When Theory and Practice Intersect:

Investigating Progressive Education, Project Based Learning, and Critical Life Writing from within a School-University Partnership

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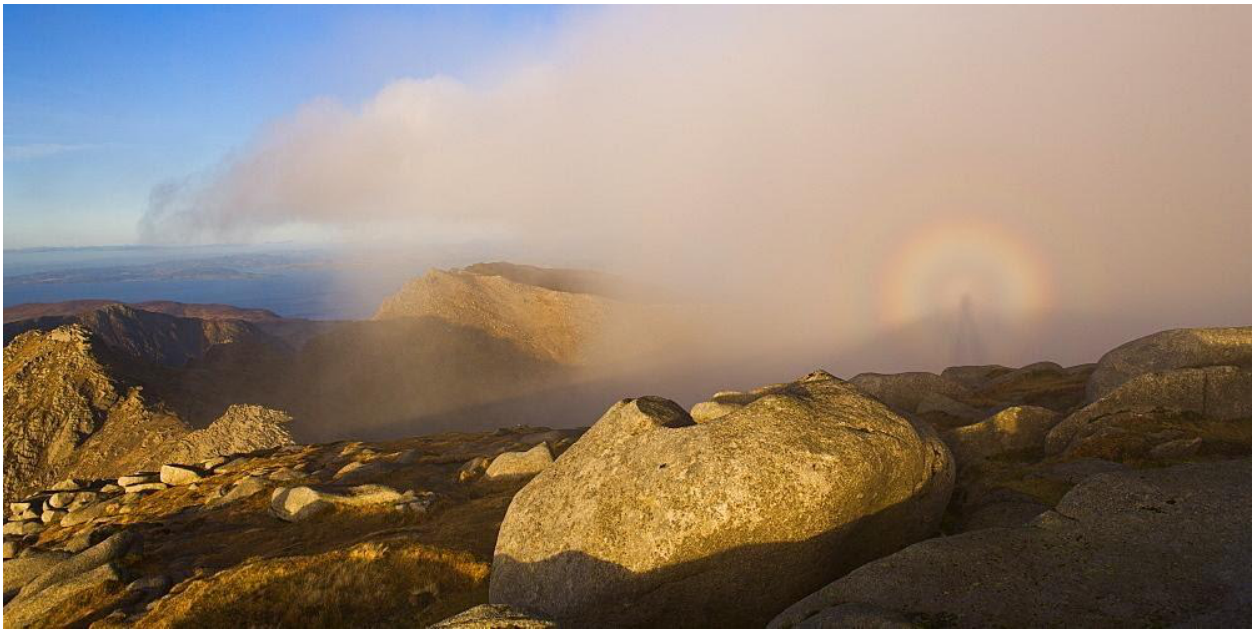

(Shepherd, 2011)

A Mountain Specter (pictured above) is the magnified shadow of an observer cast upon clouds opposite the sun's direction. Imagine for a moment your own shadow, which may appear enormous and has a luminous, rainbow-like ring around it cast on mists below where you are standing. The image while true in a certain sense (it is your shadow, the fog is real) is also beautifully false; it is an optical illusion. The mist obscures familiar reference points and disorients the viewer so the size can appear greatly magnified, or in some rare occurrences miniaturized. It is from this realization that I look back at my interpretation of the events and stories that have influenced my life, my work and this dissertation.

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Abstract

Progressive educational theory was shaped from the emerging philosophy of Pragmatism and the experimental/ laboratory schools of the late 19th and early 20th Century. Progressive education began with educators and social reformers, notably John Dewey, Jane Addams and Marie Montessori. It was later extended through the work of Outward Bound founder and educator Kurt Hahn, liberatory educator Paulo Freire, and others who are highlighted in this research.

While Progressive education has positively influenced educators and academics since the late 1890's, it has unfortunately remained on the periphery. Equally concerning, Progressive education has unevenly benefited already privileged racial and socioeconomic groups while remaining elusive or diminished for the rest of society. To our detriment we have not tapped into the full potential of Dewey's educational philosophy, Hahn's praxis, or the Indigenous understanding of education on and through the land. Nor have we recognized both the importance of, and danger in, Progressive educational frameworks which hold the possibility to positively transform schools or conversely, do damage.

This dissertation research endeavor explored the relationship between Progressive educational theory and praxis in a school, as it implemented a new Project Based Learning initiative. This research documented the challenges, successes and failures from the end-user perspective, namely students and teachers. The research also examined the tensions between educational theory and practices in a school as well as the relationship between Project Based Learning (PBL) and student and teacher privilege. These themes, among others, are uncovered through a university-school partnership focused on the implementation and execution of a new PBL initiative at a private school in Montreal, Canada.

In order to make sense of the data, to surface themes and to analyze the findings, this research employed an Action Research (AR) case study utilizing an ethnographic approach with a participatory design. These methodologies were supported, and potentially enriched, through the personal and professional reflections of the author, in the form of Life Writing. Examining this school's experience implementing PBL and documenting that process through a participatory approach, enriched with Life Writing, offered unique research possibilities.

Keywords—progressive education, experiential learning, ethnography, service learning, liberation education, participant observation, life-writing, critical studies, memoir, project-based learning, PBL

Résumé

La théorie de l'éducation progressive a été façonnée à partir de la philosophie émergente du pragmatisme et des écoles expérimentales/de laboratoire de la fin du XIXe siècle et du début du XXe siècle. L'éducation progressive a commencé avec des éducateurs et des réformateurs sociaux, notamment John Dewey, Jane Addams et Marie Montessori. Elle s'est ensuite étendue grâce aux travaux du fondateur et éducateur d'Outward Bound, Kurt Hahn, de l'éducateur libérateur Paulo Freire et d'autres qui sont mis en avant dans cette recherche.

Si l'éducation progressive a influencé positivement les éducateurs et les universitaires depuis la fin des années 1890, elle est malheureusement restée à la périphérie. Tout aussi préoccupant, l'éducation progressive a bénéficié de manière inégale aux groupes raciaux et socio-économiques déjà privilégiés, tout en restant insaisissable ou diminuée pour le reste de la société. À notre détriment, nous n'avons pas exploité tout le potentiel de la philosophie éducative de Dewey, de la praxis de Hahn ou de la compréhension indigène de l'éducation sur et par la terre. Nous n'avons pas non plus reconnu l'importance et le danger des cadres éducatifs progressifs qui ont la possibilité de transformer positivement les écoles ou, au contraire, de les endommager.

Cette recherche de thèse explore la relation entre la théorie et la pratique de l'éducation progressisve dans une école, alors qu'elle mettait en œuvre une nouvelle initiative d'apprentissage par projet. Cette recherche a documenté les défis, les succès et les échecs du point de vue de l'utilisateur final, à savoir les élèves et les enseignants. La recherche a également examiné les tensions entre la théorie et les pratiques éducatives dans une école, ainsi que la relation entre l'apprentissage par projet (AP) et les privilèges des étudiants et des enseignants. Ces thèmes, parmi d'autres, sont révélés par un partenariat université-école axé sur la mise en œuvre et

l'exécution d'une nouvelle initiative d'apprentissage par projet dans une école privée de Montréal, au Canada.

Afin de donner un sens aux données, de faire ressortir les thèmes et d'analyser les résultats, cette recherche a utilisé une étude de cas de recherche-action (RA) utilisant une approche ethnographique avec une conception participative. Ces méthodologies ont été soutenues, et potentiellement enrichies, par les réflexions personnelles et professionnelles de l'auteur, sous la forme d'une écriture de vie. L'examen de l'expérience de cette école dans la mise en œuvre de la PBL et la documentation de ce processus par le biais d'une approche participative, enrichie par l'écriture de vie, ont offert des possibilités de recherche uniques.

Mots clés - éducation progressive, apprentissage par l'expérience, ethnographie, apprentissage par le service, éducation à la libération, observation participante, écriture de vie, études critiques, mémoire, apprentissage par projet, PBL

Acknowledgements

This thesis would not have been possible without the kind support of these special people.

I am grateful for the guidance of my supervisor Professor Elizabeth Wood. Thank you for introducing me to MileEd school, for encouraging me to experiment in writing and for pushing me towards critical reflection. I have learned much from working under the care of such a dedicated, kind, and thoughtful professor who cares deeply about social justice, education, and humanity.

I am also thankful for my supervisory committee: Professor Steve Jordan, whom I also had the pleasure of knowing both as a student in his class and as a course instructor in his department, and Professor Amir Kalan who provided valuable insight and direction on my writing. Thank you both.

To Professor Strong-Wilson, you gave me the grounding and guidance to believe that Life Writing had a place in my research. That gift made this journey personally memorable in ways I never expected.

To Fred Farmer, your friendship and collegiality made my three years in Montreal enjoyable and fruitful. I learned much from you, most importantly to always question, be fiercely critical and to not feel bad about it.

To my Mom, the untold hours you spent reading to me as a child, the countless books you provided and working with me on my writing (through today) have given me the base on which I

humbly plant this flag. To my Dad, your encouragement to ‘do something, even if it's wrong’ has kept me active, trying new ideas regardless of the outcome.

To the many, many students I have served over the past 24 years, thank you for calling me out when necessary, forgiving my frequent mistakes and for making this a rewarding and fulfilling profession. This degree is in no small part yours as well.

Contributions to Original Knowledge

This dissertation engages with many historical and ongoing conversations principally concerning education, society, and the individual, including me. While I have clearly stood on the shoulders of giants in almost all aspects of this endeavor and to whom I owe the literature review, methodologies, methods and the form of conveying that learning (i.e. Life Writing), I have, in my humble opinion made a contribution of original knowledge.

My research focused on one school's attempt to create a new Project Based Learning (PBL) program. This school was, actually is, unique in every way and my research details the journey from the inception of the idea of PBL, to its implementation, and my documentation of this over the course of thirteen months. It is my sincere hope to have brought to the ongoing conversation the important voices, experiences and reflections of the students, teacher-leaders and researchers involved in this endeavor.

I have thought deeply and now written about the theories, methodologies, my lived experiences at the school, the people that learned and worked there and my own past as an educator. I believe that it is in this unique nexus of ideas, practice, evaluation and reflection that I contribute to original knowledge.

Contributions of Authors

This dissertation is rooted in the work of countless educators spanning the past 200 years; to all of them I am indebted and to all of them I say thank you.

Having rendered this important acknowledgement I can also state that I am the sole author of this dissertation, and that I have written each chapter.

Epigraph

I think it's two worlds between theory and practice.

-MileEd Teacher-Leader, 2022

Chapter One: A Journey Through Learning

From the third-floor windows one could see the students heading out the main doors and onto the waiting buses. Just prior, teachers were to make certain all students were ready: books, homework, projects organized into brimming backpacks. Once these teenagers were lined up, the teacher, or aide, would walk the class down the hall and stairs to the main door and dismiss groups depending on the location of their bus. My colleague, the teacher in 319, explained this to me on my fourth day at Louisa May Alcott Middle School. With a look of dismay she said, "you see Anthony, you're just letting your kids go at the bell and it's messing up the lines, the bus monitors can't take roll and are frustrated, frankly it's making the 6th grade look bad". Since these were the first words we had shared, I offered mine next. "I'm a city-wide substitute, this is my first school placement and I'm only here until the end of the week. You might want to tell the next teacher before she does the same thing". That future teacher ended up being me. It was 1998. And my neighbor, Mrs. Jasmine Jones was the reason I survived my first-year teaching. She became a tremendous resource, a gracious mentor and friend, may God rest her soul.

This memory came from my first year as a teacher serving in the Chicago Public Schools. It was a time when I understood the expectations of school, and my job as a teacher, was to maintain order, to control students, to please veteran colleagues and stay on the right side of the school's administration.

> Teaching is much larger and much more alive than that; it contains more pain and conflict, more joy and intelligence, more uncertainty and ambiguity. It requires more

> judgment and energy and intensity than, on some days, seems humanly possible. Teaching is spectacularly unlimited. (Ayers, 2001, p. 5)

It is to this new understanding of teaching and learning that I now subscribe.

In this dissertation I will reflect on my ongoing journey as an educator, one that acknowledges how my blind spots, mistakes and privilege have kept me from becoming the teacher I want to be. The biases that I still carry with me are what I am trying to uncover (or at least recognize and then hopefully correct). The original research questions that I wrote four years ago, as part of my university graduate school application, were products of misconceptions (what I now understand as flawed understandings, partial truths and willful ignorance). What I had originally envisioned as my research was a mirage. Among other things, I was missing, the "I", Anthony…

Recently I made the turn to include aspects of autobiography and memoir as part of my methodology and more importantly as part of my understanding. I can now tell the story of what I have realized, where I am in my journey and where I believe I am going. While my journey is personal and individual, it intersects with many others' voyages, outings and expeditions. Stories collide and overlap. As the reader moves through mine and the stories resonate with and are intertwined with theirs, I hope the interaction proves fruitful.

Original Research Questions

This was the initial main question with which I began my doctoral research:

1. *How can educational theories be drawn upon or support the adoption/implementation of a new progressive learning initiative?*

These were the initial sub-questions:

2. *How does a new learning initiative take shape in school? What are the associated challenges and successes?*
3. *In the context of a school-university partnership, to what extent is it possible to support a school in launching a new Project Based Learning initiative?*

Over the course of the research, it also became important to consider additional questions. In the process of working through the above three questions and my doctoral course on Life Writing, I recognized the necessity for me to interrogate aspects of my past: namely privilege and education.

New Research Questions

1. *What is the process for a privileged white male teacher raised in the Chicago suburbs to become aware of (his own) privilege?*
2. *For that individual, what are the limits and pitfalls of progressive education, and what is the process engendered for recognizing and redressing these?*

My original questions provided the initial impetus to begin the research; they then became subordinate to and embedded in the new queries. All these questions came together in a doctoral research project that took place in a small alternative school in Montreal, QC, CA and was brought to bear through a Project Based Learning initiative that involved nineteen students and six adults.

Life Writing: Aaron's Story

This work for me is, in part, an effort to gain perspective: one that confronts my constructs and my categories, to break into and eventually through what Dewey once called "the crust of conventionalized and routine consciousness" (1954, p. 183). That process of *breaking into*

became real when I, as a new teacher, met young people who asked only to be seen as fully human, to just be recognized as a person going through life. Aaron was one of those.

Aaron was a foot shorter than the rest of the freshmen in the advisory period. While that may have been a fact that his male classmates pointed out in the first week, it ceased to be relevant after the first physical education (P.E.) class. Aaron was an unmatched athlete, a ferocious competitor, but he also had a reputation as a troublemaker.

I was the advisory teacher who was supposed to be the students' advocate, the point person between school and family. The dean came by twice to talk about Aaron. I listened and never advocated. The dean scared me more than he scared Aaron. Aaron didn't do any schoolwork; he didn't earn high marks on tests. I don't recall him carrying books for any subject, let alone dropping a loaded backpack to the floor, which was a favorite pastime of his peers. As the tardy bell rang, Aaron would slip into class, hop over his desk, land on his chair and sink into the seat. All in one motion. After one particularly bad week, a fight with injuries (for the other guy), Mom was called to school. She came with Aaron and after the meeting with the dean, she shared with me that Aaron was a loving son, gentle with his little sister and an attentive grandchild. But ever since his dad left, Aaron hardened to the others outside his family. We knew Aaron was running with a wild crowd. But he came to school nevertheless, excelled in P.E. while attempting little else.

I taught English and while not much of that subject surfaced in the advisory period, the bulletin boards, the literary nook and the stacks of essays on my desk conveyed that reality. That must have been where Aaron found the 'Do the Write Thing' challenge. The day that submissions

were due, Aaron handed me a paper, his essay, saying he wanted to compete. He was not in my English class but I took the submission, and sent it along with the rest.

Some months later Aaron, his mom and I were at a banquet for the finalists;
high schoolers from all over the great state of Illinois sat in rapt silence. Aaron had won the competition. It was the story of his father's incarceration, how he was locked away forever, and Aaron's journey to overcome the loss of his still living dad. Aaron's essay was in my hand for the second time: this time I read it.

Chimamanda Ngozi Adichie (2009) warns us of the dangers of a single story, which simplifies lives. She implores that we resist the urge to narrowly define others along preconceived notions. To her point I might, humbly, add that to know anyone well, to know them deeply, is to hear their personal story. In my experience teaching is intensely personal work: a relational effort that requires vulnerability and a coming to terms with oneself and the learners around you. This learning is ongoing and for me the work of a lifetime. It was Aaron and his story who first opened my eyes to that important lesson. Fast forwarding through over two decades of working in schools, I find myself writing a dissertation that tells a story, mine as well as that of others.

Many Paths Many Steps

In my journey as an educator there was no single starting point; instead, it has been a sum of experiences that have moved me, gently, in one cardinal direction as opposed to another. There was not one trail that led me up the mountain nor one path coming down. What I saw and how I made sense of that momentary perspective shifted, just as the view did when rounding a bend or changing elevation on a climb. As my journey continued, I myself changed. My career took me overseas and my home became a series of base camps. There has been no guarantee of a final

destination, but what is certain is the unplanned and sometimes unwanted stops, dead ends and unexpected vistas, all of which have made the journey worth continuing.

This dissertation is not one paper on a specific topic but the account of a series of planned as well as serendipitous events that unfolded over the past two and a half decades of my serving in schools. The way of exploring, telling and analysing those experiences draws its methodologies and inspiration from Action Research (AR), case study, ethnography, and Life Writing. Life Writing can reveal a space from within, an opening from which I can see the possibility that my work can be useful in connecting my experiences to the readers and creating pathways together between critical and creative practice. It was for this reason that I embraced the overlap and merger of an Action Research-case study and ethnographic-participant observation with Life Writing in my research. In this combined context, I am able to incorporate my study with my past experiences producing a unique research contribution.

While the methodologies are many, their use has been ultimately to disclose, both to the reader and to me, what these experiences have to teach, namely the process that as educators we must learn, unlearn and relearn in order to grow. Some of the events detailed in this thesis were successful and pleasurable, others failures that remind me of mistakes made; but mostly, this journey up and down, back and forth is the simple process of breathing in, breathing out and taking a forward step. This is *my* educational journey, which thankfully is still in progress…

I came to Montreal, Canada and McGill University to begin my PhD studies, after two years leading an international high school in Athens, Greece. During my first year at McGill, I joined a research team, led by my PhD supervisor, that began work researching at a new, small, neighborhood private school which is referred to in the research as MileEd School; this was the

beginning of my journey with MileEd which continued over the next three years, culminating in my action research case study and this dissertation.

Areas of interest I had carried throughout my career in education and into the PhD work included Experiential Education, Service Learning and the potential intersection of these in Project Based Learning (PBL). Over my two decades in schools, I had direct exposure as a teacher, coordinator, and administrator at a series of institutions that promoted these philosophies and pedagogies. When the MileEd teacher-leaders reached out to the McGill research team for assistance in implementing a new program (PBL), I assumed I was ready to assist and the McGill-MileEd partnership would be customized to help the school take up Project Based Learning.

In brief my research project involved two connected, yet separate aims. First was the pedagogical initiative to bring PBL to MileEd school. Second was to research the process of the PBL roll-out at MileEd. Both aims involved documenting, analysing, and ideally improving the implementation of a new PBL program at MileEd School. This case study was conducted over the course of ten months. This timeframe spanned the major milestones for the project: the professional development for teachers, the rollout to students and parents, the first semester of PBL classes, and continued professional development with teacher-leaders through April 2022. The research was designed to maximize student voice both in the documenting, analysing and improvement of PBL as well as in the PBL projects themselves. To achieve this, I spent hundreds of hours next to students, listening, learning, coaching and sometimes defending their ideas. Our research team spent many hours with the MileEd teacher-leaders discussing progressive educational theory, site specific applications and the many challenges (external and

internal) associated with a shift to PBL. The project was centered on documenting and supporting the school's new initiative, through understanding the needs of the students and the teachers. It also was intensely personal for me; I saw in this project my entire academic and educational journey: from preservice teacher courses to twelve years in public school classrooms to a decade in administration, to my time at McGill pursuing a terminal degree.

This dissertation is my attempt to graft my story to experiential education, learning through service, problem posing education and PBL into the ongoing work with MileEd. I use the term grafting as it implies attaching a living part of something to another living component, creating a new entity that continues to flourish in its unique way. While I am not sure which part was affixed to what, the Progressive Educational theory to MileEd or vice versa, the goal was to encourage the growth of a school that offered novel learning opportunities to its students and in turn bettered society.

I set out to do this research as an Action Research case study, employing an ethnographic approach that drew on a participatory design. After enacting the above methodology, I felt much was missing, and that a large part of what was absent were my experiences, both during the project as well as my past experiences as student, teacher and administrator that were informing my encounters. As a researcher, this led me to Life Writing as a way to make sense of the research. I therefore incorporate professional reflection as a cornerstone of my analysis.

My time at MileEd, focused on dissertation research, was spent coaching students during PBL classes, working with students on their projects, meeting and talking with teachers, taking notes, interviewing, snapping photos, tuning the PBL template, and looking at digital student work online. The results of the data created, collected and reflected on are presented in this

dissertation, alongside reflections which are augmented by Life Writing episodes. It is the confluence of empirical study, personal experiences, reflections and critiques (of Progressivism, MileEd, market driven education and myself) that I offer as contribution to academia.

What to Expect in the Thesis

The body of Chapter two includes a literature review of progressive education, experiential theorists and Project Based Learning. Chapter two also includes a brief but important review of school-university partnerships and the need for shared values between partners. Chapter three is primarily a methodology chapter in which I introduce the research site, detail my methodologies which are separated into two general parts. Methodology I addresses my Original Research questions and Methodology II addresses my New Research questions. Chapter three also presents my methods: organization of the study and data collection. Chapter four focuses on the research conducted at MileEd school; I present data collected from surveys, observations, interviews and meetings; I also analyze the data. Chapter five is the conclusion which I have presented in two parts. Part 1 addresses the findings in relation to my Original Research questions; this section also includes contributions of the study, knowledge mobilization and further research. Part 2 addresses the findings in relation to my New Research questions; here I present a critical focus on Progressive education, privilege, and Neoliberalism.

I am also interspersing life writing stories that I hope are useful both as windows into my own history and journey through this research, but also as touchstones that help the reader make sense of the research from a personal perspective. I hope that these personal stories, which are included in each chapter, provide a break from what at times may seem technical, theoretical or

statistical and create a space to contextualize, and potentially internalize what is presented by the research.

Chapter two begins with a discussion of eight prominent experiential theorists, sections on Project Based Learning, school-university partnerships, and values. Each of these review sections are infused with aspects of autobiography and memoir and presented as life writing. This life writing approach is part of my methodology (Chapter three) and more importantly part of the way I reflected and made sense of the research and my place in it.

Chapter Two: Looking Back to Move Forward

Literature Review: Theorists and Theories

My doctoral research addresses a critical crisis in current formal K-12 education. School as an institution is not how humans naturally learn: it is artificial and contrived, and it is leaving young people unprepared to navigate a dynamic world. The traditional[1] industrial model of education has been under scrutiny from teachers, students, researchers, and academics for at least a century (Addams, 1938; Dewey, 1938; Freire, 1970; hooks, 2010, Ladson-Billings, 2021). Progressive Education proponents have long rejected the traditional 'banking' model of knowledge transmission, which sees learners as passive student-receptors (Freire, 1970), and have called instead for the creation of a dynamic learning environment that centers learning through students' needs and abilities (Ayers, 2010).

At the same time, although Progressive Education has remained largely untapped for decades, we have had access to exemplary models of education that are at their core student centered. Experiential Learning (Dewey), Problem Posing Education (Freire), along with Project Based Learning are well known alternatives to traditional education models (Smith & Knapp, 2011). These two philosopher practitioners (Dewey, Freire), and one pedagogical framework (PBL), have deeply influenced educational and social theory, school movements and classroom practices, yet their work remains unconventional; it is still considered alternative.

[1] Traditional schools are typically defined as teacher-centered/controlled (i.e. in their mode of delivery, curriculum selection, and assessment). Subject areas are taught independently of one another with little crossover. Traditional instruction takes place between an instructor and students where all are physically present in the same classroom. Traditional schools also can be characterized by: school architecture/design, social hierarchies, rigid and often abusive disciplinary regimes, class-based knowledge systems and narrowly conceived assessment (to name a few).

I have chosen to focus on the intersections among Experiential Learning[2] (EL), Problem Posing Education[3] (PPE) and Project Based Learning[4] (PBL), given their combined potential to significantly transform what education looks like in the 21st Century. EL, PPE and PBL reject the dehumanization of young people as mere vessels for storing knowledge, shifting schools away from the role of static institutions that indoctrinate children in the oppressor-oppressed paradigm through rote learning (Freire, 1970). Through an experiential solutions-based approach, EL, PPE, and PBL prioritize students' contributions to improving society. All three also call for: i) student agency/student choice; ii) a multidisciplinary approach, hands on/minds on learning and evaluations that are formative in nature and include both holistic assessments and standards-based mastery measures. EL, PPE and PBL differ substantially from the traditional/industrialized model which prioritize a subject specific focus that relies heavily on cumulative and summative high stakes examinations.

My research aims to build on the evolution and continuum of Experiential Learning from its modern beginnings in the late 19th century to today. EL is many things but can be summarized as: the basis for progressive schools, a core component of student-centered curriculum, a program utilized by alternative education providers, and a foundation for Free/Flex/Project periods. My research also aims to build on the evolution of Problem Posing Education from the

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[2] Experiential Learning is an engaged learning process whereby students "learn by doing" and by reflecting on the experience. Experiential learning activities include: portfolios, hands-on laboratory experiments, internships, field experiences, study abroad, and performances.

[3] Problem Posing Education, also known as Liberation Education features prominently in Critical Theory/ Critical Education. PPE states that critical thinking and action are the purposes of education with the larger goal of promoting human flourishing as a result.

[4] Problem/Project Based Learning is a student-centered pedagogy where students acquire a deeper knowledge through a multi-disciplinary, long term, active exploration of real-world challenges with a goal of finding solutions that promote human flourishing.

1970's to today. PPE is a student centered, action-oriented pedagogy that insists that students and teachers commit to improving society as a result of their learning. I wish however to acknowledge that the research that I embarked on required a high degree of integration. This integration constitutes an eclectic mix of theories, theorists, worldviews and practices, which combined leads to and into my PBL research.

This literature review begins by exploring Experiential Learning and Problem Posing Education from the 1860's to 1997 from various perspectives. First, I detail the contributions of EL's leading figure John Dewey and connect his philosophy/theory to the work of Jane Addams which focused on immigrant acculturation. Second, I introduce Kurt Hahn and his contribution of learning through service. Third, I introduce the influential work of Paulo Freire, namely Problem Posing Education. Fourth, I return to the era of Dewey and broaden the scope to include the work of his contemporaries: Maria Montessori, who championed tailoring the classroom environment to children and Fridtjof Nansen, who focused on interactions with/through nature as facilitating learning. Fifth, I bring in two Indigenous perspectives, featuring the writings of Charles Eastman and Luther Standing Bear; both provide an important worldview that positions learning outside of the European/New World gaze. Sixth, I connect the multiple theories and eight theorists who, combined, put forward an integrated vision of student-centered alternative education. The review of the literature concludes by introducing Project Based Learning which I see as a logical, modern, curricular extension of progressive education. PBL incorporates both EL and PPE core tenets and philosophy while further amplifying students' opportunities to pursue personal interests, develop student agency and, through their student-driven projects, to promote human flourishing.

I feel it is important here to note that my encounters with the philosophers, theorists and practitioners and their work in this literature review was not haphazard or random. Instead I understand that the events in my life map onto a trajectory of progressive education. From my introduction as a student to the theories of Dewey, to the acknowledgement of non-Western contributions as a teacher, to the necessary critique of institutions of privilege as a researcher, all of these dovetails with the evolution of progressive education. My journey in education (and in miniature, this dissertation) locates my interest in the personal, in the historical, in the critical and in my relocation (Kamler, 2001).

Life Writing: Baptism by Progressivism

"What is this?" asked my classmate at the University of Illinois at Chicago (UIC); he was referring to the back of our classroom. I craned my neck left and up to see a much beloved professor in the department of education dressed, well let's call it, strangely. He was speaking to our professor and while the two of them were having a good time chuckling, I was too far away to catch the joke. As the two descended and approached the lectern I could see a bit more of the guest speaker's getup: black robe, padded shoulders, starched white shirt underneath. Similar to the court dress of European magistrates, this oddity commanded our attention. Our professor announced that we were in for a real treat and that a guest of the highest regard had decided to visit our humble class; none other than the renowned Progressive Educator John Dewey. This was the autumn of 2000 and my first class in a Masters of Education program had just begun. John Dewey, on the other hand, had been deceased for five decades—or was he?

While I don't remember much of the talk that evening, the lasting memory of John Dewey as a perpetual icon of progressive education has stayed with me. I try to access, through the fog of memory, what it may have meant to a younger me in being there: two years of teaching in the

Chicago Public Schools, working at a minority school on the north side, and going to graduate school after receiving a teaching award and scholarship.

A mere nine miles from UIC, along scenic Lake Michigan, lies the storied U of C campus. The University of Chicago was founded in 1890 by oil magnate John D. Rockefeller. The campus is the defining feature of the south side Hyde Park neighborhood even though the majestic Gothic inspired buildings covered in ivy might seem to be more at home in Oxford or Berlin than in the city known for its stockyards and the world's first skyscraper. The U of C campus also holds, in its long list of assets, the famed Laboratory School, which was the school John Dewey founded in 1896 and led from 1896 to 1903.

John Dewey

John Dewey (1859 –1952) is arguably the most important American educational reformer of the 19th and 20th centuries. Professionally, Dewey was a psychologist, educational reformer, as well as a prolific writer. Philosophically, Dewey helped to formulate the uniquely *American* school of Pragmatism (Pappas, 2011). John Dewey challenged the traditional view that education was meant to prepare students for a foreseeable future in the workplace. According to Dewey, in the traditional schools the end (future goal) controls present potentialities, with the result being that actual preparation is missed or distorted. "The ideal of using the present to get ready for the future contradicts itself" (Dewey, 1938, p. 49). He asserted that preparation should enable all people (young, old) to process from their present experience everything that it could for them *then*, and that only by extracting at the present time the full meaning of each lived experience could one enter the future ready to continue renewing that endeavor (Dewey, 1938). His recognition of the primacy of *now* forms a clear connection to the call for both students and

teachers to recognize and celebrate the immediate value of the present moment—of *agency*—which is, interestingly, also a cornerstone of Problem/Project Based Learning (PBL). The sanctity of the present moment also impacts assessment, evaluation, and outcomes. Both EL and PBL reject summative, high stakes tests in favor of timely, formative inquiries that inform instruction and build towards a solution or conclusion.

In progressive schools, the student is not a passive recipient, not a vessel to be filled, but an agent who engages in reflexive learning in the context of ongoing activities in a larger environmental field (Freire, 1970; Dewey, 1938). For Dewey, education lies in life experiences; schools based on that ideal must clearly distinguish between educative, mis-educative, and non-educative experiences (Dewey 1938). Starting with identifying which is which, this distinction is not an easy task. It is also a mistake to think that to teach through experience, the educator simply needs to provide students with new experiences; it is only when experiences are coupled with interactions (i.e. prior knowledge, discussion, reflection) that learning occurs.

The principal developments in acquiring experience arise through interaction[5]. Essentially, education is a social process (Dewey, 1938; Vgotsky, 2012). The educator is principally responsible for knowing her/his students as learners as much as knowledge of the subject matter itself (Dewey, 1958). Only through first understanding the learner can the educator select activities whereby learners can contribute to the body of knowledge and/or to a solution. It is the job of the educator to select, within a range of existing experiences, those learning activities that will stimulate new ways of *seeing* for the participants (Ayers, 2010; Dewey, 1958).

[5] 'Interaction' highlights the importance of communication underlying learning and that instruction must be designed so that individual learners can effectively build on prior knowledge/experiences. Educators should provide sufficient resources and assistance to 'interact' with the student and the learning.

Dewey rejected arbitrary subject matter boundaries (content areas as separate silos of knowledge). It is not the subject that is educative or that is conducive to growth. In other words, there is no inherent educational value *in* the subject; the value is realized only through the interaction with an individual (Dewey, 1938). Believing that instruction should start with solving practical human problems in need of being faced at the time (Kliebard, 1995), Dewey saw an opportunity to educate along what would later become his *experiential continuum*. Basing an education on experience meant creating a new theory of learning that recognizes that "every experience is a moving force. Its value can only be judged on the grounds of what it moves towards and into" (Dewey, 1938, p. 37). Teaching and learning with a goal to solve real world issues can be summed up using today's parlance: *education* is not what you are studying but what problem you are trying to solve. To solve problems, students need practice connecting their present learning to both past and future learning.

Reflexive Experiential Learning (Dewey, 1938) proposes that human experience is not a disjointed sequence of stops and starts, but an ongoing/developing circuit of activities: "It is [...] essential that the new objects and events be related intellectually to those of earlier experiences" (Dewey, 1938, p. 75). It is in this context that students learn by doing and connect that learning and doing to progressive iterative waves of learning. These iterations create an experiential ecosystem. As Hildebrand (2011) says of Dewey:

> Minds, then, are not passively observing the world; rather, they are actively adapting, experimenting, and innovating; ideas and theories are not rational fulcrums to get us beyond culture, but rather function experimentally within culture and are evaluated on situated, pragmatic bases. (p. 47)

Iterations/adaptations occur at each stage in the journey and at each intersection of culture, action, and learning. As Dewey eloquently surmised (and this warrants repeating): i) the ideal of using the present to get ready for the future contradicts itself; ii) there is no inherent educational value in the subject; value is realized only through interaction with an individual, and iii) it is also essential that the new learning and events be related intellectually to those of earlier experiences (Dewey, 1938 p. 368).

New Schools were envisioned as a distilled and better-balanced society that should serve as a microcosm of the larger society outside. In this ideal, safe and engaging space, life can be learned by living (Dewey, 1938). New progressive institutions where the student experience is paramount, according to Dewey, played an important role in forming social cohesion. The very nature of the *work* (i.e., learning) engaged in by the young in schools, communities, and programs ought to be done as a social enterprise in which all the young have an opportunity to contribute, and all feel that responsibility (Dewey, 1938). It is for her awareness of the responsibility to contribute, and the inherent worth of young people, particularly the plight of newly arrived European immigrants that I turn to Jane Addams.

Jane Addams

Jane Addams (1860-1935) was an experiential educator who championed 'learning by doing' in all aspects of her work with newly arrived European immigrants to the United States. Addams and her fellow social workers lived with immigrants in Hull House, modeling, and sharing in, the daily activities of cooking, cleaning, child rearing and educating. This 'hand over hand' teaching pedagogy between Addams and immigrants moved beyond household duties and into job training, social services placements and cultural assimilation.

The much-heralded Hull House, located in Chicago and founded in 1889, was the best known of the almost 400 settlement houses in the U.S. in the early 20th century. Hull House provided services such as adult education, day-care (for working mothers), employment assistance, English and citizenship classes, music and art classes and physical recreation opportunities to certain poor European immigrant communities. Hull House was much more than a temporary boarding facility; it was a transformational residence that prepared immigrants for a new life in the United States. The original Hull House is a landmark building located on the campus of UIC. It is while writing about Hull House that I take a step back, into my childhood, and remember.

Life Writing: Suburbs to City

As a fifth grader (from the comfort of my well-appointed suburban school in leafy surroundings), I learned in social studies about the difficult lives of immigrants from Southern and Eastern Europe, I learned about the pitfalls of urban life for the poor and uneducated, I learned how Jane Addams and the women of Hull House fought to serve more than 9,000 immigrants a week, offering medical help, citizenship classes and sports programs and recreation. As an elementary student, I even took a field trip to visit the historical landmark: I stood behind gold ropes peering into small bedrooms packed with bunk beds, training kitchens fitted with period appliances, and small educational spaces filled with desks that were bolted to the wide plank oak floors. From an elementary school field trip to graduate school some fifteen years later, I walked quickly past Hull House on my way to class, hardly noticing its modest, human scale against the backdrop of towering academic buildings to which I was headed.

Jane Addams is also credited for taking the American philosophy of Pragmatism into the new field of social work in the US. In the Hull House Settlement (Chicago, Illinois, USA), she enacted the maxim "[t]he very process of living together educates" (Addams, 1938, p. 49). Addams and Dewey were colleagues, collaborators and friends (Seigfried, 1999). They shared many philosophical, educational and social beliefs. For Addams, thinking and acting required the ability to learn from experience in daily life and to apply that learning to the everyday difficulties of a later situation. This perspective is closely aligned with Dewey's Reflexive Experiential Continuum. The shift away from thinking, as an intellectual endeavor, to one that focuses on the practical is evident in the philosophical beliefs of Addams. Like Dewey, she was a Pragmatist, believing that the truth is *what works*.

