased concerns over academic integrity violations;
- Expectations to expand online offerings against some instructors’ own best judgement, causing a sense of role conflict and inauthenticity;
- Greater awareness of ongoing and systematic inequalities in society (based on racism, ableism, homophobia, transphobia, and many consequences of colonialism) leading universities to develop EDI (equity, diversity, and inclusivity) policies with the goal of creating more equitable practices across the institution—faculty sympathetic towards these developments may still feel challenged and uncertain about how to make their classrooms more inclusive by design and how to integrate more culturally responsive practices into their teaching;
- A reward system where research continues to count more than teaching.

While these are just some of the challenges facing teachers in higher education, there are additional factors that make knowing how to respond to them especially tricky:

- Conflicting expectations of what being a good university teacher involves, leading instructors to feel incompetent or as if they cannot live up to all expectations (Cranton 2001);
- Contradictions between what one knows, on one level, is good practice (for example, letting students assume greater responsibility for their learning) and what students say they want (e.g., more recorded lectures on the textbook, digital notes posted, etc.);
- Conflicting discourses in relation to whether the phrase “teaching and learning” (as part of Scholarship of Teaching and Learning) refers only to teaching and learning strategies (i.e., a technical concern) or also to broader questions of what we, individually and collectively, seek to achieve through higher education and the programs and courses we offer, and how we understand our own roles and responsibilities in this context (i.e., a value concern);
- Diverse discourses in the higher education teaching and learning literature, with some emphasizing the importance of helping students understand content and intellectual problems in their chosen discipline or field of study (e.g., bottleneck concepts, threshold

- concepts, constructive alignment, etc.) and others highlighting themes such as universal design for learning, culturally responsive pedagogies, global citizenship, or decolonization;
- Conflicting opinions as to whether inquiry into teaching and learning should concentrate on the question of “what works” or on “what does it mean” and “is this right?”, let alone related sub-questions such as “who gains-who loses, by which mechanisms of power,” “is this desirable,” and “what can be done” (see Flyvbjerg 2001, 162);
 - Linked to the above, conflicting discourses over the fundamental purposes of higher education, specifically whether higher education essentially ought to contribute to a thriving competitive world economy or whether higher education’s purpose is also to take issue with the many social and environmental injustices in our local and global communities;
 - Conflicting opinions within the academy regarding what counts as scholarship in connection with teaching and learning, with some members holding the view that something qualifies as true scholarship only if it leads to a traditional output, such as a peer-reviewed article (or some other countable product of this sort) and is tightly linked to the intellectual problems internal to the discipline;
 - Conflicting discourses regarding the role of the professor in society (e.g., educator, discipline expert, researcher, or public intellectual?).

These lists are not meant to be exhaustive but illustrative. The examples in the first set of bullet points make clear that over the past three decades, the world of teaching in higher education has become more challenging, and many of these challenges are intensifying. There are also no simple, straight-forward or technical answers with regard to what is the right course of action to take in responding to them. The examples offered in the second set of bullet points demonstrate that teaching in higher education is indeed “super-complex” given the range of conflicting assumptions and discourses that have infused this world. My purpose in highlighting these issues is to argue that the “smaller world” of higher education teaching is difficult to navigate and makes certain demands on academics, just as the “big world” makes demands on students (and all of us). These demands can be understood as a certain adaptability or internal complexity needed to navigate these complex worlds successfully. What does such an adaptability or internal complexity involve?

To understand the importance of inquiry in relation to adaptability and internal complexity we must now first delve into the theoretical underpinning of transformative learning.

Understanding complexity through Mezirow’s theory of transformative learning

Barnett’s (2009) philosophical position on “super-complexity,” “knowing,” and “being” discussed earlier is not altogether unique. It shares with Meyer and Land’s (2005) theory of threshold concepts in higher education, and Kegan’s (1994) theory of mental complexity (see also Baxter-Magolda 2000; Baxter-Magolda 2001), a concern with a certain kind of adaptive capability that is necessary to address modern challenges. Mezirow’s notion of perspective transformation also aligns with this concern. Mezirow (2012) writes that perspective transformation refers to:

a process by which we transform our taken-for-granted frames of reference (meaning perspective, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action. (76)

