

## **Call and Response: Inquiry-Based Learning as a Critical Pedagogy in the Scholarship of Teaching and Learning to Promote Transformation and Transformational Leadership**

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### **ABSTRACT**

We have been called to action as teachers—to become leaders of change in society and move forward in good ways in the Scholarship of Teaching and Learning (SoTL). To move forward in good ways, we must identify and work to deconstruct systemic racism and white supremacy embedded in all colonial institutions, including institutions of higher education. We can start this journey in higher education by responding to the call to engage with new ways of knowing and doing; we can apply critical pedagogies in the classroom. Responding to Dr. Gabrielle Weasel Head’s question “What might we miss if we do not spark students’ curiosity?,” I suggest that through the application of inquiry-based learning (IBL), we might inspire students to become curious and engage with us in the goals of social justice. In this call-and-response article, I engage with the literature and reflect on the application of IBL as both student and teacher. I explore IBL, a socially just pedagogy, in its ability to transform the classroom, beginning with the restructuring of teacher-student relationships and culminating in the transformation of students to become lifelong learners, committed to social justice. Reflecting on the application of IBL and what I might have missed if I did not have the opportunity to engage with IBL, I share the challenges and successes that have inspired me to transform from student to teacher. Finally, I share my experiences as a teacher and what I believe we might miss if we do not spark students’ curiosity through inquiry.

*Keywords:* inquiry-based learning (IBL), transformational leadership, social justice, critical pedagogy, transformation

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## THE ROAD TO THE 2022 SYMPOSIUM

We have been called to transform higher education (HE), to engage with different ways of knowing and being with the goal to deconstruct systemic racism and white supremacy in settler colonial institutions. As teachers, and as leaders, we must find ways to answer this call in good ways to work towards social justice. In this response to Dr. Gabrielle Weasel Head's keynote speech at the 2022 Scholarship of Teaching and Learning Symposium, I share my journey, as a student and then as a teacher, with inquiry-based learning (IBL) as a critical pedagogy to promote social justice in HE. In exploring this critical pedagogy, I highlight the benefits and challenges, but, more importantly, I hope to bring attention to what we risk if we do not respond to the calls to reform. This is a further call to action for us to critically reflect on *how* we can all become co-conspirators in the deconstruction of systemic racism and oppression, with goals of transformation in HE. This is a journey. How does yours start?

### *My Journey to Become a Co-Conspirator*

I returned to higher education (HE) in 2017 to obtain a Master of Social Work. In a social policy class, I was called out for perpetuating systemic racism. For the course assignment, I developed a proposal for a program to provide direct support and services to Black and racialized caregivers experiencing a child welfare investigation. I thought it was really good. Instead, I received the feedback that changed my life: "You are perpetuating systemic racism."

I had worked in child welfare since obtaining my Bachelor of Social Work in 2004. Systemic racism was not something we discussed. I was reflective as a social worker, yet I was not aware of my implicit biases. I lacked insight into my role of perpetuating systemic racism through the application of legislation, provincial standards, and agency policy and practices that privileged white, middle-class norms and values. I was complicit in the surveillance and criminalization of mothers living in poverty. By failing to understand my implicit biases and failing to challenge an oppressive system, I maintained and perpetuated systemic racism.

After this awakening, I could not return to my position in child welfare. I knew there were changes necessary; however, I could not sit with the tension of trying to change an oppressive system from within. Instead, I had the privilege to continue in HE to pursue a doctoral degree in social work with the goal of furthering knowledge of systemic racism in child welfare. I quickly discovered that I could not understand systemic racism in child welfare without understanding settler colonialism and the prioritizing of whiteness, or white supremacy (Chapman & Withers, 2019). As I engaged in my studies, the insidious nature of systemic racism and white supremacy in colonial institutions such as policing, social welfare, and education was obvious (Maynard, 2017). Continuing a path of learning and unlearning of my own biases was one thing. I now saw a need for transformation—a need to deconstruct systemic racism and white supremacy in colonial institutions.

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### ***Systemic Racism in Higher Education***

In HE, white supremacy and systemic racism are embedded in curriculum, assessments, policies, and practices (Diamond & Gomez, 2023; Verma, 2022). How we, as teachers, select textbooks or readings may perpetuate colonialism if we are not intentional in seeking different ways of knowing and being. If we depend only on assessments that reinforce memorization and one way of understanding, we may fail to see diversity and innovation. If everyone is treated “equally,” we will not recognize the inequities students experience just to get to HE. If we do not engage with students as people, who bring knowledge and insight to the classroom, we may limit progress for us all. This is not to suggest that in Canada, and across the globe, institutions of HE are not actively challenging embedded systemic racism and white supremacy, but, as teachers, we must recognize, accept, and actively work to deconstruct the results of settler colonialism passed down to us, to move forward in good ways.