According to Addams, new experiences and increased agency for women, European immigrants, and the indigent shifted the locus of control from the domain of male, elite intellectual academics to traditional caretakers and early socializers of children (Seigfried, 1999). Pushing against the detached theory of *knowing* popular at the time, Addams recognized women's roles as central to an engaged, applicable theory of learning (Alexander, 2020). It is to this end that Addams and the other women of Hull House sought to extend the benefits of education to immigrant and indigent classes by providing living examples that knowledge is only meaningful when applied to human actions, in this case the commitment to educate and socialize the lower classes. Hull House was "soberly opened on the theory that the dependence of classes on each other was reciprocal" (Addams, 1938, p. 6).

It is important to note that Addams and her collaborators at Hull House had identified and were trying to solve a range of social problems of the time, including European immigrant poverty,

lack of quality education and employment for European immigrants, and the relegation of women and children to the sidelines of life in the US. Addams' novel approach to social work influenced the educational landscape in groundbreaking ways. First, she demanded that women, and immigrant and indigent workers have both access to, and interactions with, academics that taught in prominent universities in Chicago. Addams secured funding for the lectures and courses which importantly included visual prompts for the illiterate, and native language translation for those learning English. As a result, these interactions flattened the rigid social strata of the time and provided a rare opportunity for immigrant workers to receive education across class, national and social divides. Jane Addams continued her work at Hull House until 1926 when health-related issues limited her involvement. However, Addams' efforts were confined to those of *white* immigrants.

I freely admit that my exposure to Dewey, Addams and other progressive era educators was autobiographically influenced, given my own age and geographic location. I was educated during the 1980's and 90's, and my teachers were members of the Greatest Generation and Baby Boomers. Chicago is my *hometown*, hometown in italics, another privilege of growing up in a safe nearby suburb: I could comfortably claim it as my city without having to live in fear of its crime, attend its struggling public schools, or see its poverty. Just as it was my *hometown*, it was also the *hometown* of many of my *white*, upper middle-class teachers/professors. I suppose we were all proud of Chicago, proud of what it produced and proud of its history. It was only many decades later, looking back at Chicago from my apartment in a different city, in a different country, that I understood that my conception of the Laboratory School, Hull House and the progressive educational movement was, *white* and self-serving.

This brief literature review of Dewey and Addams demonstrates that many aspects of their reform were laudable. However, once I committed to researching with a critical lens, I returned to ponder: who was the audience for their movement, who directly and indirectly benefited, who was not considered? Racialized minorities, Indigenous peoples, the poor and working classes, and immigrant children were schooled separately from middle class and affluent white students; progressive schools were not an exception. It is important to note that even in Dewey's groundbreaking and renowned University of Chicago Laboratory School (1896), black students were not admitted until 1942. The Lab school is still a top ranked private school and is a fitting appendage to the world class university that brought us the Chicago School of Economics, Milton Freedman and George Stigler. I add, with irony, that the two most famous alumni are Malia and Sasha Obama.

The progressive educational movement, started under Dewey, rejected the harsh traditional model of schooling pervasive at the time and embraced a student centered, experiential ethos where subject areas were reimagined as valuable only when they interacted with the individual. Those reforms in educational philosophy (pragmatism) and pedagogy (learning by doing) provided new social cohesion for an emerging middle class of North American, educated to manage the transition from westward expansion (considered complete in 1890's) to the Progressive Era (1890's to 1920's). Historically we understand this period as one of social reform led primarily by university-educated white men and white women and that resulted in new governmental agencies, increased regulation of corporations and a continuation of white women's suffrage. In that era, and in that tradition, and to its detriment, Hull House only addressed the needs of a specific group of Chicagoans.

Hull House focused almost exclusively on an immigrant community of Jews from Russia and Poland, Greeks and Italians. Black Americans came in large numbers after reconstruction and during the Great Migration while Chinese immigrants emigrated to nearby neighborhoods, in some cases just a few blocks away from Hull House; these non-white migrants did not find sanctuary or support from Hull House until the middle of the 20th century. Not until the overwhelming demographic shifts that continued to bring Black Americans and Mexican Americans to the Near West Side, and literally to Hull House's door, did the agency engage beyond its white European immigrant base. The above critique names only a few of the shortcomings of progressive education during its initial stage. It also portends those aspects of schooling and education, even progressive pedagogies, comprise forms of cultural imperialism. It is in this vein that I move from the work of Dewey and Addams towards considering other aspects of Progressive Education.

Progressive Schools the world over have embraced the idea of Service Learning (SL). Today just under half of high schools and one-quarter of universities in North America have requirements for students to participate in SL as either part of the curriculum or as a graduation requirement. In my own experience as a high school administrator, three of four schools I led mandated service-learning hours. The following life writing details one of those requirements.

Life Writing: A Personal Service-Learning Story

The entire senior class was in Mindo, Ecuador, a mere 100 miles from their school in Quito. That distance as the crow flies had no relation to the actual distance between these two places, which lay across two great peaks of the Andes Mountains. The bus snaked through harrowing switchbacks, crawled through mountain villages and careened through blind curve descents, only to ascend 3000 feet. Five hours later we arrived in the truly majestic, yet economically

depressed cloud forests of Ecuador. The first order of that waning day was to get students settled in the accommodations that would be home for the next five days: four seniors to a room, young men on floor three and young ladies on the ground and second level.

At daybreak we were all up and ready to start building: forty-two students and five teacher chaperones transformed into a construction crew: a completely unskilled assemblage of people responsible for building two homes for two needy families. Students had raised funds in all the different ways one might imagine, from weekend car washes, to after school bake sales, to GoFundMe campaigns. The senior class (and by that I really mean their mothers) had met the goal.

Our intermediary, the face of the company we contracted to provide the service-learning experience, met us at the hotel. José was an affable young man in his mid-twenties, but his clean jeans and soft handshake when we greeted each other assured me that he was not joining us in the day's labor. The partnership between our school and the intermediary company was six years old and while this was my first visit, the other chaperones knew José well and the small village even better.

The first order of business was to showcase the homes that were built the previous year, by the class of 2012. We visited these simple field stone and cement houses; they were small, dark and empty. Two of the three we visited were unoccupied, no furniture, no stove, no young children in the yard. The third held a family; while we were eager to speak with them, the idea of forty strangers converging on their 200 square meter home was overwhelming. We ended up talking on the road with the mother of the family. She spoke about how the house changed her life and what a gift it was. The family had been there for two months and were still getting acclimated,

but they were cold at night. Concrete and stone were not the traditional building materials used in Mindo, compounded by the fact that traditional heating methods were inadequate.

As I recall this experience, two distinct memories return. Several men from the village came to the construction site looking for work, asking if we needed laborers. They brought with them tools and animals with which to contribute. They held their shovels in strong calloused hands, hands that had worked these forests and their small plots of land. These men knew what the villagers needed and the best ways to build homes. When José told them to leave I saw the pained look in their eyes; as they looked over our group of volunteers and, as I followed their eyes to our students, I saw what they saw: a few mixing concrete, three pushing a wheelbarrow through the mud and the rest either sitting down and talking or busy in their phones.

The second memory was of the silent bus ride back to Quito on the third day of the trip. Ten of the students were caught drinking at the hotel and since I was the high school principal, I decided to end their "service trip" early. Right before the bus pulled away I found José and told him to locate those village men who asked for work and bring them to the job site; we needed to replace the students being sent home and more importantly we needed their expertise. When I followed up with the chaperones they were clear: no local workers joined and the houses were left unfinished.

I never went back to Mindo. I don't know if the houses we paid for were eventually completed, or if anyone lives in them or if those that call them home ever found a way to stay warm. 96% of the senior class was headed to the US, Europe or Canada for university. And I was headed to New York City.

Starting as early as grade three, and continuing well into university studies, Service Learning (SL) initiatives have tripled enrollment from 1955 to 2020 (Westat & Chapman, 2019; https://nces.ed.gov/). That figure rises sharply in schools when Project Based Learning (PBL) initiatives include service components (Virtue, & Hinnant-Crawford, 2019). During my two decades in K-12 education, whether as chaperone, curriculum integrator or receiving host, I alone could count twenty-three personal experiences with mandated service learning as well as PBL service components. My experiences of service learning and the critique that I offer later in this section are not to be confused with the work done by Kurt Hahn, his teachers or their students, to whose work I turn next.

Kurt Hahn

Formal education centered around service learning began in 1920 with the founding of Schule Schloss Salem in Salem, Germany by Progressive educator Kurt Hahn (1886 – 1974) and Prince Maximilian of Baden. For thirteen years Principal Hahn led this ground breaking institution built on the bedrock of service. After life in Germany became impossible for Hahn under the oppressive Nazi regime, he emigrated to Scotland. In Scotland Hahn founded the Outward-Bound schools' movement. Outward Bound (OB) is the first documented modern educational institution to adopt EL and outdoor education as its pedagogical core. 'Outward Bound' refers to the nautical term describing "a ship leaving the safety of its harbor to head for the open seas" (OBI webpage, 2020); the beginning of that ship's passage (and subsequent voyage) is analogous to a student setting out on his/her educational journey that takes him/her out of a familiar, safe surrounding and into a challenging environment. Today's service learning is, in part, based on the organizing Outward Bound principles founded by Hahn, which enact Dewey's maxim of "learning by doing."

Kurt Hahn was a career educator; in 1920 he co-founded the Salem Castle School in Southern Germany and served as its first Headmaster. A decade later, with the rise of Hitler and the Nazi party Hahn, who was of Jewish heritage, was imprisoned. In 1933 he left for Scotland and a year later opened Gordonstoun, a private boarding school for boys, on an old estate near the rocky coast of the North Sea. It was here that Hahn first conceptualized his ideas on education as "training for and through the sea" (Hahn, 1957). Learning as a social enterprise (which we also saw in Dewey and Addam's work) requires high levels of student agency and sustained engagement in the community. While Hahn's Outward Bound travel programs provided this opportunity on the high seas or in the mountains, collaboration, commitment, and ownership were also taught in class during the instructional day.

Hahn believed that character development was just as important as academic achievement. When young people were put in adventurous, challenging, outdoor situations, Hahn remarked on their increased confidence, a positive shift in their perceptions in personal beliefs, and an increase in camaraderie with their peers. This growth, according to Hahn, was fostered through four core elements: fitness training, expeditions, and rescue service. This multidisciplinary training was supported both in school classes and in Outward Bound (OB) excursions which were foundational elements of the curriculum. Hahn refined his educational philosophy into a pragmatic curriculum that focused on the body-kinesthetic, outdoors/survival skills which were practiced through an expedition, a hobby (a student's personal interest) or a project (OBI webpage, 2020). This philosophy was supported by scholastic achievements in the classroom. Hahn's pedagogy focused on "training through the body, not training of the body" (Zimmerman, 1944, as cited in Hahn, 1957 p. 4). With this, Hahn achieved a higher purpose, as

captured in the adage: “let us build up physical fitness for the sake of the soul” (Zimmerman, 1944, as cited in Hahn, 1957 p. 4). The goal of education thus went well beyond academic content. As an example, Hahn’s maritime school focused on teaching young British sailors the vital survival skills necessary during World War II. He prepared his students to join the expanding life-saving operations on the high seas through the British Royal Navy and merchant-marine (OBI webpage, 2021). As a prerequisite to training, his students volunteered to staff remote lighthouses near treacherous waterways, thus providing assistance to ships in thick fog and heavy seas, some for months at a time.

It is important to restate that the purpose of education through service was life affirming, even life-saving. Preparation for war was not Hahn’s vision; Hahn felt Experiential Learning was more suited to forming a well-rounded citizenry independent from the state, rather than the mobilization of citizens for the state's desired outcome. Hahn often quoted William James, the 19th century philosopher, who challenged educators and statesmen to discover the moral equivalent to war. James hated armed conflict but he also recognized that war satisfied a primitive longing, to lose oneself in a common cause, one which claims the whole person (James, 1992). The moral equivalent to war for Hahn was education through service. Hahn’s schools focused on serving as building strength through adversity and creating compassionate citizens as a counter-response to the realities of a world at war. Hahn also often quoted Napoleon: "The world is not ruined by the wickedness of the wicked, but by the weakness of the good." In his speech entitled “The Decline of Compassion,” Hahn offered the following words:

> [i]f we take to heart the lessons of history, we will regard it as a very serious responsibility of schools to build up the nervous strength in the vulnerable, the

> imaginative, the sensitive, by methods which will harden yet spare them, so that they will be better able to stand the strain which responsible citizenship imposes. (1960, p. 7)

The above quote distills the purpose of Hahn's first schools. Hahn's schools focused on serving, building strength through adversity, and creating compassionate citizens, just as learning by way of challenging experiences is the foundation of Outward Bound schools today.

What began as *training for and through the sea* is now a school movement. OB schools' popularity grew in the post-WWII period; today OB schools can be found on six continents and in 60 countries. Those schools are inspired by the words of Kurt Hahn: "I regard it as the foremost task of education: to ensure the survival of these qualities: an enterprising curiosity, an undefeatable spirit, tenacity in pursuit, readiness for sensible self-denial, and above all, compassion" (OBI webpage, 2020).

Today progressive and traditional schools have both embraced and radically changed Hahn's '*education as service'* model. From semesters abroad, to half-day field experiences, schools are trying to connect *service, service-learning,* and *real-world problem solving* with the curriculum. Those same schools have also recognized the potential of service learning to be used for less noble purposes such as advertising, marketing, and profit making.

I began the section on Kurt Hahn with a personal story of a service-learning trip that did not live up to the standards of service learning I held at the time. However, this discrepancy remains the reality of service learning; it might even be considered endemic. Typical International Service Learning (ISL) projects involve students traveling abroad to *construct* homes, *beautify* local schools, do *research,* and *teach* English (Vandarakis, 2020). Countless variations of the *work* done exist; yet virtually all variations include unskilled-semiskilled participants from the Global

North visiting impoverished areas in the Global South, leading to uneven implementation and imbalanced results (Vandarakis, 2020). Travelers, hosts and natural ecosystems, the key constituents involved in ISL projects, are all potentially exposed to harm, however differently. ISL concerns for those traveling from the Global North include perpetuating neo-colonialist attitudes, with its focus on short-term aid over long-term economic solutions (Chapman, 2016; Jefferess, 2012; Wolfe, 1999). Host communities (from small towns to entire nations) face imbalanced relationships related to decision making, even as they exercise little control over outcomes while relying on the meager monetary benefits of hosting (Vandarakis, 2020). Damage to the natural environment occurs through long haul flights, the demands of visiting participants that exceed the local infrastructure and *voluntourism* itineraries that can promote vacation activities over service (Vandarakis, 2020). Many service-learning trips today have strayed far from Hahn's philosophical and pedagogical vision. Let us remember that Hahn promoted service in a hyper-local context; each of his schools had long standing commitments to the place and the people they served. The work that Hahn, his teachers and their students performed was, so to speak, in 'their backyard', fostering organic connections with their locales.

Kurt Hahn founded several highly acclaimed schools based on the Outward Bound model and served at each as principal/headmaster; amazingly, all the schools are still thriving. Education through service, as he taught, required self-sacrifice and a near total commitment from students and teachers. His model succeeded through years of careful nurturing and attention. Similarly, but continents away across the Atlantic, Paulo Freire worked with the illiterate farmers of Northern Brazil for decades, while he developed his philosophy and pedagogy. In this next section I will explore his Problem Posing/Liberation education.

Since reading Freire's *Pedagogy of the Oppressed* in 2002, I find that my teaching has been profoundly impacted by his work. After finding like-minded colleagues at a public school in Chicago, we began teaching a program based on Freirean principles of education (2004-2007). As I worked on this section of my dissertation in 2021-22, I was reminded of the following letter, which I sent to a former colleague in June of 2009. I decided to include it here as a reminder that connections of theory to practice should and do matter in schools.

Life Writing: A Letter Sent

Dear Friend,

I hope this letter finds you and your family in fine spirits and in the best possible health. While I open most of my correspondence with this cordial greeting, I want you to know how much I admire you. It has been far too long since we last spoke and even longer since we met in person. The many miles that separate us are formidable, but I think of you often and I wish we could be working together again toward 'our collective emancipation.'

I'm sure that you're busy so I'll do my best to keep this short. It is heartbreaking to admit, but the work that we began at Public School 35 stalled and, as of late, has come undone. What started with such excitement, energy and commitment has slowly and steadily lost its steam and forward momentum. Remember meeting before school to plan the day's events and the way we pored over the notes from our students about their projects? We seemed to float into our colleagues' rooms to remind them of the cross-curricular opportunities between our subjects, the students' projects, and their courses, all the while emphasizing the common good that the work ultimately promoted.

Even today, years later, it is with awe that I recall the way you approached Mr. Smith, the mathematics department's most senior teacher; he was so serious, so exam focused, but you found a way to turn him just enough that even after thirty years he gave ten minutes at the end of each class to engage with students on their projects.

Sure, the successes came in fits and starts, but once a critical mass of students understood what we were trying to do they brought their teachers along. Freire himself would have applauded the way you featured our students' voices, concerns and solutions, how you invited the International Baccalaureate teachers into your room to see what amazing ideas and concepts your general education students proposed, how they selflessly promoted human flourishing and that their projects worked. It seemed we were making real progress.

I don't know how the wheels came off, but I'm certain it was not one single thing. Your leaving was personally devastating, but in a faculty of over eighty it was not universally felt. It did seem though, that even our beloved school was not immune to the constant neoliberal attacks: from closing the art department to focus on 21st century skills, to full throated embrace of high stakes testing and the culture of individuality; oh how the parents of means demanded we offer more and more Advanced Placement (AP) courses to the detriment of electives that were open to all. Our tiny cadre did our best to hold on to hope, but we heard the increasing drum beat of 'progress, performance and profit,' which beat so loudly it drowned out the sound of our fragile community's voices.

I felt our cause fading away when each new crop of teachers came through not knowing the work of Ayers, hooks, Delpit, Freire, and Dumas but knowing exactly where the standards were memorialized, what topics the external exams would cover and how each level of the newly

implemented merit pay bonuses might benefit them. Maybe that last statement is unfair. You were much younger than I, and our students younger still. To think what I have learned from each of you…

As I finish this letter, I'm reminded of my hope that this note finds you in fine spirits and the best possible health. I recognize the limits of those words and that my wish may not be enough. May strength find you and may courage remind you that the work we are doing seems impossible, and maybe it is, but it's necessary work.

Your Friend,

Anthony

It is in this letter that one can see the challenges, possibilities, failures and necessity of the work endeavored. It also features the power of theory to shape educational practice.

Paulo Freire

Paulo Freire (1921-1997) offered educators a shocking binary choice: teaching is either a profession devoted to oppression or a commitment to liberation. The first he called the Banking Method, the second Problem Posing. In Freire's critique of the Banking Method, the teacher is the narrator, the all-knowing teller of the stories, and students are passive listeners, the more submissive the *better*. Students have nothing to add or contribute: the banking method does not allow for students to inform the body of knowledge, to teach peers or teach teachers. Content is detached from the lived experience of the student. In the Banking Method, student effort is placed on memorizing knowledge to be reproduced at the teacher's command, usually in the form

of a summative test; this transaction signals the return of the deposit: the knowledge given by the teacher is returned, unchanged.

The Banking Method is designed to keep in place the existing structures of oppression in schools, the workplace, and all aspects of society (Freire, 1970). Powerful elites, from capitalists to teachers, form a hegemony, which creates an illusion of consent; consent is couched in the language of choice, freedom, and liberty (Gramsci, et al., 2011). This illusion can only be achieved when people are convinced not to look beyond their own lives, to care only about themselves, to lose curiosity, to turn inward and to fear others (Freire, 1970). As a result, education becomes highly individualistic, competitive, exclusionary and heavily regulated (Dumas, 2014). Standing in direct contrast to this capitalistic and individualistic approach is Freire's Problem Posing education.

Freire grounds his Problem Posing approach as a dilemma. Students tend to think of themselves as 'objects' in education: without agency or voice and without influence to choose their own destiny. According to Freire, transformation occurs when an object moves into the position of a subject. The subject has the power to exercise agency and intellect. The purpose of education is to facilitate that transformation of student as *object* to student as *subject.*

> We are […] the only beings capable of being both the objects and the subjects of the relationships that we weave with others and with the history that we make and that makes and remakes us. Between us and the world, relationships can be critically, naively, or magically perceived, but we are aware of these relationships to an extent that does not exist between any other living being and the world. (Freire, 1970, p. 75)

Freire also suggests that the role of a humanist educator is to stand with the student and assist in developing the student's consciousness while evolving their own awareness as they learn from the student. This mutual progress is achieved through dialogue, oriented along a problem-posing frame. This frame positions education as a problem-solving endeavor, and honors students as authentic contributors to society.

Students are empowered through intentional processes: empowerment is not something one finds on their own, gives or sells but something that one experiences, through engagement, commitment, dialogue, and discovery with others (Freire, 1970). Empowerment is experiential; students are active agents of change versus passive receivers. Empowerment must be experienced and then reflected on (here I reference Dewey's Reflexive Continuum). Empowerment cannot be transmitted.

Many elements of today's traditional educational landscape are based on individualism, competition, and scarcity; Problem Posing education proposes the opposite. One cannot dialogue alone, at least not for long. Social, collective, and participatory experiences are all necessary for liberation and one does not achieve social transformation individually. Education in a Problem Posing frame asks students to examine, reconsider and reimagine their world anew. One must think critically in order to intervene and reshape reality; this is the purpose of education (Freire, 1970). To this end, intervening and reshaping society for the better, Problem Posing Education (PPE) and Project Based Learning share several notable similarities.

PPE and PBL offer learning as a series of problems to be examined by the student and collaborating adults: problems to be solved together. With practice, students get into a habit of looking at a problem, examining it, critiquing it, connecting it to their lives and attempting to

solve it. People live in the world in community and Freire uses Problem Posing education, the creation of consciousness, and a flattening of the hierarchy between teachers and students, to achieve a harmonious balance. This balance starts with recognizing that students are principally *Subjects* and contributors with much to offer adults. The purpose of bringing empowered young people and teachers together is to solve problems that people in the community face. Breaking down hierarchies and working with young people to promote human flourishing is liberating work. Freed students and freed teachers can then work collaboratively to free other members of society (Freire, 1970).

Maria Montessori

At the same time as Freire, but across the Atlantic, Dr. Maria Montessori was focused on liberating young people, freeing indigent and disabled children from oppressive educational practices. Maria Montessori (1870-1952) was an Italian medical doctor who worked with children experiencing forms of cognitive delay, and later in her career she researched children who were committed to asylums due to mental disabilities. From this base of experience, research and study, Dr. Montessori created the Montessori Method of Education. Today this method of education is practiced in Montessori schools worldwide and has also been adopted by a range of progressive and experiential educators who prioritize inquiry-based learning, students' agency, play in learning, and open creative learning environments as the foundational curriculum.

Dr. Montessori's contributions first revealed that children's natural capacity for learning was optimized when they were allowed total freedom in a safe, hands-on learning environment (Standing, 1998). Her second, and perhaps most important discovery, flipped the traditional

narrative of education at the time: teachers were to pay close attention to their students. The duty of the teacher was to assist and facilitate development, rather than to direct, grade, and judge. True and deep learning happened when students were engaged and uninterrupted, and the teachers' role was to know how to arrange their environments and students for that opportunity. Third, a child-size environment, rich in sensory experiences, was necessary to activate the kind of learning that involved the hands, eyes, ears, feet, and brains of each child. In 1907, this was a radical method of education particularly because Dr. Montessori was advocating this approach for all children—not just the elites but for poor children, including those with mental disorders.

Today we can observe that many progressive schools have adopted Montessori's position on the role of the teacher as guide. This pivot to understanding the role of the teacher as facilitator and coach allows has been important for inquiry-led-learning, which requires a multidisciplinary approach that includes aspects of PBL. Free/Open/Project periods require high degrees of teacher flexibility paired with increased student agency and autonomy. Supporting this shift not only requires a change in teacher stance but necessitates a rethink of assessment practices. Traditional assessments of learning are replaced with formative evaluations for learning embedded in the learning process that many times take the form of intentional play and product creation.

Fridtjof Nansen

At the same time as Dr. Montessori but in another part of Europe, Fridtjof Nansen was questioning the role that nature, history and culture might have in education. Fridtjof Nansen (1861-1930) was a Norwegian explorer, scientist, humanitarian, activist and Nobel Peace Prize laureate. At the core, Nansen was also an educator who pondered tensions between the big ideas of nature and culture and their application in theory and practice. He asked questions that

centered around ecological consciousness and how the related roles of history and tradition impact consciousness, questions that were prescient for the time. Today I see the seeds of Nansen in acknowledging the human responsibility for climate change and environmental degradation. While salient issues for all, these have particularly engaged young people both in thought and action.

Nansen asked questions such as: what is valuable in our meetings with nature? What is the message we convey to the young regarding developing good relations with the natural world? Is the future of nature principally as a resource for the production of things, or as a backdrop for free time and sport? What aspects of nature's values can we learn and apply in our lives? Nansen's questions have pointed to larger and older Indigenized practices, ones that begin with establishing relationships with the natural world through living in and knowing a particular place. The experience of this exploration of place becomes a source of both personal and communal identity (Deloria & Lawrence, 2001). It is only through this kind of commitment and relationship with *place* that one can learn to live ethically and well in the world.

Nansen is best known for furthering the scientific approach to *friluftsliv*, a Nordic concept that means getting outdoors; it is an open-air lifestyle that embraces nature in all seasons. Nansen's perspective on adventure and on ecological and outdoor education is unique insofar as it exposes, and attempts to resolve, the inherent conflicts between the original *friluftsliv* and what we now call outdoor adventure.

Learning in Nansen's context moves beyond simply participating in a new experience: in order for learning to occur, the encounter should be intellectually connected to past encounters (including one's culture and history) and to possible future experiences. While this can be

clearly seen in Dewey's Reflexive Experiential Continuum, Nansen combines historical and traditional elements of Nordic culture as touchstones of the past and responsible environmentalism as the path for the future. This connection of culture with responsibility and the way in which both are grounded in respect for the natural world are in turn linked to the upcoming section, which details the work of Charles Eastman and Luther Standing Bear.

It is here in the historical and traditional elements of culture that we leave Western thinkers and philosophy to explore two Indigenous educators' perspectives on Turtle Island[6]. The departure from Western thought to Indigenous thinking is not only a shift between individuals, as it has been in the previous sections of the literature review (i.e. the subtle differences between a Deweyan principle and the practices in a Hahn led school) but is more expansive: the departure is now between cultures and worldviews. The contributions and perspectives of Dewey, Adams, Hahn, Freire, Montessori, and Nansen are immeasurable; they are, however, all Western-facing. Charles Eastman (Ohiyesa) and Luther Standing Bear, as Indigenous educators, bring an important, yet often overlooked, Indigenous perspective to Progressive education and EL, most notably in outdoor education (Smith & Knapp, 2011).

Charles Eastman & Luther Standing Bear

Charles Eastman (Ohiyesa[7]) (1858-1929) and Luther Standing Bear (1868-1939) were Indigenous leaders, educators, and critics of the United States policies toward Indigenous peoples in many areas including education (Smith & Knapp, 2011). While neither Eastman nor Standing Bear were educational philosophers or theorists, both spent their formative years on the

[6] For some Indigenous peoples, Turtle Island refers to the continent of North America; the name comes from Indigenous oral histories that tell the story of a turtle holding the world on its back. The turtle is considered an icon of life, and the story of Turtle Island speaks to various spiritual and cultural beliefs of Indigenous peoples.
[7] At a young age Eastman was known by his Indigenous name 'Ohiyesa', which means "winner".

'Indian Pattern'. Eastman referred to the 'Indian Pattern' as a set of guiding principles that connect Indigenous peoples to the land, animals, nomadic tribal heritage, mysteries of nature, and the spiritual philosophy of the 'Indian'. Both men's early experiential foundation saw them (and the people they led) through the challenges of resisting assimilation into White settler society and the radical changes of that time. Eastman and Standing Bear were at various points classroom educators, Indigenous ambassadors to settler governments, and advocates for 'Indians' whose traditions, culture and land were increasingly being dispossessed. Individually, they served as a medical doctor (Eastman) and Sioux Chief (Standing Bear); each in his own way thus healed and led his people while together they provided two important exemplars of an Indigenous world of education through experience.

For Eastman and Standing Bear, education came through the land (Jorgensen, 2007). The natural world provided more than nourishment and materials for their nomadic life; it was a place for solitude, spiritual connection, and a place where young people practiced and proved their value to the group. Indigenous stewardship of the land featured prominently in their worldview. Through their example, they, and Indigenous peoples, have shown that resource management and deep ecology can coexist with human flourishing.

The understanding and importance of interrelationships between human and natural communities underpins *life on* and *learning through* the land. Indigenous children, at a young age, are immersed in the web of life as discrete actors responsible for all their interactions; only recently has that worldview begun to influence western ecologists, environmentalists, and preservationists (Cronon, 1996).

Indigenous community life presents a model of mutual coexistence with nature and human relationships: all tribal members are interconnected (including elderly and young), valued and honored for who they are: this remains so today. The elderly are wise, revered and included; the young celebrated, trusted and respected. For all members of Indigenous communities, survival requires a close, mutual relationship between people and nature (Salmon, 2000). Eastman and Standing Bear have described their commitment to land, animal, and tribal ways of teaching and learning as foundational to their education. Both described tribal elders as teachers who encouraged analysis and reflection on early experiences in nature and accountability for actions: on the hunt, as members of the tribe, and in actions as future leaders. Indigenized education is foremost a respectful endeavor with the intention of maintaining good relationships (Deloria, Jr, 2001).

Eastman's and Standing Bear's philosophies, born from their traditional childhoods and carried through their adult lives, have also influenced the field of experiential education today (Smith & Knapp, 2011). Practical survival tasks were approached as offerings to the Spirit Mother. Young Indigenous learners were thinking, feeling, and spiritual beings when they performed these tasks. In somewhat similar ways, experiential educators, employing an Outdoor Education[8] model, use survival skills as direct learning situations. Indigenous lessons in living made accessible to the West by those like Eastman and Standing Bear, who provided a foundational philosophy of Indigenous experiential learning, highlight responsibility and agency for young people. That philosophy is the foundation of many of the outdoor education programs

[8] Outdoor education is organized learning that takes place outdoors. Outdoor education programs involve wilderness-based experiences in which students participate in a variety of adventurous challenges and outdoor activities. Outdoor education draws on the philosophy, theory, and practices of experiential education and can also include environmental education.

of today where the emphasis falls on guiding learners by structuring and supporting suitable experiences, posing problems, setting boundaries, and facilitating learning through outdoor immersion.

Eastman and Standing Bear also voiced clear and warranted criticisms of the US Federal Government, state governments, the US Military and White settlers. Both men experienced firsthand the prejudice and violence directed at Indigenous peoples while also bearing the oppression of institutionalized racism in their given professions, in their roles as leaders, and even while performing duties as high-ranking officials within the US Government.

Eastman served as a medical doctor to both White settlers and Indigenous tribes, US Congress Indian emissary, commissioner for Indian heritage and antiques and finally commissioner for Sioux land inheritance. In each of these varied roles, Eastman's commitment to improving the lives, conditions and spiritual health of his Indigenous brothers and sisters featured prominently. It was in these roles that Eastman saw the greed, graft and malice of the settler government and White frontier hierarchy. “The pages of history are full of licensed murder and the plundering of weaker and less developed peoples, and obviously the world today has not outgrown this system” (Eastman, 1974, p. 108).

As an adult, Eastman reached back to his boyhood education for inspiration and guidance, a belief that he held about education in general: “Whatever there is for him to learn must be learned; whatever qualifications are necessary to a truly great man he must seek at any expense of danger and hardship” (1974, p. 43). Education also included right living and right character and in an Indigenous sense, this meant “to be in harmony with nature, one must be true in thought, free in action, and clean in body, mind, and spirit. This is the solid granite foundation of

character" (Eastman, 1974, p. 1). Late in life Dr. Charles Eastman reflected on the intensity of merging his Indigenous and Western lives: "When you see a new trail, or a footprint that you do not know, follow it to the point of knowing" (1974, p. 27). His life epitomized *that* Indigenous principle: following a path to the point of knowing.

Chief Standing Bear acknowledged that Indigenous people could not fully recover the beautiful rapport they once held with nature, this because "[t]he springs and lakes have dried and the mountains are bare of forests. The plow has changed the face of the world" (Standing Bear, 1928, p. 125). One lesson the West has yet to learn, according to Standing Bear, is that "[s]strength was gained but from one source— nature— and until influenced, the Dakota mind was never blighted with the idea that strength was to be gained through the domination of other individuals" (1928, p. 125). This understanding of strength through nature and of recognizing the need for respect in relationships (human to human, human to nature, human to technology) is also a hallmark of experiential outdoor education programs, particularly those focused on wayward or troubled youths.

Never straying from his Indigenous roots and an unwavering belief in coexistence as the solution, Standing Bear's critique still offers hope of reconciliation between races and redemption for White settlers.

> [T]here were in our culture elements of benefit; and there were influences that would broaden any life… America can be revived, rejuvenated, by recognizing a native school of thought. The Indian can save America. (Standing Bear, 1928, p. 117)

Indigenized educational practice is grounded in power and place. What the words *power* and *place* mean to Indigenous scholars are radically different from Western thinkers and thus the

means and results of educational practices grounded in those words are strikingly divergent. Power, according to Vine Deloria, Jr is understood as a "living energy that inhabits and/or composes the universe" and place is the "relationship of things to each other" (2003, p. 37). Like Standing Bear, Deloria rejects strength and power as emanating from individuals, instead recognizing that power exists in relation to place, which is itself a product of interconnections. Education, in an Indigenous understanding, is an introduction to *power through place*.

For Charles Eastman (Ohiyesa) and Luther Standing Bear, their Indigenous experiential foundation provided the stability to help them, and their people, cope with the radical changes of assimilation all Indigenous would face when thrust into Western society. Eastman and Standing Bear never forgot their early teachings and have made their contributions available to educators the world over. It is in this spirit that their insights are shared here, as contributing to a more 'progressive' vision of education.

All the theorists drawn upon here share several fundamental beliefs. The first is that learning should begin and end with the student (Dewey, 1940; Freire, 1970; Montessori et al., 2021; Eastman, 1971; Hahn, 1960) The second states that young people are fully human and, as such, have much value to share with fellow peers, adults and the world (Freire, 1970; Eastman, 1974). Third, students learn by constructing their own understandings through the cycle and process of experience, reflection, collaboration, and action (Dewey, 1940; Nansen & Sverdrup, 1975; Montessori, 1912; Vygotsky & Cole, 1978). The fourth belief is that students of any age bring valuable knowledge, insight and experience to school and it is the role of the adult to see the student as a vital contributor, and to shepherd the student's experiences so that they maximize their learning (Montessori et al., 2021; Dewey, 1940; Freire, 1970). The fifth proposes that the

curriculum is approached in a way that positions students as competent participants in exploring learning through dialogue, problem posing, and with the goal of contributing potential solutions (Hahn, 1960; Freire, 1970). The sixth, Experiential-Problem Posing pedagogy recognizes that many questions that can be asked about a particular problem and many potential answers exist (Freire, 1970; Nansen, 1975): educators are responsible for creating an environment that recognizes and celebrates the multiplicity of both investigations and solutions (Addams, 1938; Dewey, 1938; Montessori, 2018). The seventh and final shared belief is that students and teachers together are *in*, not apart from, the world as it moves and changes (Eastman et al., 2016; Standing Bear, 1928), and that motion is both caused by and affects *Subjects* whose presence, actions and learning are propelling change, and influencing the world (Freire, 1970). It is from these seven fundamental understandings that I move to a literature review of Project Based Learning, an approach through which learning by doing is seen as contributing to human flourishing.

Literature Review: Project Based Learning

My goal for this section of the literature review is to present PBL in a way that will be accessible and useful to educators, equal parts historical, theoretical and practical. As Newsome (1964) notes, theory ought to be a guide for educational practice. As such, theory must be considered in relation to application, each informing the other. Additionally, the connections between theories may also be explored. Theories in education are interrelations, or systems of meanings, about the ways and methods to carry forward the teaching-learning process (Maccia, 1962; Johnson, 2003). It stands to reason that theory should lead us toward enlightened practice. Theory alone however does not facilitate improved practice. Personal experiences and action are part of the

balance of factors that improve teaching and learning. The balancing act of applying theory as a guide to educational practice with personal experience is a difficult, yet common, path forward. It is in this vein that I propose the following, literature review of Project Based Learning.

Project Based Learning, at its core, is an amalgamation of Experiential Learning, and the integration of multiple subject areas (Dewey, 1938). PBL aims to facilitate an effective learning environment that offers students the opportunity to explore personal interests and make meaningful social relationships (Vygostky, 2012; Vygotsky & Cole, 1978). PBL can be used to examine social issues and then, through action, to reconsider and reimagine the world anew (Freire, 1970). PBL can empower students to build projects based on their own curiosity and interests, pursue knowledge to answer their own questions, and contribute to improving the lives of both self and others as a result. PBL positions the student as a contributor who is charged with solving a problem and promoting positive change in self and others.