While all the above theories are concerned with how we think, there is also an affective dimension inherent in each. Mezirow (1978) states explicitly that meaning perspectives have “dimensions of thought, feeling and will” (105). Importantly, in the same section he says that “meaning perspectives are more than a way of seeing [. . .] feelings and events are interpreted existentially, not intellectually as by an observer” (105). Kegan’s concept of “immunity to change” (Kegan and Lahey 2009), referring to the internal barriers individuals construct to protect themselves against perceived danger (or, more concretely, challenges to their belief systems), highlights that affect plays a key role in developing mental complexity. Barnett (2005), writing from an existential perspective, argues that students in higher education should be afforded opportunities to endure and contribute to “strangeness” (794), the very notion of strangeness having intense affective undertones evoking images of the “uncanny.” Threshold concepts have a strong grounding in disciplinary knowledge; and yet being in a space of liminality (Meyer and Land 2005), or between perspectives, is described as troublesome and can cause anxiety or a sense of “strangeness” (Barnett 2005, 794), just as a “disorienting dilemma” (an unexpected event that leads to discomfort or perplexity) can in Mezirow’s (1991) theory. All these theories then share three characteristics:

- They speak to the adaptive function of greater mental complexity;
- They emphasize the connection between knowing and becoming;
- They recognize that there is an affective dimension to the change process they seek to explain.

Despite these commonalities, Mezirow’s (1991) theory of perspective transformation offers something that the other theories do not, which makes it especially helpful if we seek to ground inquiry into teaching (i.e., SoTL), and the inquiries students engage in through their studies (more on that later), in the needs and challenges of our “worlds.”

The value of Mezirow’s transformative learning theory for understanding inquiry in higher education

A central concept in Mezirow’s theory of transformative learning is critical reflection and critical self-reflection on assumptions, beliefs and values, which “leads to more fully developed meaning perspectives, that is, meaning perspectives that are more inclusive, discriminating, permeable (open), and integrative of experience” (Mezirow 1991, 111). A meaning perspective, or frame of reference, is a filter through which we understand the world. The filter is rooted in past experiences, in assumptions, beliefs, and values we adopted, at times uncritically, through a process of socialization. Meaning perspectives shape and delimit our perceptions, feelings, and interpretations (Mezirow 2012, 82).

However, the most distinguishing aspect of Mezirow’s work lies in its conceptual eclecticism, or to state it more positively, the flexibility it offers for describing different kinds of learning, which comprise both personal and social transformation. This is because of Mezirow’s indebtedness to a wide range of theorists including, for example, Roger Gould, George Kelly, and Karen Kitchener. While Gould was an authority on adult psychological development and psychiatry, Kelly was the father of constructivist psychology and Kitchener developed a model of increasingly complex epistemic assumptions individuals hold and how they justify their beliefs (see also King and Kitchener 1994). Next to these scholars, Mezirow also took inspiration from various critical theorists including the German sociologist Jürgen Habermas. This theoretical eclecticism has three key implications: first, it leads Mezirow to draw a distinction between different kinds of learning, instrumental, communicative, and emancipatory (grounded in Habermas’s (1971) technical, practical, and emancipatory human interest, respectively); second, it leads him to emphasise the importance of critical reflection and critical self-reflection on assumptions, beliefs, and values; and third, it leads him

to understand transformative learning broadly, namely as ranging from personal transformation, whereby individuals change how they feel, think, and act as a result of critical reflection and self-reflection, all the way to social transformation grounded in ideology critique (Habermas 1983). Specifically, he distinguished three interrelated but distinct domains in which people develop frames of reference, calling these frames of reference “meaning perspectives.”

Leaning on Kelly (1955), he understood a meaning perspective basically as a “personal construct system,” that is a set of interwoven assumptions, beliefs, and values we hold, which both filter our perceptions and shape our expectations and responses. He labelled the three meaning perspectives the “psychological meaning perspective” (drawing on Gould), the “epistemic meaning perspective” (drawing on Kitchener but we might also include Kegan’s, Baxter-Magolda’s, and Meyer and Land’s work in this category) and the “sociolinguistic or sociocultural meaning perspective,” the latter concerned with social norms, cultural expectations, socialization, and so on (drawing on Habermas). In his later work, Mezirow (2000) identified three further meaning perspectives (the moral-ethical, the philosophical, and the aesthetic) but for the higher education context the psychological, epistemic, and sociocultural/sociolinguistic meaning perspectives are especially relevant given the powerful influence they can have on learners and teachers.