### ***Meeting Dr. Weasel Head***

I met Dr. Gabrielle Weasel Head quite by accident during lunch at the 2022 Symposium, or perhaps it was meant to be. I was attending alone and asked to sit with her. I was immediately engaged with her storytelling. She shared her experiences in HE, and she asked me about my background. I shared my goals and talked about my internal tension with my engagement in child welfare; this led to us talking about the embeddedness of white supremacy in colonial institutions, such as institutions of HE. I did not know she was the keynote speaker until later that day.

When I saw her stand up to give her keynote talk, I immediately took out a notepad and pen to capture the wisdom she would share. Based on our brief conversation earlier that day, I knew she would inspire me. Looking back at my notes, her words still resonate: “What might we miss if we do not spark students’ curiosity?” Transformation is required in HE to move away from colonial ideologies to promote new and better ways to move forward. As I left the conference, I reflected on Dr. Weasel Head’s words, “What might we miss?” and began to question: *What might we miss if we do not inspire students to become transformational leaders? What might we miss if we do not infuse critical pedagogy to promote social justice? What might we miss if we do not move forward in good ways in the Scholarship of Teaching and Learning?*

### ***Post-Conference Praxis***

Before attending the 2022 Symposium, I had started my journey of understanding how my positionality impacts my role as a teacher. As a white, educated, middle-class woman, I carry privilege and power in the classroom and society. I am, as we all have been, impacted by my social construction of biases

and understanding (Henry & Tator, 2006). These socially constructed beliefs and biases have resulted in our contributions to, or maintenance of, systemic racism and oppression in different ways. After speaking to Dr. Weasel Head and listening to her keynote speech, I looked back on my journey of how I got here. From childhood and how I was raised to obtaining an undergraduate degree in social work, spending 15 years in service to child welfare, and then becoming a PhD candidate, I can feel the shifts in my knowledge and understanding, recognizing how my unearned privileges have paved the way for my success. With this unearned privilege, I believe my role as a teacher is to continue to engage in a journey of unlearning my socially constructed understanding of a society that has perpetrated and maintained systemic racism and to collaborate in the deconstruction of white supremacy in colonial institutions. My role is to be a transformational leader (Bass & Riggio, 2006).

*How can I inspire students to become transformational leaders?* As a teacher, how I show up in the classroom impacts everything. I want to engage with and demonstrate different ways of knowing and being. I cannot apply Indigenous pedagogies as one who is Indigenous can, yet I try to centre my teaching practices in ways that promote relationships and collaborations. I try to centre voices of those who have been oppressed to deconstruct traditional ways of knowing and being. I attempt to apply practices that work to identify and dismantle systemic racism in HE. I try to inspire students to want to make change.

*What might we miss if we do not spark students' curiosity?* To answer Dr. Weasel Head's question, I immediately thought of my experiences engaging with inquiry-based learning (IBL) as pedagogy. A block week course in research methods at the University of Calgary sparked my curiosity. I was inspired to focus on change for social justice and equity, first in child welfare and then in the Scholarship of Teaching and Learning (SoTL). I was inspired to move forward in new ways in SoTL through the application of IBL.

### ***Inquiry-Based Learning as a Critical Pedagogy to Promote Transformational Leadership***

*What might we miss if we do not infuse critical pedagogy to promote social justice?* Across the globe, there are calls for HE institutions and teachers to become agents of change in pursuit of equity and social justice (Pantić & Florian, 2015; Verma, 2022). If we understand and recognize systemic racism, then in all disciplines, in all classrooms, we can recognize the inequities experienced by students. Inequities are fuelled by the experience of living with intersecting oppressions, rooted in students' physical and social locations (Collins, 2019). When we recognize that racialized students live with the intersectionality of oppressions, which may result in the increased likelihood of living with poverty (Statistics Canada, 2020; Statistics Canada, 2022) or increase the likelihood of experiencing the impact of daily microaggressions (Sue, 2010), we must understand our role as teachers to address social injustices.

*What might we miss if we do not inspire the students to become transformational leaders?* In the application of a critical pedagogy, we have the opportunity to engage students in understanding the inequities that persist both in the classroom and in society. Critical pedagogies are rooted in empowerment and action (hooks, 1994; Freire, 2018), with the goals of engaging students in active learning opportunities to become critical thinkers. In developing critical thinking skills, students' curiosity may be sparked, and they may become more critically self-aware. This is when students may identify areas of social injustices, whether in their daily lives or within the broader context of society, and this is when they may decide they can contribute to making change—to become transformational.