PBL is a student-centered and student-initiated means of exploration; the role of the educator is to facilitate and support an active student. PBL builds on Constructivist pedagogy which posits that human learning is constructed and that learners build new knowledge upon the foundation of previous learning (Vgotsky, 1978). Prior knowledge influences how an individual will construct understanding and make meaning from new learning experiences (Phillips, 1995). Constructivist theory also posits 1) knowledge is constructed, rather than innate, or passively absorbed, 2) learning is an active process, 3) all knowledge is socially constructed, 4) all knowledge is personal and 5) learning begins in the mind. Constructivism is particularly relevant as it connects to Dewey's Reflexive Experiential Continuum model, in that as students have experiences and

reflect upon those experiences, they build their own representations and incorporate new information into their pre-existing schemas (Dewey, 1938).

Consistent with this, PBL promotes and fosters 1) individual interests (student driven); 2) constructive investigations (involving peers, teachers and community); 3) expert knowledge (that moves students into the wider community); 4) interactions that are realistic in nature (real world lived experience); 5) student movement out of traditional modes of learning (didactic, teacher led) toward exploration of the unknown; 6) engagement with technologies that promote learning; and 7) culminating activity in the form of a final project.

In order to connect PBL theory to pedagogy, I have provided a working 'table' that highlights theory while explaining the support of practical steps for educators working with a Project Based Learning Period during the instructional school day (See: Table 1). Project Period(s) are supplements to students' regular schedule of classes that promote experiential learning events that are creative, active, and service-based. Project periods/classes are an opportunity to deconstruct the ordinary school day as well as the traditional parameters of a classroom and are generally recognized as a way to begin the implementation of a Project Based Learning pedagogy. Importantly, this is only one possible way that an overview can be provided and is given for general illustrative purposes, not as a recipe to be followed.

Table 1. PBL Organization: One (possible) Step by Step Approach

Key Idea/ Step in Process	**Explanation and Details**
Start with Curiosity	PBL begins with curiosity, students are encouraged to look around themselves (and society) and to ask questions. Students are encouraged to

	consider what people need and lack, or what seems to not be working well in people's lives.
Brainstorm & Shortlist	Students create a brainstorm of potential inquiries and ideate, postulate around what they noticed.
Consultation	Students consult with peers and adults about their topics and after choosing one (or several if closely related) students then develop an essential question for their inquiry. *(educators check-in[9])*
Create a blueprint/ template *Complete PBL blueprint/template* (*See sample* ***Appendix A***)	Students create a blueprint for their inquiry sketching the frame of their future project. The blueprint might include: a proposed calendar of the project, learning/academic benchmarks, probable expert needs, the target audience, the format of the final product (anticipated). Note: this blueprint is typically provided to the student as a *project proposal template* and can be customized: individual educators, departments, schools or districts may have particular requirements. *(educators check-in)*
Problem Identification and Possible Solutions	Students identify how their project will alleviate/solve a problem and what the perceived benefits will be to self, peers, community and beyond. *(educators check-in)*
Goal-Setting	Students set goals and keep detailed records of weekly progress, chronicle successes and failures and record any adjustments they make to their project blueprint. *(educators check-in)*
Self-Monitoring	Students monitor their progress in a project log: entries may include images, photos, voice recordings, video, journaling, and reflections. *(educators check-in)*

[9] At specific steps during the PBL process *educators check-in* with students. A typical check-in involves a recognition of the key step being taken, a discussion of potential outcomes and an agreement on the next actions for both students and adults. Check-ins can happen in-person, remotely or digitally on the project template's communication log.

Knowledge Sharing	Students mobilize learning by presenting the final product with a target audience. The audience can range from a small group of peers to a larger community of peers, adults, participants in, and recipients of, the project.
Self-Evaluation	Students complete a self-evaluation focusing on their own learning and on the contribution (or potential contribution) the project has had on others. *(educators check-in)*

The cardinal principle of PBL is student autonomy and ownership of their project. As such, the educator is primarily a facilitator, supporter, and coach. As noted above, certain steps in PBL require educators to be directly involved to ensure the students have a grounded blueprint on which the rest of their project will be built. Teachers play an active role in the PBL exploration phases, facilitating conferences with students (check-in/check-out), interacting with their students' digital communication logs, probing, guiding students in their research, and ensuring students are meeting their own goals. PBL's potential is rooted in transdisciplinary learning, so that educators from disparate subjects, grade levels and even different schools can connect around a student's project. Expertise is not defined by subject area certification; an educator's potential contribution is expanded beyond the role of teacher to encompass the whole person (including individual interests, passions, life experiences). Educators are also charged to locate and connect experts (local, regional and further afield) with the needs of their students and the projects.

As a pedagogy, PBL encourages students to pursue personal interests, develop their own agency, practice collaborative skills (with peers, teachers, and experts) and hone technological literacy in a student-centered environment. PBL is superior to teacher-centered instruction in this regard,

with students commenting that the work felt more authentic, and more connected to their real lives (Saavedra et al., 2021).

In the theoretical literature PBL is often credited for supporting students' critical thinking development (Savery, 2006). It is often assumed that students develop their critical thinking, particularly their reasoning skills, through the process of interaction (social), reflection (individual or with others), through feedback in the problem-solving process and in the formative assessment process (Savery and Duffy, 2001). These assumptions provide a strong basis that point to PBL, 'learning by doing', and experiential pedagogy both stimulate critical thinking (Savery and Duffy, 2001).

In the following section, I will provide empirical evidence from the literature of the successes that U.S. students have attained through PBL initiatives. These accomplishments were demonstrated on formal, high-stakes, summative exams that were externally assessed. Studies have looked at K-12 students' learning and understanding in PBL environments. High school students taking Environmental Science and U.S. Government and Politics courses, through a PBL framework, outperformed students in the same courses, given in a traditional method by eight percentage points (Saavedra et al., 2021). PBL classrooms also outperformed traditionally instructed classes across socioeconomic and reading ability levels. Both struggling readers and highly proficient readers engaged in PBL outperformed their traditionally instructed peers (Krajcik & Czerniak, 2018). The results of a two-year study measured students developed conceptual (vs procedural) understanding of mathematics: PBL students outperformed their peers learning in traditionally instructed environments on General Certificate-Secondary Education standard examinations (Boaler, 1998). Overall, student-centered approaches, specifically PBL,

are more effective even in high stakes summative testing environments than traditional instructional methods (Saavedra et al., 2021).

I now present empirical evidence from three studies that contradicts the above findings. Sulaiman's (2011) research involved studying two groups of pre-service science teachers: one group received PBL instruction and the other did not. No statistically significant differences were noted between groups. The specific criteria related to critical thinking did not increase or improve as a result of PBL exposure and training. Several additional studies at the higher education level and at K-12 levels indicated PBL instruction did not change students' critical thinking levels (Tiwari et al., 2006; Polanco et al., 2004). While an exhaustive review of the literature was not conducted it seems that the theoretical literature on PBL and empirical literature do not always align.

PBL is more than just a way of learning; it is a process by which students develop a working stance, a view from which they explore learning that combines the personal, the social and the academic. When students are able to organize and manage their own learning, and the way they work with others, this shift may have a positive impact on their remaining education and their adult lives (Saavedra et al., 2021). PBL has influenced the areas of assessment, teacher isolation, varied learning styles, and teacher/ student support. I address each of these below.

Authentic assessment and evaluation allow educators to document a student's progress and development against well-defined learning benchmarks. PBL encourages this practice by: 1) providing the teacher multiple assessment opportunities (given the different stages in the project's life-cycle), 2) allowing the student to demonstrate their capabilities while working independently, 3) showcasing the student's ability to apply desired skills, 4) developing the

student's ability and necessity to work with their peers, and 5) encouraging the teacher to learn more about the student as a person.

In traditional schools, teaching can be an activity “undertaken behind closed doors between moderately consenting participants" (Shulman, 2011, p. 21). This narrow view of education can be seen as contributing to the isolation many teachers and students may feel when approaching learning (Davis, 1986). PBL can open the proverbial closed classroom door and combat the isolation teachers and students feel through encouraging the exploration of cross curricular connections. Through the use of technology, PBL enables students and teachers to reach out beyond the school building for expert guidance, partnerships and project support. Technology also widens the potential audience for the project's results. PBL is oriented towards a pedagogy that should (or at a minimum has the potential to) impact people's lives positively; that impact can take place in individuals and interpersonally at local, regional and global contexts and can be shared in divergent settings.

It is well documented (Blumenfeld et al., 1991; Kokotsaki et al., 2006) that students have varied learning styles and that their paths to knowing are personal (as are their backgrounds and life experiences). It is also well documented (Saavedra, 2021; Schulman, 2000) that students have a broader range of capabilities than they have been allowed to show in traditional classrooms. PBL accommodates divergent learners by 1) encouraging the use of all modalities in the process of researching, communicating and solving issues; 2) prioritizing personal relationships to the issues students are exploring; 3) allowing students choice in determining the format of the exploration, final project, and reflections; and 4) including students in the authentic assessment of their work.

As I have noted above, PBL initiatives have the potential to transform education. This transformation begins with reimagining the relationships between students and adults. PBL can also transform education by shifting the purpose of learning from rote memorization to active improvements in society. Yet, not surprisingly, challenges and considerations in implementing PBL abound (Krajcik & Czerniak, 2018; Davis 2018; Kokotsaki et al., 2006). From the literature the following challenges have been observed.

Students need support: students educated in didactic/traditional methods have not practiced or developed the skills to successfully engage in the open learning environment of PBL. Teachers must recognize their students' level of preparedness and support them in the process of learning, unlearning and relearning. Just as students need support, so do teachers. Regular professional development, educator networking, and support from the school administration is necessary to promote the kind of cross curricular, long term learning, and expanded roles of adults (both teacher and experts) required of PBL.

A move to PBL requires shifting the teachers' focus from "covering the curriculum to uncovering" the possibilities associated with learning (Duckworth, 1996, p. 224). This shift can also challenge the received and hidden curricula. Moreover, PBL is often multidisciplinary which is a form of critical pedagogy itself as it challenges the traditional regulation and order of the disciplines. The move from *covering the curriculum to uncovering* also entails favoring student-led discovery while practicing the fundamental skills required to engage in independent projects. Just as the curriculum moves/shifts during PBL, so does assessment. Only when educators directly examine student performance on worthy intellectual tasks can valid

evaluations be made (Wiggins, 1990), including spaces for personal reflection as assessment and for self as well as peer evaluation. Historically schools place little emphasis on student choice, voice and empowerment. PBL prioritizes all three. When teachers release the need to control *how* learning takes place and pivot to a supportive role which ensures *that* learning takes place, students and teachers benefit.

At its core, PBL is an amalgamation of Experiential Learning, Constructivism and Problem Posing Education. It is a pedagogy that centers on students as the pivotal constituents in the learning process. Through PBL, progressive theories of the 19th and 20th centuries combine with pedagogical practices of today resulting in a balance of the time honored and the new. Learning through projects that are built on the issues and challenges facing society empowers young people to take a critical, open and active stance. This new position empowers students as contributors, change agents, and most importantly, as *Subjects*.

In summary, my doctoral research is informed by foundational educational thinkers whose contributions illuminate how we understand learning. These theorists and practitioners of note transformed Education in the late 19th and 20th centuries. Key theories of the past include the importance of Experiential Learning/'learning by doing' (Dewey, 1919), the role of *conscientization* in learners as they become aware of their own agency (rather than seeing learners as receptacles) (Freire; 1970), the importance of structuring learning as a social endeavor (Addams, 1902; Dewey, 1919; Hahn, 1960) and students and teachers as together *in*, not apart from, the world as it moves and changes (Eastman, 1971; Standing Bear, 1928). The foundational beliefs of the above theories and theorists can be seen to be present within Project Based Learning: a pedagogy/curriculum/learning philosophy which confirms that learning by

doing, education as service, and honoring the natural world, can contribute to human flourishing. It is in this milieu of past and present, theory and practice, that I examine challenges facing education and address the contribution of my research to the school change movement. In the next chapter, I provide a context for my research and describe the methodological approach taken.

Literature Review Post-script: Secondary Research

Before moving to the methodology chapters, I would like to drill down on two topics that didn't fit in the literature review of either Progressive Education theory/theorists or in Project Based Learning. These two topics appeared when the research phase began and now that it has concluded, they have resurfaced. I see the need to go back and add some important thoughts, a brief review, and some reflection, between the original literature review and methodology. University-school partnership is the first topic under consideration, since the research was based on a university-school partnership. Second, and related, is the role values play between partners and in the partnership.

Christopher Day et al. (2020, p. 1) reminds readers that "School university partnerships are not ends in themselves"; their value rests in their impetus to start something new, change a course of action, and inspire. The authors also point out that while transformational change is possible, partners should prepare (and maybe even embrace) the more likely outcome, which is that change is incremental. Additionally, not all partnerships achieve their intended goals; there are a myriad of reasons for this, but Day cites four as primary factors: lack of leadership, lack of support and engagement, lack of empathy, and a lack of alignment about the relevance of the *knowledge in use.* 'Knowledge in Use' (Holzner, & Fisher, 1979) refers to the conceptual schemas, applied theories and practices that educators, decision makers, and experts use in order

to achieve a desired result. Looking back from the vantage point of a concluded dissertation research project, and even further back from my time as a school administrator, I see all of these as salient to how my own research evolved and particularly the fourth factor, which highlights a dearth of alignment. This will be explained and shown through examples in the results section of Chapter Four, but also is relevant to the following section on values.

"*Partnerships* is the *buzzword* [emphasis added] within contemporary education discourses" (Jones et al., 2016). Partnerships are used as marketing and advertising; they also convey status. Typically, the benefits of school-university partnerships first impact the school; however, the university also benefits, directly and indirectly, by reaping grant revenue, having a dedicated space for research, and by placing students (pre-service teacher candidates and researchers) in schools; research assistantships may also be an integral part of the granted funds. While the *partnership buzz* has many advantages, like any speculative endeavor, there can be drawbacks and limitations. Several notable researchers question whether the university has a useful place in teacher education, or in schools at all (Darling-Hammond, 2013; Boyd et al., 2009). Successful university-school partnerships need to be partnerships of learning (Day, 2020); this learning is rooted in the acknowledgement that the *knowledge in use* is mutually important, and can inspire the kind of incremental changes necessary to move both university and school toward their intended goals. Values need to be shared (and may not be). "As well as generating shared values and interests, however, successful partnerships must also recognize which values and interests are a core concern of the partnership and which are not" (Elliot, 2015, p. 152). Values imply that something (here I am speaking more of ideas) holds worth or is useful. Values can also refer to the principles or standards, as a measure or a judgment of what is important. Values are paramount in partnerships because they identify what is required, worthy and useful for each of

the partners individually, and then are brought into the partnership for a combined analysis. It is only a value if the partnership considers it so.

Further, power between partners (as institutions, or schools) is often unevenly distributed yet all partners must be willing to take different values into account in order to move the partnership forward. Elliot (2015) points out: "The idea of educational partnerships as loosely-coupled systems has been appropriated to highlight the need to take different values, interests and priorities into account in establishing and taking forward productive educational partnerships" (p. 151). However, is it always possible to accommodate one's values, especially in a potentially imbalanced context? If one partner places worth on the idea of student empowerment, or stakes a claim on a principle of promoting human flourishing and the other partner does not, can a compromise be reached? What about partnerships that begin in agreement, and then after some time, fall out of agreement? Even careful negotiation and positioning of values on the part of each partner can (once each partner is viscerally brought in contact with others' values) lead to competitive or dismissive behaviors within the partnership.

University-school partnerships that revolve/ evolve around a shared commitment to *knowledge in use* can, and even should, make unified progress. Values inhering in educational institutions are important touchstones that many times act as a lodestar in orienting the organization in a general direction and toward a desired outcome. Agreeing on, or creating shared values, across partner institutions is complex, long-term work. This review has left me asking one overriding salient and prescient question, given the study and results I will shortly describe. *How can a new institution that does not have a clearly mapped out vision and mission, or that has emerging*

values based on new knowledge, be held to account for changing values given their nascent stage? Can they, or should they be?

My dissertation also represents a probing of this research question, in addition to the questions already posed (see page 13). In the next chapter, I offer an explanation of the methodologies and methods I employed.

Chapter Three: Methodology in Two Parts

Ministries of Education, educational scholars, and educators are now calling for new ways to understand education and learning (McTighe & Seif, 2010; Trilling & Fadel, 2009), and so are students. Recent graduates, university, and K-12 students recognize the need for a more relevant educational experience, one that goes beyond producing workers for the labor market, and instead centers on students engaging with the world's most pressing problems. Yet many educational institutions are hesitant to embrace wholesale systemic change. While this reluctance has kept progressive educational movements at the fringes, a growing body of ethnographic studies, situated in schools and focused on school change, has emerged (Greene, 2009; Mitchell et al., 2009; Reeves et al., 2013; Wall, 2015).

My doctoral research is part of the school change movement that builds on current progressive educational practices and is grounded in the principles emerging from the previous chapter, namely, that 1) experience is the basis for learning which includes service learning, promoting human flourishing and encompassing multiple worldviews, and 2) student agency leads to meaningful personalized learning experiences that are engaging, multidisciplinary and solutions-focused. To study how these phenomena could unfold in a K-12 educational setting, I participated in the design, launch, and implementation of a new Project Based Learning Period as a supplement to students' regular schedule of classes at the MileEd School (pseudonym) in Montreal, Quebec, Canada. Given the complex turns that methodology took over the course of my doctoral study, and given the fact I have two sets of research questions, I also have two methodology sections: Methodology I, the current section addressing the Original Research Questions and Methodology II, the section which addresses the New Research Questions. As

previously mentioned in Chapter one, my research project involved two connected, yet separate aims. First was the pedagogical initiative to bring PBL to MileEd school. Second was to research the process of the PBL roll-out at MileEd. I will begin this chapter with a description of the research site, and the research team. I will then move on to explain the multiple methodologies for the research element, which is presented in two parts: traditional methodologies and one non-traditional methodology.

Research Site Description and School-University Research Partnership

In September 2019, a new private French language school in Montreal, Quebec, Canada opened its doors: MileEd was co-founded by three elementary school educators teaching in Quebec, all of whom had become disillusioned with the rigidity and shortcomings of formal traditional school, and who wanted to create a learning environment that better reflected their needs as educators (Vandarakis et al., 2020). The MileEd school founders held that personal connections and human relationships are essential to learning, and saw engagement with the community as key factors in improving teachers' lives and students' academic achievement (Vandarakis et al., 2020). As a research site, MileEd seemed to provide an ideal opportunity to investigate the challenges and successes of the school's implementation of a new PBL initiative. Here I provide an introduction and background to the context of the school-university based partnership as well as the place of my own doctoral research within the research. Later in the chapter, I will elaborate on the phases and foci of my own study.

The three teacher-leaders[10] who founded MileEd came from different backgrounds: two were from the French educational systems (educated in Brittany and Corsica); the third teacher-leader

[10]The designation teacher-leader refers to the three founding educators who co-directed the school. These educators did not want administrative titles (principal, director…); all three decided on a horizontal leadership model. All

was raised in Montreal and obtained professional certification in Education after a short career in another field. None of the three teachers possessed formal administrative training or credentialing, nor had they worked in a school start up space. All three, however, had struggled with the constraints of what they called 'traditional schools'[11], and part of their motivation to create a new school was to free themselves from the structures that restricted their autonomy (Vandarakis et al., 2020). When the school opened, the three teacher-leaders committed to a horizontal leadership structure where decisions were jointly made. As the research project progressed, one of the three teachers-leaders left the school and one of the remaining leaders took on the role of a de facto principal. MileEd's teacher-leaders were responsible for teaching classes in French literature and language arts, mathematics, and history. Part-time, itinerant teachers taught science, art, music, Spanish, and physical education. It is also important to note that MileEd teacher-leaders taught a *homegrown project period*, loosely based on some tenets of PBL, from April-June 2021.

MileEd enrolls students between the ages of eleven and seventeen. The student body is composed of primarily French-speaking students; approximately twenty percent of the student population speak English fluently. The language of instruction at MileEd is French. MileEd's enrollment has not exceeded 30 students in any year of operation. MileEd serves predominantly affluent, white students, six percent, two students, are students of color. Three percent, one student, has been identified as having special needs.

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three also performed full-time teaching responsibilities as well as administrative responsibilities making them "teacher-leaders".

[11]Traditional schools are typically defined as teacher-centered/controlled (i.e. mode of delivery, curriculum selection, and assessment). Subject areas are taught independently with little crossover. Traditional instruction takes place between an instructor and students where all are physically present in the same classroom.

The McGill university research team was comprised of three academics: the Principal Investigator (PI) was an Associate Professor; the two Research Assistants were PhD students. This research team had worked together since September 2019 on two Canadian Government supported grants. A SSHRC Partnership Engage Grant-Partnership Engage Grant-PEG (one year duration) was awarded in 2019 and provided funding to document MileEd's first year as a school. Research team members conducted the study, published an article and presented the findings at an international conference. As the PEG research was taking place, the McGill research team developed and in 2020 was awarded a SSHRC Partnership Development Grant-PDG (three-year duration). This provided funding in support of not only the research itself, but also to build partnerships between MileEd and local institutions, community organizations and universities that would support the MileEd school. Separate from those two grants, MileEd provided another opportunity, the chance to map the challenges and successes of the school's implementation of a new PBL initiative. From July 2021 to April 2022, I took on the role of leading the school's move toward adopting a PBL curricular foundation. The relationship of my doctoral research (PBL) to the larger research grants the McGill research team was conducting, is explained next.

The body of the research conducted in this dissertation was completed during a ten-month period inside of but separate from the three-year Partnership Development Grant awarded to our research team. Importantly, the research for this dissertation was separate from the aims and objectives of the PDG partnership research, which as a PhD candidate and researcher, I was a part of. My doctoral research was independent of the broader partnership research in several key ways: first the new PBL initiative was brought forward by the teacher-leaders at MileEd as an initiative they wanted to explore; second - unlike the original goal of the PDG - it did not involve

partners beyond the original university-school relationship; third its focus was on reconsidering current curricular/teaching frameworks and moving towards PBL as the foundation of a student centered approach to learning. The methodologies of the doctoral work were also markedly different from the broader research. As I explain in this chapter, I employed an Action Research (AR) case study and Ethnography utilizing Participant Observation that included Life Writing as the principal ways of communicating the observations, impact, and results, whereas the broader project employed a different set of methodologies, data analyses and did not use Life Writing. It is important to reiterate I had collaborated with MileEd for eighteen months prior to beginning the PBL project. My doctoral research does not account for the development of relationships with teacher-leaders, students and parents at MileEd, nor include the exposure and experiences that I had researching at MileEd prior to my doctoral research.

The data collection, analysis and reflection for this dissertation research project took place between April 2021 and April 2022. It is relevant to note that during this time the McGill research team experienced several disruptions due to Covid 19 and a suspension by the provincial government of in-person research. When this occurred, the research team attended school for observation virtually, and carried out research virtually. Covid 19 protocols also necessitated Zoom professional development meetings, online research team meetings, as well as a host of other pivots, no doubt shared by AR collaborators worldwide. It is also important to note that as of July 2021 in-person research resumed. The work from July 2021-November 2021, consisted of twice weekly in-person school visits (by me) and additional remote meetings on Zoom (attended by all three members of the McGill research team). During the nine-month duration of the intensive period of study reported here for my doctoral dissertation, the research team was in virtual or physical contact with the school at least three times per month and I was

physically at the school two days per week. I recognise the overuse of the pronoun “I” in this paragraph; it troubles me to claim individual ownership of a collaborative process that set much of this project in motion; however, I realize the need to take ownership for the work here (including the mistakes and the failures) and to clearly delineate who (from the research team) did what. I created and led the initial professional development program for the teacher-leaders (materials, readings, and presentations). I developed the PBL Digital Project Template with input from the teacher-leaders, for use in the classes by both students and teachers (with my McGill research colleague translating the document to French). I led the PBL summer professional development with new staff, and presented PBL to MileEd parents. Both my McGill colleague and I initially attended Project MileEd classes (recorded data/participated in the projects); from September 15-November 25 I taught the classes. I created the surveys, compiled the data sets and performed the quantitative and qualitative analysis with translations and input from my McGill colleague. I conducted three of the five formal student interviews, with my McGill colleague conducting two in French (also transcribing and translating the interviews) while I conducted the subsequent narrative and thematic analyses. I assessed student progress on the Digital Project Template and communicated that to students and MileEd teachers. I planned and conducted teacher-leader meetings in person and online, which were attended by the full McGill research team (each member took notes, which I later used). After each meeting the McGill team debriefed the meetings, identifying points of interest and discussing relevant issues. I identified the challenges and successes in the implementation of PBL and offered suggestions to improve the program through my observations, participation, and from the data collected and disseminated.

Before moving into the methodological approaches used, I would like to comment on the manner in which the PBL work at/with MileEd was endeavored. I completed the required ethics approval forms for Level II research with adults and minors and was granted a Certificate of Ethical Acceptability (Appendix C) by the Research Ethics Board at McGill. I collected and retained the signatures of consent from all participating adults, parents, and teachers (Appendix D), and signatures of assent from all minors (Appendix E) participating in my research. These actions satisfied the legal requirements for the research. However, satisfying legal requirements is not enough and I would like to extend this to a brief discussion of ethics.

Ethical Considerations

I am aware of the reality and practice that relationships with research participants change over time (Ellis, 2007). What is my ethical responsibility to them if our relationship began one way and evolves to another? If I move from *trusted outsider* to more of an *insider* do I need to remind the participants I'm still researching and recording even though our relationship has shifted? MileEd teacher-leaders reached out to the McGill research team for assistance with PBL, but after that I took the lead and now in the writing of this thesis have the authority over what is shared, left out and who is implicated (Clandinin & Connelly, 1994). In the end I earn prestige and gain power from the telling of my research.

As I consider the broader interpretation of ethical research, I find that several other questions arise. In my literature review the choice to include Indigenous leaders may be questionable. I ask now how Indigenous people would feel about being assimilated in my research. Did I include them to appear better balanced, or even to make myself feel better? What did I do beyond include them in the literature review? Would their life's work find its way into the

methodologies I chose, in the projects students created, or in my coaching of students and teacher-leaders? Ethically I question the validity of my North American worldview, can I recognise other ways of seeing, learning and knowing beyond my history and experiences. In this same way I also think about MileEd and the teacher-leaders and their world view which is European-French and Canadian-French. There may also be ethical considerations researching at a private school, working with white students only, working with white European teachers, a white research team, coming at this from a privileged perspective with the time, the funding, and the luxury to spend thinking, planning and writing.

Methodological Approaches Used

The methodologies selected to conduct my doctoral research were an Action Research case study which employed ethnographic research for data collection and a narrative format, Life Writing, to further the analysis and to, in part, present the findings. As stated in Chapter One, my research questions should be thought of in two parts; my original questions became embedded in a broader set of new questions (see p. 13). In this section, I will situate my research methodologies by first utilizing Action Research, case study, Ethnography (employing Participant Observation) and Life Writing.

Methodology I: An Action Research-Case Study and Ethnography-Utilizing Participant Observation

Action Research

I was immediately drawn to the term Action Research before I even knew what it meant. As a classroom teacher (for twelve years), my world was action rich, on some hectic days all I did was act (or react). Action Research caught my eye, I thought finally academics acknowledged *all the*

doing that goes into teaching and how necessary *action* really is. Truth be told, after studying action research I am drawn to it even more, but for more precise reasons.

Action research which came from university academic researchers in Europe and North America settled in faculties of education and medicine and tended to center on the improvement of professional practice. Kurt Lewin is credited with developing the first action research model in the mid-1940's (Dickens & Watkins, 1999). Lewin recognized that social practices, like the fields of nursing or education required rethinking research hierarchies by allowing practitioners (nurses and teachers) to assume the role of *researcher.* This reorganization moves action by practitioners to the center and posits that knowledge is gained through action by those doing the act. Action research can also be a powerful regular intervention that transforms practices in classrooms, schools, university departments and national boards of education (Somekh, 2006). Historically action research has been popular with researchers working with practitioners. Action research is also accepted by practitioners acting as both teacher and researcher. In recent years action researchers have also become aware of and concerned with issues of social justice. This awareness not only influences what is examined but how the examination is conducted and who benefits from the outcomes.

Action Research involves the study of issues, challenges and questions with an orientation towards exploring, addressing and solving them. Action Research is action oriented, participatory, and done in conjunction with the subject (done *with* as opposed as done *to*). In this way Action Research is different from many of the more traditional research methodologies. Direct participation in research alters the very process that creates the conditions for change, for "facts are made and the facts we interpret are made and remade" (Rabinow, 2009, p. 523).

Pursuing research in the context of a participatory study changes a project's methodological approach, most often in non-linear and unexpected ways (Watson, 2019). What is observed and then acted on is never fixed but always open to possibilities. *Never fixed, always open* is both comforting and terrifying to a researcher yet in the context of Experiential Learning, Project Based Learning and Problem Posing Education, is entirely appropriate. As this dissertation posits, learning primarily happens through experiences, be they positive or negative.

Action/participatory research requires yet another shift from the traditional researcher role, one that requires the researcher consider his or herself. I have found the work done around the 'action turn' most helpful in understanding this insight. "Of particular significance for the action research community is a call to social scientists for an 'action turn' towards studying themselves in action and in relation to others" (Ospina & Anderson, 2014, p. 19). By taking the action turn, researchers are no longer separate observers of reality, but participants within it; researchers appear in relation to the other actors creating and using knowledge to change something in the world (Ospina & Anderson, 2014). This realization is particularly relevant considering the other methodologies I am employing.

Case Study

A Case Study is a

> research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. It is an established research design that is used extensively in a wide variety of disciplines, particularly in the social sciences. (Crowe et al, 2011)

In my research the case study approach is particularly useful to employ as the event/phenomenon under my study, was in its natural real-life context (a new initiative, a real school, students, and

teachers). This naturalistic design allows case studies to *explain, describe,* or *explore* events in the everyday contexts in which they occur (Yin, 2009). Case studies may be approached in different ways depending on the epistemological standpoint of the researcher, that is, whether they take a critical, interpretivist or positivist approach. I chose a critical approach which questions assumptions (my own and other's) as well as aspects of an interpretivist approach. In the context of undertaking a critical case study I employed a reflective perspective in which I sought to take into account the wider social and economic environment. I also usefully drew from an interpretivist approach which required trying to understand individual and shared social meanings. The six main stages of research activity when planning and undertaking a case study follow: defining the case; selecting the case(s); collecting and analysing the data; interpreting data; and reporting the findings (Crowe et al, 2011).

Ethnography

Ethnography, a detailed study of particular groups of people, comes from the Greek words *Ethnos* meaning people and *Graphein* meaning writing. The kind of ethnographic study I am pursuing includes my active participation and hinges on the evolutionary process that unfolds as the researcher gets to know the participants more fully and gains a deeper understanding of their lifeworld. I believe an ethnographic approach is the most effective and nonthreatening way of connecting with students both in school and in the field. As a researcher, I do not belong to either group: I am not a student nor am I an employee within the institution (MileEd); therefore, I cannot be considered an 'insider'. I am an 'outsider' in several ways: first I am not from Montreal or Quebec or Canada; I am also not French-speaking. MileEd is a French-speaking school. As mentioned previously I *collaborated* with both the students and teachers at MileEd for eighteen months prior to this PBL initiative. Our research team documented MileEd's

inaugural year of operation, and thus enjoyed a relationship of researcher-advisor with them. As a 'trusted outsider,' therefore, I may be in a stronger position to witness dynamics and culture since I was not part of the 'insider' group (Bucerius, 2013). However, over time my roles multiplied and my roles in the project shifted, impacting my insider/outsider status; I detail those multiple roles and shifts later in the chapter. I began this discussion in the ethics section and I wish to pick up on a thread here; as the research evolved my relationships also evolved, particularly with the students and their projects. Issues arose from this shifting status. I began researching at MileEd as an *outsider* and over the course of two years moved to the position as a *trusted outsider*. In my third year with the school, specifically during the initial phases of the Project Based Learning initiative, the clarity of my role as a trusted outsider began to blur. While never employed at MileEd I was teaching groups, leading project classes and working with the teachers; this shift from outsider to *insider*, ultimately had me acting in a mix of roles.

Ethnography employed as a holistic study also requires the analysis of the environment where the research subjects interact. With respect to the school as research site, students learn through experiences embodied through interaction within environments: these interactions teach us about our environments and ourselves (Merleau-Ponty & Smith, 2018). Individuals acting and co-acting in these environments begin to construct meaning and shape identity. This is a process of inhabiting: people exist not as externally bounded beings but, in their activities participate in and with their environments (Ingold, 2008). The environment is not only what is immediate (around the individual) but a zone where *entanglement happens* (Ingold, 2008). I understand *entanglement* to mean the space where ideas, locations, and relationships overlap. Moreover, daily life today is far from being constrained to one place; rather, it is experienced increasingly as technology intermingles with the concrete: place, which can be a physical location is

augmented by and through technology; place today is created and changed. Ethnography has responded by creating space for virtual or online studies (sometimes referred to as netographies or cyber-ethnographies). Ethnography in part focuses on place (physical, digital and overlapping), emplacement, and the human interactions in those spaces. It is in these overlapping modalities that ethnography and progressive educational praxis occurs, and in interesting ways. Progressive Education asks that students, teachers and researchers move beyond the limits of place (one classroom, one subject or one school) into environments where inhabiting and entanglement happen. Today observational studies involving young people are often multi-sited, moving beyond the traditional research sites of school or home. Researchers have also chosen hospitals, juvenile detention centers, field trips, and semester abroad experiences as additional locations to observe (Livesley & Long, 2013). Multi-sited research in the 21st century must also include cyber-spaces that students inhabit; examples include, digital workspaces[13] social media platforms, gaming communities and augmented/virtual realities.

Progressive education (widely) and PBL (specifically) attempts to bridge *inside the school* learning and *out there in the world* learning, as the theorists documented earlier, espouse. This connection can take the form of interactions with communities, talks with experts, and exposure to other's lived realities. In a liberatory setting these *entanglements* can push students to identify problems in their lives and others with the potential for action: the chance to become change makers. For their part, students, as *Subjects,* are recognized as people who should be studied in their own right. Ethnographic methodologies have permitted young people to be research participants and to be featured in research (Crane & Broome, 2017; Padilla-Petry & Miño-

[13] PBL work today requires a greater investment of technological interaction; as an example the project blueprint/template in my research project was completely digital (details provided in Chapter Five).

Puigcercós, 2022). Today 7–17-year-olds are seen as contributors to the social world resulting in researchers doing work *with* rather than *on* children (Spriggs & Gillam, 2017). My methodologies connect around a central premise that assumes that the people whose 'society' is to be studied are the very best source of information on how to inform an empirically grounded, holistic understanding of that 'society' (Gold, 1997). Often researchers' observations focus on adults' behavior towards young people instead of recognizing that students are independent social actors; researchers should be asking directly for the students' views and opinions and primarily noting their interactions with adults (Corsaro, 1997). Ethnographic methodologies (utilizing the method of participant observation) allow young people to be seen as competent informants about and interpreters of their own lives (James, 2007). This recognition is central to my research: student voices feature centrally within my analysis. The research that I undertook was done alongside students. Drawing on the work of Pauwels (2013),

> research should also benefit those who are subjected to it and more specifically that researchers should engage themselves in helping to solve problems of communities without thinking primarily about their own professional gains (the 'ethical' motive). (p. 105)

Prioritizing young peoples' experiences requires researchers to see students as competent social actors. Researchers should document students views and opinions, primarily noting their interactions with each other and adults. As a researcher, I was (and remain) committed to deepening my understanding of *how* students learn and bringing an understanding of that into my own experience as a student, teacher, administrator, researcher and writer.

Participant Observation (PO) is a qualitative research method, closely tied to an ethnographic methodological approach, in which the researcher studies a group primarily by participating in

the group's undertakings. A participant observational study, grounded in a local context, is generated by, through being responsive to, the changing needs of the educational community (Corsaro, 2018). Participant observation and ethnography ideally feature multivocality with the inclusion of many voices and perspectives, which may be expressed through multilinearity: the many ways of presenting and understanding culture, people and our own thoughts (Akemu & Abdelnour, 2018). MileEd school was situated in a fluid environment where what was observed was never fixed but always open to possibilities, given the multivocality and multilinearity of the participants involved.

An Action Research-case study project that employed ethnographic research data collection (specifically participatory observation) seemed capable of responding to my Original Research Questions precisely because, first, it required a high level of researcher involvement in complex issues in a real-life context. Second, an ethnographic approach allowed for a detailed study of PBL participants developing a symbiotic relationship between researcher and the group under study. Third a participatory observational study positions the researcher as an active participant in the creation of knowledge and potential solutions, which described the position I held in the research. Finally, a participatory study affirms the fluid and reflexive nature of PBL which itself requires interactions with social issues, relationships between people, and connects content areas, all of which are themselves subject to varying states of change; again, this description mapped closely onto the intended goals of the university-school partnership. More will be said about the actual design of the research project shortly. Next, though, I turn to describing the contribution of Life Writing to the research and especially, the reflection and analysis phases.