Others have applied Mezirow’s work to inquire into teaching and learning in higher education. Hamilton (2007), for instance, discusses how engagement in SoTL can lead SoTL scholars to experience transformative changes such as “improved self-understanding through reflection,” “enhanced efficacy,” “better appreciation of the role of inquiry in teaching,” and importantly “more openness to learning” (Hamilton 2007, 2–3). These changes chime well with the notion of a more inclusive, discriminating, permeable (open), and integrative meaning perspective on higher education teaching in the psychological and epistemic domains. Also drawing on Mezirow (1991), Cranton (2011, 85) explored specifically what an emancipatory scholarship of teaching and learning would look like, suggesting “such an approach has the potential to yield a deep shift in perspective on teaching and learning at both an individual and a social level.” Academics questioning, for example, the “norms and values of the discipline, the institution, the community and the state” (Cranton 2011, 85) may be seen as leading to changes in their socio-linguistic meaning perspectives in relation to teaching. Elsewhere she makes the following helpful statement, which speaks to the flexibility and broad scope of Mezirow’s theory:

Whether the transformative learning process is an individual or social justice endeavor depends on circumstance, and both are valid and reasonable ways of engaging in transformative learning. Individual transformative learning depends on a person calling into question her or his assumptions, beliefs, and values . . . [while transformative learning with regards to social justice involves calling into question social norms, social values, and issues related to] oppression . . . What is being questioned is different, but the process may be the same . . . the outcome is a deep shift in perspective. (Cranton 2016, 42)

Mezirow’s transformative learning theory has been applied to student learning in higher education contexts as well. For example, Herbers and Mullins Nelson (2009) reported how field trips, service-learning, and study abroad experiences caused disorienting dilemmas for students triggering reflection on assumptions in relation to self and society, which ultimately led to deeper self-understanding and increased awareness of distorted sociocultural assumptions. Hendershot (2010) interpreted students’ identity development as global citizens through the lens of Mezirow’s theory.

Drawing on Mezirow's (2000, 20) notion that transformative learning involves redefining or reframing the problem, Thomas (2009) used Mezirow's transformative learning theory to explore student learning about sustainability. All these studies highlight how Mezirow's theory was helpful in describing changes students experienced in how they thought and felt about issues, or, stated differently, how their meaning perspectives changed.

In previous work I, too, associated SoTL with transformative learning. In the current article, however, I offer a three-fold extension. First, I propose that development towards a more inclusive, discriminating, permeable (open), and integrative meaning perspective is a necessary adaptive response to navigating complex worlds. Second, I suggest that this adaptive response (a more complex meaning perspective) is critical for teachers in higher education and for students seeking an education "for personal, professional and civic life in the twenty-first century" (Huber and Hutchings 2005, x). Third, I argue that it is through sustained immersion in the practice of inquiry that higher education teachers and students become involved in a transformative process of becoming, through which they develop meaning perspectives that makes them more adaptable to complexity and may lead to changes in our institutions and society. Next, I discuss what inquiry, when construed and enacted as a practice, and enriched through critical reflection and critical self-reflection on assumptions, beliefs, and values, involves.

Transforming minds and "worlds" through the practice of critically reflective inquiry

Inquiry understood as a "practice"

Two hundred years ago, Wilhelm von Humboldt proposed that "... universities should treat learning as not yet wholly solved problems and hence always in research mode" (Wilhelm von Humboldt 1810, cited by Elton 2005, 110). While this is not the place to engage in a full discussion of Humboldt's philosophy of higher education, it is important for our purposes that he emphasized that through inquiry, students' minds and characters be broadened and deepened as they interacted with cultural knowledge, and that this would be to the benefit of both students and society. Now surely, we no longer live in Humboldt's times and we no longer think of cultural knowledge in the same way. The world we live in today, and what we consider important knowledge, has changed; even if we only think of the gradual fragmentation of a once assumed "unity of science" over the past two hundred years through the evolution of many disciplinary specializations and conflicting interpretive frameworks, let alone the massive intensification of environmental degradation interacting with diverse economic and political factors leading to numerous social injustices, this registers as an undeniable fact. And yet, what Humboldt said about inquiry and scholarship is still relevant. It strikes me that a key point in his vision of a "genuine education through inquiry/scholarship" was not just the idea that learning was grounded in inquiry and scholarship, but that the problems to be inquired into would have real importance for society. Now we might like to broaden the focus on "society" to include our global world. I further submit that this notion of inquiry is useful regardless of whether we think of students learning and inquiring into the "big world" we live in or academics learning about and inquiring into the "smaller world" of teaching.