### ***Inquiry-Based Learning as Critical Pedagogy: Moving Forward in Good Ways in SoTL***

Inquiry-based learning is a critical pedagogy that may provide a path of moving forward in good ways in SoTL. As a constructivist learning strategy, IBL may spark students' curiosity when they develop or co-create new contexts for information (Spronken-Smith, 2010), achieving the highest level of Bloom's taxonomy—evaluation or creation of knowledge (Chambers, 2020). In its application, IBL is intentionally facilitated to promote social justice within the classroom and guide critical discourse to facilitate transformation outside of the classroom.

There are a number of definitions and structures to IBL, and it is beyond the scope of this reflection to describe the many different applications or methods of IBL in HE. However, IBL typically follows a five-stage process, which includes 1) the development of a refined question; 2) engagement with literature; 3) critical analysis of the literature; 4) synthesis of findings; and 5) a presentation and critical self-reflection of the process (Spronken-Smith et al., 2010). Through each stage of the IBL cycle, students engage in a high level of peer and instructor formative feedback as well as engaging in critical self-reflections (MacKinnon & Archer-Kuhn, 2022). These activities are scaffolded for students depending on their level of experience. Examples of scaffolded activities may include structured controversy or debates, checklists or tools to engage with peer-reviewed literature, rubrics on how to give formative feedback to peers, and prompts to engage in meaningful critical self-reflections (MacKinnon & Archer-Kuhn, 2022). As pedagogy, IBL is flexible; it can be applied through a class activity, facilitated through group projects, utilized to guide the structure for a course, and applied in online asynchronous and synchronous classes (MacKinnon & Archer-Kuhn, 2022).

As students move through the cycle of IBL, there is a shift away from knowing or getting the “right” answer. Instead, the focus for students becomes learning *how* to engage with research or literature, focusing on the development of their critical thinking and critical self-reflection skills (MacKinnon & Archer-Kuhn, 2022). In its application, IBL provides opportunities to move forward in good ways with students through the restructuring of teacher-student relationships, creating room for the intentional development of students' critical thinking and critical self-reflection skills, supporting the development of lifelong learners, and the

integration of social justice in HE and in society. At the end of the IBL cycle, students' curiosity may be sparked to engage in further inquiry; they may be transformed into researchers with goals of transformational leadership to make change to achieve social justice as they discover gaps in literature and realize all they do not know.

### ***Opportunities for Transformation and Transformational Leadership Through IBL***

To transform HE, we must be intentional in our teaching practices. To support students to become transformational leaders, we must embed practices that build their competencies, specifically critical thinking and critical self-reflection. When IBL is implemented as pedagogy, students are provided the scaffolding to ask questions and find answers—empowering them to become lifelong learners. When students have the ability to ask “good” questions and the skills to seek out different ways of knowing, we might see our goals of social justice prevail. This transformation begins with the restructuring of teacher-student relationships.

### ***Restructuring of Teacher-Student Relationships***

With a goal to deconstruct systemic racism and white supremacy in HE and move SoTL forward in good ways, the hierarchy between teacher and students must be re-imagined. Relationships must be rooted in meaningful reciprocity to co-collaborate and create new ways of engaging with HE. Teachers cannot be experts in all things, and we need to learn from students just as they learn from us, recognizing that we learn best when we learn from one another. In the application of IBL, teachers scaffold students' learning through explicit activities, from guided to self-directed (Spronken et al., 2010), based on the teacher's and students' levels of experience. In this process, teachers and students work together, with the teacher taking on new roles, such as a facilitator, mentor, guide, and coach (Archer-Kuhn & MacKinnon, 2020).

This shift in relationship was evident when, as a student, I experienced IBL as pedagogy. We were asked to move our desks to sit with groups and have discussions among ourselves about our inquiry questions and the literature. Instead of experiencing an assessment of our inquiry questions, we engaged in peer consultation, facilitated through consideration of “What is a good inquiry question?,” which guided our discussions. When I struggled with engaging in deep, critical self-reflection, my teacher prompted me with questions, such as “Why did you think of this?” and “What can you do next?” I had multiple opportunities to engage in critical self-reflection to learn *how* to move beyond a reflection and become critical in the process. When I could not find the answer to my inquiry question and expressed frustration, fear, and self-doubt (with an assumption of failure), I was instead encouraged to celebrate. I had found a gap in literature. Then I was encouraged to consider what I wanted to learn next.



As a teacher, when implementing IBL, the classroom becomes a place of live action, typically consisting of large and small group discussions. During these times, instead of observing student interactions, I find myself sitting with each group, listening to their debates, and encouraging further reflection. In this space, I am not an expert; I am learning with students. When asked for ideas on how to present or synthesize information, we brainstorm creative strategies, such as the use of podcasts or Instagram. In this space, we are all collaborators in the process of creating new knowledge together (Friesen & Scott, 2013). After each class, I reflect on what is and what is not working, and I bring my reflections back to the class to share what I am learning with them. I ask for ongoing feedback and provide opportunities for anonymous feedback, so students can voice concerns in a safe way if they are apprehensive about speaking up in class. Students now have a role in the direction of the classroom, and they participate in determining what will come next.