Methodology II: Life Writing

There is a myriad of ways to tell a story and good qualitative researchers are storytellers. Stories and storytelling matter: they matter to individuals, cultures, and to our society. Stories epitomize our imagination about the past, present, future and the human experience.

I initially struggled to see how writing about my history might fit in the research at MileEd and in the analysis of results for this dissertation. While I don't have a concrete answer, when I look back at my experiences, I see them through a prism (of sorts); the way I was then, how I felt at that time and the way I am today and how I feel now. That is to say I remember and recognize through different versions of me. This admission confirms the complexity and malleability of my life, my identity, and my sense of self. When I write about myself, or others, those words construct gateways to new understandings. The work of describing lives is never complete, it lives as incomplete, and rather than entombing life it straddles the line between then, now and not yet.

Life Writing is the methodology I selected as most appropriate to my New Research Questions. My intention is not to generalize from my experiences (past and present) detailed in this thesis. Yet my experience is critical; I view experience, within my doctoral research, as highly salient. This recognition provides an important base from which a hereto neglected conversation can be started about how a new program (like PBL) succeeds or fails. Moreover, Life Writing also allows me, in light of the research results, to explore (and thus interrogate as well as account for) the role of my own history and trajectory (educational; personal) in the research project with MileEd school. Eakin states this succinctly:

> When we tell or write about our own lives, our stories establish our identities both as content—I am the person who did these things—and as act—I am someone with a story to tell. (2004, p. 73)

In the process of describing others as well as oneself, a life writer grants himself (a 'he' in my case) authority over the truth of the story (Robertson, 2010). This 'exercise of power' might be questioned by those who are being written about and by the readers themselves. This is particularly important for me. As the writer I hold the power; the students, teachers and families I write about do not, in fact they may even suffer consequences based on what I say. But if I change the names, places and faces beyond recognition, am I life writing at all (Lynch, 2021)? Can I protect identities, feelings and my relationships while still contributing to the body of educational research required of my degree? Can I do that and prominently feature students' voices, accurately? It is in the exercise of my own power (as researcher and writer), the trust in my memories and the degree to which I must change information to maintain anonymity that remind me of my commitment to fidelity and push me to think critically about how to give an accurate, useful account through a life writing approach.

Through her autobiographical writing, educator Barbara Kamler introduced me to "writers in unsuspecting bodies, who happened to be women aged 60 to 90 with stories to tell" (2001, p. 37). They spoke candidly about their fears and families, triumphs and tribulations. I too found my 'body' in their struggle to theorize personal experience within what Michelle Fine (1987) calls the "contexts of production" (p. 7) i.e. the broader social, cultural, political and economic realities: how to make sense of the world and one's place in it?

Kamler writes about "relocation" as the experience of unsettling and resettling, of dislocation and relocation (2001). She adds to that the tensions of moving between *here* and *there,* between *losing* and *acquiring* and between what one *imagines* and what one *experiences*. As an educator, I seek to locate and *relocate* my journey across place, time and memory: I life write to know my own life as a teacher, and now as a researcher, while moving beyond what personal meaning it offers only to me, to what significance it may hold for the reader and others: other educators, other researchers.

Life Writing digs deep in revealing wounds, uncovering secrets and breaking mythologies about our concepts, our families, our experiences and ourselves. Life Writing may have a wider social value, but 're-membering' is self-work first; it must be done by ourselves (namely, by the person) before its benefits may hope to be collective (Chambers, 2003). Life Writing does not attempt to please the reader or to entertain (however, I have found Life Writing often can do both): its main purpose is to reveal. In fact, there are many that will not be entertained or pleased by what I reveal here, myself included. Life Writing can give rise to a space from within, an opening from which I can see the possibility that my work can be useful as I connect my experiences to others and create pathways between critical and creative practice.

Memory: Life Writing's Base

"Memory is not a fixed thing but a process that involves at least two parts of you — an older and a younger self" (Crozier, 1993, p. 15). As such, memories come forward and recede, overwhelm us in one time of our lives and lay dormant in another. While the memories in this thesis are very much mine, they were not always in the front of my mind. I did not take these memories from a diary, or a voice memo; they are not recounted in historical minutia.

"No one lives in the world in general" (Geertz, 2015, p. 262); we live specific lives in relation to other known people in exact places, in real time, yet we understand that people see and interpret the same events differently. Memory is no different; the past is remembered through perspectives not always shared across individuals or groups and those perspectives continue to evolve. In fact, "the past is never dead, it's not even past" (Faulkner, 1951, p. 121). In the act of remembering and recreating, we come face to face with the world and how that world is at work in our lives (Crozier, 1993). Memory is the homeland from which you are always in exile; it is the one place you can never go home to but must always remember, because while the past is forever gone it is also always present (Chambers, 2003). Life writing has enabled me to see, construct, and relocate my identity (a "narrative identity"— Ricoeur, 1991, p. 73) to respond to questions of who I am by telling my (research) stories to others.

Transformation: A Goal for Life Writing

One conceptual subject in the discussion of Life Writing (and in writing the personal) is transformation (here I pause to point out that progressive education shares this same noble goal of transformation). Writing the personal has the power to transform the writer's subjectivity and the text that is produced (Kamler, 2001). Again I pause, this time to ask if the text is precisely what I wanted to challenge. For example, the *story* about MileEd (as it is told in this dissertation) is based on its being a 'progressive school'; however, in moving through the research process, I found myself wondering: was it actually? In challenging that assumption, I also needed to confront my own faith in progressive education.

The notion of transformation in Life Writing, then, while it may initially seem to be primarily textual (in other words, accomplished through the writing of a text after the fact), really begins

when room is created *between* experience (including memories of those experiences) and the text that is produced. Writing about the self thus becomes an opening: an invitation to name, examine and evaluate one's *already* constructed sense of self in (research, personal) stories already told, opening the possibility for personal and social change (Stangor et al., 2014). Life Writing may be grounded in a vision of social change, but its practice begins in, and as, personal. Though the shift inward allows for a focus on the writer's experiences as represented in text, these are then explored, probed and challenged through re-imagining and rewriting.

> The significance of this conception for writing is that it opens up 'the personal' to change[...]. It allows us to imagine the possibility of rewriting the multiple and possible contradictory subject positions we occupy and/or bringing into being new positions to sit alongside the old. (Threadgold, 1997, p. 291)

Within the overriding metaphor informing this dissertation of education as a journey, writing and re-writing become places both for learning and unlearning, arriving and departing, whereby each can begin a process of transformation; even transfigure one's understanding of self.

Critical Approaches to Life Writing

> Critical approaches to life writing privilege and empower individuals to talk and write as critics of oppression. Life writers engage with concepts of voice, ethics, reflexivity, and the politics of representation. (Mulvihill & Swaminathan, 2017)

The term *critical* is here used to signify the capacity to inquire and/or interrogate against the grain. A critical approach moves the researcher in the direction of a more nuanced understanding of oneself, one's identity and the ways in which experiences, narrations and performances can foster the conditions for positive social change (Denzin & Giardina, 2013; Mulvihill & Swaminathan, 2017). Life Writing projects that employ critical approaches have the

power to transform the *preconditions* which can include: the questions being asked, how and whose lives are narrated, while also directing challenges to the status quo. Importantly, as tied to critical theory, since Life Writing consists of "story-creation before storytelling", as a researcher/student/writer, I recognize that I have an awesome responsibility as a "meaning-making storyteller" (Mulvihill & Swaminathan, 2017, p. 2). This responsibility includes documenting the authentic lived experiences of those I am writing about while also challenging my own tendency to fall back on tropes, preconceptions and the familiar. The process of Life Writing has given me the permission to see the ways I have evolved and to name the areas where growth is still needed. Employing a critical approach to Life Writing has nudged me toward a more nuanced understanding of intersectionality, identity and the confidence that I can impact my corner of the world in positive ways.

Critical approaches to Life Writing include a range of actions writers can take to challenge the status quo. While these redresses can take many forms, given the focus of my research with youth in schools as well as my own history as an educator in schools and in university settings, I am primarily interested in those surrounding student visibility/invisibility, misinterpretation, and misopedia. It is for these reasons this research features and centers students' voices.

A Commitment to Student Voice

This research was also committed to featuring student voice, which is not without challenges. Braun and Clark (2006) surmise that giving voice to students can be problematic because a researcher's analysis is inevitably contaminated by research bias, including but not limited to their (adult) experience of the school during the study. Critical to featuring student voices are documenting and understanding the experiences and interactions that students have at school

(here with a focus on PBL) and recording these as a chronological narrative. Valuing the social and interpersonal nature of people's lives, a narrative inquiry approach for its part takes into consideration the contexts in which the story unfolds (Clandinin, 2007). By providing an opportunity for students to share how they constructed their lived experiences at school, Project MileEd served as a window into the many relationships that constitute a school environment.

Student voices and experiences were critical components of those discussions and in many respects were the foundation on which the Project MileEd successes or failures were judged. Student survey data, student individual interviews and student productions (related to Project MileEd) provided the means by which to understand and interpret the culture of learning at the school. Featuring the student perspective through observational data, surveys, interviews, and artifact analysis, sharpened the research focus by looking at the structures of experience and consciousness of PBL. Corbett and Wilson (1995) observe:

> Despite [. . .] repeated calls for reform aimed at students, young people themselves occupy, at best, a minuscule part of the literature on the process of changing and reforming education. (p. 19)

'Seeing' the successes and challenges of Project MileEd through the eyes of its students revealed a nuanced, dynamic, and rich narrative, as told by young people themselves.

In summary, the methodologies I employed to conduct this research were an Action Research case study, an ethnography employing participant observation, and Life Writing. Action Research indicates a high level of researcher involvement in the project under investigation with a focus on solving problems and/or improving professional practices. A case study deeply examines complex issues in a real-life context. Ethnography allows me to conduct a detailed

study of particular groups of people, in this case students and teachers at MileEd experiencing PBL. Participant observation (which is more accurately a method) was conducted under the ethnographic umbrella and provided a mechanism for me to join in the data collection and analysis, and also to be a part of the intervention research, pushing the implementation of PBL in new and positive ways. Life Writing helped connect my past experiences as a student, teacher, administrator, and researcher to the current PBL investigation. Remembering and *locating* my past and bringing it into the present research allowed me to better understand what I was seeing and feeling. This *relocation* opened a new present, one that allowed for an unplanned, yet welcome new phase (New Research Questions and subsequent Life Writing reflections) of the research. Featuring students' voices, their experiences, and their projects required an intentional commitment. The commitment to honor student voice required me to interact with young people and their work and helped me recognize and promote the many ways students are emplaced as contributors, as researchers, as *Subjects*, and as changemakers.

The next section of this chapter is devoted to the organization of the research study. My research included three key areas, enumerated below.

Organization of the Research Study

Implementation Research: Documenting Challenges

Implementation research consists of studies designed to uncover, document, and inform the processes of both the planning and the enactment of PBL. Implementation research involves observation, questionnaires, and interviews intended to identify difficulties encountered by participants around the planning or the enactment process (Hamilton & Finley, 2019). Implementation research can be focused on a variety of participants (e.g., students, teachers,

parents), factors (e.g., classroom factors, external factors), and contexts (e.g., planning, enacting, assessing). In this research, the question of student receptiveness to the PBL initiative, of the students' projects themselves, and of the degree to which PBL permeated the school's curriculum were focal points. For my study, implementation research took the form of formative evaluations (for learning) that informed the next steps in the area of study. The implementation research was intended to answer the following research question:

-How does a new learning initiative take shape in school? What are the associated challenges and successes?

Intervention Research: Improving the Effectiveness of PBL

As a Participant Observer committed to developing the PBL experience at Project MileEd, I had an active role in proposing improvements. My research on PBL involved attempts to improve the delivery, effectiveness and understanding of PBL by intervening in initiatives. The interventions varied according to the data collected; for example, interventions were designed to correct an observed weakness or enhance an existing strength associated with a PBL feature. These corrections, and enhancements were enacted in collaboration with MileEd students, teachers, and my colleagues, the other two McGill researchers. The intervention research was intended to answer the following research questions:

-How can educational theories be drawn upon or support the adoption/implementation of a new progressive learning experience?

-In the context of a school-university partnership, to what extent is it possible to support a school in launching a new Project Based Learning initiative?

Perceived Changes Research: Self Reporting

One way to assess the effectiveness of a programmatic/instructional intervention like PBL, is to ask participants what they perceive to be its benefits and effects. Surveys and interviews can be effective tools for this purpose. Sometimes, self-report measures are the only way to measure changes in dispositions, attitudes, and skills. However, self-report measures are not measures of what actually happened, but of what participants believe happened, and therefore sole reliance on these measures can be deceiving and needs to be triangulated with other data streams (Peters, 2013). Some of these additional data sources are enumerated below (see: Data Collection). The perceived changes research was intended to answer the following research questions:

-*How does a new learning initiative take shape in school? What are the associated challenges and successes?*

-*In the context of a school-university partnership, to what extent is it possible to support a school in launching a new Project Based Learning initiative?*

Due to the fact that I was reporting on three kinds of studies (implementation, intervention, perceived changes) using a series of methodologies (Action Research, Case Study, Ethnography utilizing participant observation, Life Writing), and where the Life Writing responded to new research questions that came up during analysis, I include next the relevant, specific details in each method's subsection. The next section of this chapter is devoted to the methods and key areas of research I employed to garner data. At the end of this chapter, I introduce an initiative from the previous school year, *Period* MileEd, which informed my work but was not directly under the purview of my dissertation research.

Methods Overview

The methods overview will detail the procedures and tools used to collect and analyze data. It is important to note that I employ two rather distinct methodology sections: Methodology I, being traditional methodologies and Methodology II being non-traditional. I will begin first with a discussion of my many roles and methods associated with action research, case study, and ethnography/participant observation. Next, I will present a brief discussion on Methodology II, life writing, from a methods perspective.

Researcher Role

The unfolding of PBL at MileEd was anything but linear, as the table below illustrates. In this section, I will describe the roles that I had with students, teachers and researchers in the study. My primary role was participant observer, although this included everything from being a collaborator, observer, co-facilitator, educator, and participant in a myriad of activities (See Table 2).

Table 2. Multiple Roles as Researcher

Role	Definition	Examples
Collaborator	Collaborator in building the PBL implementation phase. Collaborating with students, teachers and researchers on projects.	I worked with a fellow researcher to discuss challenges or issues. I worked directly with students to advance their projects. I worked with teachers to understand PBL.
Observer	Observing the students as they worked on PBL alone, as a member of a team (same project)	I employed 'Fly on the wall' technique just listening and notetaking. I observed when other teachers or

	or in groups (different projects).	researchers interacted with students.
Participant	Participating in all aspects of PBL. Also participating in other classes and events at the school.	I was involved in each student's project to the degree they wanted my participation. I worked with students to 'build' a haunted house on Halloween.
Co-Facilitator	Co-facilitating with other adults to create, present, and teach PBL to various stakeholders at MileEd.	I presented PBL alone and with my fellow researcher to MileEd teachers, students, and parents. In other subjects I worked with students and teachers to make connections between their subject areas and the students' projects.
Educator	Teaching: initially information was communicated through 'presentation style' delivery methods. Teaching pivoted to a 'guide on the side' that worked with students during all phases of their PBL.	I presented PBL: theory, theorists and best practice exemplars to teacher-leaders and students. I taught PBL classes from September 03 to November 26, twice weekly for a total of four hours per week.
Research Presenter	Collecting, summarizing and disseminating data from the research project to various stakeholders.	I presented results from the research project formally three times to MileEd teacher-leaders.

Participant Observation (and PBL) requires a consistent feedback loop from experiences, data (prioritizing students), and reflection. On the PO scale, which spans from non-involvement to

complete participation, my involvement was in the *active participation* to *complete participation* ranges (Khodyakov, 2012). My action research focused primarily on working with students, either directly on their projects, or by identifying and implementing interventions to improve the effectiveness of Project MileEd[14] from their perspectives and for their benefit.

Data Collection and Analysis

I begin this section with Table 3, which reflects the different phases/stages and the many methods employed in the action research. This table may help to guide the reader both in the organization of the remaining chapter and the data analysis in Chapter four.

Table 3. Phase, Methods/Data Sources, Descriptions & Duration

Phase	Methods/ Data Sources	Description	Time Period
Pre-Project	*MileEd & McGill Meeting Notes*	Notes were taken during conversations between teacher leaders and researchers prior to PBL implementation. Shared working documents were also referenced.	April-June 2021
	P.D. with Teacher - Leaders	Notes were taken during MileEd professional development days and at McGill Researcher Meetings after the presentations.	August 2021
	Student Survey #1	MileEd students were surveyed to elicit responses from *Period* MileEd instructional initiative. Survey included qualitative and quantitative components.	Surveying: April-June 2021 *

[14] *Project* MileEd refers to the newly created PBL classes that participating students attended during the 2021-22 school year.

		* Given On: Aug 27th, 2021	
Project Initiation	*Fieldnotes*	Observational notes before, during or after PBL classes and other school visits.	August – November 2021
	Student Survey #2	MileEd students were surveyed to elicit responses from *Project* MileEd instructional initiative. Survey included qualitative and quantitative components. * Given On: Oct 07th, 2021	Surveying: Aug – Oct 2021 *
	MileEd & McGill Meeting Notes	Notes were taken during conversations between teacher leaders and researchers. Shared working documents were also referenced.	August 2021 – April 2022
	Informal Student Conversations	Facilitation of PBL classes including: presentations, Q & A, and problem solving. Documented in fieldnotes and later in reflections.	August – November 2021
	Artifacts of Students Work	Examined: photos/video, drawings, writing and goals as related to projects	August – November 2021
	Interaction with Blueprint Document (online)	Primarily used off-site (online) to stay updated on student progress on projects. Interactions were noted on the students google document.	August – November 2021
	Meetings with Teacher-Leaders	Met with teacher-leaders before, during and after PBL classes as well as online and in person with the McGill research team.	August 2021- April 2022

Project Review	*Individual Student Interviews*	Met with select students to discuss projects, experiences and review artifacts (if applicable).	November 2021
	Meetings with Teacher-Leaders	Met with teacher-leaders online and in person with the McGill research team to discuss results and next steps of the PBL initiative.	November 2021-April 2022
Project Wrap Up	*Meetings with Teacher-Leaders*	Met with teacher-leaders online and in person with the McGill research team to discuss results and next steps of the PBL initiative.	January-April 2022
	Researcher Reflections	Reviewing and reflecting on the data from all phases of the research project.	January-June 2022

Participant Observation Data Collection

Participant observation data was collected in two classes with two teachers and six grades with nineteen students over the first semester of the 2021-22 school year, including twice weekly in-school observations/teaching (four to six hours per visit). I *attended* MileEd two days per week, from September 2021 to December 2021. Initially I attended as a participant observer of people, events, and social contexts, but soon found my role changed to resemble more closely that of a PBL teacher. After introducing PBL with the teacher-leaders to the new staff members at MileEd prior to the school year beginning, I was asked by the teacher-leaders to actively engage in PBL classes to help facilitate the launch. Since I saw my role as a participant observer, I was happy to assist. Over the course of the first few classes teacher-leaders were taken away from PBL classes (due to administrative responsibility and some confusion and anxiety about PBL progress) and I slipped into the role of more or less the teacher. As a PBL teacher, I became

immersed in the delivery of content, working closely with students on projects and only sometimes communicating with teacher-leaders. My expectations for this portion of the research were, to the extent possible, to *objectively document* the learning choices, processes, and results, connected to the *Project* MileEd; knowing that objectivity was impacted due to the fact I was involved in student work (as requested by the students), teaching and occasionally in coaching and advising the teachers (as requested by the MileEd teacher-leaders).

With the goal of capturing day-to-day experiences, PO interactions were documented through the following ethnographic means. Project MileEd classes, teacher meetings, and off campus field experiences were *audio-recorded*. They were also documented using other standard observational techniques like *note taking*, *informal student-researcher interviews and conversations.* Participant observations included *questions* posed to and received from participants (students and teachers), by working directly with students on their PBL areas under study, and in collaborating with teachers to support students.

Participant Observation Data Analysis

Once a body of data was collected, French responses were translated to English by a bilingual member of the McGill research team, and oral communications were transcribed. Both datasets were analyzed, by me, using a narrative analysis method. I used the narrative analysis (NA) method to analyze content from various sources, including the survey results, informal questioning of respondents, observations from the field, or discussion with teachers. NA focuses on using the stories and experiences shared by people to answer the identified research questions (Smith, C.P., 2000). Because humans make sense of their reality through narratives, NA is a recognized tool for understanding the experiences of all members involved in the research (Smith, C.P., 2000).

Data Collection: Student Surveys

Another method I employed to collect data and improve the effectiveness of Project MileEd were student surveys. Surveys feature students' voices directly; surveys can be both qualitative and quantitative in nature, and the participants can be anonymous or named. Student surveys are one way to elicit feedback (from student to teacher/researcher)

> in such a way that it can provide an orientation for research on the efficacy of student feedback as well as for the effective implementation of intervention measures. (Rollett, et al, 2021)

Surveys were given to students twice over the research period. Each survey consisted of eight questions: four questions were quantitative, formulated on a 1-5 Likert Scale.
And the remaining four were qualitative, taking the form of open short responses. The survey format and questions were consistent throughout, with an attempt to capture the respondents' thoughts on, reactions to and perceived value of the Project MileEd over time. Students completed the online survey during class (school hours), at the direction of the schools' teachers. Each student survey took about ten minutes to complete.

Survey One was distributed in August 2021 to capture data from the previous year's pilot PBL program (April-June). One hundred percent of the students who returned to MileEd for the 2021-22 school year completed Survey One (n=15). Survey Two was distributed in October 2021 to capture data from the launch of the new Project MileEd PBL program that had begun September 3, 2021. Again, one hundred percent of the students taking PBL classes in 2021-22 completed Survey Two (n=19). Both surveys were anonymous and voluntary; to me it speaks to the involvement of the students with the project that all surveys were returned complete and over half were replete with rich detail in the short answer sections.

Data Analysis: Surveys

Survey results were analyzed using mixed methods. The Likert scale questions were analyzed using nonparametric tests treating the results as ordinal data. I used the Mann-Whitney test (Mann-Whitney, 1947) as a template for my quantitative data. For the qualitative short response open ended questions I employed a thematic analysis. Specifically, I followed the six steps outlined by Braun and Clarke (2006), namely: 1) familiarize yourself with your data; 2) generate initial codes; 3) search for themes; 4) review themes; 5) define and name themes; and 6) produce the report.

Data Collection: Formal Individual Student Interviews

Another method and procedure I employed to collect data and improve the effectiveness of Project MileEd was formal individual interviews with students. As the data collection process unfolded, themes and interesting threads emerged. Individual interviews allowed me to explore these through open-ended questions, and by encouraging the discussion of student work, including using artifacts of learning[15] brought by the student, teacher or me. Five formal individual student interviews were conducted in November with the goal to interview a representative sample of students (26% of participating students were formally interviewed). The interview consisted of six open-ended questions, and allowed for students to recount their experiences with Project MileEd. Interviews were conducted in either French or English based on the student's preferred language. The French interviews were conducted by a bilingual McGill research team member who also created the interview transcripts. They were then

[15] Artifact-based interviews can help researchers gain a greater understanding of the unfolding learning by asking students to ground their responses in actual student work called 'artifacts'.

translated into English using DeepL. Student interviews took place during the school day and lasted approximately twenty minutes.

These interviews were formal in the sense they were scheduled with a representative number of students but they were not hierarchical, rigid, or clinical. These semi-structured, interactive interviews included discussions about challenges and progress faced during the PBL process, where students could express their opinions and feelings about the initiative. Importantly these interviews also featured student and/or researcher-produced artifacts from Project MileEd. When artifacts were employed they came primarily from the digital project template in the form of digital images or video taken by the students. The photos/videos were discussed during the interviews, with an average of 50 seconds spent on each artifact. This interview technique elicited a deeper and broader discussion about what was envisioned, attempted, and produced and the significance of that material in the project. Using visuals and produced artifacts in young adult discussions

> can uncover significant patterns of the respondent's culture (norms, values, expectations, etc.) can be expressed in the images that respondents make (both in what they depict and how things are depicted and thus revealed) to researchers and other respondents. (Pauwels, 2015, p. 102)

Participatory techniques, like interviews using artifact analysis, embody special opportunities to include an *emic* view with a focus from the student partners; this internal view from their perspective seems a rarity against the dominant *etic* (or outside) view of adults and researchers.

Analysis of Formal Individual Student Interviews

The primary method I employed to analyse the data from the formal individual student interviews was thematic analysis. This format allowed me to identify themes in the interview

data, while still allowing the flexibility to move between explorative and deductive studies. Let me further explain: the interviews I conducted began in mid-November which was three months into the PBL project. I had troves of data, informal interview material, hundreds of hours teaching and working alongside students and an idea of what I was interested in uncovering, or more specifically what was hindering full PBL. However, the interviews needed to be conducted in an unbiased manner where the results were not affected by my interests, preconceived notions or even prior experiences. Thematic analysis provided me a framework to explore the data looking for patterns I had not yet considered as well as to include the data I consciously sought to balance.

Data Collection and Analysis: Teacher-Leader Meetings

The final methods I used to collect data were note taking, along with audio and Zoom recordings of the McGill Researcher-MileEd Teacher-Leader meetings. Five McGill-MileEd meetings were conducted on October 27 and November 22, 2021 and January 11, March 11 and April 06, 2022. Meeting notes, audio files and video were analyzed using the aforementioned thematic analysis.

Methods for Life Writing

Naming clear methods for life writing is not straightforward. Life writing manuals and sourcebooks are light on prescribed definitive methods. Journaling, however, is a common practice for data compilation and reflection (Strong-Wilson, 2021; Kamler, 2001; Geertz, 2015). Also common is the use of memory as a measure to consider current events (Hemon, 2014). The process of reflecting on what I saw and experienced in the research brought me, or in some cases forced me, to think about past experiences. During my reflections I returned to my childhood,

my life as a college student, my first school job and many other 'pasts' that constitute who I am today.

The concept of *life writing analysis* has been helpful to describe a set of qualitative research methods that tells stories in material, innovative ways while retaining the accuracy of the writer's insight in relation to storytelling as a method of inquiry (Moss & Besso, 2018). Life writing analysis exists within a set of concepts. These concepts can include a wide range of factors but often center on experience, the self, subjectivity and interpretation. It is from these concepts that life writers enter a discussion of their experience/reflection as a research method. Regardless of the concept(s) selected they need to be subjected to scrutiny (analysis, with reflection from multiple frames) and while personal experience is critical to life writing, experience is not the central analysis. Instead, the personal can be thought of as a kind of location, the site of exploration of the self and one's identity (Miller 1991). It is in this new location where sense-making takes place (Miller 1991). Qualitative investigators who employ life writing can re-conceptualize and reconstruct interpretations of the work they are involved in. The work can then be seen as an endeavor bringing together scholarly research with imaginative, personal, and thoughtful writing.

Before I move on to the results chapter, I need to explain the manner in which PBL began at MileEd. On their own the teacher-leaders ran a PBL-like initiative for the last three months of the 2020-21 school year. They called it "*Period* MileEd". After that initial trial (over the summer), the teacher-leaders reached out to the McGill research team for assistance. They asked for professional development, theoretical grounding, implementation assistance and staff/student training. This new PBL initiative dubbed "*Project* MileEd" began in July 2021 and continued

until April 2022. Below I introduce *Period* MileEd (the precurser to *Project* MileEd) and will return to the results of the *Period* MileEd initiative in Chapter four.

Period MileEd

In March of 2021 the teacher-leaders at MileEd brought forward a desire to create a special period where students would have full choice of what they wanted to study, and how they might study it. This idea in its fledgling phase was dubbed *Period* MileEd by the school leadership team. By the end of April 2021, students at MileEd were participating in a loosely defined 'project period' where they could "explore an area of their choosing for study, do homework or even do nothing" (MileEd & McGill Research Team Meeting, April 24, 2021). It is important to emphasize that the idea for *Period* MileEd came from the school. *Period* MileEd was newly implemented, and was clearly in need of support. As one of the members of the university partner research team, I was interested in documenting the school's journey toward project-based learning as the focus of my doctoral research and dissertation. The research team and MileEd teacher-leaders discussed this possibility and agreed enthusiastically.

Chapter four, which follows, details the results from my work at and with MileEd. I would like to begin that chapter with an important piece of life writing. I offer an example of extraordinary commitment to human flourishing, an important pillar within PBL, as showcased through a student-led PBL initiative at a high school in Athens, Greece, where I was the principal.

Chapter Four: My Research

Life Writing: The International School of Greece

This memory, from the school year 2018-2019, is of what I believe student empowerment and project-based learning can achieve. While the assault of mopeds and scooters may take the average North American by surprise, so might the 'randomness' of ancient sites. One may be looking at mannequins sporting the latest fast fashion in a Zara window, glance down to navigate a crumbling sidewalk and find yourself standing in front of Hadrian's Arch. Similarly, one might alight at the metro station for one's downtown hotel only to find the green fields and the fallen fragments of resplendent marble that once housed Aristotle's Lyceum. Athens is a maze of jumbled streets, cart paths, and narrow walkways; Athens, an ancient capital, still serves as a bridge, both on land and in the waters surrounding that connects the Occident and the Orient.

In 2015 – 2019, Europe was in the midst of the largest wave of migration since the 1990's fall of the Soviet Union. Nowhere was this migration more evident than on the many Greek Islands, where one can hear the Adhan (call to prayer) announced from the minarets atop Turkish mosques, seen through the mist from the shores of European Greece. The overloaded rafts began arriving in May 2015. These islands transferred refugees to Athens, whose stone streets, homeless centers and ever-expanding migrant camps became the permanent destination for newly processed migrants and refugees.

"Yassou, kalimera, olla kala?" The guard smiled, answered my greeting and opened the steel door; the campus was quiet save the distant twang and occasional voice from the tennis courts. Several of the feral cat families were out in the early sun, napping. With the exception of international sports tournaments, weekends were the time to get paperwork done and reports filed, free from the weekday crush of decisions, events and meetings that seemed to gobble up the hours and the day. Peace and quiet abounded until, that is, a student's project-based learning initiative changed the school and me, both to our core.

For 16 weeks each semester on Saturdays, the International School of Greece opened its doors and provided fellowship, friendship and classes for refugee unaccompanied minors. Teachers prepared lessons in the Greek language, English lessons, music, art and sports activities. The school's own students, many of whom were children of diplomatic families, heirs to highly successful Greek businesses, or living in Athens as their parents worked for multinational corporations, attended the classes as tutors, mentors and as friends and mixed with unaccompanied refugee minors.

The Greek people's response to the refugee crisis began with solidarity, compassion and the notion that "Greek blood is refugee blood". Local historians reminded Greeks of the Ottoman oppression throughout Asia Minor and later the Lausanne Treaty's population exchange which turned eastern Greeks in Istanbul and Turks in Thessaloniki into overnight refugees. With the stroke of a pen, ancestral homes, livelihoods and lives had been overturned. People were exiled to a country they did not know. My own grandmother recalled arriving in Greece from Constantinople, devastated by what she lost and what she saw; she later boarded another boat, this time for the USA. The goodwill toward immigrants lasted until the Syrian, Afghani,

Pakistani and North African migrants overwhelmed the rickety infrastructure and cut further into an already depressed Greek economy, burdened by harsh austerity measures of the Euro Crisis of 2010. That said, the generosity of the students at our school never faltered. Neither did the commitment by the school's International Baccalaureate (IB) director, the adult liaison to the students leading the project. The 'weekend cohort' expanded as did the numbers of refugees. The school even found partners to sponsor unaccompanied minors to attend classes during the week, eventually enrolling 22 students full-time.

The bus arrived at 10:00 am, 25 students disembarked; they were all unaccompanied minors, refugees from Syria and Afghanistan. 15 males, 10 females all under 18. Three of the girls had their children from infant to age two with them. Five teachers with about 15 students from our school were waiting. After the buses arrived, I would leave my office, walk down the hall and join a class. I found unaccompanied minors teaching children of Greek shipping magnates Arabic, students huddled together around a laptop or phone listening to popular music of Syria, Greece or the US. Refugees who walked the 800 kilometers from Syria through Turkey and risked their lives on inflatable rafts were laughing with young adults who flew to their many homes on Learjets, or sailed between islands on private yachts. Young women of privilege looked wide-eyed at younger refugee girls taking care of their infants. Students played basketball or volleyball for the first time, next to the captains of those teams who would go on to play at the collegiate level. While there are ironies present here, there is also human connection and rebirth. Moreover, there is a strong ethos of Freire's liberation education. The humanist educator stands with the student and assists in developing the student's consciousness. Progress is achieved through dialogue and work, oriented along a problem-solving frame. This frame positions students as authentic contributors to society. Students are empowered through

intentional lived processes (engagement, commitment, dialogue, and discovery) with others. Empowerment is experiential; students are active agents of change.

In 24 years of working with amazing young people on three continents, I have yet to see a better example of liberation education, of problem posing learning, or of a student-led initiative that at its heart focused on human flourishing. This experience in Greece is what I remember, cherish and miss most and it has been profoundly formative in my understanding of progressive and liberation education through a PBL frame.

Baseline Data from *Period* MileEd to *Project* MileEd

What follows is an account of the steps taken in the implementation of the first version of PBL at the MileEd school before the McGill research team was involved. I am calling that *Pre-Project Data* (*Period* MileEd). This is followed by a detailed account of my dissertation project, divided into sections beginning with *Project Initiation,* this includes professional development, PBL rollout to students and parents, *Project* MileEd survey, and the accounts/ descriptions of student projects. The *Project Review* section includes teacher-leader and McGill research team meetings and individual student interviews and analysis. The *Project Wrap-Up* section includes the final teacher-leader and McGill research team meetings and a personal reflection on the research to date.

Pre-Project Data

Period MileEd: 2020-21 School Year

From the first reports it was clear that there was considerable disparity in terms of the understandings of the *Period* MileEd held by the teacher-leaders. This was evidenced in the lack of consistency that became increasingly apparent in how they chose to use the period. The

mathematics teacher used the period to tutor students on specific concepts and in areas that needed remediation. The French literature and language teacher and the history teacher were committed to keeping the period open for students to do as they liked. This 'tutoring and open period' format continued to the end of the 2020-21 school year.

Student Survey #1 Results: Period MileEd

For this portion of the data gathering the following questions were asked of students:

1. *What was your experience with the Period MileEd?*
2. *Who is in 'charge' of the PBL initiative?*
3. *Did the topics you explored matter to you?*

These are the summary results of a qualitative student survey given on August 27, 2021 covering the *Period* MileEd initiative from April 2021 to June 2021. One hundred percent of the students who participated in *Period* MileEd from April 2021 to June 2021 and returned to MileEd for the 2021-2022 academic year, completed the survey.

Table 4. MileEd Student Survey Results: April to June (of the 2020-21 School Year)

Survey Question 1: What was your experience with *Period* MileEd?		
Student Choice	Percentage	Number of Students
Exceptional	0%	0
Above Average	64%	10
Average	24%	3
Below Average	12%	2
Poor	0%	0
Survey Question 1: What was your experience with the *Period* MileEd?		

Me (the student)	16%	2
Me more than the teacher	48%	7
Even split between me and teacher	16%	2
More teacher than me	16%	2
The teacher	0%	0
Me (the student)	16%	2
Survey Question 3: Did the topics you explored matter to you?		
Of Utmost Importance	0%	0
Matters Very Much	60%	9
Average Importance	36%	5
Matters Very Little	4%	1
Does Not Matter	0%	0

The main purpose of the above survey/table was to capture baseline data from *Period* MileEd that could be compared to the new data captured from the launch of *Project* MileEd. I made comparisons and drew tentative conclusions from analysis and discussion of the two survey's results (see Table 5 in this chapter; see also the general discussion in Chapter 5). There is, however, pertinent data in *Period* MileEd's survey results: first, 32% of students participating felt that the teacher was either "equally" or "more in charge" of the PBL initiative; second, 40% of students felt that the topics they explored were of "average importance" or of "very little importance" to them personally. Both of these results could be understood to reflect the newness of the initiative, as it began in April 2021 and lasted two months until the end of the school year.

Leaving the Likert Scale quantitative results, I now move into the short answer qualitative questions.