To support learners in developing the dispositions and qualities needed to navigate the complexities of our times, Barnett (2009) suggested that the curriculum should be appropriately demanding, offer contrasting insights and perspectives, require a continual presence and commitment on the part of learners, and provide sufficient space for genuine explorations. Pedagogies should require learners to engage with each other, expect them to understand and strive for meeting standards, be encouraging and enthusing, require them to take a stance, to give

something of themselves, and to be active (for details see Barnett 2009, 438). While he did not state explicitly that learning should be inquiry-based, the pedagogical and curricular processes he identified are clearly compatible with and suggestive of such an approach.

Especially if we understand inquiry as an established collaborative “practice” associated with certain standards, internal goods, and virtues/qualities to be attained (MacIntyre 2007), underpinned by critical reflection and critical self-reflection on assumptions (Mezirow 1991), and linked to genuine problems (see Humboldt), it addresses many of the aspects Barnett sketched out for us. While Barnett had students in mind when he wrote that section, the fundamental principles his vision of significant learning is based on (again, consider his call to engage in genuine explorations, meet standards, consider contrasting perspectives, or take a stance, etc.) apply just as much to academics learning about teaching (i.e., engaging in SoTL) as they do to students learning about the big world.

I propose, therefore, that teachers in higher education need to grapple with the complexities of the “small world” of teaching through genuine inquiry (i.e., engagement in the scholarship of teaching and learning), as this leads to greater adaptability and thus a more inclusive, discriminating, permeable (open), and integrative meaning perspective on teaching. Such inquiries may also lead to more effective and also fairer teaching practices and policies, and as such to greater social justice in higher education. And of course, engagement in SoTL, construed to also involve critical reflection on the purposes of higher education and the implications for curriculum and pedagogies, may also lead us teachers to recognize that students need to be afforded opportunities to grapple with the many complex and “wicked” (Scharff and Hamshire 2022, 63) problems, challenges, and injustices of the “big world” and explore them from a range of possible perspectives. This in turn would encourage better student preparedness to cope with the “wicked” problems of our times (i.e., adaptability) and, as importantly, might lead to greater creativity and innovation as well as a fairer world through higher education.

As was intimated throughout, the notion of a practice (MacIntyre 2007) is especially useful for illuminating the nature of inquiry. Practices are transformative; that is, they support a process of becoming. Participation in the practice of inquiry, therefore, leads not only to more knowledge but also changes the individual. To appreciate why this is the case, it is important to note that practices (MacIntyre, 2007), unlike other activities, have certain key characteristics:

- Practices are social or collaborative activities as they take place within a community;
- They have particular standards associated with them that members of the practice are bound by and respect;
- They have evolved or established ways of doing things (a “tradition” of sorts);
- Participants in a particular practice recognize certain goods or experiences they have through their involvement in this practice as especially valuable (MacIntyre calls these the “internal goods” of the practice);
- The internal goods of the practice come into reach for participants as they enact certain virtues that are also further developed through participation in the practice (MacIntyre holds that justice, truth, and courage are fundamental to any practice but that particular practices will encourage additional virtues/qualities).

These defining characteristics of a practice help us to recognize some of the fundamental features of inquiry. For example, we can easily see how inquiry is a collaborative practice happening in a community, where certain traditions and norms, or rules of the game, have evolved and are used to judge one’s own and others’ actions. It is not uncommon to speak of a community of inquirers in higher education based on “shared goals of investigation and discovery . . . a deep and abiding

understanding that inquiry, investigation, and discovery are the heart of the enterprise” (Boyer Commission 1998, 9). We also speak of the SoTL community, assuming that as a community of inquirers into teaching in higher education, we share common goals and standards.