### ***Critical Thinking***

Developing critical thinking skills is one of the key goals of HE (Bellaera et al., 2021; Summerlee, 2018). There are numerous definitions and thoughts about what critical thinking consists of. One definition that resonates with me is that critical thinking involves a student's ability to engage or interact with challenges or problems and come up with solutions that are informed through evidence (Van Gyn & Ford, 2006). There is also debate about the abilities required to develop critical thinking skills; however, there is some consensus around the need to develop the abilities to analyze, evaluate, and interpret information (Bellaera et al., 2021). As teachers, it is our responsibility to teach critical thinking, yet some of us may not be trained in these methods (El Soufi & See, 2019) or we may see the development of critical thinking skills as happening implicitly (Bellaera et al., 2021).

When we apply IBL as pedagogy, students are intentionally engaged in a process to apply analytical, evaluative, and interpretation skills to support the development of their critical thinking skills. Whether IBL is implemented with students in groups or facilitated in independent projects, students are required to work in collaboration, providing each other feedback and support through the cycle of IBL (Kori, 2021; Vaddi et al., 2015). In this cyclical process with peers, students debate, analyze, and evaluate the literature to come up with their own interpretations as it applies to their inquiry question. As students engage in evaluation and analytical opportunities, they are required to demonstrate their knowledge of concepts through application in different contexts (Liu et al., 2016; Summerlee, 2018). This may be communicated through presentations or other methods of synthesizing, which allow students to demonstrate what they have learned (Chung & Jackson Behan, 2010; Friedman et al., 2010). This deliberate cycle of asking questions, providing feedback, and interpreting both the literature and feedback may support students' development of critical thinking skills (Summerlee, 2018). As students are enveloped in activities to promote critical thinking skills, they are also provided

opportunities to engage critical self-reflection to deepen their learning.

### ***Critical Self-Reflection***

Critical self-reflection is essential to IBL and to students' professional and personal lives following graduation (Bharuthram, 2018). Developing this skill supports students to become informed citizens, to enhance their capacity to identify and challenge injustices, and recognize their ability to become leaders. Like critical thinking, these skills may not be taught directly in HE (Ryan, 2013). Critical self-reflection requires students to subjectively reframe their understanding based on their critical analysis of socially constructed beliefs and values (Mezirow, 1998). As part of the IBL process, students develop critical self-reflection skills through independent work (e.g., essays, journal entries) and small and large group work (e.g., peer feedback, presentations).

Engaging in critical self-reflection may be new to students. Therefore, as teachers, we need to model critical self-reflection, sharing our experiences and learning with students. Assignments should be scaffolded to help students understand what a critical self-reflection is and guide them through this process with formative feedback from the instructor. The instructor may choose to provide prompts to help students engage in different types of critical self-reflection. These may include 1) narrative critical self-reflections (e.g., *How does your lived experience impact your beliefs?*); 2) systemic critical self-reflections (e.g., *How does engaging in HE influence your understanding of the literature?*); 3) moral-ethical critical self-reflections (e.g., *How did you choose this conclusion and not a different one?*); or 4) epistemic critical self-reflections (e.g., *How do you understand "truth" or what is real?*) (Mezirow, 1998). As students develop awareness of *how they know what they know*, they begin to develop critical self-awareness, which is key for adult learning and transformation (Mezirow, 1998) and can lead to a commitment to lifelong learning (Ryan, 2015).

### ***Lifelong Learners***

Lifelong learning can be defined as a professional skill, where an individual has the ability to seek out and integrate new information (Ryan, 2015; Tal et al., 2019). For all faculties, whether sciences, humanities, or technology, the realities of globalization require us to live in a constant state of change. As teachers, we must be able to move forward in good ways, engaging with new ways of knowing. Part of this shift is recognizing that we can no longer be experts; instead, we need to be lifelong learners.

In the application of IBL, as teachers, we demonstrate our *inability* to be experts in all things, and instead highlight our skills to be effective knowledge seekers. Inquiry-based learning can support students' shift to become effective, lifelong knowledge seekers through the development of their "questioning" skills, as well as their ability to seek out and critically analyze sources of information, evaluate



and synthesize literature, and engage in critical self-reflection (Spronken-Smith, 2012; Tal et al., 2019). A commitment to lifelong learning (and unlearning) is required to engage in activities for social justice and equity; this is a facet of transformational leadership (Bass & Riggio, 2006). When we support students to become transformation leaders, we give them space to seek out opportunities for social justice and change for the future.