The questions asked were:

1. *What were the high points/best parts of Period MileEd last year?*
2. *What were the low points/challenges from Period MileEd last year?*

Students answered Question 1 "What were the high points/best parts of *Period* MileEd last year" in interesting ways. Student A wrote that *Period* MileEd "forced me out of my comfort zone" and "the time was unlike any other that I had experienced in my school career" (Student Survey Response, August 27, 2021). Student B wrote:

> The fact that I could be completely independent on the project and the learning but without being completely deprived of resources whether given by other students or the teachers. (Student Survey Response, August 27, 2021)

A similar response by Student C stated "the freedom allowed and the help that can be provided" (Student Survey Response, August 27, 2021). These responses demonstrated several of the core tenets of PBL. First, students recognized that they were moving away from traditional modes of learning and into new, unknown modes of discovery. Second, students observed that constructive investigations are simultaneously independent and collaborative: a realization, that for some students, was novel and took time to understand and put into practice. Third, students understood that both adults and fellow students could be valuable resources to be tapped during the course of the project; again for many students, this was a pronounced shift, as they now saw their peers as valuable contributors to their projects.

Students answered Question 2 “What were the low points/challenges from *Period* MileEd last year”? in telling ways. Several responses had to do with the ambiguous nature of the period, Student D remarked, “There were times when we didn't know what the goal was” (Student Survey Response, August 27, 2021) and Student A said, “At first I didn't know what to do and then the project went in the wrong direction” (Student Survey Response, August 27, 2021). Student E wrote, “For me the weakest point was the first ‘classes’, because I didn't know what to do so I didn't do anything” (Student Survey Response, August 27, 2021). Another challenging area was getting started, Student F said, “When you don't have a project going on it's hard to figure out what to do” and Student C remarked “At first I had a hard time getting on board with whatever the task was but as I found a project I was able to get past it” (Student Survey Response, August 27, 2021). These challenges are common initial responses to an open/free or PBL format, as I enumerated in the Literature Review: Challenges and Considerations. Students needed support. Many had been educated primarily in didactic, teacher-centered environments, and needed practice to transition towards an open learning environment. Teacher-leaders at MileEd rightly identified the need to *de-school* their students' tendencies to passively wait for instructions or directions and to bring questions to an adult for answering.

Creating the survey, receiving the data and analyzing the results allowed me to accurately assess the previous year’s *Period* MileEd initiative. I will now transition from that work to my current research, called *Project* MileEd, which was led by me and supported by the McGill research team.

Project Initiation

Project MileEd: June 2021- April 2022

In the previous chapter, I outlined the various methodological approaches and methods of data collection and analysis used in my doctoral research as well as explained how the *Period* MileEd and *Project* MileEd evolved. I then turned to look at the information gleaned from the student surveys gathered during *Period* MileEd. Here, I zoom in on the timeline for gathering data in *Project* MileEd.

Over the summer of 2021 the McGill research team prepared a comprehensive historical, theoretical and practical presentation on PBL as well as a PBL working document, a template for the school leaders and teachers to use with students. At a joint meeting on June 2nd, 2021, the McGill researchers presented a PPT that focused on the history of PBL, and also provided definitions and examples of project-based learning models. Also featured was a separate slide, and subsequent discussion that clearly emphasized the need for a deep commitment from the school for this kind of learning. Specifically, the shift towards PBL and/or problem posing education requires a high degree of cross curricular, interdisciplinary co-construction of curriculum, and a highly choreographed system of communication between students, teachers, and the mentors/organizations with which the students will ultimately partner for their projects (Kokotsaki, 2016; Blumenfeld et al., 1999; Levstik & Barton, 2001).

On July 26, 2021, I met with the MileEd teacher-leaders, and shared the PBL proposal: a preliminary template for the unfolding of PBL, and as an integral part of the communication and documentation of the learning. We agreed on a tentative schedule where members of the McGill Research Team would initially facilitate in-person Project MileEd classes with students and

teachers. On August 22, 2021, the university researchers were invited to introduce and contextualize the PBL initiative and the research at MileEd's professional development day, an important initiative intended to welcome and orient that year's new hires.

By the end of August 2021, PBL presentations to all the MileEd teachers were complete; in late August PBL presentations were made to students, starting with the middle school and then the high school. PBL *classes* began September 2, 2021. MileEd's parents also received a briefing by the university researchers at an open house in mid-September.

Life Writing: A Typical PBL Class

The following reflection outlines the format of PBL classes with students, from September 02, 2021, to November 16, 2021. More often than not 'PBL class' began before the school day actually started, when I approached a few students to ask about their weekend (upcoming or past) or the weather, or about a haircut (sometimes mine), they might reply and then naturally say: "Hey Anthony I was working on my project and wanted to share this…".

My McGill research partner and I kept full group meetings to a minimum. Instead we maximized the time sitting at tables, standing at the kitchen bar or lounging on a sofa (both in the school, evidence of its innovative physical design), speaking with young people about anything they brought up, but mostly about their projects.

PBL was scheduled for each grade cluster (grades 5-8 and grades 9-11) once a week for 1.5 hours. Classes generally met upstairs in the loft, a large open space, 2000 sq feet, that provided students with a range of furniture options, couches and comfortable reading chairs, as well as various sized tables with rolling stools. (The space even had a swing, though I never saw a student on it, thankfully because the rope that held it to the ceiling looked far too thin.) I liked to

arrive early, before school started, not only because PBL was the 1st period of the day. Students at MileEd had the most peculiar habit of arriving to school early (upwards of 45 min) not because they were dropped off then (most came on their own) or that breakfast was served and they were hungry; this was a private school, so food insecurity was not an issue. They came for the most part to start the day earlier than required. Twenty minutes before school began, one could find half the school's students working quietly. Some talked with friends over open notebooks and logged in iPads; this was a sight to behold. It was refreshing to be talking with young people without the threat of bells, standards or the omnipresent hierarchy of teacher vs student.

Generally, we (researchers) spent time with students looking at their work, asking them questions, wondering out loud and calling each other over (as well as other students) to puzzle through inquiries together. Also, students kept a log of their progress on a digital folder, to which both McGill researchers and MileEd teachers had access. This format allowed us to arrive at class having seen the students' progress (or lack thereof). I often prioritized meeting with students who had either added much to their project or conversely, had not opened the file. Looking back over my PBL class notes, over the course of the 1.5 hours, I averaged conversations with seven students (or groups of students working collaboratively on a project); each conversation took approximately ten minutes. Over the 90-minute class, then, I was able to touch base with 80% of the students, at the very least to discuss what they did that period and what they were working toward for the next class (referred to as a check-in and check-out).

Student Survey #2 Results: *Project* MileEd

On October 07, 2021, all nineteen MileEd students participating in PBL (2021-22) were given a survey to document their experience during the last six weeks of PBL classes; all students returned the survey (100%). The questions posed:

1. *What is your experience with the PBL initiative?*
2. *Who is in 'charge' of the PBL initiative?*
3. *Do the topics you are exploring matter to you?*

Below is the quantitative data-set, alongside the results from the August 27th student survey (which asked questions about the previous year's PBL initiative). The same three questions were asked in both surveys for comparative purposes. It is important to state that twelve of the students who answered Survey #1 were also respondents in Survey #2. As stated previously all surveys were anonymous. As a result, it is not possible to measure if individual student's responses changed between the surveys or how the survey responses aligned with the interviews conducted (presented later in this chapter).

Table 5. Quantitative MileEd Student Survey Results Comparison

Survey Question 1: What was/is your experience with the PBL initiative?					
Period MileEd **April to June of the 2020-21 School Year (15 students surveyed)**			***Project MileEd*** **August to October of the 2021-22 School Year (19 students surveyed)**		
Student Choice	Percentage	Number of Students	Student Choice	Percentage	Number of Students
Exceptional	0%	0	Exceptional	8%	2

Above Average	64%	10	Above Average	52%	10
Average	24%	3	Average	38%	6
Below Average	12%	2	Below Average	2%	1
Poor	0%	0	Poor	0%	0
Survey Question 2: Who is in 'charge' of the PBL initiative?					
Me (the student)	20%	3	Me (the student)	30%	6
Me more than the teacher	48%	7	Me more than the teacher	48%	9
Even split	16%	2	Even split	6%	1
More teacher than me	16%	2	More teacher than me	16%	3
The teacher	0%	0	The teacher	0%	0
Survey Question 3: Did/do the topics you explored/are exploring matter to you?					
Of Utmost Importance	0%	0	Of Utmost Importance	23%	4
Matters Very Much	60%	9	Matters Very Much	71%	14
Average Importance	36%	5	Average Importance	6%	1

Matters Very Little	4%	1	Matters Very Little	0%	0
Does Not Matter	0%	0	Does Not Matter	0%	0

This analysis provided comparative qualitative data from the *Period* MileEd survey and the *Project* MileEd survey. I will analyze the data first at a general level and then through a more specific lens, looking at each question independently, and finish by offering my thoughts on the data from today's vantage point.

When looking for a general trend from the comparison, I settled on combining all three questions' results. This trend pointed to a slight increase/ improvement of the students' experience, perception and personal relationship to PBL from *Period* MileEd to *Project* MileEd. In summary, students indicated, through their survey responses, that *Project* MileEd was: notably more enjoyable, felt more student-led and that the topics were notably more personally relevant than last year's *Period* MileEd initiative.

Question 1 asked "What was/is your experience with the PBL initiative?" The data from the comparison produced uneven results: two of the five categories decreased in percentage, two of the five increased in percentage and one of the five did not change. The final results from Question 1 indicated no demonstrable change.

Question 2 asked "Who is in 'charge' of the PBL initiative?" The results demonstrated a 10% increase in the student perception of their ownership of the PBL project. As 19 students completed the survey, this increase signified two students feeling further empowered.

Question 3 asked “Did/do the topics you explored/are exploring matter to you?” When analyzing the response categories of “Matter Very Much” and of “Utmost Importance” the results of the *Project* MileEd survey increased 34%. This data can be analyzed further, 93.6% of students surveyed (*Projec*t MileEd) felt the topics they chose to research mattered very much or were of utmost importance to them. This result both affirms students cared deeply about their projects as well as a key, foundational piece of PBL was in place.

While the results comparing the two surveys' quantitative sections surfaced some relevant information, particularly the increase evident in Question 3, the timing of the survey may not have allowed for a more complete picture of the students' experience. As noted earlier, the second survey was given on October 7th, 2022, just six weeks into *Project* MileEd. The survey was given at this time for several reasons; first I wanted to mirror the length of *Period* MileEd, which was approximately seven weeks the previous school year, second, I knew the research project would span the semester which ended in December and this was a logical point to survey. As the projects continued, students experienced various hardships which are detailed in this chapter. Some projects were stopped by teacher-leaders, other projects were changed or discontinued, initiated by the students themselves. These instances were not accounted for in the above survey data but were analyzed in the field notes, student-researcher interactions, and in the individual student interviews detailed below.

The following are the summary results of two qualitative student survey questions given on October 07, 2021 covering the *Project* MileEd initiative from August 2021 to October 2021. The questions asked:

1. *Why have you chosen the topic you are currently researching?*

2. *When is the best time for you to work on your PBL interest? And why?*

Students answered Question 1 “Why have you chosen the topic you are currently researching”? (Student Survey, October 07, 2021). Responses varied from: further exploring a current personal passion to learning something new; two students expressed the desire to help others. Three responses stood out; for instance, one read: “Because it is a subject that I am passionate about and I want to share this passion with others” (Student Survey Response, October 07, 2021); this student was an avid at-home, indoor gardener. This student was also in charge of the school's plants but envisioned starting a gardening club, and using MileEd’s ample windows and roof space to grow plants.

The second student initially planned a semester abroad trip to Japan. After encountering resistance, this student pivoted to considering other Asian countries that had less restrictive Covid-19 regulations. The student's rationale was that “my project, traveling in another country for a semester pushes me out of my comfort zone; it also interests me a lot” (Student Survey Response, October 07, 2021). The student spoke about relaying the process of setting up the study abroad with his interested peers and also envisioned bringing back a wealth of experiences to share with the school community (Informal Interview, September 21, 2021).

The third student wanted “To warn as many people as possible not to make the same mistakes as me” (Student Survey Response, October 07, 2021). This student was researching drug use in adolescents and envisioned delivering a “Ted-Style Talk" that would combine anecdotes from his personal drug use with the research on teenage addiction.

The students' responses to question one were illuminating because they showed an understanding of their topic’s relevance, and for the three examples above this understanding led into the

purpose of their PBL endeavors. All three responses rooted the projects in students' personal interests and offered a mechanism to bring peers and MileEd adults into the learning process.

Students answered Question 2, “When is the best time for you to work on your PBL interest? And why?” (Student Survey, October 07, 2021). They were provided three multiple choice responses: school, home or both. Seven students chose school, five chose home and 11 chose both school and home. One student that chose home stated:

> I think the most important time to work on the project is during the more informal times like evenings and weekends because I find that it is more free and gives me less pressure over time. (Student Survey Response, October 07, 2021)

Two students that chose school stated: “The best time to work on it is during the educational periods because it's easier to exchange ideas on our project together” and “During PBL periods because there are experts to help me and other students who can share their experiences” (Student Survey Response, October 07, 2021). Three students that chose ‘both’ wrote: “I think that every place has its pros and cons. I work well at home but the risk of procrastination is higher, compared to school where I feel unmotivated but I can work more” (Student Survey Response, October 07, 2021) and “I do my project all the time. Because integration is not just one hour a week” (Student Survey Response, October 07, 2021). Also: “There is not a particular best moment [location] to work on PBL because a lot of times you find ideas in different ways” (Student Survey Response, October 07, 2021).

Student responses to question two provided the researchers with information beyond the best time for students to work on their projects. Students recounted the value of collaborating with peers, teachers and experts in class. Students expressed their commitment to working on PBL

beyond the time provided at school and the need to do so. Students also noted that inspiration and creativity associated with PBL can come from anywhere and a mix of opportunities were necessary to fully engage with their projects.

Student responses to the quantitative survey and short answer questions pointed to a common denominator, the need for more PBL instruction, project overlap with MileEd classes, and increased student agency/autonomy. Taken together these student responses and the subsequent analysis reinforced the need for MileEd to expand the depth and breadth of PBL from its current state, happening in project class time only, to a school-wide initiative.

The analysis of both surveys provided quantitative and qualitative data on PBL at MileEd from the students' vantage point. The results and analysis also pointed to larger gaps, trends and areas of concern portended in the students' responses. During the implementation phase of *Project* MileEd, specifically in October, issues of concern began to emerge to the researchers, the significance of which would only become apparent later. This disquietude is examined below.

First, although the literature on PBL pointed to the need for a full consideration and meaningful adoption across subject areas, the MileEd teacher-leaders hesitated to include the new teachers (working in the areas of science, English and mathematics) into the broader *Project* MileEd (PBL) work. The teacher-leaders felt that the new hires were not ready. This meant that the PBL initiative was partially implemented at the school, during the PBL classes only, creating an inconsistency that would become increasingly problematic with time.

Second, the teacher-leaders opted to modify the project template, removing 75% of the original components, including key components of the blueprint/template: the subject standards

alignment, communication log, teacher feedback components and the component that involved mapping the measurable benefits of the project for the school and community (see **Appendix B** for the *modified* blueprint/template). To justify this, the school cited two challenges: 1) the difficulty in explaining the requirements to students and 2) their own high workload as teachers. It became clear that, while in theory the teacher-leaders supported the adoption of PBL, their perception was that time and their perceived/ actual capacity did not permit it.

Third, the *Project* MileEd classes with MileEd students were initially led by the university research team, with the stated expectation that there would be a transition to MileEd teachers. As classes continued, the researchers noted that, while occasionally present, the MileEd teacher-leaders did not seem to actively participate. After a few weeks they stopped attending altogether. During the approximately one hundred hours of class time during which the researchers worked with students in PBL at MileEd, four hours were spent with MileEd teacher-leaders in the class. The teacher-leaders' absences were observed by one member of the university research team in their field notes: "the part-time science teacher has spent far more time in the PBL classes, asking questions and talking about student projects than the teacher-leaders" (Field Notes, October 7, 2021).

MileEd Student Stories: Four PBL Projects Examined

By mid-October several students, including students working in groups, were making progress on their projects. In the following section, I have chosen to detail four of them; two come from grades 9-11 (Gabriel & Margot) and two come from grades 5-8 (Emma, Louise and Raphaël & Yvonne). These four accounts are unique, both in the research topics detailed and in the young people driving the investigations. The accounts are also representative of the larger group of

students in the PBL classes as other students shared similar challenges and successes. Please note that along with the name of the school, all student names in the thesis are pseudonyms.

Gabriel

Gabriel cuts an imposing figure for a sixteen-year-old. Standing approximately six feet six inches tall, he towers over his classmates and most teachers. His frame, well-proportioned to the basketball court, is not ideal for tight spaces. He twists, bends and crouches as he hovers over, under and in an open computer mainframe. He tells me that "installing graphics cards is technical work, each must be perfectly positioned, as the heat they generate can damage a neighboring component and quickly run up costs on an already expensive project" (Class discussion, October, 01 2021). The temperature of each card is monitored with an app on his iPhone, where he can also check the data it has processed. More data equals more money.

Gabriel's exploration focused on designing, building and operating a crypto mining rig. With the support of his family, he had invested $1,000.00 in design and $10,000.00 in materials and was now constructing the platform: a mess of wires, a CPU, aforementioned graphics cards, three computer towers, two monitors and a large grin. His selfie along with other photos of the equipment, the plans, and superstructure were uploaded to the student project folder on Google Drive. It's here that I could follow his work, post questions and ask for clarification (G-Drive accessed, October 01, 15, 2021 and November 06, 2021).

The next time I would see Gabriel was Thursday and he had already asked to meet to discuss his business plan. Gabriel's goal was "to passively earn an income equivalent to $60.00-$75.00 (CAD) per day, while [he] works on other projects" (Class discussion, October 10, 2021). Right now though he needed to get his rig up and running. A critical component of the blockchain,

miners like Gabriel supported the ‘proof of work’ required to maintain crypto currencies. It was also how he would get paid. There was no question that Gabriel was tech savvy, entrepreneurial and ‘profit motivated’. He also benefited substantially from financial support in the form of “loans to complete my project, but I’m not sure I'll have to pay them back” from his father as well as the technical expertise of an employee, who worked for the family business (Class discussion, October 15, 2021).

Today Gabriel greeted me enthusiastically, “Anthony I've got good news, I just got two more computers, cheap. The guy was going out of business, and he sold them at a loss. The best part is these are for CPU mining not crypto and they're ready to go, no modifications” (Class discussion, November 01, 2021). Gabriel was in full capitalist mode; despite my own reservations, my job as mentor was not to judge but to nudge.

Gabriel and I have had three separate conversations about the negative environmental impacts of mining and specifically crypto mining: first as a responsible citizen who acknowledges global warming, second as an entrepreneur that wants to grow his business, and third as a teenager that can make a positive contribution to society. The second point resonated and he readily agreed that before he approaches investors he will need to have a ‘pitch’ for greening his mining; he has not yet explored carbon offsets or looked into the amount of energy his rigs use, which he assures me is his next step. As of mid-November, Gabriel had invested an additional $850.00 on a third CPU mining rig and additional graphics cards; the voltmeter for measuring energy consumption and the carbon offsets had not yet been explored (Class discussion, November 08, 2021).

When we discussed the value that this project could bring to his peers and the school community, Gabriel needed time to think. Rarely at a loss for words or ideas, he quickly found me and shared "my idea is to create a how-to-video, like crypto mining for dummies. I can even bring one of the smaller rigs in to show my classmates, oh wait better yet I can get another cheap set up and build it here [MileEd]" (Informal Student Interview, November 16, 2021).

As stated earlier, I was/continued to be committed to featuring student voices in the research. I believed Gabriel could tell his story better than I can, and could continue to do so, in rich detail, as in the Individual Student Interview section presented later in this chapter. Gabriel was a prime example of a self-motivated student who was committed to his project. He spent countless hours outside of class building, testing and operating his crypto mining rigs. Gabriel's *modified* project template was up-to-date with images, diagrams and calculations. What was missing and required attention and support (and I noted this to him) was his understanding of the project's damaging aspects (energy consumption/ pollution) and the potential of his work to benefit others. Those aspects could have been explored/ supported if other MileEd adults (such as the science teacher) had been brought into his work. Also key was for Gabriel to use the *original* project template that required interaction with the negative aspects of his project and a plan for addressing those concerns.

Emma, Louise and Raphaël

Several students (and student groups) at MileEd were planning international trips. They varied from solo trips for a semester to groups of students traveling together for two weeks. The locations also ranged from Southeast Asia to South America. Here I remind the reader of my perspectives on current service learning practices and international trips, documented in the

Literature Review (Chapter Two, p. 30-31), and also in my life-writing segment recounting the Ecuador experience.

Emma, Louise and Raphaël were planning a group trip to Argentina and had been contacting educational tour companies, making plans for missed school days and creatively fundraising to meet their trip's anticipated $13,500.00 cost. At age fourteen, all three students agreed that they needed to travel this academic year, "because next year (Sec Four) is much more demanding, we are required to take the mandatory provincial exams" (Class discussion, September 14, 2021). ?por que quieres viajar a américa del sur (why do you want to visit South America)? My question is met with giggles and I can only assume my Spanish with a US accent sounds a bit funny to their French speaking ears. I try again. Emma says flatly "we don't speak any Spanish, that's why we are traveling there, to learn" (Class discussion, October, 15, 2021).

Later that period I went back to the group and asked about which language apps they were using, how they were preparing for a language immersion experience. Having lived in South America, I shared my knowledge that knowing (at least some of) the language would make for a much richer experience and that depending on where they traveled it was an issue of safety: they needed to know basic communication around health matters. No language apps, no Rosetta Stone, no flashcards: it seemed that according to the students' understanding a plane ticket is all that would be needed. It is important to add that these students were in contract talks with for-profit, third party study abroad providers. These companies typically book 'educational tours' for participants in the global north to visit the global south.

I did not conduct individual student interviews with this group, but from the field notes and conversations detailed above I offer the following brief analysis. Emma, Louise and Raphaël

would have benefited from spending additional time with adults who could unpack with them the purpose for, and potential successes/ failures of, language immersion experiences. In the two months that I followed their project, I witnessed meetings with vendors, travel agents and other parties that stood to profit from their travels. I did not see evidence of their research or speaking with language teachers or other educators that could have made clear the pitfalls of travel and language immersion.

Margot

People don't fake depression, they fake being ok. ~ Robin Williams

"What do you have to be anxious about, Margot"? "Everything you need we provide for, childhood is a time to be happy and carefree" (Informal Student Interview, September 06, 2021). Margot recounted her conversation with her mother from this past summer. It was September and while Margot was sharing her interest in pursuing a topic about teenage depression and anxiety, she was also telling me her story, a deeply personal one that this courageous fifteen-year old wanted to share with others.

"Margot tries to manipulate us, she is very good at telling people what she thinks they want to hear," warned a teacher-leader at the school (Informal discussion with MileEd teachers, September 23, 2021). "I'm surprised but Margot has issues with her classwork and scores very poorly on tests; she is too fragile," a different teacher-leader recounted (Informal discussion with MileEd teachers, September 27, 2021). These conversations happened during after school meetings when I was updating teacher-leaders at the school about student projects.

Margot spent several weeks building a survey on Google Forms for her peers at MileEd. Her questions started with a prior knowledge assessment: definitions of anxiety and depression. She

then moved into data about how many adults and children suffer from these conditions in North America. The short answer questions asked students if they know adults or peers that have/are suffering from these conditions and if so, what are some of the visible impacts. The final question asked if students themselves have ever felt anxiety or depression, based on the definitions used previously (Student Project Template: G-Drive accessed, October 16, 2021).

Fifteen of the twenty students polled (75%) returned Margot's anonymous survey (Interview, October 2021). The average length of student response, in the short answer sections, was twenty-five words; students expounded, describing (in detail) their encounters with these conditions (Student Project Template: G-Drive accessed, October 17, 20 and November 01, 2021).

Margot was both pleased and worried about her results. As she pored over them, she recognized the need to ask further questions. Interviewing her willing peers seemed to be the logical next step. "I can't do the interviews, I met with the teacher-leader, showed [them] my results of the survey and proposed the three interview questions we worked on" (Informal Student Interview, October, 21, 2021). Margot was visibly shaken; she continued: "the teacher-leader said I need a level of expertise to conduct an interview and I don't have it" (Informal Student Interview, October, 21, 2021). I was clearly confused: "Did you share the interview questions?" "Yes I showed [them]". "Were you clear about the intent, what this is and what it is not?" "Yes, I said these interviews are not counseling, therapy or anything like that." "And the voluntary part?" "Covered, it's only for high school students that want to meet and discuss" (Informal Student Interview, October 21, 2021). Margot's project stopped.

Important additional details about Margot's project are revealed in the Individual Student Interview section, particularly her commentary on the way she felt her topic was misunderstood and mistreated. From the statements recounted above, there was a clear disconnect between what Margot felt was critical to ask her peers and what the MileEd teacher-leaders were willing to allow. As a rule, projects were to be student-led, and yet this project was stopped for that very reason. Schools and teachers working in a PBL frame should provide guardrails, which are mainly erected to prevent students from making mistakes and potentially facilitating harm. Had the MileEd teacher-leaders voiced concern that Margot was sharing too much of her personal history with her peers, Margot would have had a chance to respond, reflect and/ or potentially pivot her project. If the teacher-leaders were concerned that her survey would trigger an emotional response from peers confronting their own trauma, they could have worked collaboratively on Margot's interview questions.

There are/were concerns about the way Margot's project idea was closed down by the teacher-leaders. But that analysis needs to be presented alongside considerations of ethics and student safety from the teacher-leaders' perspectives. There are a range of professional, ethical matters that could have factored in the teacher-leaders' decision to deny individual student interviews on the topic of mental health. The ethical concerns could range from students disclosing personal/confidential mental health information, to having proper health protocols and support systems available.

The initial questionnaire was allowed by the teacher-leaders but after the results came back showing potential depression, anxiety and fears in the student population the teacher-leaders had several important decisions to make. These decisions go beyond refusing permission for Margot

to conduct interviews. The teacher-leaders could have responded by seeking out what professional mental health services might be available for students; many providers today conduct outreach in schools and even provide school appropriate information sessions and presentations conducted by trained mental health professionals. There is also a wide array of offerings for social emotional curriculum for students, parents and educators available at a nominal cost. Given these alternative responses Margot might have had an opportunity to join that process of seeking out resources. Affirming the results of the survey and supporting Margot in her desire to explore depression and anxiety in adolescents might have taken her project in new directions that both ensured student safety and garnered additional resources for the school community.

Yvonne

Yvonne was a shy, soft-spoken thirteen-year-old. Her project fit her personality: quiet, caring yet teeming with powerful potential. For seven weeks, during PBL classes Yvonne was working through various challenges that faced hearing-impaired children.

Her research was wide-ranging. She uncovered the lack of educational opportunities in Montreal (only three city wide schools with hearing-impaired programs) bristling at the indignancy of the district website which offered four career paths that students could pursue. Yvonne researched safety issues that the students faced daily (from commuting and basic communicating, to isolation and depression). We discussed alternative ways to understand auditory challenges. Yvonne executed an experiment where she wore earplugs and headphones (not connected) to simulate lower auditory functions. This 'day in the life' simulation pushed Yvonne's thinking and her commitment. Yvonne identified one local institution that provided summer enrichment, bringing together both hearing and hearing-impaired children. She spoke of joining the next

cohort, and had secured the nominal fee charged to fully hearing participants from her willing parents. Yvonne determined that the best way to dive into the world of challenges and possibilities surrounding deaf/hard of hearing kids was to learn sign language. "We can't understand each other if we can't communicate," Yvonne reasoned (Class discussion, September 22, 2021). For three weeks, during PBL class, she found an empty corner, donned headphones and began watching, then watching and signing, then signing and mouthing morphemes. She was learning sign language.

The fourth week, Yvonne sat alone at a table with her laptop closed. We (researchers) approached to inquire, and Yvonne replied: "learning a language is not a project" (Interview, October 22, 2021). Not only were her eyes tearing when she recounted this to us, she was visibly uncomfortable, looking left and right before speaking. Yvonne went on: "I have changed projects, what I was doing was not a project." When I asked her if she thought learning a language was a project, she wrung her hands several times, and said "It is not a project." When pressed by another researcher whether it was her decision to stop working on sign language, her response was: "No, I wanted to continue" (Informal Student Interview, October 22, 2021). Later in that class, the student informed the researchers that she was assigned a new topic by the teacher-leader. She was not interested in pursuing it. I approached the teacher-leader to inquire about the change of the student's project and the adult repeated their opinion that "language acquisition" was not a project (Informal discussion with teacher-leaders, October 23, 2021).

Yvonne was individually interviewed, in French, by a McGill research team member. Details and analysis of that conversation are included later in this chapter. Like Gabriel and Margot, Yvonne's project was intensely personal and something that she was deeply committed to. Like

Margot, Yvonne's project was stopped. After I reviewed the field notes and wrote the distilled details provided above, several thoughts continued to resurface. Were the last two projects canceled because MileEd students were doing something wrong, or were they canceled because teacher-leaders did not agree with them? Did teacher-leaders feel their authority had been usurped, that their stance as teacher 'in the center of learning' had been challenged? Why else would this project, one that seemed clearly focused on understanding marginalized peers and promoting human flourishing be scuttled? The next section of research recounts the interactions, in official meetings, with MileEd teacher-leaders and the McGill research team; our hope was to uncover some of the possible answers to these questions.

Project Review

Teacher-Leaders and McGill Research Team Meetings

Consistent with practice over earlier months of the grant, from April 15, 2021 to January, 2022, the MileEd teacher-leaders and the McGill Research Team met twice monthly, virtually (over Zoom) for the school to give general updates and to discuss challenges the teacher-leaders were facing. Three of the virtual meetings focused on PBL: October 27, 2021, January 11, 2022 and April 06, 2022. Additionally, one PBL meeting was held in person on November 22, 2021 and one informal conversation was held between a teacher-leader and McGill researcher on March 11, 2022. I believe it is important here to present the findings related to both teacher-leaders and students in tandem (to the degree possible). To achieve this, I am presenting the data/findings and results of both groups chronologically, so as to transmit the unfolding of events in real time and allow for analysis in a well-defined logical order. Starting with the first two adult McGill/MileEd meetings in October and November 2021 then moving into student interviews

November-December 2021, I will then finish this section with the remaining three McGill/MileEd meetings held in January-April 2022.

October 27, 2021

Analysis of the data from the PBL projects was complex, yet very revealing. For example, a critical component of PBL that was missing from 82% of the student projects was the requirement that each of the endeavors made a positive contribution to the lives of students, the community and beyond; that —ideally— the projects in a Freirian sense should promote human flourishing. This posed a challenge for the projects being developed by students. For example, some of the projects were extremely entrepreneurial, demonstrating a strong commitment to capitalist values. These projects also carried environmental costs increasing both consumption and pollution. The researchers attempted to offer feedback that would allow students to see value in shifting their projects' more capitalist focus (for example: monetary gain) to initiatives that might allow for a multiplicity of results (for example: environmentally responsible monetary gain, with opportunities for others to also benefit).

Although the university research team spent considerable effort reinforcing the PBL tenet that required teacher-leaders to affirm students' topics, teacher-leaders still imposed their choices on student topics. A carefully planned meeting was scheduled to discuss these problems with the teacher-leaders. With a view to flagging the issues that were becoming apparent, the university research partners prepared a discussion tool, a chart documenting student projects, highlighting the work that students had undertaken, pinpointing the areas where they needed additional support and redirection, and exposing inconsistencies that were emerging in terms of ways in which PBL was understood and shepherded by the teacher-leaders.

This particular meeting and discussion about the student projects was an important turning point in the PBL initiative. Once the projects were presented, the principal teacher-leader questioned the chart's categories and the concern about the missing social improvement components. "Who decided that Gabriel's project was not promoting human flourishing? That is a value judgment. Whose values are we imposing? My values are not yours" (Field notes: MileEd & McGill Research Team Meeting, October 27, 2021). This seemed to point to a commitment by the teacher-leaders that others' values not be imposed on students. In attempting to clarify, the McGill researcher pointed out: "It's not to tell them what values to have, but to see that there are values" (Field notes: MileEd & McGill Research Team Meeting, October 27, 2021).

Tensions such as these were difficult to navigate, tensions arising at the point where PBL theory collided with its actual implementation at MileEd. During that difficult conversation, the research team returned several times to the theoretical core tenets of PBL, reminding teacher-leaders of the examples and frameworks shared, referring teacher-leaders to the PBL template. What was clear was that the components of PBL that had been removed were the very areas that students and teachers were struggling to understand, namely, the need to use the template/blueprint to communicate progress, to bring the projects into other MileEd classes and to situate the projects as potential solutions to real world problems with benefits beyond the students. **Appendix A**, the original template and **Appendix B**, the teacher-leader modified template, have been provided to illustrate these points.

These meetings were the part of the partnership that I was most looking forward to. It was exactly what I, as a participant observer, had envisioned: talking about student projects with my colleagues at MileEd, where the students' work and students' voice would be centered. Those

conversations were to be necessary building blocks: the first chance to frame how the school could respond. Which teachers would take interest in which projects? Which adults would participate in the exploration with students: whether in providing mentoring, as advocates, or as admirers dazzled by the creativity and inventiveness of young people? What resources were available to support student learning? How could the projects penetrate the subject area silos that were already in place, even though the school was only in its second year yet had committed to cross-curricular learning? The meeting on October 27th did not surface these questions. It did surface other things: gaps in theoretical understanding and practice, resistance in the implementation of PBL and tensions about values and the purpose for the initiative.

November 22, 2021

I continued to facilitate bi-weekly *Project* MileEd classes and to meet with teachers at the school after hours. The principal teacher-leader requested a meeting to discuss PBL and on November 22nd, a research member and I met with them at the school. For the next three hours we discussed PBL, spending much of the time exploring aspects of the implementation. What became clear to all was that there was a foundational gap in the PBL practice at MileEd: PBL was only *happening* during official *Project* MileEd class time, rather than extending into the other core classes in a cross-disciplinary context. This observation was raised with the principal teacher-leader, responsible for the area of French literature and language arts.

The principal agreed with that assessment and proposed starting with extending PBL into their subject area. The researchers filled the white board with possible connections, identifying standards that could be addressed, and discussing how embedding PBL in French would strengthen both areas (PBL and French) while also providing a model for the other teachers in the other classes. Yet the principal continued to ask basic questions about the structure of

students' projects, how their topics could be connected to the subject areas, and how multiple adults (in the school and in the community) could come together to work with students.

It was at this point that the research team recognized that the school was still at the very initial phase of beginning to enact the PBL initiative. As the McGill-led PBL classes were winding down, and after six months of intensive effort, the teacher-leaders were approaching the beginning. The classic problems of partnerships and timing presented at this moment: the school was not yet at the PBL starting-line and the research team was approaching the end of its timeline. Opportunities to provide direct, frequent involvement in the partnership, namely teaching PBL classes and specific PBL professional development to teacher-leaders, would be diminishing and, soon, ending. Parallel to the winding down of PBL classes and observations, the research team conducted its final set of student interviews.

Individual Student Interviews: November 22, 2021 to December 04, 2021

All *Project* MileEd students were asked if they would consider participating in Individual Student Interviews with a member of the McGill Research Team. The interviews could take place in either French or English and were envisioned to last approximately 20 minutes. Of the nineteen students that participated in *Project* MileEd, five volunteered and were interviewed. Two students were interviewed in French by a fellow bilingual researcher and the remainder by me in English. Two of the students were from the middle school and three came from the high school. The youngest student was 12 years old and gave the shortest interview (seven minutes); the oldest student was 17 years old and gave the third longest interview (22 minutes).

Table 6. Individually Interviewed Students & their Projects

Student	Project	Interview Duration
Gabriel	Generating Passive Income: Crypto Mining	32 minutes
Margot	Documenting Depression & Anxiety in Adolescents: Using Survey & Interview to Understand Experience	18 minutes
Hugo	Embracing Discomfort in Learning: A Semester Abroad in Asia	25 minutes
Yvonne	Understanding Deaf & Hard of Hearing Youth: Through Learning Sign Language	07 minutes
Matteo	Don't Make the Mistakes I Made: A 'Personal' Drug Awareness Campaign	22 minutes

The questions asked were:

1. *How would you describe PBL to a student from another school?*
2. *How has your experience of Project MileEd been/gone over the past four months?*
3. *What has been the best/ most rewarding part of the PBL?*
4. *What has been the most challenging part of PBL?*
5. *Has anything surprised you about your topic, it could be something you learned or the process in which you learned it?*
6. *What role have the adults both in the school and outside played in your project?*
7. *If you look at your project in early September (or when you started it) which of these three categories did it fit into: primarily about your interests and benefiting you, a mix of personally beneficial and beneficial for others, primarily about benefiting others?*

Question 1 asked students "How would you describe PBL to a student from another school?" Gabriel stated, "At first it was a task obligated for school, like another class I had to do, but after the project started, it's more. The project has helped me discover what I am interested in bringing into school, that is what I do outside school" (Individual Student Interview Responses, December 01, 2021). Margot responded, "The idea was to have activities for kids to be responsible to bring a project to the school that can impact the well-being of the school" (Individual Student Interview Responses, November 24, 2021). Hugo responded, "Creating a project that has an impact beyond yourself including the wider community. It also shows that we always have an impact on others" (Individual Student Interview Responses, November 22, 2021).