MacIntyre’s (2007) central point is that through sustained involvement in a particular practice participants, over time, come to value the goods internal to that practice; this is especially helpful if we seek to encourage student engagement (see SoTL Grand Challenge 2). To get a handle on the internal goods of the practice of inquiry we need to ask “what is its essence?” and “why is this valuable to the participant?” The previous discussion has linked inquiry to genuine problems in the “smaller world” of teaching and the “big world.” Inquiry, then, emerges as a practice that seeks to engage with significant problems in our “worlds,” with the goal of gaining deeper understanding and potentially improved action. The internal goods, meaning the things participants will learn to value and find enriching through engagement in the practice of inquiry, include what they come to know and who they are becoming through the process of inquiry. More concretely, the internal goods to be gained through inquiry are a perceived sense of increased adaptive capability and actual efficacy in contributing to change. It is not only plausible but likely that immersion in the practice of inquiry would over time lead to “a will to learn; a will to engage; a preparedness to listen; a preparedness to explore and to hold oneself out to new experiences; a determination to keep going forward,” precisely the dispositions Barnett (2009) singled out.

Internal goods and virtues constantly interact with one another. Creative and critical thinking (see SoTL Grand Challenge 1) can be conceived of as virtues that are developed through the practice of inquiry. We can add the qualities of “courage,” “carefulness,” “respect for others,” “openness,” or “authenticity” that Barnett (2009, 433–34) discussed. MacIntyre himself speaks of the virtues of courage, truth, and justice that are needed for any practice, and we can see how these too would be necessary to experience the internal goods of inquiry. Concretely, the virtue of truth and truthfulness requires us to take full account of what is known, that is all the facts we have access to, and not ignore information that contradicts our beliefs or desires. The virtue of justice has several dimensions in the context of inquiry: it is necessary to respect the standards of scholarship and not seek to cheat in any way; it is necessary to pay attention to the many ethical issues that arise in the conduct of inquiry; and it is necessary to inquire into questions that explore matters of justice in the world directly (including which knowledge is legitimized and delegitimized, as well as how and why, and what can be done about it). The virtue of courage is needed to engage with the unknown and to develop a stance on an issue. These examples show how truth, justice, courage, and other virtues and qualities, are indispensable for inquiry and are also further developed through participation in inquiry. So again, through engagement in the practice of inquiry we not only come to understand our “worlds” at a deeper level we are also changed more fundamentally through this process as we develop certain qualities and dispositions.

While all practices, then, are transformative, the transformative potential of the practice of inquiry is, of course, enhanced by inquiry’s close association with criticality and reflection. According to Andresen (2000) inquiry, or scholarship, involves “critical reflectivity as a habit of mind, scrutiny by peers as a *modus operandi*, and inquiry as a motivation” (Andresen 2000, 141). Much of the literature on SoTL, therefore, highlights the importance of reflectivity or reflective critique (Andresen 2000; Glassick, Huber, and Maeroff 1997), and some colleagues made suggestions for reflective questions to be asked as part of the inquiry (e.g. Hutchings 2000; Kreber and Cranton 2000; Kreber 2013). It would be difficult to envisage genuine inquiry that was devoid of critical reflection, whether we think of inquiries students are engaged in or academics’ inquiries into teaching. I would add that inquiry,

ideally, includes critical reflection on assumptions, beliefs, and values in relation to self, others (e.g., what others say, what is stated in texts, etc.), disciplines, communities, institutions, and society.

Therefore, in the final part of this article I should return to Mezirow’s transformative learning theory to show how the practice of inquiry can lead to perspective transformation, that is personal and possibly social transformation. Especially valuable are inquiries grounded in a “situational ethos” (Behari-Leak 2022, 33), that recognize the needs and challenges of the “big world” and the “smaller world” of teaching.

The practice of critically reflective inquiry

Inquiry into teaching

The practice of genuine inquiry into teaching involves adopting a critically reflective approach towards teaching, including reflecting on current practices in our courses, departments, disciplines, and institutions, and the wider goals, social purposes and policies of higher education (Atkinson 2001; Cranton 2011). Importantly, it also includes reflecting on our own assumptions, viewpoints, or perspectives on any of these. Mezirow (1991) argues that “distorted assumptions,” meaning those that we have assimilated uncritically lead us “to view reality in a way that arbitrarily limits what is included, impedes differentiation, lacks permeability or openness to other ways of seeing, or does not facilitate an integration of experience” (118). Part of inquiring critically into the complex yet “smaller world” of university teaching then is to become aware of such distortions and ask where these come from. This reflective process of inquiry leads to a deeper understanding of issues and ourselves. Mezirow’s distinction between instrumental, communicative, and emancipatory learning is particularly helpful in further developing this point.