### ***Opportunities for Social Justice***

Inquiry-based learning has been recognized as a socially just pedagogy (Archer-Kuhn, 2020; Summerlee, 2018). Students come to the classroom with different experiences and understandings. When students have had inequitable opportunities in education, such as experiencing the intersectionality of oppressions, they may face barriers or challenges when seeking to achieve their goals in HE. Inquiry-based learning has been identified as a pedagogical approach to mitigate some of these risks through its scaffolded and collaborative nature (Summerlee, 2018), allowing students to achieve new heights. These new heights may include new ways to collaborate with peers or engage with and understand peer-reviewed literature, or the ability to engage in research and co-create new knowledge (Archer-Kuhn, Lee, et al., 2020). When we support students to achieve new heights, we are answering the call to promote social justice in HE.

Inquiry-based learning gives students freedom; they are no longer constrained by curriculum and hierarchy in respect to what they must learn (Archer-Kuhn, Lee, et al., 2020). Instead, they are empowered to seek out information that is meaningful to them. By engaging with aspects of the curriculum that are meaningful to them, students may have their curiosity sparked. A course that students perceived as distant from their daily lives, may become relevant when they are given control. Through IBL, students have the opportunity to be a part of something greater than a textbook or the syllabus as they seek to find an answer that is important to them. When students cannot find answers, they have found opportunities to inform and potentially engage in change. They may be inspired become transformational leaders.

As a student, when I initially found a gap in the literature, I felt frustration and anger. My professor responded by asking, “What can you do about this?” This question inspired our conversations about HE, research, and obtaining a doctoral degree. The process of IBL transformed my path. Now, as a teacher, I have similar conversations with students. Students will express their frustration with the state of the literature, how it does not reflect diversity or different ways of knowing. We engage in conversations about what they would like to see changed. I have read students’ critical self-reflections where they felt they did not have the expertise or ability to critique peer-reviewed literature and then find themselves empowered to question what they are reading. Through the process of engaging with and critiquing literature, giving and receiving feedback, and synthesizing information, students who indicated that they could not engage in research, felt they had a new

perspective and could take on new projects in school and in their professional lives. These opportunities to ignite curiosity may further drive the desire to learn (MacKinnon & Archer-Kuhn, 2022), and as students identify gaps or limits in literature or research, this knowledge may also support their desire to make change.

## **CHALLENGES IN THE APPLICATION OF IBL**

It is beyond the scope of this reflection to highlight all the challenges of implementing critical pedagogies such as IBL. However, it is recognized that the application of critical pedagogies is not without challenges or resistance. There are arguments around the ability to “teach” students, concerns around content coverage or meeting learning outcomes (Aditomo et al., 2013; Beltrano et al., 2021), and discussions about the impact of high-level emotions (Beltrano et al., 2021). Indeed, IBL is not without challenges. It requires intentionality and awareness to implement.

### ***Content Coverage and Learning Outcomes***

When discussing the benefits of IBL, there are the naysayers who worry about students not receiving sufficient content coverage (Hayward et al., 2015) or achieving the learning outcomes. Content coverage can be ensured through applying blended methods of IBL, where half the class time is devoted to presenting the course content through active learning methods, such as a flipped classrooms or large group discussions, and half the time is reserved for IBL, where students have time, in class, to move through the cycle of IBL (Archer-Kuhn, Wideman, & Chalifour, 2020). Alternatively, using content within the cycle of IBL, such as critically analyzing literature through debates followed by critical self-reflection, can effectively integrate content and support deep learning (Archer-Kuhn, 2013).

There is a gap in knowledge regarding the impact of IBL in supporting students to achieve learning outcomes. In a review of the literature, Spronken-Smith (2012) found that cyclical IBL had a strong effect in supporting students to achieve learning outcomes; however, this was based on a small number of studies and further research is required.

### ***The Need for Collaboration***

Inquiry-based learning requires students to work in groups, and this is also true for teachers. Teachers require champions to support them in taking a pedagogical risk, as there will be challenges (Beltrano et al., 2021). There is a need for “buy-in” from HE institutions and other faculty, as it may feel as if those who adopt IBL approaches are going against the norm (Hayward et al., 2015; Spronken-Smith et al., 2011). Teachers need to seek out a community of support to brainstorm, debrief, strategize, and research the application and impact of IBL (Beltrano et al., 2021).

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### ***Responding to High-Level Emotions***

As teachers, we must be aware of students' (and our own) feelings of anxiety and stress when engaging with a new pedagogical approach (Beltrano et al., 2021) or in the restructuring of relationships (Zembylas, 2018), recognizing that resistance is normal. Students and teachers require varying levels of support and guidance depending on their experience with IBL (Archer-Kuhn et al., 2022). As teachers, we need to normalize the process of engaging in something new with students to promote risk-taking in learning (MacKinnon & Archer-Kuhn, 2022).