It was evident in these three responses that students had at least a partial understanding of PBL; here I am assuming that the students who were interviewed are representative of the larger group of students doing PBL at MileEd. Two students articulated the need for projects to have an impact on a wider audience than just themselves, and that the projects can come from outside of school. One student saw PBL as more than just another class. The comments were also instructive for what they omitted: there was no mention of cross-curricular opportunities between the subjects and their projects, no mention that PBL was the instructional core of the school, or that this pedagogy was a clear departure from the way they had experienced school before. These omissions aligned with what I had observed in this study over the course of the implementation period (and documented earlier): PBL was only happening during McGill researcher-taught classes. The discussions about PBL, as a foundational pedagogy, never moved beyond words between the researchers and teacher-leaders.

Question 2 asked students: "How has your experience of *Project* MileEd been/gone over the past four months?" Gabriel recounted:

> At first I was a bit bummed out, the teachers were getting too into the students' personal choices, like my first project felt a bit controlled. In this case it seemed like they were making the choices for me. They [teacher-leaders] denied my desire to build an electric scooter. But now it seems that the teachers like my second project better, Crypto mining. What I didn't like about the interference from the teachers was it made the projects less authentic to ourselves. They did add little bits like advice, but they also went too far. (Individual Student Interview Responses, December 01, 2021)

Margot said: “For my project it has helped me learn about the subject, since I have a goal [raising awareness about adolescent mental health] I am more motivated to learn, collect data and do research. It's good to know how to do that” (Individual Student Interview Responses, November 24, 2021). Hugo mentioned: “At first I was thinking about seeking discomfort and learning new things that are not familiar to you. I had planned to travel to Japan but that did not work and now I have switched to traveling to Europe” (Individual Student Interview Responses, November 22, 2021).

Matteo said:

> “Ce qui m'a surpris sur mon projet, c’est que dans ce cadre à cette école ci, on dit que c’est un projet personnel mais on te met quand même des contraintes qui vont transformer ton projet. Par exemple, je voulais parler de drogue et de prévention, mais on m'a très vite dit que j’avais pas vraiment le droit ou l’expertise d’en parler parce que c’est une école.” [The decision to not allow the project on drugs, it's based on the fear that my topic will bring trouble to the business/ school, rather than it's good that you're going to be able to inform people about this.] (Individual Student Interview Responses, November 22, 2021)

Four out of the five respondents spoke to changes, pivots or the need to stop their projects and move in another direction from their original topic in September. One student mentioned disappointment by the way teacher-leaders treated their first project, which had been discontinued. Another student shared their anger about the teacher-leaders "who feared this type of project would be bad PR for the school and justified shutting it down" (Individual Student Interview Responses, November 22, 2021). These responses were telling. Out of the five students that were interviewed, four of the original projects were stopped. Yet three of the four students spoke enthusiastically about their current or past project topics. I retrospect I ask here if this may have been a reason why these students volunteered to be interviewed.

Question 3 asked students: "What has been the best/ most rewarding part of the PBL?"
All five students interviewed spoke about the freedom to select their topics and the value of having a larger challenge to work towards. Three examples of student statements are provided to illustrate this point. Gabriel said: "It opened up paths into my exploration that I never thought of before, I now see what I'm doing as a chance to even use what I'm doing in school" (Individual Student Interview Responses, December 01, 2021). Margot stated: "How open it is, you can bring almost any subject, I mean there are boundaries but for the most part you can bring your interest" (Individual Student Interview Responses, November 22, 2021). Hugo shared: "Excitement around building your own projects with so many possibilities and the potential to do something big. It's not just a project for a few weeks or for one class it's building something bigger" (Individual Student Interview Responses, November 24, 2021).

These responses identified that PBL at MileEd started correctly (as PBL is defined and initially executed) with students identifying/ choosing the research topic. Over various time-frames,

however, the cardinal rule of PBL was broken. Gabriel voiced that within the first two weeks the original project was not supported by the teacher-leaders, a new agreed upon topic was found. Two months into Margot's project they were prevented from conducting peer interviews, which ultimately stymied the project. After researching the topic of Addiction, Matteo was told that their project would be stopped if continued. One month into learning sign language Yvonne was told repeatedly that the work they endeavored was not a project and the work was abandoned.

Question 4 asked students "What has been the most challenging part of PBL?" Gabriel provided an elaborate answer:

> I don't think I've gotten to the most challenging yet. Right now everything I have been doing, building the rig, mining the crypto has been for me, individually. It's the next part, the building of the course for others that will be the most challenging. I know I'm not the one that explains things the best, but it's a topic I'm really interested in and I have some months to make the presentation. (Individual Student Interview Responses, December 01, 2021)
>
> I've been thinking a lot about this and because I am a visual learner I would bring a rig that I'm working on and the presentation would be hands-on for my classmates. If people really get into it we can build a 'school network' and we can make money together. I mean we have fun classes like basketball and physio but this could be having fun in I guess economics, but the person who learns from me can expand their learning into something greater. It's not like a class, they can bring this back home and get experience, generate revenue and ideas of what they can do later. For me it's like planting a tree and then watching it grow. (Individual Student Interview Responses, December 01, 2021)

Hugo stated the biggest challenge as “Having to research and support my arguments on the application for the study-abroad. I am trying to find scientific proof or studies that show how learning through discomfort is real” (Individual Student Interview Responses, November 24, 2021). Margot cited: “Trying to convince the teachers with my ideas and making my idea a reality, because I need to convince teachers that this can work even though they think it won’t” (Individual Student Interview Responses, December 04, 2021). Matteo said:

> Je ne pensais pas que c’était aussi compliqué de trouver un projet. Le sujet, ça va, mais après le transformer en projet, j'ai trouvé ça vraiment compliqué [I didn't think it was that complicated to find a project. The topic is fine, but after - to transform it into a project - I found that very complicated.]” (Individual Student Interview Responses, December 01, 2021)

Recognizing potential challenges in one's work is difficult, particularly in long term projects and specifically for young people with finite experience. Each of these responses recognized that the arduous work was in the future; the work that each had done thus far, while formidable, was not the most challenging. These responses illustrated several important tenets of PBL: (i) that the work is challenging; (ii) that the project builds up complexity over time; (iii) that the complex work starts when students begin solving the issues identified and sharing that knowledge with peers and the community.

Question 5 asked students: “Has anything surprised you about your topic, it could be something you learned or the process in which you learned it?” Gabriel explained:

> They say you make money while doing nothing, and I thought that was true, it's not. It's not a 9-5 job but you have to spend hours and days on it. There are updates, errors, physical issues, like burnt wires, fans and the rig consumes your time. For me it's not a

> problem. I see it as a part time job and it takes about that much time. Yes you can make money while you sleep, but it takes a lot more than that. (Individual Student Interview Responses, December 01, 2021)

Margot surmised:

> Two things, one is how much it is not talked about in schools and when I spoke about it with the teachers they also didn't think it was a priority, even though we are talking about mental health and the interviews I did showed that students were talking about it. Two, how much depression affects people, we are just a school of 30 students and so many of us are affected. 15 out of 20 surveyed said they were impacted, why isn't this talked about why are people not concerned? I feel that students' mental health should be important at a school. (Individual Student Interview Responses, November 24, 2021)

Hugo responded: "The whole path of my project has evolved from seeking discomfort to travel to Japan and to Europe" (Individual Student Interview Responses, November 22, 2021).

Yvonne revealed:

> Notre société ne met pas en valeur les personnes qui ont des différences, et je pense que c'est important que les autres apprennent sur cela. [Our society doesn't value people who have differences, and I think it's important for classmates to learn about that (deafness)]." (Individual Student Interview Responses, December 01, 2021)

Matteo stated:

> Ce qui m'a surpris sur mon projet, c'est que dans ce cadre à cette école ci, on dit que c'est un projet personnel mais on te met quand même des contraintes qui vont transformer ton projet. Par exemple, je voulais parler de drogue et de prévention, mais on m'a très vite dit que j'avais pas vraiment le droit ou l'expertise d'en parler parce que c'est une école.

> [What surprised me about my project is that in this setting at this school, they say it's a personal project but they still put constraints on you that will transform your project. For example, I wanted to talk about drugs and prevention, but I was quickly told that I didn't really have the right or the expertise to talk about it because it's a school.] (Individual Student Interview Responses, November 22, 2021)

Three of the five interviewees cited multiple surprises in the process of doing their work. The sheer number of unexpected happenings confirmed that students took seriously the first step of PBL, *Start with Curiosity* (from Table 1.). Students chose a topic to uncover that was personal, yet unexplored by them. The fact that students were surprised by the learning over the course of the research could indicate the relative depth of their topics. Unfortunately, two of the responses indicated the unforeseen reality that the teacher-leaders were not able to support the students' work.

Question 6 asked students: "What role have the adults both in the school and outside played in your project?" Gabriel answered:

> Teachers were a setback, but the adults outside the school were really important. My father, a businessman himself, who has been really important financing my purchases, he also makes me pay the electricity charges and my dad's IT employee, who helped me build the rig and do the programming. (Individual Student Interview Responses, December 01, 2021)

Margot responded

> Adults at MileEd looked more negatively at my project; they only looked at what was wrong. When you're being told that you should change your project it's pretty unmotivating. Of course you need to hear what is wrong with your project but it should

> not be the only thing you hear. They [the teacher-leaders] just shut down what did not please them. On the other hand, the [McGill] researchers were giving advice and not judging my project. (Individual Student Interview Responses, November 24, 2021)

Hugo responded as follows; two quotes have been selected:

> The first role the teachers at MileEd helped me with was the application for study abroad. Then they hit me with the negative, it was not realistic or too hard for me to learn a new language in a new country. Which I think was too quick of a judgment. (Individual Student Interview Responses, November 22, 2021)

> McGill researchers opened my mind to show me different paths about where my project was going, also it could have a bigger impact. What I mean by bigger and greater at first my project was for me and mostly me, like a vacation. But when I spoke with the researchers I realized that I could benefit others, impact beyond me. (Individual Student Interview Responses, November 22, 2021)

Matteo stated:

> Mon sujet est sensible [psychose], et les professeurs m'ont dit qu'il y avait un certain endroit où je ne pouvais pas aller. Ça me limite beaucoup. Ça me démotive. [My subject, psychosis, is sensitive, and the teachers told me there was a certain place I couldn't go. That limits me a lot. It demotivates me"] (Individual Student Interview Responses, November 22, 2021). The student then went on to say, "les adultes m'ont dit: Si tu parles de ca, on va t'arrêter toute suite [The adults told me, if you talk about this, we will stop you right away]" (Individual Student Interview Responses, November 22, 2021).

These four responses were particularly useful in looking at the students' perspective on the adults' role in their project and their learning. Four of the five students interviewed shared

similar critiques of the teacher-leaders' involvement in their work; students reported feeling "judged", "unmotivated" and "demotivated" in their interactions with the adults. Students also said teacher-leaders "limited' and "set back" their projects. Conversely, two of the five students interviewed felt the 'other' adults (ie. researchers, experts or family members) were supportive and added value.

Question 7 asked students: "If you look at your project in early September (or when you started it) which of these three categories did it fit into: primarily about your interests and benefiting you, a mix of personally beneficial and beneficial for others, primarily about benefiting others? As a follow up, students were asked "What category does your project fit in today?" Gabriel explained:

> When I started, definitely, stage one, it was for me and about me only. Today I am at one and a half. I have not started the classes, I have not taught anyone, not directly helped anyone else yet. I was at one only about me, and while I've not gotten into the environmental issues yet I'm thinking about it, I'm planning that. The last phase really does focus on other people, but it does still help me…I have not put my finger on it yet it goes beyond crypto, I feel like the work could lead to better relationships with people who build rigs, it would help me be a better communicator, in the end even though it's stage three I still benefit. (Individual Student Interview Responses, December 01, 2021)

Margot detailed:

> Right now my project has impacted people. They answered the survey and I saw in those responses a lot of thought. When they wrote those responses you could see the care and effort. I've even spoken to a few students more about the survey and depression. I feel it helped a few people by sharing their thoughts. While I'm sure of the final product, my

> project is leading towards allowing people to open up. I want to create a space where people can identify how they are feeling. I think my project is primarily about impacting others. Sure it started from my experience, but since it's not talked about or taught it's taboo, so the reason I'm doing it is to open this up. When I was experiencing these feelings I needed to talk with others. (Individual Student Interview Responses, November 24, 2021)

Hugo said:

> As of right now the project does not have a big impact beyond me. It's at the first stage, for these three months I have not had an impact on others. I want to have an impact beyond 'yeah we know this guy he went to Europe', I want a bigger impact. (Individual Student Interview Responses, November 22, 2021)

It is my opinion that these students accurately gauged where their projects started in September 2021 and correctly determined where their projects were at the time of the interviews. All student responses demonstrated a desire on the part of the students to move their projects further toward "primarily benefiting others." Gabriel elucidated a powerful insight when speaking to this final stage: "I still benefit" (Individual Student Interview Responses, December 01, 2021). This result was particularly powerful given two previously mentioned items: first, the *revised* template where the benefit categories (along with other supporting features) were removed, second, the fact that teacher-leaders had a strong, negative reaction to the discussion of values.

Again, it has been my desire here to feature the student voices and their answers without decentering their words with undue researcher analysis. The students' insights were powerful, direct and spoke to the core of their experience with PBL at MileEd. Their comments, critiques, and praise made valuable contributions to the understanding of PBL and Project MileEd from the

most important end-user perspective. I will now resume the chronological pattern and pick up with the final three McGill/MileEd meetings.

Project Wrap Up

Return to Teacher-Leaders and McGill Research Team Meetings

January 11, 2022

The first semester ended December 19, 2021 and a PBL meeting between MileEd and McGill was held on January 11, 2022. It is important to emphasize here that the concept of PBL was in the material shared with the teacher-leaders, including theory, theorists, practitioners, exemplars, and working in the template. It was also modeled in the classes led by McGill researchers. Despite this, over the course of the meeting the teacher-leaders repeatedly requested support at a very basic level: “Just tell us what PBL is; I still don't know what PBL is” (MileEd & McGill Research Team Meeting, January 11, 2022). This statement was made six times. To that, the research team affirmed what had been mapped out throughout: that PBL is not a recipe; there is not one single way.

The teacher-leader’s distress was evident as the discussion continued: “Give me the next step; I need a place to start, it's not possible for me to start something” to which a colleague replied “but we have started.” They then disagreed: “No, no, no we did not start, it was Anthony who started, we did nothing” (MileEd & McGill Research Team Meeting, January 11, 2022). These statements were profound on two important levels: first they acknowledged that, even after four months of modeling by the McGill Research Team, the teacher-leaders felt that over the last five months of PAR they had done “nothing” with respect to PBL in their school; second, the teacher-leaders were not confident in their ability to “start” PBL without the McGill Researchers.

By early 2022, the on-site research component had ended, and while the university researchers committed to continue to serve as a resource for the school, the researchers would no longer be gathering data nor engaging in intensive professional development that involved providing theoretical or practical educational expertise.

March 11, 2022

On March 11, 2022, one McGill research team member met with one teacher-leader for coffee. It is important to note that this conversation was not a formal meeting, there was no pre-planned agenda or prepared questions. (Note also that, since it was an informal meeting of two individuals, three of the five members of the MileEd-McGill partnership were absent.) When the conversation turned to MileEd and PBL, the researcher asked to record the conversation. The audio file was shared with the research team; it was transcribed and then translated from French to English. After a thematic analysis of the transcript was conducted, one dominant theme surfaced, due both to the number of times it was brought up and the specificity with which it was discussed. The primary theme was the perceived value of the PBL project for the teacher-leader, students and school. There was however, a secondary theme. This sub-theme, the timing of the opening of the school and the McGill-MileEd partnership, was referenced more frequently and in greater detail than the rest. The perceived value of PBL was analyzed at three levels: value to the teachers, value to the students, and value to the school. The value to the teachers was evident in the statement:

> I [teacher-leader] see it as beneficial, in the sense that it forces me to question myself. In that, I learned and that's huge. What I have learned, it is also enormous, is to be aware of PBL more specifically. I really believe in this approach." (Researcher and Teacher-Leader Informal Conversation, March 11, 2022)

Later on in the conversation:

> So for me it is extremely beneficial for my personal reflection in what it allows the (school's) founder [this teacher-leader]. I believe that it forced us to have difficult conversations, but real conversations to anchor MileEd. And then, and here we are, it allowed us to make this PBL path and we'll see how it goes. (Researcher and Teacher-Leader Informal Conversation, March 11, 2022)

The value for students was explained in the following statement:

> The students talk to us about PBL [outside of formal PBL class time] and in fact we question each other together, so it has become the heart [of our conversations]. They [students] look forward to Thursday [the day PBL classes are held]. We preserve it [PBL], we work differently the rest of the week and Thursday is preserved. (Researcher and Teacher-Leader Informal Conversation, March 11, 2022)

PBL's contribution to the school was explained:

> That's why I'm [teacher-leader] telling you [McGill Researcher], I'm sure that in two or three years, the heart of MileEd will be this notion of PBL. I'm sure of it because this theory [PBL] and what I've been able to understand about PBL, I feel it. (Researcher and Teacher-Leader Informal Conversation, March 11, 2022).

Later on in the conversation, "I do believe in the values behind it [PBL] and it is a dynamic learning process for all" (Researcher and Teacher-Leader Informal Conversation, March 11, 2022).

Quite honestly, I was surprised to read a positive response to PBL at MileEd in the transcript. Again I recognized that this informal meeting of one researcher and one teacher-leader did not encompass the full partnership, but the outcome was still unexpected. This teacher-leader

reported that PBL was personally valuable to them, by pushing self-reflection/analysis, and forcing teacher-leaders to have difficult yet necessary conversations about the core beliefs of MileEd. It also made clear that PBL had had a direct effect on participating MileEd students; they talked about their projects outside of class time and have preserved Thursdays as a time for PBL. Possibly most impactful was the vocalization that, in the future, PBL will be the "heart" of MileEd School.

The secondary theme of this conversation was the timing of the MileEd-McGill partnership. It began as a discussion of the first year at MileEd, where the teacher-leader recounted many of the challenges they faced opening a new school. This continued into the second and third years:

> The second year there was an imbalance between the three founders, so it was difficult too [the third teacher-leader left the school June 2021]. And then this year, [...] the balance between the two [remaining teacher-leaders] is not hard to find. So in March, 2021,[...] we [two teacher-leaders] just spent some time thinking about what we want. What is MileEd? It's the first time in three years we've been drinking coffee and reliving [thinking historically and towards the future about] MileEd. (Researcher and Teacher-Leader Informal Conversation, March 11, 2022)

The conversation continued, and a few minutes later, this important information was shared:

> It took three years for me [teacher-leader] to launch this new school with all of its growing pains and then to take a step back and say where we [MileEd] are and where we want to go. Now at this point, I think we would be ready to welcome this action research [McGill-MileEd partnership] and be ready to say, ok we can use this [partnership]. (Researcher and Teacher-Leader Informal Conversation, March 11, 2022)

The timing of the McGill-MileEd partnership was a relevant sub-theme not only because the teacher-leader brought it forward, but because it seemed to help explain the challenges inherent in school-university partnerships and the seeming disconnect between the teacher-leaders' involvement in the PBL initiative. I could also discern the immediate challenges of 1) running a school day-to-day, 2) experiencing the breakdown of the teacher-leader cohesion, with the eventual departure of one of the three original teacher-leaders, and 3) what the teacher-leader understood as where they were at the time of the research partnership, swamping what may have been real interest in participation in PBL. The above were just a few of the challenges facing the teacher-leaders and MileEd school which may have prevented the embrace of PBL during the implementation stage. While the topic did not come up in the audio recording, I wonder if the impact of the Covid-19 pandemic, as it upended their first year of operation, also played a part in the capacity of the teacher-leaders for more uncertainty and substantial change. Also, the pandemic paused in-person research by McGill and may have slowed the development of the partnership.

To summarize, thematic analysis of an informal conversation between two members of the McGill-MileEd partnership surfaced two important themes. First, and foremost, PBL had had a positive impact on teacher-leaders, students and the school. Second, the timing of the McGill-MileEd partnership was bemoaned: the teacher-leader cited several reasons that, had our research partnership come later, after the school was more established, it would have proved more valuable.

April 06, 2022

The full McGill-MileEd partnership would meet one more time, a final meeting to wrap up the research. April 06, 2022 the McGill research team met with MileEd teacher-leaders for what I

called the "wrapping up of research" meeting. I had written five questions that I put forward as discussion points, a way to begin and structure the conversation. The table below provides a snapshot of the questions, summarized responses and gives an indication of how much time was devoted to each question.

Table 7. McGill Researchers & MileEd Teacher-Leaders Meeting, April 6, 2022

Question	Response Summary	Duration
What did you find most challenging about the implementation phase of PBL?	Both teacher-leaders had difficulty understanding the theory and integrating theory into practice. Both struggled to engage personally with PBL and bring that to the work with students. One teacher-leader identified the partnership itself as a challenge.	26 minutes
What did you find most rewarding about the implementation phase of PBL? (July-Dec 2021)	One teacher-leader cited positive results from the work with students that can be seen today; I understand this to mean that this teacher-leader approves of the work students are currently doing and recognizes growth from the beginning of the year to now.	03 minutes
Has your understanding of the theory that underpins PBL changed? If so, how?	Both teacher-leaders recognized that learning theory takes time and involves an alternating process of using theory to inform practice and examining practice to inform theory.	09 minutes
The question of 'values' came up in past conversations. Has the question of values	After spending considerable time reviewing the transcript, I am unable to make clear sense of the responses.	06 minutes

surfaced again? If yes, how and what came of it?		
What, if anything, surprised you about the July-November 2021 PBL initiative?	Both teacher-leaders stated PBL is not a natural way for them or their students to teach and learn.	06 minutes

Question One *asked: "What did you find most challenging about the implementation phase of PBL?"* Question One elicited quick responses; there was no lag time from either teacher-leader; challenges were clearly identified, named and expounded on. The responses were organized into three categories: Challenges of Theory, Challenges Bringing PBL to Students, and Challenges with the Partnership.

> TL #1: It's so challenging for us to integrate theory, to understand and to try (the theory with students). It seems to be so simple, on paper when we read (about PBL). TL #2: it's more than simple, it's oh wow, it's inspiring, that's the way it should be, the results are obvious. TL #1: We feel like let's go tomorrow and after five min in the real world, oh my God, we hit limits: different people, different directions, and that's just the students, add us and it doesn't work. I think it's two worlds between theory and practice: it's two worlds. (MileEd & McGill Research Team Meeting, April 06, 2022)

Both teacher-leaders acknowledged the challenge that theory presents as well as some of the benefits. Challenges included application of theory in the classroom, the varying levels of readiness of students and teachers, and the previously held opinion that theory and practice are separate. Benefits to theory included its apparent initial simplicity and the motivation that it can engender.

> TL #2: In September and October I was overwhelmed, there was an opportunity on Thursday but I did not allow myself a chance to get into it. I could not jump into what the students were doing. I was still fighting with myself, with the teacher part of me, there was a mountain between me, and how I felt, with what the students were doing [in PBL]. (MileEd & McGill Research Team Meeting, April 06, 2022)

TL #2 may have been recognizing the intrapersonal challenge of shifting their teacher stance toward PBL or progressive education, or possibly his/her role as a subject matter authority. The statement implied that there was internal conflict within the educator and external conflict with what students were doing.

> TL #1: It's so difficult for us to integrate theory and concepts and to have control [control as administrators, and control as teachers]. It's one thing to meet and discuss with students for hours but what to do with that? (MileEd & McGill Research Team Meeting, April 06, 2022)

Here I see the challenges of TL #1 relinquishing control, as evidenced in previous observational data, as well as a lack of foundational theoretical understanding (of the need for student agency, and the non-prescriptive nature of PBL) or the use of tools (chiefly the project template/blueprint) that were available.

> TL #1: In this collaboration, for me I needed time to integrate everything, what was happening in the school and the theory, time to go back and to discuss together [McGill and MileEd] to discuss the practice, what happened and the theory. I know it takes time, this is normal but this was very stressful for us because there was much self-questioning and doubt, are we doing it right.

> At this moment I needed a real collaboration with you. Because you say it's normal [the process of learning as one moves through PBL] but it's not reassuring. A real collaboration can recognize a real break [difficulty or challenge] and then we go back together and try again.

Here it is important to reiterate that only one teacher-leader responded. The themes of self-questioning and self-doubt were new, as they had not appeared in the data prior to this meeting. Also new was a critique of the partnership/collaboration; previous data points illustrated a contentment with the work. Both of these revelations spoke to the way this teacher-leader felt about their confidence in 'doing PBL' and in the way they felt supported by the research team, who labeled the discomfort as 'normal', seemingly not taking it seriously enough.

Question Two *asked: "What did you find most rewarding about the implementation phase of PBL?"* Question Two did not elicit a quick response; after some lag time was given, TL #2 responded: "I am thinking"(MileEd & McGill Research Team Meeting, April 06, 2022). TL #1 did not respond.

> TL #2: While it's not in the implementation phase [July 2021-December 2021] I would say today's results are a success. That [the implementation stage] was an unforgettable and uncomfortable stage, but it was also useful. It's what we say to students: your discomfort now leads to a point where you can have real learning and deep results. I would say we would not have today's results without that phase. (MileEd & McGill Research Team Meeting, April 06, 2022)

Over the course of the research project TL #2 had been wrestling with what they called 'personal tolerance of the unknown.' Questions and feelings associated with developing a tolerance for ambiguity and uncertainty, for both students and teachers, in relation to PBL and in education in

general came up in the research discussions (Field Notes: September 07, 2021; December 14, 2021). It seems that TL #2 found the successes of PBL today were closely related to embracing discomfort and ambiguity.

Question Three *asked: "Has your understanding of the theory that underpins PBL changed? If so, how?"* Question Three elicited a quick response and involved both teacher-leaders.

> TL #2: Success comes after people get into the process and adopt a stance, I'm not sure we are there. It's so hard facing the doubts. When we read [theory] we can see there are challenges. The academics tell us this is hard, but when you're there it's really difficult. We don't have the results; it would be nice to speak in two years, once we have had more time with PBL. (MileEd & McGill Research Team Meeting, April 06, 2022)

> TL #1: I asked this when we started out. If the whole school was PBL would it be easier? No pressure from families, everyone knows what we are about. No questions about the marks or the way [we operate]. (MileEd & McGill Research Team Meeting, April 06, 2022)

I asked a follow-up question related to theory: *Do you feel that your understanding or relations to theory changed since the work began?*

> TL #1: When we learned about PBL in July we understood about 10% and now we understand other things; it's a long process. I can get information [on theory] but I am here; I am where I am. I am not at the same place as you [research team]. (MileEd & McGill Research Team Meeting, April 06, 2022)

> TL #2: We started this year like we started the very first year, but with less gas in the tank [...] TL #1: You [PhD candidate] were with us. We have an expert with us. September

> was easy, my god it was so easy we had you [PhD candidate] with us, we had an expert. And now it's not so easy. We need to go from theory to practice and practice to theory, we can't go full theory and then say I'm ready to go. (MileEd & McGill Research Team Meeting, April 06, 2022)

It appears that TL #1 felt unprepared to adequately interact with theory as they stated they knew 10%. TL #1 also stated that they saw themselves in a different place of understanding, as compared to the researchers. It is possible that TL #1 felt that the researchers did not correctly understand where they were with relation to theory as evidenced in: "I am where I am. I am not at the same place as you [research team]" (MileEd & McGill Research Team Meeting, April 06, 2022). Part of the critique of understanding theory was the way I frontloaded the information about theorists and how theory related to practice early in the project's implementation (July-September 2021). TL #1 expressed this clearly when saying: "we need to go from theory to practice and practice to theory, we can't go full theory and then say I'm ready to go" (MileEd & McGill Research Team Meeting, April 06, 2022).

Question Four *asked: "The question of 'values' came up in past conversations. Has the question of values surfaced again? If yes, how and what came of it?"* Question Four elicited a quick response from both teacher-leaders. As mentioned in the summary, I was unable to find a cogent thread in the discussion about values. Past conversations with teacher-leaders about values, as cited in this research paper, produced an emotional response from teacher-leaders and heightened tensions, as described by the research team. At no point did the teacher-leaders say they were still working through the sticky, thorny issues around values. They responded with many words but were unclear; it felt to two researchers at the meeting that the teacher-leaders were

intentionally obfuscating. One possible explanation was that the teacher-leaders were purposefully avoiding the question of values. Another was that they remembered the friction from the past meeting (January 11, 2022) and did not want to repeat it. It may also be that the concept of 'values' is rather nebulous and difficult to address/express. Such a question may require a philosophical response that needed more time and reflection than this conversation allowed. I had a follow-up question about values that was more specific: it probed the goals around particular students' projects, but given the approaching meeting time limit and past responses, I chose not to ask it.

Question Five *asked: "What, if anything, surprised you about the July-November 2021 PBL initiative?"* Question Five elicited a response after some lag time. Both teacher-leaders responded.

> TL #2: The fact that surprised me was that this type of work was not natural starting with me. TL #1: Sure it's not easy, but not natural. I felt fear and I dare a lot [I take risks often], so the fear was a problem. TL#2: It's difficult for us and for students, it's not natural, this was the most difficult initiative since starting the school, even more difficult than the Covid moment. (MileEd & McGill Research Team Meeting, April 06, 2022)

Question Five introduced two new and important reflections. One, that the work did not feel natural to either teacher-leader, and two, that fear was both present and a challenge. After asking a follow-up question about the fact that PBL 'did not feel natural' statement, TL #1 replied: "the emotions that I was feeling, not necessarily negative, were so new for us, we are teachers, we have experience, we have expertise, but it was so difficult for us and for students" (MileEd & McGill Research Team Meeting, April 06, 2022). I now understand there was a strong emotional response to PBL in the teacher-leaders, and that they felt uncomfortable/daunted and

were not prepared for those feelings. This response does raise potential questions about the moral economy of PBL and the expectations it places on teachers and the administration.

The teacher-leaders gave their rationale for why they believed PBL was not natural. This assumption stood in contrast to what I had witnessed. In early September 2021, MileEd students were envisioning research in intriguing topics. By mid-September, students were doing quality PBL work. When the research ended in December, some students had finished successful projects that meant much to them and their peers. One possible explanation of the teacher-leaders' response is that they focused heavily on their own perceptions and experiences of PBL, of how they felt, and where they considered the students' work far less.

In summary, the opportunity to hear from the MileEd teacher-leaders was an important step in wrapping up the research. The conversation was generally productive, provided an opportunity for reflection and illumination as well as a chance for the teacher-leaders to share their experience. In a summary of challenges, both teacher-leaders expressed difficulty understanding PBL/Progressive theory and integrating that theory into practice. Both struggled to engage personally with PBL and to bring that to the work with students. One teacher-leader identified the partnership itself as a challenge.

In considering successes, one teacher-leader cited positive results from the work with students that can be seen today; I understood this to mean that this teacher-leader approved of the work students were currently doing and recognized growth from the beginning of the year to then. In a summary of theory, both teachers-leaders recognized that learning theory takes time and involves an iterative process of using theory to inform practice and examining practice to inform theory. In noting what surprised them, both teacher-leaders stated PBL is not a natural way to teach and

learn, not natural for the two teacher-leaders and for students. The teacher-leaders were also surprised, given their vast experiences in schools, that they felt so emotionally impacted by PBL and that this initiative was more difficult than anything they had endeavored since starting MileEd.

For me, this meeting was a culmination of intensive work both at MileEd and at McGill. The project had taken its course and I was left to reflect on what that meant for me, for them, for the research team and for the students of MileEd. The following Life Writing passage points to the areas of tension, conflict and ambiguity in me, in the results, in the reality of school-university partnerships, and in the possibility of educational change.

Life Writing: A Personal Reflection (on the Meeting April 6, 2022)

My goal was for this research to contribute directly to improving the lives of students and teachers, with whom I partnered, through PBL. The 'doing of the project' was as important as the 'research findings.' That said, in reality several factors limited my success; the following section attempts to enumerate those, to uncover mistakes, to reflect on my role in that failure, and to learn. In order to do that, I am stepping back and reviewing the bigger picture of the McGill/MileEd partnership; I am revisiting our history in order to understand the present and to ultimately make sense of what transpired.

We (the McGill research team of three persons) had been working with MileEd since August 2019. At that point the school was brand new as was our partnership; the teachers at MileEd were no doubt happy to see that academics had an interest in their school concept, and in researching the school from its inception. It is also the case that an alliance with an established and recognized higher education institution such as McGill University can increase prestige and

visibility, and for a French school like MileEd possibly even more. On our end, we had identified a small school with an enthusiastic administration that seemed open, flexible and ready for partnership. This felt like a match. From August 2019 to May 2020, our research focused on documenting student engagement in the first year of operation at MileEd. From June 2020 to March 2021 our research pivoted to assisting MileEd in framing vision and mission statements and building the administrative capacity of the teacher-leaders. Late in that school year, MileEd asked for support in thinking through a PBL approach (April-May 2021). McGill researchers saw an opportunity to assist and influence the school's move toward progressive education by directly working with teachers and students. MileEd was enthusiastic about the new direction of the partnership and eager for support in launching a PBL initiative.

So where did we stumble? It is paramount to note that the results of the initial (2019) research initiatives and support provided through the McGill/MileEd partnership did not seem to have the desired effect. These documented non-successes should have alerted the McGill researchers to question why MileEd did not move forward, for example on the student engagement or the vision/mission collaborations.

The work compiled around student engagement was presented to the school's leadership team and was acknowledged by them but not acted on. Similarly, the vision and mission work appeared important to the teacher-leaders but did not produce tangible results. The hard-won statements about the school's purpose and goals were not communicated to parents, posted on the school website, and most importantly, were not explored with the students. The research team did not ask the hard questions (of themselves) about why the previous initiative struggled to have impact. In retrospect, important conversations between the McGill/MileEd partners about

the results of their previous collaborations should have occurred before the PBL initiative began. Unfortunately, I was eager to start what I recognized as my dissertation research, MileEd teacher-leaders were occupied with running their school, and the remaining McGill researchers were ready to move on from their respective previous less-than-successful research initiatives of attempting school change.

The PBL partnership led by me (PhD Candidate/Researcher) was approved quickly by MileEd and McGill. I then moved into PBL planning and project launch mode, and the school leaders labored in their long list of responsibilities, mostly excluding PBL. I created the roadmap and presented the plans in July, August and September to the school's various stakeholders. I was eager to assist, I knew PBL and I thought by working independently I would save the school precious time and that they would catch up with the work along the way.

Here it is important to consider the research methodology itself, and how that figured in the outcome. What I knew was that the work was to be mutually conducted and mutually beneficial. I believed that I was following this: I was going to the school twice weekly, meeting with the teachers, students and other researchers. The work was done in the school. How participatory! In my attempt to feel this work was reciprocal, I spent more time at the school, more time with students and more time on the project blueprints. This actually meant I spent less time with the teacher-leaders, hearing their questions (or lack of them), probing what they knew and building our collective capacity. In hindsight, it seems to me that, by digging into the work, I was making myself feel better about the partnership without actually bettering the partnership.

I have been reviewing the interview transcripts, field notes and blueprint templates (which at this point are full of students' work: goals, photos, research and reflections) and I feel saddened.

This is difficult to write because I can't shake the feeling that I did something wrong. What did I leave out? Did I promise something I could not deliver, or worse yet, something that I could deliver but was not willing to provide (due to time imitations, and other commitments…)? Years ago, when we started a school in Chicago, would we have been ready on day one for a partnership? Would we have been ready a year or two later for a completely new paradigm? The answer to both is no.

Action Research and Ethnographic-Participant Observation work is done in and through relationships; I knew this. While I had worked with MileEd for 18 months previously, and I thought those relationships were solid, this was perhaps an assumption and not reality. The adversity that we faced as partners was not addressed; we did not learn what we needed to learn in order to evolve our relationship. Intent on moving forward I did not recognize the obvious: the timing of almost everything was off: a new partnership to document the launch of a new school, my being new to Montreal and new to university research, and new to leading a new PBL initiative. We were also a new research team coaching new administrators that were simultaneously trying to build and operate a school with many other NGOs and local educational groups partnerships (beyond McGill). Too much was new.

There are other lessons I learned that seem obvious after the fact, but came out only recently after reflecting from a place of discomfort. MileEd said yes to everything, but backed out of much of it. I had a chimera of the teacher-leaders' understanding (theoretical, practical) and of their actual involvement in the project (teaching classes, following up with projects): neither was aligned with what the school leaders knew or were prepared to do. I am surprised by the fact that I entered this initiative fully aware and committed to the principles of AR (a process that

requires relationships and collaboration) and undertook research (with the exception of my work with students) that was at times disconnected from these principles.