Through instrumental learning we ask “what works.” Much work in SoTL looks at the effectiveness of certain interventions, which fits the mould of instrumental learning. Through instrumental learning we seek to find solutions to technical problems. However, as we saw earlier, the world of teaching is super-complex. If there is not just one way to define a problem or if there are many different interpretations on an issue, then instrumental learning cannot provide meaningful answers. For example, deciding which content or reading materials to include in a program, or more to the point, which discourses and experiences to prioritize and why, is not, in the first instance at least, a technical problem. Likewise, finding out how to engage students is not a technical problem (Sheared 2023). Fostering student engagement requires us first to understand which issues students really care about and why they seem disengaged to begin with in order to then determine how to integrate their interests with the course without losing academic rigour. What is required here is communicative learning, whereby we seek to uncover meaning, including seeking to understand what others mean. Most fundamentally, perhaps, arriving at a sense of what we mean by a genuine higher education, one that is meaningful to students in our contemporary world, is not an empirical endeavour; rather it involves a sharing of perspectives, ideas, and insights across differences on the particular value that institutions of higher learning can add to students’ education and society. When colleagues share their perspectives on these issues they are involved in a process of communicative and, at times, emancipatory learning.

Emancipatory learning is most fundamental to transformation. Here we ask how norms, or ways of doing things, have evolved, how they came to be, and whether they need to change. Our reflection is focused on presuppositions or fundamental assumptions inherent in the procedures, policies, and norms of our institutions and society (Cranton 2011). Emancipatory learning also occurs when we move beyond merely understanding what others mean, and instead change, grow, and then take action as a result of such reflections and exchanges (perhaps by changing our own view of how

through the provision of higher education we can effect change in the world). For example, thinking through, ideally with others, what types of learning environments and opportunities may most meaningfully support students in the process of coming to know about our current world (Barnett 2000) so that they are better equipped to act on and contribute to it, is, initially, a purely philosophical or communicative inquiry inviting a diversity of opinions. Of course, sharing of opinions as such is not sufficient; what is also required is that we are respectfully critically reflective, give everyone an equal voice, and are guided by the most persuasive arguments (the nature of ideal critical discourse). These forms of communicative (and at times emancipatory) learning, which often lead to deeper insight and transformed perspectives, are crucial aspects of SoTL. When we engage in critical self-reflection, we turn the gaze on ourselves and our own assumptions. Here we ask, for example, why for our own courses we choose certain authors and epistemological perspectives over others, why certain experiences and perspectives are excluded or undervalued, why we think learning through inquiry is not possible in our courses, why we think our course does not lend itself to addressing important social issues, and how we could do things differently.

It is precisely because teaching is not primarily a skill that communicative and emancipatory learning are important for inquiries into teaching. Learning to teach in the complex “smaller world” of teaching in higher education inevitably requires of us to grapple with questions of meaning and value (“what does it mean,” “who gains-who loses, by which mechanisms of power,” “is this desirable,” and “what can be done” [see Flyvbjerg 2001, 162]), and not just questions of an instrumental nature (“what is effective/what works”). Communicative and emancipatory learning are ideally promoted through dialogue within a community of inquirers where knowledge claims and assumptions are questioned in a safe and supportive environment characterized by criticality and respect. Of course, inquiry into “what works under what conditions,” that is, instrumental learning, is a critical next step. Inquiry into the “small world” of teaching (i.e., SoTL) is neither exclusively about interrogating meaning and values, nor exclusively about how to most effectively support learning. Both are needed to change our meaning perspectives and actions.