To normalize this process, we can ensure transparency with students, sharing the grief cycle and the highs and lows of engaging in IBL (Chappell, 2006). We can talk openly about the feelings of shock, the mix of strong emotions, denial, and resistance, with the goals of shifting to acceptance (Woods, 1994, as cited by Chappell, 2006) at each stage of the IBL cycle. We can support students to understand that although there are struggles when engaging with IBL, these challenges can lead to gaining a better understanding and an ability to integrate new knowledge (Woods, 1994, as cited by Chappell, 2006).

### ***Resistance to Critical Pedagogies***

Inquiry-based learning is a pedagogy of risk and trust (Archer-Kuhn & MacKinnon, 2020), as such, we need to trust in the process and allow ourselves and students to take risks to move towards transformation. However, as previously indicated, resistance is normal. Beliefs about the effectiveness, usefulness, or even need for critical pedagogies may be challenged by our institutions, departments, colleagues, students, and, perhaps, the parents/caregivers of students. Not all those engaged in HE will believe in transformation for social justice and equity. However, for those of us willing to answer this call, we must take a leap of faith.

Indeed, implementing IBL as a novice instructor is hard. Finding support through my mentor and engaging in ongoing critical self-reflection was key. I made mistakes, but I reflected on these mistakes, shared them with students, and moved forward. Engaging in a continuous cycle of student feedback, both in class and through anonymous surveys, I asked what was and was not working. I made shifts in approaches, and I continue to shift today. Yes, there was resistance. But by giving students freedom to become curious, I watched them become inspired. By embracing the challenges of IBL, I have seen and experienced transformation.

## **WHAT MIGHT WE MISS?**

As Dr. Weasel Head called us to become transformational leaders in *what* and *how* students should learn, moving away from our colonial views as experts in the classroom to find new ways forward, I could not help but reflect on all of the classrooms where I have been a student or a teacher. What might I have missed if

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my curiosity was not sparked?

As a student, I spent six years being told to accept what I was reading as truth. Through engagement with IBL as pedagogy, I discovered that there are different ways of knowing and being, and I can be a part of them. Yes, I struggled with the openness, high-level emotions, and self-doubt, but the end was transformational. I changed from someone who accepted peer-reviewed literature as a “best practice” or “expert knowledge” to someone willing to take a risk and ask questions, with a desire to critically engage with the literature and the confidence to develop and present an informed opinion. Through engagement with IBL, I developed the skills to become a transformational leader.

As a teacher, I have chosen a path committed to the deconstruction of systemic racism and white supremacy in all colonial institutions. This means moving forward in good ways in SoTL. It means engaging with critical pedagogies, such as IBL, to promote social justice in and out of the classroom. It means sparking students’ curiosity to enhance their desire to become the transformational leaders of tomorrow. So, to answer the Dr. Weasel Head’s question of “What do we miss if we do not spark students’ curiosity?,” I believe we miss the goals of HE. We miss everything.

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## REFERENCES

- Aditomo, A., Goodyear, P., Bliuc, A-M., & Ellis, R. A. (2013). Inquiry-based learning in higher education: Principal forms, educational objectives and disciplinary variations. *Studies in Higher Education, 38*(9), 1239–1258. <http://dx.doi.org/10.1080/03075079.2011.616584>
- Archer-Kuhn, B. (2013). Structured controversy: Inquiry-based learning in place of traditional group presentations. *Teaching Innovation Projects, 3*(1), 1–12. <http://ir.lib.uwo.ca/tips/vol3/iss1/14>
- Archer-Kuhn, B. (2020). Putting social justice in social work education with inquiry-based learning. *Journal of Teaching in Social Work, 40*(5), 431–448. <https://doi.org/10.1080/08841233.2020.1821864>
- Archer-Kuhn, B., Lee, Y., Finnessey, S., & Liu, J. (2020). Inquiry-based learning as a facilitator to student engagement in undergraduate and graduate social work programs. *Teaching & Learning Inquiry, 8*(1), 187–207. <https://files.eric.ed.gov/fulltext/EJ1251193.pdf>
- Archer-Kuhn, B., Lee, Y., Hewson, J., & Burns, V. (2022). Growing together: Cultivating inquiry-based learning in social work education. *Social Work Education, 41*(3), 333–353. <https://doi.org/10.1080/02615479.2020.1839407>
- Archer-Kuhn, B., & MacKinnon, S. (2020). Inquiry-based learning in higher education: A pedagogy of trust. *Journal of Education and Training Studies, 8*(9), 1–14. <https://doi.org/10.11114/jets.v8i9.4929>
- Archer-Kuhn, B., Wideman, D., & Chalifour, J. (2020). Student engagement in deep learning in social work education: Reflections on inquiry-based learning on our group study program course in the UK. *Journal of Higher Education Outreach and Engagement, 24*(2), 107–122. <https://files.eric.ed.gov/fulltext/EJ1267741.pdf>
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2<sup>nd</sup> ed.). Lawrence Erlbaum Associates Publishers.
- Bellaera, L., Weinstein-Jones, Y., Ilie, S., & Baker, S. T. (2021). Critical thinking in practice: The priorities and practices of instructors teaching in higher education. *Thinking Skills and Creativity, 41*, 1–16. <https://doi.org/10.1016/j.tsc.2021.100856>
- Beltrano, N. R., Archer-Kuhn, B., & MacKinnon, S. (2021). Mining for gold and finding only nuggets: Attempting a rapid systematic review, on trust in higher education IBL classrooms. *Teachers and Teaching, 27*(1–4), 300–315. <https://doi.org/10.1080/13540602.2021.1955672>
- Bharuthram, S. (2018). Reflecting on the process of teaching reflection in higher education. *Reflective Practice, 19*(6), 806–817. <https://doi.org/10.1080/14623943.2018.1539655>
- Chambers, J. (2020). Bloom’s taxonomy: Six decades of the cognitive domain. In T. S. Poetter, D. C., Murray, P. Larrick, M. A. Moyer, E. C. Berlioz, & K.
- Beltrano, N. (2023). Call and response: Inquiry-based learning as a critical pedagogy in the scholarship of teaching and learning to promote transformation and transformational leadership. *Imagining SoTL, 3*(1), 46–61. <https://doi.org/10.29173/isotl678>