I understand that this partnership, my role in it, and the PhD I am pursuing will not and cannot be everything I wanted to research. These are starting points; I am at the beginning. This is hard to square. The partnership ran its course; I planned, executed and wrote up the results; a doctorate is called a terminal degree, these all signify an end. But I now see that success lies beyond what actions I take, or what the students' projects do, or whether the school improves; success depends on whether or not this research comes back to the school participants and others in a way that is useful to them, relevant to their own work and their own lives. It is this circular process of returning the outcomes to an interested community that constitutes successful participatory research.

Chapter Five: A Conclusion in Two Parts

This discussion chapter is divided into two parts, reflecting what I have seen throughout the thesis as parallel tracks. I first recognised these two paths early in the research and introduced them in Chapter one as Original and New research questions. This two-track organization continued in Chapter three with the presentation of the methodological elements as distinct entities. I conclude the thesis in this manner.

Part 1: Discussion of the Relationship Between Theory and Practice

I want to begin the final chapter by returning to my Original Research Questions. First, it is to remind me of why I started this study, what I thought needed observing, documenting and answering. Second, it is to appraise the significance, if any, of my findings.

This was the initial main question with which I began my doctoral research:

1. *How can educational theories be drawn upon or support the adoption/implementation of a new progressive learning initiative?*

These were the initial sub-questions:

2. *How does a new learning initiative take shape in school? What are the associated challenges and successes?*
3. *In the context of a school-university partnership, to what extent is it possible to support a school in launching a new Project Based Learning initiative?*

It became apparent in the work with the MileEd teacher-leaders — through primary and anecdotal evidence — that they had substantial difficulty in integrating theoretical models into the conceptualization, planning and teaching of PBL. One possibility is that it points to an

inability or even unwillingness of the teacher-leaders to engage with the theory in meaningful and impactful ways. Another is that it was an intentional rejection of the theory itself, especially once the implementation phase began and students' projects were chosen and explored.

Broadly speaking, the research team documented a wide range of instances where teacher-leaders were either unaware of the theory available to them to assist in administrative and educational tasks, or did not engage with or adopt the theories brought forward by the research team. As evident in the examples provided in the previous chapter, this seeming rejection of theory took several forms and occurred over multiple timeframes. It was apparent in short conversations and in months long projects that teacher-leaders did not accept or comprehend PBL.

The teacher-leaders' ambivalence in engaging with the theoretical models and perspectives introduced by the researchers was openly expressed. Field notes show teacher-leader comments, for example, "theory only slows us down" (Informal Interviews, September 10, 2021); teacher-leaders felt the need to "move fast and to work harder" (Informal Interviews, September 15, 2021). MileEd teacher-leaders prioritized their "own common sense and own experience teaching over the years" above the theoretical (Informal Interviews, September 10, 2021). Additionally, when the teacher-leaders were pressed if theory might help to orient the new school towards a more singular focus, one that encompassed the progressive teaching and learning pedagogies (of which PBL was one), the teacher-leaders frequently referred to the desire for unfettered autonomy and their personal decisions to leave formal educational settings to create their own school (MileEd & McGill Research Team Meeting, August 2021; September,

2021). These possible instances of teacher-leader ambivalence, resistance and rejection of theory are reflected on below.

Over a period of nine months, the university research team worked with MileEd teacher-leaders on PBL. The partners had identified their mutual interest in collaborating on the new initiative. The McGill research team offered educational theory as the foundational base from which to build the new PBL initiative. From the data collected over the course of the study, it is clear that the teacher-leaders repeatedly pushed back against the proposed PBL theoretical base, either by giving higher priority to their own experiences than they did to the theory, modifying the theoretical model beyond its intended purpose, or making decisions that undermined the very student autonomy that is essential to PBL theory itself.

The acceptance or rejection of an educational theory is not a straightforward question of relevance. To try to understand how or why this might manifest, I identify several possible factors. For example, teacher-leaders' relationship to this educational theory may be linked to differences in what constituted their training, local institutional factors (which could include what philosophy their teacher preparation program adhered to) and —at the level of the individual— teacher-leaders' relationship to power and authority. I propose that each of these elements could be relevant.

The lack of engagement with theory, or an absence of theoretical understanding, with respect to PBL in this instance, caused several rifts between the school and university. First, it led the MileEd teacher-leaders to view the students not as the *Subjects* that they are but as 'objects' (Freire, 1970). Students as 'objects' were in need of shaping and controlling, their projects changed and turned in directions deemed more desirable to the teacher-leaders —but not to the

students— ultimately towards a more traditional method of schooling. Second, the teacher-leaders believed that taking a progressive educational turn (by adding the PBL component) could be accomplished without imposing values. This assumption proved problematic. PBL requires, at a minimum, the acknowledgement that values are present. Implementing a project-based learning/problem-posing framework necessarily embeds values throughout the process; values are part of the theoretical underpinning (not which values are right, but that values exist either way). Attempting to separate experiential learning, student agency, the shift in the teacher-student relationship or the need to solve real problems facing society, from their underpinning principles led to an undermining of the theory and its intended outcomes.

Additional hypotheses for the teacher-leaders' resistance to theory are addressed in the following: 1) National factors; 2) Lay theories; 3) Professional freedoms; and 4) 'Resisters' and 'Rejectors'.

First, the researchers recognised that teachers' professional knowledge base is often dependent on national factors influenced by statutory requirements and accreditation criteria (McGarr et al., 2017). Educational theories as accepted bodies of knowledge often are shared between educational institutions and systems across national borders. Challenges arise when theories are partially translated or when a superficial understanding is considered sufficient (McGarr et al., 2017). This could be applicable here: two of the MileEd teacher-leaders obtained their teacher preparation and certification in France and the third in Montreal. The McGill research team (also three) were educated in North America (two in Canada, and I in the USA). Given the wide national experiences and knowledge bases, it could be expected that there would be divergent views. Additionally, institutional factors at the local level must be considered as they can

determine the depth, breadth or absence of site-specific educational theory. Institutional factors can include: district initiatives, teacher professional development, training, and school collaborations (local school networks and university partnerships).

Second, teachers' prior professional experiences can be a factor. Teaching, as opposed to other professions, has particular challenges. The lay theory hypothesis (Sugrue, 1997) puts forward that a teacher's own school experiences often influence their understanding of new theories. Past experiences, including the way one was taught, one's student-teaching experience, the professional educator circles one keeps and the schools one works at are all factors that can influence the degree to which alternative ways to teach can be accepted.

Third, professional freedom at MileEd was clearly of primary importance to the teacher-leaders: it was a key motivation for the founding of the school. The researchers were aware of this. MileEd teacher-leaders had rejected the authority of their previous school's policies and administration and created a new school that enabled their autonomy. MileEd was committed to a horizontal leadership structure and to making decisions unencumbered, which stood in direct opposition to the interference they faced while teaching at their previous schools. Could theory have been viewed in the same restrictive manner? The acceptance of authority, both people and theory, can be experienced as a subordination of one's own ideas. The desire for independence can engender what the researchers observed as a theory-practice divide. The professional teacher-leaders might have viewed the educational theory espoused by researchers and university educators as "a means of controlling what is permitted to count as knowledge" (Thomas, 2007, p. 31).

I reviewed the MileEd historical data for evidence of national factors, lay theories and professional freedoms. I found examples of national factors having an adverse effect on the implementation of PBL. The teacher-leaders from outside North America had no prior knowledge of the key theorists and theories. Possibly the presentations that we gave in June, July, August and September of 2021, were not sufficient to ground the PBL initiative in its theoretical base. Evidence of Lay theories impacting PBL surfaced in comments teacher-leaders made about using common sense and their years of classroom experience with curriculum and young people in order to make instructional decisions about the new initiative. As noted earlier, professional freedom was a driving force behind the teacher-leaders leaving the traditional system and founding MileEd. This led me to question whether the teacher-leaders' commitment to teacher autonomy and teacher authority could have been a factor leading to their dismissal of key components of PBL, and ultimately to the reframing and redirecting of student projects. Answering my own question, I do believe the desire for professional freedom (and achieving it by starting their own school) did impede the teacher-leaders' adoption of a *student-led* initiative.

In further attempting to understand the results of the PBL initiative at MileEd, I turned to the literature on teachers' perceptions of theory. I found that using the categories of 'embracers', 'acceptors' 'resistors' and 'rejecters' (McGarr et al., 2017) were relevant to the analysis. 'Resistor' teachers have internalized the theory and when asked can demonstrate a working understanding, and while they still reject the theory, they are able to articulate more thoughtful, measured perspectives when responding (McGarr et al., 2017). 'Rejecter' teachers carry negative opinions of educational theory, without demonstrating knowing/understanding the theory. 'Rejecters' also position theory as distant from their practice or from the reality at their institution, i.e. theory may work in an ideal school, but not here, or that theory is a 'story' told in

teacher-preparation courses (McGarr et al., 2017); I look back and also remember “I think it’s two worlds between theory and practice: it’s two worlds. (MileEd & McGill Research Team Meeting, April 06, 2022). The data collected aligned with the two above categories: MileEd teacher-leaders as ‘resistors’ and ‘rejecters’ of theory. Seeking evidence of these stances, I revisited the data to locate the specific position of the MileEd teacher-leaders. The data produced several examples of the teacher-leaders’ inability to articulate or demonstrate a working understanding of the PBL theory. Notes from the six McGill-MileEd meetings (detailed previously) clearly point to a dearth of theoretical understanding. Five additional interventions in student projects by the teacher-leaders (also detailed previously) showed a perceived gap between PBL theory and practice.

Examples pointing to active rejection of theory were shown in the Field Notes (September, 07, October 27, November 24) where teacher-leaders referred to theory as getting in the way, not how they envisioned themselves as practitioners and that they trusted their instincts and experiences over theory. Research shows that the acceptance or rejection of educational theory is not a straightforward question of how relevant the theory is or could be. National training, certification, local institutional factors, as well as teachers' experiences as students themselves can all be factors. Issues around power and authority also feature in a teacher's stance in regards to the acceptance and application of theory (McGarr et al., 2017; Sugrue, 1997; Thomas 1997). Using the categories of ‘resistors’ and ‘rejecters’ allowed me to further examine the data collected and to determine the stances of the teacher-leaders.

Absence of a Shared Understanding of AR: Challenges to the Research

Action Research seeks to understand and improve the world by changing it (Baum et al., 2006). The process of AR should be empowering and lead people to increased control over their lives (Minkler & Wallerstein, 2003). AR also requires that partnerships focus on social change that promotes democracy and that challenges inequality, is site specific, and is often targeted on the needs of a particular group. AR is primarily achieved through an iterative cycle of research, action and reflection by all groups involved. This was the working definition of AR used by the McGill research team. In hindsight, it has become clear that we did not share this definition directly with MileEd; we worked to communicate it through modeling, and through the organization of the partnership. This raises questions for me now: were the teacher-leaders aware of this, did they agree, would they actively work towards enacting it?

My final attempt to understand the results of the PBL initiative at MileEd required looking at Action Research itself and in that exploration and reflection considering the limitations both known and unknown. Looking back, I see that there are invisible lines in Action Research, lines that separate partners, in this case a university research team and a local school, as well as complicate partnerships (as discussed in Chapter Two: Secondary Research). Not only were we distinct institutions with different goals, values (also detailed in Chapter Two: Secondary Research), responsibilities and priorities, but we also unintentionally failed to acknowledge this. Instead, we made assumptions about important aspects of our work together: the permeability of our ideas (in both directions), the division of labor (who would teach, and for how long?), and

the philosophical/practical requirements of the initiative. These differences between institutions and the assumptions both partners made resulted in layers of misunderstanding and miscommunication. As an example, the McGill research team brought to the partnership guiding principles around PBL and assumed that all partners would share in them, that those guiding principles would be part of the work with students and would be evident in their projects. That was not the case, as discussed earlier in this thesis.

Other examples of confusion surfaced at the practitioner level. I led the initial professional development shift to PBL, trained the new staff members over the summer, presented to parents and students in the fall, and began the PBL classes at the start of the semester. Despite all of this preparation and input, after three months the teacher-leaders were surprised that I was handing the classes over to them. Again, an important question surfaces: Was it a mistake to not insist that the teacher-leaders participate in the PBL classes from the start and to expect that they would lead the change?

In hindsight I now see that the many intersecting, bisecting and parallel lines separating the partners also complicated the partnership. After nine months an unsettling reality emerged: what I and the McGill research team understood AR and PBL to be and the school to want, was not necessarily what the teacher-leaders envisioned for MileEd. This unearths important pathways for future follow-up research, and these will be carefully mapped out later in this thesis.

Contributions of the Study

This dissertation may ignite new educational interest in changing the *way school is done*, particularly around the implementation of a new PBL program. What began with a review of the literature that spotlighted eight educational theorists/ practitioners was deepened through

personal stories; these stories brought my memories, experiences and voice to the discussion. The methodologies employed fused aspects of Life Writing and participant observation in the service of a university-school partnership.

While the research work documented here recounted mixed results, it accurately told a small portion of the journey of a university-school partnership. This novel research detailed interactions with teacher-leaders about educational theory, values in education and PBL classroom practice and hypothesized the reasons for the successes and failures. My research documented and analyzed the development of *Project* MileEd that featured student voices, their projects as well as their criticism, praise, success and defeat.

The research also raised questions about the limitations and dangers of progressive education, the limits of individual educators and the limits of researchers to affect change in a university-school partnership. The research also surfaced the creativity, passion and resilience of young people as they moved through their education with grace, honesty, and humility. While this research may interest only a select group of educators, reaching them is undoubtedly challenging; knowledge mobilization is necessary.

Knowledge Mobilization (KMb)

Impact in research is defined as a demonstrable contribution, change or benefit that is made to society, culture, or quality of life beyond academia (UKRI, 2014). Knowledge Mobilization (KMb) informs, advances, and/or improves research transmission in academia and beyond. The *beyond* in this study are the stakeholders (students, teachers, researchers) and the audience (K-12 school community, university, external community). Ideally my research contribution will inform the body of research on PBL, specifically detailing the implementation, findings, and

results of *Project* MileEd and, in a general sense, the turn toward PBL as an optional core method of inquiry in small schools.

Yet, the reality is that educational policies and in turn school board mandates and school requirements are driven by quantitative outcomes that can be replicated with measurable results. The outcomes in this research are difficult to quantify. The results that are closely associated with *Project* MileEd successes and failures are many: increased and decreased student agency levels, expanded and restricted critical reasoning, encouraged and discouraged creative thinking, increased and stymied metacognition, the proliferation and restriction of problem posing, expanded and contracted collaboration and communication, and the promotion and abatement of human flourishing. In my teaching experience, academic standards, benchmarks and other traditional means of measurement (i.e. standardized testing) are inadequate tools when considering the outcomes enumerated above. More appropriate frameworks or philosophies of assessment do exist and provide a space where outcomes can be shared without the shackles of traditional metrics. Binkley et al (2011) provide a holistic framework for evaluating impact: as a result of experiencing *Project* MileEd, students will know and be able to universally apply enhanced ways of learning, working, thinking and living in the world. For educator outcomes, enhanced professional practice centers on continual improvement of their craft by learning from this study in three ways: first, by recognizing the challenges and pitfalls that implementing *Project* MileEd surfaced, second, by recognizing the delicate balance and limitations of a university-school partnership, and third, by connecting experiential learning opportunities to real world issues and challenges that students face and that students can help to solve.

Further Research

There were a multiplicity of factors that determined the successes and failures of the PBL initiative at MileEd. Looking back, I understand there were both unseen and underappreciated forces that acted upon the implementation phase of this initiative. These factors and forces combined to create several themes of which a 'theory-practice divide' was most relevant. As I reflected on the PBL initiative, many questions surfaced. I could imagine these queries as future research topics. These questions have been organized under four headings (which are also framed as inquiries):

1. *How does a teacher's education, training, and experiences influence their ability to implement a new initiative at school?*
    a. *Do educators need a grounding in progressive educational theories to facilitate the adoption/implementation of a new PBL initiative?*
    b. *Do educators need training in administration and school leadership before launching a new school?*
2. *Is there a benefit to a newly-founded school in engaging with a university partner to support the school?*
    a. *How did MileEd's status as a new school (operating in its second year) impact the success of the PBL initiative?*
    b. *How might a university research team accurately gauge the readiness of a partner school to undertake a new initiative?*
        i. *How might a university research team appropriately support the schools next steps towards implementing a new program?*

3. *What are the challenges of highly participatory research in university-school partnerships?*
    a. *In participatory research is there a line between researchers and participants, and how is that characterized? If it is an obstacle, is it surmountable?*
    b. *On that continuum where exactly did the project between McGill and MileEd fail and succeed?*
    c. *What are the next steps in this work?*
        i. *As the research-intensive segment is over, how might McGill researchers follow up with students, PBL results and the teacher-leaders?*
4. *What were the effects of the PBL initiative on students?*
    a. *According to students, where did the initiative succeed, where did it fail?*
    b. *For students who had their projects altered, were there lasting effects?*
    c. *Which PBL projects came to fruition, which were conceptually developed but not implemented?*
    d. *How were the projects communicated/shared with the school community and beyond?*

The purpose of reframing the researcher's reflections in the form of questions not only points to the need for further exploration in potential subsequent research projects at MileEd or in other schools, provinces and countries, but also indicates that the present results, detailed in this thesis, are not indications of the school's future performance. While the in-school PBL research partnership between MileEd and McGill has ended, both participants continue to move their work forward in potentially new and interesting ways that may result in improved learning at MileEd and at McGill or in other schools and universities impacted by this research.

Part 2: Critiques of Privilege and Progressive Education

The analysis and mobilization of *Project* MileEd's research is an important endeavor, but what if the critical questions were not about a specific project initiative, or teacher stance on a particular theory? Could the issues be larger? Is my privilege part of the problem, in terms of impacting the formulation, enacting, and analysis of the research itself? What if Progressive Education doesn't lead to the promised land? I now return, with alacrity, to my New Research Questions.

1. *What is the process for a privileged white male teacher raised in the Chicago suburbs to become aware of (his own) privilege?*
2. *For that individual, what are the limits and pitfalls of progressive education, and what is the process engendered for recognizing and redressing these?*

It is here that I include a piece of Life Writing that I believe is pertinent. My time in the New York City school system was the catalyst for me to question my investment in *the vision of* progressive education. Charter schools have long been billed as an alternative to the struggling public school, offering a deregulated, privatized option that affords students and parents *choices* beyond the state/district offerings. Tech International was one such school; ultimately it was a failure and I offer my experience at Tech as a relevant component of my larger work today. This reflection and the analysis-to-follow provides an opportunity for me and other educational stakeholders to think critically about, to differentiate the potential responses, and to move carefully when considering implementing aspects of *progressive education.*

Life Writing: Tech International, NY, NY

Tech International was neither tech nor international save for the fact 95% of the student population was from the Dominican Republic. This part of the Bronx, Kingsbridge, was just over the east river tributary known as Spuyten Duyvil, the devil's whirlpool as the Dutch first

named it. It seems that the waterway could become quite turbulent during high tide but not any more turbulent than those stairwells at 3:50 p.m. when the final bell signaled the end of the school day, or the raucous streets of the Grand Concourse across from Yankee Stadium where many Tech students and their families lived. The Boogie Down Bronx is known for many things; serenity, tranquility and peace were not among them.

I spent three years at Tech International and over that time, I had witnessed a teacher turnover rate of 200%. One particularly problematic position was vacated and filled six times in my first year. To drive home the point, some eighth grade students had six different advisory teachers; the entire eighth grade changed mathematics teachers six times. I had read Jonathan Kozol's book Death at an Early Age about his 1962 experience in Boston's segregated public schools: in many ways I was experiencing that same educational malpractice in 2016, only instead of being a first-year teacher, as Jon was, I was the vice principal with 15 years in classrooms. Like Jon I felt bewildered, powerless and full of despair.

At first glance Tech looked like a school. It was full of students in matching uniforms. There were projectors, books and bells. If one stayed long enough, the cracks became noticeable. Soon that would be all you could see. Almost everything, including many of the adults in charge of learning, were held together with 'tape', or altogether visibly broken. Little worked, everything was dirty. Tech was a charter school, carved out of the first three floors of a 40-story apartment building that used to hold dentist and doctors' offices. Classrooms were odd-shaped, sometimes windowless but each had its own bathroom. Desk, table, bathroom door; one would struggle to design something more disruptive for middle school students than toilets flushing, hand dryers blowing, to say nothing of the other sounds and smells.

Tech was accredited by the State of N.Y. and was offered as a progressive alternative to the struggling, and many times failing, neighborhood public schools under the guise of school choice. School choice is now determined by market forces and in this case (as is typical of charter schools in urban areas) resulted in no art room, no art classes, no gymnasium, no science labs, no library, and no cafeteria.

The privatization of schools and the defunding of public institutions served to exacerbate the woes of an already disadvantaged population. Tech students and families lived with high pollution levels, elevated crime rates, and limited access to safe green spaces for exercise, sports and play. Public goods like education, clean water and transit, to add a few more to the list started above, are resources that everyone needs to survive; taking this further they are actually things everyone needs access to (Cohen & Mikaelian, 2021). It was at Tech that I first experienced the reality of market-driven schools, packaged as a progressive alternative but more accurately a stripped-down version of a traditional school. To say that no one (students, parents, teachers, administrators, neighbors) liked the market-driven experience is an understatement; the school closed after its sixth year. Charter schools like Tech International not only fail students directly but also weaken the public system in indirect ways. First, privatized school choice will inevitably reduce funding to local neighborhood public schools, with exponential increases in stranded costs; second, vouchers to private schools and other public school alternatives start small and then expand, increasing the burden on taxpayers (Cullen et al., 2017).

Those three years at Tech from August, 2014 to June, 2017 introduced me to an educational reality I had only read about. While I must recognize that comparing charter schools in New York to provincially subsidized private education in Montreal is problematic, it does illustrate

the mutable nature of capitalism, specifically in this case the privatization and deregulation of public education.

Progressive Education: MileEd, PBL and Privilege

Progressive education has been heralded as the transformation of the school (Cremin, 1961) and has ushered in a wave of reforms beginning in the 1880's which many educators, institutions and governments are still 'riding' today. At first blush, part of me was quite pleased with the students' PBL projects at the MileEd School. They were student-conceived, personally relevant for each investigator, innovative, entrepreneurial, and many times the extension of an individual passion that young people engage in outside of traditional school time. These attributes were also benchmarks of *student-centered* learning and hallmarks of progressive schools worldwide. When I returned with a critical lens to the student projects, a greater part of me was deeply troubled by the capitalist ethos, environmental degradation, supremacy of the individual over community, and the showcasing and leveraging of privilege.

What I initially saw in the progressive movement as a reform toward fundamentally human and democratic values was in many ways a mirage. Progressive educational practices and their results, as observed directly in my field study, provide an education that can exacerbate existing privileges, reward capitalist accumulation, and increase inequality. I too have been persuaded by the soft power of empire, resulting in my consent as a member of the populace beholden to hegemony (Gramsci, 2014). Empire, both in concept and actuality, is profound in its depth and breadth but it is also flexible and can display local, regional, national and transnational adaptivity. This commutability does not recognise international borders and that allows for comparisons to be made worldwide, to which I believe the study conducted at MileEd is useful, despite having a local/provincial/Canadian context. It is my goal in the following critique to

explore, uncover and communicate the ways in which *consent* (societal and personal) unexamined has produced the kind of education at schools like MileEd, and why the progressive model of teaching and learning can be problematic.

What I had predicted would be straightforward data collection and participant observation at the MileEd school evolved into an exploration that has me questioning my original assumptions. I initially identified the problem facing schools as the lack of access to progressive education theory, i.e. a missing ingredient that teachers and students needed in order to begin to thrive (to take ownership of their learning, learn by doing, and to break out of rigid circular silos). My research results are now forcing me to ask a set of more challenging questions. Can school districts make the turn toward progressive pedagogies that include all schools and all students and limit the potential negative outcomes? Are the problems with progressive educational reforms systemic? Can a school reform movement connected to Empire and embedded in privilege become equitable?

Rooting these questions in historical context takes me back to the 1880's -1950's and North America's *Age of Empire* (Carnoy, 1974; Willinsky, 2000). This specific period of imperialism begins, for the United States, with the invasion and acquisition of Puerto Rico and Gaum and the occupation of Cuba and the Philippines. Canada, with a more complicated relationship as a crown colony, found itself defending British interests in South Africa and in Europe prior to the Statute of Westminster (signed in 1931). In both countries this period witnessed the near extinction through state-sanctioned genocides of Indigenous peoples, whose treaty status as legal natives, with recognized 'nation to nation relationships' (as in the USA) did little to spare them from the systematic violence, ongoing genocide and continued land appropriation of settler

colonialism (Wolf, 2006). During this period there is also a pattern of marked immigrant exploitation, manipulation and exclusion, which Iyko Day (2015) calls 'internal colonialism.'

While the above examples are a mere few of the many available, they serve to highlight an important fact: political and real violence done to individuals can also be understood to occur, or be maintained through education. During this time period, the progressive school movement was constituted and began to grow.

> [I]mperialism and progressivism flourished together because they were both expressions of the same philosophy of government, a tendency to judge any action not by the means employed but by the results achieved, a worship of definitive action for action's sake [...]. (Lechentunberg, 1952, p. 483)

The above quote connects imperialism and progressivism and offers a critique of the philosophical beliefs of Dewey and Addams (Pragmatism). Would Lechentunberg also critique my desire to see *evidence* in the short term of my work at MileEd? Setting my personal reflection aside, it is necessary to recognize the role institutions of higher education have had in the historical, and current, elevation of specific theorists and their educational frames. Academics like John Dewey, and social reformers like Jane Addams, were and are driving forces behind progressive pedagogical priorities and innovations. Also they are still widely studied and their movements replicated. Dewey in particular is a key educational reformer in the history of education and education philosophy courses (both as a Pragmatist Philosopher and chief architect of Experiential Education). Pragmatic philosophy, distilled as 'the truth is what works,' seems to support the transitory nature of *truth*, a focus on individual difference, and improvement through experimentation. Pragmatism both affirms the emerging capitalist ethos of its time and combines with other forces to become what is now commonly referred to as neoliberalism. The

investigation of capitalism is relevant and important as it applies to education and merits further discussion here.

Neoliberalism

New Liberalism or neoliberalism[16] market-oriented reform policies reshaped the role of the private sector (by substantially increasing and empowering it) in the economy and in society (Hathaway, 2020). Neoliberal reforms were particularly notable from the 1960's to 1980's, first reshaping the economies of Great Britain and the United States. Neoliberal reforms continue today across sectors, industries and institutions but are most evident (in terms of market capitalization) in the financial industries, technology, and energy (Harvey, 2010). One important feature of neoliberalism is the privatization of government services (Harvey, 2007). Particularly relevant to this research is privatization of all levels of education. For-profit educational institutions receive funds from public institutions (states and governments) and simultaneously divert funds from public schools, which are their competitors. For-profit schools reduce their educational costs by reducing educational services (e.g. special education, course offerings and facilities). This reorganization of funds can benefit certain populations and disenfranchise others.

> The freedom that neoliberalism offers, which sounds so beguiling when expressed in general terms, can mean freedom for those who are already privileged and excludes those who have already been oppressed by societal and systematic inequities. (Sharma & Sanford, 2019, p. 341)

It was at MileEd that my research on progressive theory in current educational practice, the reality of institutionalized privilege, and capitalist structure found in today's progressive western

[16] The terms 'neoliberalism/neoliberal/new liberal' are used to refer to market reforms such as: eliminating price controls, reducing trade barriers, and deregulating capital markets. These reforms promote private/corporate influence at the expense of state/government influence in the economy and society.

schools, converged. My research at MileEd had uncovered that PBL, in many of the students' projects accelerated and increased privilege.

White privileges manifest themselves through PBL in several ways, one is the way in which students at MileEd are able to legitimize their out-of-school interests as part of the curriculum; quite literally, the school provides a PBL period (twice weekly) for students to bring their passions into class. This incorporation is not just about increasing student engagement, but rewarding students and legitimizing privilege: PBL courses count for grades towards the GPA, credits toward graduation, potential lines on a resume as well as an international trip or an opportunity to make money. At MileEd, that privilege extended beyond the project itself and included a monetary component; approximately one-third of the projects had a *family financed* entrepreneurial component designed to increase wealth, while another one-third had aspects that were directly environmentally damaging. MileEd is a private school that charges tuition *and* receives Quebec provincial funding. As mentioned, the student body is racially homogenous, 94% white and economically homogeneous with 94% of students paying full tuition. Knowing this information before launching PBL, several of the guardrails I proposed included requirements that projects reach beyond directly benefiting any one particular student and that explorations attempt to engage in a Problem-Posing Educational stance (as defined by Freire). A second requirement stated that projects should identify a local issue that needed improvement with student-led steps to mitigate it. Recall that the MileEd teacher-leaders modified the PBL template and removed those requirements.

Education at MileEd is infused with the beliefs and cultural values of White Western Europeans, now North Americans, as the normative standard; some of those standards can be seen in the

projects students chose to explore. Themes of capital accumulation, personal gratification, and a general absence of awareness (with respect to one's own privilege, and damage that one's project may have on the environment) punctuated many of the topics. Wilkinson and Pickett (2014) offer a grim yet accurate explanation: "Instead of a better society, the only thing that almost everyone strives for is to better their own position – as individuals – within the existing society" (p. 56). This reality stands in contrast with Freire's goal of educational liberation, of both the student and their teachers, through conscientization and the promotion of human flourishing for all and with Eastman and Standing Bear who recognized education as a respectful endeavor built on a foundation of right relationships (between people, society and nature). Toni Morrision states this succinctly: "if you are free, you need to free somebody else. If you have some power, then your job is to empower somebody else" (2017, p. 41). Those values are clear.

Given the reality described above I now question whether progressive education, or more progressive education, is the answer. What has become most compelling for me is the critique that schools can be complicit actors in perpetuating an unequal society. 'Schools' in this sense are "intended to perpetuate and maintain the society's existing power relations and the institutional structures that support those arrangements" (Shujaa, 1994, p. 15). While I agree with Shujaa about the present reality, why not work toward offering another path forward? Instead of replicating the same capitalist ethos, environmentally destructive practices and the cultivation of an acquisition mindset in young people, might we recognize the need for a decolonial, liberatory pedagogy, one that frees all students from the trappings and failings of an educational system rooted in internal colonialism and empire? Would this shift be emancipatory, or would it work against the interests of these very students? What would a decolonial and/or freedom pedagogy look like? Might I even need to consider the possibility that "[g]iven the

constraints and foundations of state-sanctioned violence as 'schooling,' can education happen in the institution commonly known as 'school'"? (Stovall, 2018, p. 53)

Neoliberal educational policy operates from the position that education is a subsector of the economy, while maintaining its role as an arm of the state. State sponsored schools have embraced neocolonial education philosophies. I clearly see this in *Project* MileEd's ethos which rewards individual advancement, and does not challenge monetary gain, environmental degradation or the promotion of privilege. These shortcomings are most damaging when they are embedded in curriculum, operate as part of the school's culture or are known to exist and not challenged. A critique offered by Dumas applies: "[s]chooling is not merely a site of suffering, but I believe it is the suffering that we have been least willing or able to acknowledge or give voice to [....]" (Dumas, 2014, p. 2).

Dumas and Stoval are clear: 'schooling' is what is done to some students, families and communities who are many times at the periphery of society. Exclusion for some has translated to elevation for others and schools have become vehicles to bring select members further into the prosperity core: financial reward, upward mobility, and accumulation. Moving education out of a supporting role for that neoliberal idea of success is one immediate goal: confronting the next iteration of neoliberalism, namely *techno-feudalism*[17] (Varoufakis, 2017) is the next challenge.

Looking back at my own career in education, I can identify a lack of criticality as a detriment to seeing the way in which progressive reforms were used to transform society through inculcating

[17] Techno-feudalism refers to the control of data (both public and private) by select corporations; these new multinational firms' currency is data, replacing the previous capitalist sectors like manufacturing, oil and finance. Techo-feudalist 'lords' control their digital fiefdoms absolutely managing the products, user experience and exchange with algorithms that feature and favor the corporation.

young people to white, western, and capitalist norms. I remember the veneration of Dewey and Addams in university courses, the many self-serving and environmentally damaging service learning trips (Ecuador as one example), and the extractive projects at MileEd which multiplied privileges for advantaged students.

How then does my research at MileEd serve to illustrate the purported purposes of progressive education, both historically and now? What do the unexamined legacies and current forms of progressive schooling mean for students? Can decolonial and liberatory pedagogies shift the past 500 years of ordering humanity within the imperial context (Willinsky, 2000)? Critically examining my thesis, my current research and their real-time results is a challenging opportunity. I need to incorporate these critiques I have only recently begun to understand, internalize and now professionally face. As I met with students, teachers and administrators at MileEd, I needed to work diligently at surfacing and confronting historical privileges including my own. As I prepare for my return to the US, with a doctoral degree under my arm, and look towards resuming my role in public education in New York City, I have the chance to take back a fuller conception of *cultural and educational enterprises* that have created and continue to shape education today.

The silence surrounding progressive educational reform is problematic; the perpetuation of white privilege and the sustaining of empire through education must be challenged: I am willing to acknowledge and give voice to that. As part of this acknowledgement, I find it necessary to point out my own white privilege, which this next piece of Life Writing conveys. Only recently have I understood that the people through whom I have been educated, represent only a small fraction of the countless ways of being.

Life Writing: Progressive Education — By and For — White People

In 2021 I registered for a graduate level course on Critical Race Studies. It was taught by an associate professor in the department, an educator of color, one of the very few in the faculty of education. In the first class we went around the room introducing ourselves, the basics of which included why we chose this elective course.

When it was my turn, I checked off the boilerplate who, what, where and then paused in my head; adequately convicted, I then shared my reasons for taking the course. Twelve years of compulsory education, four years as an undergraduate at DePaul University, the largest private university in Illinois, three years in a master's program at UIC (an Urban Land Grant institution), 75 educational hours credit beyond the masters (in Chicago, NYC, & Athens) plus two years as a full time PhD student at McGill and after all that time I had never had a black, brown, Asian or Indigenous teacher.

I should have looked harder sooner. I should have noticed the absolute imbalance in my education. It should have bothered me. For 25 years, I entered classrooms, labs, sports complexes, lectures, and detention halls; I waited in corridors for professors, counselors and club sponsors to open their office or classroom doors. Wherever I went I was always greeted by a white face. More often than not I looked up to those educators, I must have, after all I became one of them. A white teacher at the front of the room and a majority of white students in the audience was all I ever knew.

When I started my teaching journey and looked out over my first class, a six/seventh split grade, there were a majority of black and brown students' faces looking back at me, not always smiling but usually so. The teachers in the lounge looked like me, mostly older, predominantly female,

almost always white, middle class, all of us educated at the same universities, versed in similar theories, while mostly detached from the lived realities our students navigated daily. And there I was, on the McGill University campus, on the fifth floor of the education building in room 600. The course itself was exceptional, the professor magnetic, the readings were challenging, powerful and for me life changing: not that it had to be or should have been; in reality, statistically, it was only one of many, just an average class. Even if it was only that I ask myself how it could have taken four decades for me to encounter a professor of color. I was 47 and had spent twenty-two years as a teacher with my own students. What had I missed, and what had they missed as a result?

What I have strived for in this project was not merely to record what I have seen and done but to show how my past connects to my present and informs my future. This project illustrates how I have made sense of my history as it informs my actions today. In this frame there is no fixed life or objective past, but multiple reference points, that orient me towards personal growth and continuous reflexivity.

Life Writing: My Final Story

"As autobiographical work, memory-work begins with the story we know or think we know—our own, although even there, we are so caught up in experiencing that we have to stop to think and remember who we are in relation to that story—and which one(s)." (Strong-Wilson, 2021, p. 55)

I have told a number of stories both to find my own voice and to illustrate what such writing might look like in a research context, but also to examine the effects of writing the personal as an embodied social and educational act. I find myself at the end of this dissertation with one story

left to tell. This story returns me to the beginning of my journey: locating myself, finding my voice, engaging in theory, practice, critique and now living in "relocation" (Kamler, 2001).

My uncle and my father sit in the shade of the old barn. This plot of land was where they spent their lives, until both were drafted into the US Army and sent, each to his own war. Sons of immigrants from southern Europe, they were raised in rural America in the 1940's, their politics and their prejudices were products of that farm, that county, their parents' illiteracy and the segregation of their school.

It was 1984; I was ten years old; I was on the family farm carefully watching and listening to my uncle and my dad as they took a well-deserved break from the discing and mowing. While I didn't understand exactly what they talked about, I knew enough to surmise that the town had grown, the farm was under pressure, more blacks had arrived, and none of this was good.