Students' engagement in the practice of inquiry (learning through inquiry)

Almost 40 years ago, Boyer (1987, 284) argued that “. . . the college should encourage each student to develop the capacity to judge wisely in matters of life and conduct . . . to set them free in the world of ideas and provide a climate in which ethical and moral choices can be thoughtfully examined, and convictions formed.” In the past and present, universities have had a broader mission than pursuing scientific progress or economic growth by teaching skills and procedures aimed at filling jobs. Affording students opportunity for sustained immersion in inquiry into genuine problems, as construed in this article, may be seen as one way to achieve this broader mission. Authentic engagement with inquiry is more likely when students can choose the topics or problems to inquire into, and if that choice is based on a true regard and care for the world. This means that the problem identified is complex and sufficiently demanding, not yet resolved, and represents a real concern to students (and their teachers) and society.

Just like academics engaged in SoTL (inquiry into the “small world” of teaching), students inquiring into the “big world” are engaged in instrumental, communicative, and emancipatory learning. Their inquiry needs to go beyond learning and practicing technical data collection and analysis procedures and involve them in critical reflection on the significant questions they identified. Questions of social justice and sustainability are infused by many conflicting discourses, are complex and often controversial, and affect many spheres of life. While social justice and sustainability certainly are not the only problems students can, could, and should inquire into to make education

meaningful to them and society, it is nonetheless worthwhile thinking through how individual programs across the humanities, social science, and science disciplines can connect with these larger issues. Rather than being ends in themselves, the individual disciplines then may be seen as pathways to connect academic inquiry with the real challenges of the world (Huber and Reinmann 2019; Kreber 2024).

Ideally, inquiry would take place in interdisciplinary communities, where students would be grappling not only with the multi-faceted problems in our society but be exposed to the additional challenge of communicating across disciplinary boundaries. This would involve identifying and questioning the fundamental assumptions individual disciplines are based on, and how these same assumptions influence students' own thinking and values. Moreover, students could be encouraged to reflect on how their diverse cultural and geo-political backgrounds affect how they understand and relate to these problems as part of their inquiries into important social issues. Importantly, by participating in the practice of inquiry, students learn to strive to achieve the standards of excellence of scholarship, which include, as we saw earlier, critical reflection in a peer context and genuine curiosity. It is through critical reflection of their own, as well as others' assumptions (i.e., the assumptions of peers, instructors, texts, other disciplines, politicians, other scientists, cultures, etc.), that students become aware of how their present meaning perspectives (psychological, epistemic, or sociolinguistic) have delimited and shaped their views and understanding of issues. As students are engaged in genuine inquiry into the challenges of our time, which includes instrumental, communicative, and emancipatory learning, their meaning perspectives become more inclusive, discriminating, open, and emotionally capable of change. This adaptive capability will also lead them to generate a stance on issues that they are able to justify with critical reflection in a community and authentic commitments, which can then guide their actions.

CONCLUSION

In this article I discussed inquiry as an ongoing transformative learning process called for by the complexities of the “worlds” students and higher education teachers navigate. Engagement in the practice of inquiry, into the “big world” we all inhabit or the “smaller world” of teaching, leads not only to gains in knowledge and skill but also, and importantly, the development of important virtues, qualities, and dispositions. These include, for example, a preparedness, readiness, and curiosity to explore, as well as courage, carefulness, integrity, respect for others, openness, generosity, and authenticity (see also Barnett 2009), which are all important adaptive capabilities (for teachers and students).

Especially if our inquiries are infused with critical reflection and critical self-reflection on assumptions, beliefs, and values, there is a real opportunity to move towards meaning perspectives that are more inclusive, discriminating, open, emotionally capable of change, and reflective, making us better capable to engage with and contribute to our complex “worlds” in meaningful ways. Inquiry may change not only what and how we know, think, and feel, but also how we act on issues. If critical reflection is directed at important social causes, it may lead not only to personal transformation but may provoke us to act on the world differently, leading to social transformation. Felten and Geertsema (2023) recently asked:

Might SoTL—or, indeed, in some cases, has SoTL—become another instrument of the neo-liberal drive for maximizing career and economic outcomes at the expense of broader educational purposes? Could SoTL, ironically, become another way of

controlling and constraining faculty teaching and student learning, cutting us off from the world and from our own humanity? (1106)

The transformative potential of inquiry into genuine problems that are not yet resolved and into the needs and challenges of the world, lies in its emphasis on educational purposes beyond economic and career advancement and, by extension, in connecting both academics and students with their humanity.

AUTHOR BIOGRAPHY

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