- Waldrop (Eds.), *Curriculum windows: What curriculum theorists of the 1950s can teach us about schools and society today* (pp. 70–90). Information Age Publishing.
- Chapman, C., & Withers, A. J. (2019). *A violent history of benevolence: Interlocking oppression in the moral and economies of social working*. University of Toronto Press.
- Chappell, A. (2006). Using the ‘grieving’ process and learning journals to evaluate students’ responses to problem-based learning in an undergraduate geography curriculum. *Journal of Geography in Higher Education*, 30(1), 15–31. <https://doi.org/10.1080/03098260500499584>
- Chung, H-M., & Jackson Behan, K. (2010). Peer sharing facilitates the effect of inquiry-based projects on science learning. *The American Biology Teacher*, 72(1), 24–29. <https://doi.org/10.1525/abt.2010.72.1.7>
- Collins, P. H. (2019). *Intersectionality as critical social theory*. Duke University Press.
- Diamond, J. B., & Gomez, L. M. (2023). Disrupting white supremacy and anti-Black racism in educational organizations. *Educational Researcher*, 1–9. <https://doi.org/10.3102/0013189X231161054>
- El Soufi, N., & See, B. H. (2019). Does explicit teaching of critical thinking improve critical thinking skills of English language learners in higher education? A critical review of causal evidence. *Studies in Educational Evaluation*, 60, 140–162. <https://doi.org/10.1016/j.stueduc.2018.12.006>
- Freire, P. (2018). *Pedagogy of the oppressed: 50<sup>th</sup> anniversary edition*. Bloomsbury Academic.
- Friedman, D. B., Crews, T. B., Caicedo, J. M., Besley, J. C., Weinberg, J. & Freeman, M. L. (2010). An exploration into inquiry-based learning by a multidisciplinary group of higher education faculty. *Higher Education*, 59, 765–783. <https://doi.org/10.1007/s10734-009-9279-9>
- Friesen, S., & Scott, D. (2013). *Inquiry-based learning: A review of the research literature*. <https://galileo.org/focus-on-inquiry-lit-review.pdf>
- Hayward, C. N., Kogan, M., & Laursen, S. L. (2015). Facilitating instructor adoption of inquiry-based learning in college mathematics. *International Journal of Research in Undergraduate Mathematics Education*, 2, 59–82. <https://doi.org/10.1007/s40753-015-0021-y>
- Henry, F., & Tator, C. (2006). *The colour of democracy: Racism in Canadian society* (3<sup>rd</sup> ed.). Nelson Education.
- Hill Collins, P. (2019). *Intersectionality as critical social theory*. Duke University Press.
- hooks, bell. (1994). *Teaching to transgress: Education as the practice of freedom*. Routledge.
- Kori, K. (2021). Inquiry-based learning in higher education. In C. V. de Carvalho & M. Bauters (Eds.), *Technology supported active learning: Student-centered*
- Beltrano, N. (2023). Call and response: Inquiry-based learning as a critical pedagogy in the scholarship of teaching and learning to promote transformation and transformational leadership. *Imagining SoTL*, 3(1), 46–61. <https://doi.org/10.29173/isotl678>



*approaches* (pp. 59–74). Springer.

- Liu, O. L., Mao, L., Frankel, L., & Xu, J. (2016). Assessing critical thinking in higher education: The HEIghten™ Approach and preliminary validity evidence. *Assessment and Evaluation in Higher Education*, 41(5), 677–694. <https://www.tandfonline.com/doi/full/10.1080/02602938.2016.1168358>
- MacKinnon, S. L., & Archer-Kuhn, B. (2022). *Reigniting curiosity and inquiry in higher education: A realist's guide to getting started with inquiry-based learning*. Stylus Publishing.
- Maynard, R. (2017). *Policing Black lives: State violence in Canada from slavery to the present*. Fernwood Publishing.
- Mezirow, J. (1998). On critical reflection. *Adult Education Quarterly*, 48(3), 185–198. <https://doi.org/10.1177/074171369804800305>
- Pantić, N., & Florian, L. (2015). Developing teachers as agents of inclusion and social justice. *Education Inquiry*, 6(3), 333–351. <http://doi.org/10.3402/edui.v6.27311>
- Ryan, M. (2013). The pedagogical balancing act: Teaching reflection in higher education. *Teaching in Higher Education*, 18(2), 144–155. <https://doi.org/10.1080/13562517.2012.694104>
- Ryan, M. (2015). Introduction: Reflective and reflexive approaches in higher education: A warrant for lifelong learning? In M. E. Ryan (Ed.) *Teaching reflective learning in higher education: A systematic approach using pedagogical patterns* (pp. 3–14). Springer. [https://link.springer.com/chapter/10.1007/978-3-319-09271-3\\_1](https://link.springer.com/chapter/10.1007/978-3-319-09271-3_1)
- Spronken-Smith, R. (2010). Undergraduate research and inquiry-based learning: Is there a difference? Insights from research in New Zealand. *Council on Undergraduate Research Quarterly*, 30(4), 28–35. <https://www.cur.org/assets/1/7/Spronken-Smith.pdf>
- Spronken-Smith, R. (2012). Experiencing the process of knowledge creation: The nature and use of inquiry-based learning in higher education. *International Colloquium on Practices for Academic Inquiry*. University of Otago. <https://ako.ac.nz/assets/Knowledge-centre/inquiry-based-learning/SUMMARY-REPORT-Inquiry-based-Learning.pdf>
- Spronken-Smith, R., Walker, R., Batchelor, J., O'Steen, B., & Angelo, T. (2011). Enablers and constraints to the use of inquiry-based learning in undergraduate education. *Critical Perspectives*, 16(1), 15–28. <https://doi.org/10.1080/13562517.2010.507300>
- Spronken-Smith, R. A., Walker, R., Dickinson, K. J. M., Closs, G. P., Lord, J. M., & Harland, T. (2010). Redesigning a curriculum for inquiry: An ecology case study. *Instructional Science*, 39(5), 721–735. <https://doi.org/10.1007/s11251-010-9150-5>
- Statistics Canada. (2020, February 25). Canada's Black population: Education, labour and resilience. <https://www150.statcan.gc.ca/n1/pub/89-657-x/89-657->
- Beltrano, N. (2023). Call and response: Inquiry-based learning as a critical pedagogy in the scholarship of teaching and learning to promote transformation and transformational leadership. *Imagining SoTL*, 3(1), 46–61. <https://doi.org/10.29173/isotl678>

[x2020002-eng.htm](#)

- Statistics Canada. (2022, November 9). Disaggregated trends in poverty from the 2021 Census of Population. <https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021009/98-200-X2021009-eng.cfm>
- Sue, D. W. (2010). Microaggressions, marginality, and oppression: An introduction. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 3–25). Wiley.
- Summerlee, A. J. S. (2018). Inquiry-based learning: A socially just approach to higher education. *Journal of Human Behavior in the Social Environment*, 28(4), 406–418. <https://doi.org/10.1080/10911359.2018.1438956>
- Tal, T., Levin-Peled, R., Levy, K. S. (2019). Teacher views on inquiry-based learning and the contribution of diverse experiences in the outdoor environment. *Innovation and Education*, 1(2), 1–17. <https://doi.org/10.1186/s42862-019-0004-y>
- Vaddi, R. S., Yalamanchili, B. S., & Anne, K. R. (2015). Focus question based inquiry guided learning for the attainment of course learning outcomes. *International Journal of Modern Education and Computer Science*, 7(7), 48–52. <https://mecs-press.net/ijmecs/ijmecs-v7-n7/IJMECS-V7-N7-6.pdf>
- Van Gyn, G., & Ford, C. (2006). *Teaching for critical thinking*. Society for Teaching and Learning in Higher Education.
- Verma, A. (Ed.). (2022). *Anti-racism in higher education: An action guide for change*. Policy Press.
- Zembylas, M. (2018). Reinventing critical pedagogy as decolonizing pedagogy: The education of empathy. *Review of Education, Pedagogy, and Cultural Studies*, 40(5), 404–421. <https://doi.org/10.1080/10714413.2019.1570794>