Those were moments of bonding between family members, sons and brothers in front of their sons and their sons' brothers. Those were also ugly reminders of fractured society where fear, mistrust, and racism grew, just like the vegetables on those ten fertile acres. As I grew, I came to understand that my history was also tied to that farm, to those tropes, to the old world, to a steamship that left Chania, Crete in 1911 for Ellis Island with my grandfather and years later my grandmother. Our family's past saw all of my grandparents cross the Atlantic fleeing either poverty or oppression; all of them experienced violence. They carried with them the bits and pieces of lives shattered and reassembled, and those dislocated and come together bits and pieces would later become my parents, and then me.

It was 1996, I was a co-captain on the varsity ice hockey team at DePaul University, in Chicago, IL. It's a high-stress time for most recruits, there were three openings and several dozen players vying for a spot on the varsity squad. After five days of tryouts, grueling on ice drills and plenty of hazing in the locker room the men's hockey roster needed to be finalized. As was the tradition the team captain, or in this case two co-captains, met with the coaches to select the finalists. Rishawd has all the talent of our best players, he also plays a rough, physical game which suits our style. Rishawd has hockey smarts, and we like him. Rishawd is black. "See guys, I mean, look, teams do everything together: train, travel, lodge. Add to that the games, just think about what he is going to hear on the ice, and what we as a team will have to deal with. He just might not fit in." "You're right, coach, we should go with Sean."

> *[…]it gets harder to look at the determinants of your life yet again. And there is no way in which you can say, "Well, I have done this now and I have put it in a shoebox on the shelf." These things, once you have seen them, have a habit of returning, and they want attention." (Sebald in Bigsby, 2001, pp. 144–145)*

I stand in front of my class (English G11), I am called to testify at a disciplinary hearing (fight with injuries), I write a recommendation letter (I write many letters), I call the parents of a student who has just been arrested (marijuana), I attend an awards assembly for our brightest (they are hours long), I ride in the ambulance with a student to the hospital (asthma attack), I sponsor the young republicans club (because they can't find anyone else), I talk with colleagues in the teachers' lounge (mostly gossip and student bashing).

Students, parents, and officials look to me for knowledge, facts, an evaluation, and/or my professional opinion. Those bits and pieces, from the farm, a suburban upbringing, the locker room, and an all-white teachers' lounge float in and out of my head, they roll off my tongue, they

are evident in my actions. I try to push them to the side or swallow them but they come out in more insidious ways: low expectations, misplaced frustration; if the train runs off the tracks, a sense of betrayal (of my convictions).

The last two decades in schools have given me more than I offered in return. I was shown gratitude I did not earn, I was given grace I did not deserve. Young people the world over exhibited their absolute ability to forgive, laugh, smile, and keep going.

My memories, those bits and pieces mix with the lessons my students have taught me. The two combine to force a relocation. In that new place there is ample room for critique (both of self and system), space that did not exist before. While I am shamed by my complacency, and my privilege, I am also hope-filled. I go to memories of the farm, the locker room, and the teachers' lounge to remind myself that I have moved, that I can progress further still. And so it is that theory, personal experience, research, and Life Writing have come together as relocation. And in ways I have just begun to imagine.

References

Addams, J. (1902). The Housing Problem in Chicago. *The ANNALS of the American Academy of Political and Social Science*, *20*(1), 99–107. https://doi.org/10.1177/000271620202000108

Addams, J. (1938). Twenty years at Hull-House: With autobiographical notes. New York: Macmillan.

Adichie, C. N. (2009). *The danger of a single story* [Video]. TED Conferences. https://www.ted.com/talks/chimamanda_ngozi_adichie_the_danger_of_a_single_story

Alexander, T. (2020). John Dewey and the moral imagination: Beyond Putnam and Rorty toward an ethics of meaning. *The Human Eros*, 180–206. https://doi.org/10.1515/9780823252305-009

Akemu, O., & Abdelnour, S. (2018). Confronting the digital: Doing ethnography in modern organizational settings. *Organizational Research Methods*, *23*(2), 296–321. https://doi.org/10.1177/1094428118791018

Ayers, W. (2010). *To teach: The journey of a teacher*. Teachers College Press.

Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2011). Defining Twenty-First Century Skills. *Assessment and Teaching of 21st Century Skills,* 17-66. doi:10.1007/978-94-007-2324-5

Bloom, H. S. (2003). Using "Short" Interrupted Time-Series Analysis To Measure The Impacts Of Whole-School Reforms: With Applications to a Study of Accelerated Schools. Evaluation Review, 27(1), 3–49. https://doi.org/10.1177/0193841X02239017

Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. Educational Psychologist, 26, 369–398.

Boaler, J. (1998). Open and closed mathematics: Student experiences and understandings. Journal for Research in Mathematics Education, 29, 41–62.

Boyd, D. J., Grossman, P. L., Lankford, H., Loeb, S., & Wyckoff, J. (2009). Teacher Preparation and Student Achievement. *Educational Evaluation and Policy Analysis*, *31*(4), 416–440. https://doi.org/10.3102/0162373709353129

Baum, F., MacDougall, C., & Smith, D. (2006). Participatory action research. *Journal of epidemiology and community health*, *60*(10), 854–857. https://doi.org/10.1136/jech.2004.028662

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bucerius, S. M. (2013). Becoming a "Trusted Outsider". *Journal of Contemporary Ethnography, 42*(6), 690-721. doi:10.1177/0891241613497747

Butz, D. (2010). Autoethnography as Sensibility. *The SAGE Handbook of Qualitative Geography*, 138–155. https://doi.org/10.4135/9780857021090.n10

Carnoy, M. (1974). *Education as cultural imperialism*. Longman.

Clandinin, D. J. (2007). *Handbook of Narrative Inquiry: Mapping A methodology*. Sage Publications.

Clandinin, D. J., & Connelly, F. M. (1994). Personal experience methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 413-427). London: Sage.

Corbett, D., & Wilson, B. (1995). Make a Difference with, Not for, Students: A Plea to Researchers and Reformers. *Educational Researcher*, *24*(5), 12–17. https://doi.org/10.2307/1177073

Chambers, C. (2003). On Being a Disciple of Memoir. In Erika Hasebe-Ludt & Wanda Hurren (Eds.) *Curriculum Intertext*, pp. 103-109. New York, NY: Peter Lang.

Chapman, D. (2016). The ethics of international service learning as a pedagogical development practice: a Canadian study. *Third World Quarterly.* OI:10.1080/01436597.2016.1175935

Cohen, D., & Mikaelian, A. (2021). *The privatization of everything how the plunder of public goods transformed America and how we can fight back*. The New Press.

Corsaro, W. A. (2018). *The sociology of Childhood*. SAGE Publications.

Crane, S., & Broome, M. E. (2017). Understanding Ethical Issues of Research Participation from the Perspective of Participating Children and Adolescents: A Systematic Review. *Worldviews on evidence-based nursing*, *14*(3), 200–209. https://doi.org/10.1111/wvn.12209

Cremin, L. A. (1961). *The transformation of the school: Progressivism in American education, 1876-1957*. New York: Alfred A. Knopf.

Cronon, W. (1996). The trouble with wilderness: Or, getting back to the wrong nature. *Environmental History*, *1*(1), 7–28. https://doi.org/10.2307/3985059

Crowe, S., Cresswell, K., Robertson, A. et al. (2011). The case study approach. BMC Med Res Methodology 11, 100. https://doi.org/10.1186/1471-2288-11-100

Crozier, L. (1993). *Eye witness: Variations for the Spring Equinox*. Reference West.

Cullen, J. B., Jacob, B., & Levitt, S. (2017). The Impact of School Choice on Student Outcomes: An analysis of the Chicago Public Schools. *Economic Perspectives*, *41*(5). https://doi.org/10.3386/w7888

Darling-Hammond, L. (2013). *Teacher education around the world changing policies and practices*. Taylor and Francis.

Davis, J. B. (1986). Teacher Isolation: Breaking Through. *The High School Journal*, *70*(2), 72–76. http://www.jstor.org/stable/40365045

Day, C., Gu, Q., Townsend, A., & Holdich, C. (2020). School-University Partnerships in action. https://doi.org/10.4324/9781315560403

Day, I. (2015). Being or nothingness: Indigeneity, anti blackness, and settler colonial critique. *Critical Ethnic Studies*, *1*(2), 102. https://doi.org/10.5749/jcritethnstud.1.2.0102

Deloria, V. J., & Lawrence, M. A. (2001). Vine Deloria Jr. (1933–2005): Betrayals and Bridges. *Radicals in Their Own Time*, 245–308. https://doi.org/10.1017/cbo9780511921612.006

Deloria, V., & Wildcat, D. R. (2010). *Power and place: Indian education in America*. Fulcrum Pub. ReadHowYouWant.

Denzin, N.K., & Giardina, M.D. (Eds.). (2013). Global Dimensions of Qualitative Inquiry (1st ed.). Routledge. https://doi.org/10.4324/9781315428093

Dewey, J. (1919). Professional Organization of Teachers. *Journal of Education*, *90*(16), 428–428. https://doi.org/10.1177/002205741909001602

Dewey, J. (1938). *Experience and education*. New York, NY: Touchstone.

Dewey, J. (1954). *The public and its problems*. Swallow Press.

Dewey, J. (1958). *Philosophy of education: Problems of men*. Ames, IA: Littlefield, Adams.

Dickens, L., & Watkins, K. (1999). Action Research: Rethinking Lewin. *Management Learning*, *30*(2), 127–140.

Douglas, K., & Barnwell, A. (Eds.). (2019). Research Methodologies for Auto/biography Studies (1st ed.). Routledge. https://doi.org/10.4324/9780429288432

Duckworth, E. R. (1996). *"The having of wonderful ideas": & and other essays on teaching & and learning*. Teachers College Press.

Dumas, M. (2014). 'Losing an arm': Schooling as a site of Black suffering. Race, Ethnicity and Education, 17(1), 1-29.

Eakin, P. J. (2004). *The Ethics of Life Writing*. Cornell University Press.

Eastman, Charles A., 1858-1939. (1974). *From the deep woods to civilization*: including excerpts from Indian boyhood. Chicago: R. Donnelley & Sons Co.

Eastman, C. A., Fitzgerald, M. O., & Rasch, H. M. (2016). *Indian boyhood: The true story of a Sioux upbringing*. Wisdom Tales.

Elliott, G. (2015). Challenging assumptions about values, interests and power in further and Higher Education Partnerships. *Journal of Further and Higher Education*, *41*(2), 143–154. https://doi.org/10.1080/0309877x.2015.1070397

Ellis, C. (2007). Telling secrets, revealing lives. *Qualitative Inquiry*, *13*(1), 3–29. https://doi.org/10.1177/1077800406294947

Faulkner, W. (2015). *Requiem for a nun*. Vintage.

Fine, M. (1987). Silencing in Public Schools. *Language Arts*, *64*(2), 157–174. http://www.jstor.org/stable/41961589

Freire, P. (1970). *Pedagogy of the oppressed*. The Seabury Press.

Geertz, C. (2015). In S. Feld & K. H. Basso (Eds.), *Senses of Place*. essay, School of American Research Press.

Gold, R. L. (1997). The ethnographic method in sociology. *Qualitative Inquiry*, *3*(4), 388–402. https://doi.org/10.1177/107780049700300402

Gramsci, A., Buttigieg, J. A., & Callari, A. (2011). *Prison notebooks*. Columbia University Press.

Gramsci, A., Hoare, Q., & Nowell-Smith, G. (2014). *Selections from the prison notebooks of Antonio Gramsci*. International Publishers.

Greene, M. (2009). Teaching as possibility: A light in dark times. *Critical Pedagogy in Uncertain Times*, 137–149. https://doi.org/10.1057/9780230100893_8

Hahn, K. (1957). *Outward bound.* New York: World Books.

Hahn, K. (1960). The Decline of Compassion [Speech]. Speech given in Aberdovey, Wales, UK

Hamilton, A. B., & Finley, E. P. (2019). Qualitative methods in implementation research: An introduction. *Psychiatry research*, *280*, 112516. https://doi.org/10.1016/j.psychres.2019.112516

Harvey, D. (2007). Neoliberalism as Creative Destruction. *The Annals of the American Academy of Political and Social Science*, *610*, 22–44. http://www.jstor.org/stable/25097888

Harvey, D. (2010). Organizing for the Anti-Capitalist Transition Organizándose Para la Transición Anticapitalista. *Human Geography*, *3*(1), 1–17. https://doi.org/10.1177/194277861000300101

Hathaway, T. (2020). Neoliberalism as Corporate Power. *Competition & Change*, *24*(3–4), 315–337. https://doi.org/10.1177/1024529420910382

Hemon, Aleksandar. *The Book of My Lives*. Picador, 2014.

Hildebrand, D. L. (2011). *Dewey a beginner's guide*. Oneworld Publications.

Holzner, B., & Fisher, E. (1979). Knowledge in use. *Knowledge*, *1*(2), 219–244. https://doi.org/10.1177/107554707900100204

hooks, b. (2010). *Teaching critical thinking: Practical wisdom*. Routledge.

Ingold, T. (2008). Bindings against Boundaries: Entanglements of Life in an Open World. Environment and Planning A: Economy and Space, 40(8), 1796–1810.

James, A. (2007). Giving Voice to Children's Voices: Practices and Problems, Pitfalls and Potentials. *American Anthropologist*, *109*(2), 261–272. http://www.jstor.org/stable/4496640

James, W. (1992). *Writings 1878-1899*. The Library of America.

Jefferess, D. (2012). The "Me to We" social enterprise: Global education as lifestyle brand. Critical Literacy: *Theories and Practices, 6* (1), 18-30.

Johnson, D. W. (2003). Social Interdependence: Interrelationships Among Theory, Research, and Practice. *American Psychologist, 58*(11), 934–945. https://doi.org/10.1037/0003-066X.58.11.934

Jones, M., Hobbs, L., Kenny, J., Campbell, C., Chittleborough, G., Gilbert, A., Herbert, S., & Redman, C. (2016). Successful University-School Partnerships: An interpretive framework to inform partnership practice. *Teaching and Teacher Education*, *60*, 108–120. https://doi.org/10.1016/j.tate.2016.08.006

Jorgensen, M. (2007). *Rebuilding native nations: Strategies for governance and development*. University of Arizona Press.

Kamler, B. (2001). *Relocating the personal: A critical writing pedagogy*. State University of New York Press.

Khodyakov, D., Stockdale, S., Jones, A., Mango, J., Jones, F., & Lizaola, E. (2012). On measuring community participation in Research. *Health Education & Behavior*, *40*(3), 346–354. https://doi.org/10.1177/1090198112459050

Kliebard, H. M. (1995). Why history of education? *The Journal of Educational Research*, *88*(4), 194–199. https://doi.org/10.1080/00220671.1995.9941300

Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. Improving schools, 19(3), 267-277.

Krajcik, J. S., & Czerniak, C. M. (2018). Teaching science in elementary and middle school. https://doi.org/10.4324/9781315205014

Ladson-Billings, G., Tate, W. F., & Donnor, J. K. (2021). *Critical race theory in education: A scholar's journey*. Teachers College Press.

Leuchtenburg, W. E. (1952). Progressivism and Imperialism: The Progressive Movement and American Foreign Policy, 1898-1916. *The Mississippi Valley Historical Review*, *39*(3), 483–504. https://doi.org/10.2307/1895006

Livesley, J., & Long, T. (2013). Children's experiences as hospital in-patients: Voice, competence and work. Messages for nursing from a critical ethnographic study. *International Journal of Nursing Studies, 50*(10), 1292-1303. doi:10.1016/j.ijnurstu.2012.12.005

Lynch, C. (2021). In *Research methodologies for Auto/Biography Studies* (pp. 13–18). essay, Routledge.

Maccia, E. S. (1962). The separation of philosophy from theory of Education. *Studies in Philosophy and Education*, *2*(2), 158–169. https://doi.org/10.1007/bf00375920

McGarr, O., O'Grady, E., & Guilfoyle, L. (2017). Exploring the theory-practice gap in initial teacher education: moving beyond questions of relevance to issues of power and authority. Journal of Education for Teaching, 43(1), 48-60. doi: 10.1080/02607476.2017.1256040

McTighe, J., & Seif, E. (2010). An implementation framework to support 21st Century skills. In Bellance, J. and Brandt, R. (Eds.), *21st Century skills; rethinking how students learn*. Bloomington, IN: Solution Tree Press.

Merleau-Ponty, M., & Smith, C. (2018). *Phenomenology of perception*. Franklin Classics.

Miller, N. (1991). *Getting Personal: Feminist Occasions and Other Autobiographical Acts*. Routledge.

Minkler, M., & Wallerstein, N. (2003). Part one: introduction to community-based participatory research. *Community-based participatory research for health*, 5-24.

Mitchell, C., Moletsane, R., & Pithouse, K. (2009). *Making connections: Self-study and Social Action*. Peter Lang.

Montessori, M. (1912). Intellectual education. *The Montessori Method: Scientific Pedagogy as Applied Child Education in "The Children's Houses", with Additions and Revisions by the Author.*, 224–245. https://doi.org/10.1037/13054-015

Montessori, M., George, A. E., & Holmes, H. W. (2021). *The Montessori Method: Scientific Pedagogy as applied to child education in the children's houses, with additions and revisions by the author*. Digireads.com Publishing.

Morrison, T., & Coates, T.-N. (2017). *The origin of others*. Harvard University Press.

Moss, P., & Besio, K. (2018). Geographic Methods: Life Writing Analysis. *obo* in Geography. doi: 10.1093/obo/9780199874002-0180

Mulvihill, T.M., & Swaminathan, R. (2017). *Critical Approaches to Life Writing Methods in Qualitative Research* (1st ed.). Routledge. https://doi-org.proxy3.library.mcgill.ca/10.4324/9781315629582

Murray, S. (2019). Autoethnographic Life Writing Reaching Beyond, Crossing Over. In K. Douglas & A. Barnwell (Eds.), *Research methodologies for Auto/Biography Studies* (pp. 25–32). essay, Routledge.

Nansen, F., & Sverdrup, O. N. (1975). *Farthest North: Being the record of a voyage of exploration of the ship "Fram" 1893-96*. Tandem Pub.

Newsome, G. (1964). In what sense is theory a guide to practice in education? *Educational Theory*, *14*(1), 31–64. https://doi.org/10.1111/j.1741-5446.1964.tb00153.x

Ospina, S. M. and G. Anderson (2014), 'The Action Turn', in The SAGE Encyclopedia of Action Research, (eds) D. Coghlan and M. Brydon-Miller (London: SAGE Publications), 19–22.

OBI: Outdoor Education Adventures & Wilderness Programs: Outward bound. Outdoor Education Adventures & Wilderness Programs | Outward Bound | Outward Bound. (2019). Retrieved April 29, 2021, from https://www.outwardbound.org/

Padilla-Petry, P., & Miño-Puigcercós, R. (2022). Engaging Young People in a Research Project: The Complexities and Contributions of Using Participatory Methods with Young People in Schools. *SAGE Open*. https://doi.org/10.1177/21582440211068457

Pauwels, L. (2013). 'Participatory' visual research revisited: A critical-constructive assessment of epistemological, methodological and social activist tenets. *Ethnography, 16*(1), 95-117. doi:10.1177/1466138113505023

Phillips, D. C. (1995). The good, the bad, and the ugly: The many faces of constructivism. *Educational Researcher*, *24*(7), 5–12. https://doi.org/10.3102/0013189x024007005

Polanco, R., Calderón, P., Delgado, F. (2004) Effects of a problem-based learning program on engineering students' academic achievements in a Mexican university, Innovations in Education and Teaching International, 41:2, 145-155, DOI: 10.1080/1470329042000208675

Rabinow, P. (2009). *Marking Time: On the Anthropology of the Contemporary*. Princeton: Princeton University Press.

Reeves, S., Peller, J., Goldman, J., & Kitto, S. (2013). Ethnography in qualitative educational research: AMEE Guide No. 80. *Medical teacher*, *35*(8), e1365–e1379. https://doi.org/10.3109/0142159X.2013.804977

Robertson, R. (2010). Carving, forging, stealing. *Life Writing*, *7*(3), 305–315. https://doi.org/10.1080/14484528.2010.514146

Rollett, W., Bijlsma, H., Röhl, S. (2021). Student Feedback on Teaching in Schools: Current State of Research and Future Perspectives. In: Rollett, W., Bijlsma, H., Röhl, S. (eds) Student Feedback on Teaching in Schools. Springer, Cham. https://doi.org/10.1007/978-3-030-75150-0_16

Saavedra, A. R., Rapaport, A., Morgan, K. L., Garland, M. W., Liu, Y., Hu, A., Hoepfner, D., & Haderlein, S. K. (2021). Project-Based Learning in AP classrooms: Lessons from research. *Phi Delta Kappan*, *103*(3), 34–38. https://doi.org/10.1177/00317217211058522

Salmón, E. (2000). Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship. *Ecological Applications*, *10*(5), 1327–1332.

Savery, J. R. (2006). Overview of Problem-based Learning: Definitions and Distinctions. *Interdisciplinary Journal of Problem-Based Learning, 1*(1).

Savery, J. R., & Duffy, T. M. (2001). Problem based learning: An instructional model and its constructivist framework. Technical Report, Bloomington, IN: Indiana University.

Sebald, W. G., Bell, A., & Wood, J. (2018). *Austerlitz*. Penguin Books.

Seigfried, C. H. (1999). Socializing democracy: Jane Addams and John Dewey. *Philosophy of the Social Sciences*, *29*(2), 207–230. https://doi.org/10.1177/004839319902900203

Sharma, M., & Sanford , K. (2019). *The Impact of Neoliberalism on Teacher Education in Canada* . https://ucalgary.ca. Retrieved April 28, 2022, from https://journalhosting.ucalgary.ca/index.php/ajer/issue/view/4479

Shepherd, A. (2011). *Mountain Specter* [Photograph]. National Geographic.

Shulman, L. (2011). A personal account and reflection. *International Journal for the Scholarship of Teaching and Learning*, *5*(1). https://doi.org/10.20429/ijsotl.2011.050130

Shujaa, M. (1994) (ed.). Too much schooling, too little education: A paradox of black life in white societies. Trenton, NJ: Africa World. https://doi.org/10.31390/taboo.17.1.06

Smith, T.E., & Knapp, C.E. (Eds.). (2011). Sourcebook of Experiential Education: Key Thinkers and Their Contributions (1st ed.). Routledge.

Somekh, B. (2006). *Action research: A methodology for change and development*. Open University Press.

Spriggs, M., & Gillam, L. (2017). Ethical complexities in Child Co-research. *Research Ethics*, *15*(1), 1–16. https://doi.org/10.1177/1747016117750207

Standing, E. M. (1998). *Maria Montessori, her life and work*. Plume.

Standing, B. L. (1928). *My people, the Sioux*. Lincoln, Neb: University of Nebraska Press.

Stangor, C., Jhangiani, R., Tarry, H. (2014). BC Open Textbook Project, & Open Textbook Library. *Principles of social psychology*.

Stovall, D. (2018). Are we ready for 'school' abolition?: Thoughts and practices of radical imaginary in education. *Taboo: The Journal of Culture and Education*, *17*(1).

Strong-Wilson, T. (2021). *Teachers' ethical self-encounters with counter-stories in the classroom: From implicated to concerned subjects*. Routledge, Taylor & Francis Group.

Sugrue, C. (1997). Student teachers' lay theories and teaching identities: Their implications for professional development. *European Journal of Teacher Education*, *20*(3), 213–225. https://doi.org/10.1080/0261976970200302

Sulaiman, F. (2011). The effectiveness of Problem-Based Learning (PBL) online on students' creative and critical thinking in physics at tertiary level in Malaysia.

Thomas, G. (2007). *Education and theory: Strangers in paradigms*. Open University Press.

Threadgold, T. (1997). In Z. E. Golebiowski (Ed.), *Policy and practice of tertiary literacy. selected proceedings of the first national conference on tertiary literacy: Research and practice, volume 1 (1st, Melbourne, Australia, March 14-16, 1996)*. essay, Victoria University of Technology.

Tiwari, A., Lai, P., So, M., & Yuen, K. (2006). A comparison of the effects of problem-based learning and lecturing on the development of students' critical thinking. *Medical education*, *40*(6), 547–554. https://doi.org/10.1111/j.1365-2929.2006.02481.x

Trilling, B., & Fadel, C. (2009). *21St Century skills: Learning for life in our Times*. Jossey-Bass.

UK Research and Innovation. UKRI. (n.d.). Retrieved April 29, 2021, from https://www.ukri.org/

Vandarakis, A. (2020). International Service Learning 3.0: Using Technology to Improve Outcomes and Sustainability. *World Academy of Science, Engineering and Technology*, Open Science Index 167, International Journal of Educational and Pedagogical Sciences, 14(11), 1122 - 1127.

Vandarakis A., Farmer F., & Wood E. (2020) Action Research at Educare: Shifting Focus to the Learner for the 21st Century ISSN: 2188-1162 The European Conference on Education 2020: Official Conference Proceedings https://doi.org/10.22492/issn.2188-1162.2020.35

Varoufakis, Y. (2017). *And the weak suffer what they must?: Europe, austerity and the threat to global stability*. Vintage Books.

Virtue, E. E. , & Hinnant-Crawford, B. N. (2019). “We’re doing things that are meaningful”: Student Perspectives of Project-based Learning Across the Disciplines. Interdisciplinary Journal of ProblemBased Learning, 13(2).

Vygotsky, L. S. (2012). *Thought and language*. Cambridge, Mass: MIT Press.

Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Harvard university press.

Wall, S. (2015). Focused Ethnography: A Methodological Adaptation for Social Research in Emerging Contexts. Forum: Qualitative Social Research, 16, Art. 1.

Watson, M. K. (2019). Pedagogy in Action. *Anthropology in Action, 26*(3), 23-34. doi:10.3167/aia.2019.260303

Westat, R., & Chapman, C. (2019) *Service-Learning and Community Service in K-12 Public School*. National Center for Education Statistics. Washington, D.C.

Wiggins, G. P. (1990). *The case for authentic assessment*. U.S. Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center.

Wilkinson, R. G., & Pickett, K. (2014). *The spirit level: Why equality is better for everyone*. Bloomsbury Publishing.

Willinsky, J. (2000). *Learning to divide the world: Education at Empire's end*. University of Minnesota Press.

Wolfe, P. (2006). 'Settler colonialism and the elimination of the native', *Journal of Genocide Research*, 8(4).

Wolfe, P. (1999). Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event. New York: Cassell Publishing.

Yin, R. K. (2009). Case study research: Design and methods (4th Ed.). Thousand Oaks, CA: Sage.

Appendix

Appendix A : Original PBL Blueprint/Template

[name of school]**'s Project Based Learning**

A Roadmap for 2021-22 PBL @ [name of school] School, Montreal, QC. Canada

—

Anthony Vandarakis

Legend / Légende

Blue/Bleu → French/Francais

Red/Rouge → English/Anglais

Apercu/ Overview

La pédagogie de projet (Project-based learning, PBL) est un modèle qui organise l'apprentissage autour de projets. Selon les définitions que l'on trouve dans les manuels d'apprentissage par projet à l'intention des enseignants, les projets des élèves sont des tâches complexes, basées sur des questions ou des problèmes stimulants, qui impliquent les élèves dans des activités de conception, de résolution de problèmes, de prise de décision ou d'investigation, qui donnent aux élèves l'occasion de travailler de manière relativement autonome pendant de longues périodes et qui aboutissent à des produits ou des présentations réalistes. (Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999).

Project Based Learning: Explained. (FRENCH)

Project-based learning (PBL) is a model that organizes learning around projects. According to the definitions found in PBL handbooks for teachers, student's projects are complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations (Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999).

Project Based Learning: Explained.**(English)**

Buts/ Goals

1. *Les projets PBL sont centraux et non périphériques au programme d'études.*
2. *Les projets PBL sont axés sur des questions ou des problèmes qui " poussent " les élèves à rencontrer (et à se démener avec) les concepts et principes centraux d'une discipline.*
3. *Les projets impliquent les élèves dans une investigation constructive.*
4. *Les projets sont dirigés par les élèves dans une large mesure.*

5. *Les projets sont réalistes et ne ressemblent pas à ceux d'une école.*
6. *Les projets visent à améliorer la vie des autres et à promouvoir l'épanouissement humain.*

1. *PBL projects are central, not peripheral to the curriculum.*
2. *PBL projects are focused on questions or problems that "drive" students to encounter (and struggle with) the central concepts and principles of a discipline.*
3. *Projects involve students in a constructive investigation*
4. *Projects are student-driven to a significant degree.*
5. *Projects are realistic, not school-like.*
6. *Projects focus on improving the lives of others and promoting human flourishing.*

Spécifications : tables et données du projet
Specifications: Project Tables & Data

Essentiels du projet :

Project Essentials:

Nom de l'élève ou des élèves Student(s) Name(s)	
Titre du projet Project Title	
Description du projet Project Description	
Organisation du projet Calendrier (anticipé) Project Organization Timeline (anticipated)	
Objectifs à court terme Short-Term Goals	
Objectifs à moyen terme Mid-Term Goals	
Objectifs à long terme Long-Term Goals	

Normes de la matière/objectifs d'apprentissage :

Subject Standards/Learning Targets:

Objectifs d'apprentissage du projet (rédigés par l'élève) Que veux-tu apprendre ? Comment veux-tu apprendre ? Comment vas-tu démontrer ton apprentissage aux autres ? Project Learning Objectives (written by student) What do you want to learn? How do you want to learn it? How will you demonstrate your learning to others?	
Normes pour les arts du langage (rédigé par l'élève et l'enseignant) Language Arts Standards (written by student and teacher)	
Normes d'histoire (rédigés par l'élève et l'enseignant) History Standards (written by student and teacher)	
Normes de mathématiques (rédigés par l'élève et l'enseignant) Mathematics Standards (written by student and teacher)	
Normes scientifiques (rédigés par l'élève et	

l'enseignant) Science Standards (written by student and teacher)	
Normes pour les arts du langage en anglais (rédigés par l'élève et l'enseignant) English Language Arts Standards (written by student and teacher)	EXAMPLE: CCSS.ELA-LITERACY.RI.6.7 Intégrer des informations présentées dans différents médias ou formats (par exemple, visuellement, quantitativement) ainsi que dans des mots pour développer une compréhension cohérente d'un sujet ou d'une question. CCSS.ELA-LITERACY.W.6.2 Rédiger des textes informatifs/explicatifs pour examiner un sujet et transmettre des idées, des concepts et des informations par la sélection, l'organisation et l'analyse de contenus pertinents. CCSS.ELA-LITERACY.W.6.2.B Développer le sujet avec des faits pertinents, des définitions, des détails concrets, des citations ou d'autres informations et exemples. SAMPLE: CCSS.ELA-LITERACY.RI.6.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. CCSS.ELA-LITERACY.W.6.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. CCSS.ELA-LITERACY.W.6.2.B Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
Normes supplémentaires _____ (rédigés par l'élève et l'enseignant) Additional Standards	

_____ (written by student and teacher)	

Normes sociales/émotionnelles :

Social/Emotional Standards:

Norme: Standard:	Explication de l'élève : Je veux me concentrer sur le développement de ces compétences pour les raisons suivantes… Student Explanation: I want to focus on developing these skills for the following reasons...
Développer la conscience de soi et les compétences d'autogestion pour réussir à l'école et dans la vie. Develop self-awareness and self-management skills to achieve school and life success.	
Utiliser la conscience sociale et les compétences interpersonnelles pour établir et maintenir des relations positives. Use social-awareness and interpersonal skills to establish and maintain positive relationships.	
Démontrer des capacités de prise de décision et des comportements responsables dans des contextes personnels, scolaires et communautaires. Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts.	

Évaluation de l'impact :

Impact Assessment:

Quel est l'objectif du projet ? What does the project hope to achieve?	
Quel(s) problème(s) tentera-t-il de résoudre ? What problem(s) will it attempt to solve?	
Comment le produit final permettra-t-il de démontrer l'apprentissage et de le partager avec la communauté au sens large ? How will the final product demonstrate learning and share that with the wider community?	

Évaluations de l'apprentissage :
Assessments of Learning:

Le projet sera " évalué " à l'aide des mesures suivantes : l'étudiant doit sélectionner deux Project will be “Evaluated” Using the Following Measures: the student should select two	
Évaluation par les pairs Peer Evaluation	Auto-évaluation Self Evaluation
Évaluation des experts/partenaires Expert/Partner Evaluation	Évaluation de l'utilisateur final End User Evaluation
Évaluation des enseignants (notée) Teacher Evaluation (Graded)	Évaluation de l'enseignant (non notée) : Réponse écrite Teacher Evaluation (Ungraded): Written Response

Journal de communication

Communication Log

Les élèves sont responsables de la tenue d'un journal de communication à jour pendant toute la durée de leur(s) projet(s). Ce journal fait partie de chaque projet et est important d'abord pour l'élève, mais aussi pour les enseignants, les partenaires et finalement pour le succès des projets proposés.

Ce journal doit comprendre :

+les entrées "check in" et "check out" pour chaque session du projet [name of school].

+les mises à jour qui indiquent les changements dans le projet

+les jalons atteints ou les défis qui peuvent affecter le calendrier du projet.

*Les entrées d'entrée et de sortie doivent être partagées avec un adulte de l'[name of school].

Students are responsible for keeping an up to date communication log for the duration of their project(s). This log is part of each project and is important first to the student, but also to the teachers, partners and ultimately to the success of the proposed projects.

This log should include:

+check in & check out* entries for each [name of school] Project session held at [name of school]

+updates that indicate changes in the project

+milestones attained or challenges that may affect the project timeline

*check in & check out entries should be shared with an adult @[name of school]

Exemple de journal

Sample Log

Date Date	Enregistrement : (à remplir par l'élève) Pour cette session, je prévois de travailler sur… Check In: (student will complete) For this session I plan to work on…	Départ : (à remplir par l'élève) Au cours de cette saison, j'ai pu... j'ai encore besoin de... et je prévois de le faire en... Check Out: (student will complete) During this season I was able to...I still need to...and I plan to do that by...	Commentaires des adultes & Initiales Adult Comments & Initials

Projet de fin d'études:

Culminating Project:

Le PBL intègre des défis de la vie réelle où l'accent est mis sur des problèmes ou des questions authentiques (et non simulés) et où les solutions ont le potentiel d'être mises en œuvre.

PBL incorporates real-life challenges where the focus is on authentic (not simulated) problems or questions and where solutions have the potential to be implemented.

Comment les résultats de votre projet amélioreront-ils la vie des autres (y compris la vôtre) ? How will the results of your project improve the lives of others (including yourself) ?	
Comment votre projet et ses résultats seront-ils communiqués à vos pairs, à la communauté extérieure à l'école et potentiellement au monde entier ?	

How will your project and the results be communicated to your peers, the community outside the school and potentially with the world?	
Comment votre projet a-t-il contribué à votre compréhension des normes et objectifs d'apprentissage que vous et vos enseignants avez identifiés ci-dessus ? How has your project contributed to your understanding of subject standards/learning targets that you and your teachers identified above?	

Prochaines étapes :

Next Steps:

Les élèves doivent réfléchir à la signification des résultats finaux de leur projet et décider de poursuivre l'exploration ou de commencer un nouveau projet.

Students should consider what the final results from their project mean and decide whether to continue the exploration or begin a new project.

Choisissez 1 : Choose 1:	Expliquez votre choix : Provide an explanation for the choice:
Extension du projet précédent : Allez plus loin avec votre projet précédent pour explorer... Previous Project Extension: Go further with your past project to explore...	
Exploration liée au projet précédent: Utilisez votre projet antérieur pour aller dans une autre direction connexe...	

Previous Project Connected Exploration: Using your past project to go in another related direction...	
Nouveau projet : Individuel, partenaire, équipe... New Project: Individual, partner, team...	

Appendix B : Teacher-Leader Modified PBL Blueprint/Template

[name of school] **Project Based Learning**

A Roadmap for 2021-22 PBL @ [name of school], Montreal, QC. Canada
Outline for Projects/Progress/Standards & Maps
Anthony Vandarakis
27.07.2021

Legend / Légende

Blue/Bleu → French/Francais

Red/Rouge → English/Anglais

Apercu/ Overview

La pédagogie de projet (Project-based learning, PBL) est un modèle qui organise l'apprentissage autour de projets. Selon les définitions que l'on trouve dans les manuels d'apprentissage par projet à l'intention des enseignants, les projets des élèves sont des tâches complexes, basées sur des questions ou des problèmes stimulants, qui impliquent les élèves dans des activités de conception, de résolution de problèmes, de prise de décision ou d'investigation, qui donnent aux élèves l'occasion de travailler de manière relativement autonome pendant de longues périodes et qui aboutissent à des produits ou des présentations réalistes. (Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999).

Project Based Learning: Explained. (FRENCH)

Project-based learning (PBL) is a model that organizes learning around projects. According to the definitions found in PBL handbooks for teachers, student's projects are complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations (Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999).

Project Based Learning: Explained.**(English)**

Buts/ Goals

7. *Les projets PBL sont centraux et non périphériques au programme d'études.*
8. *Les projets PBL sont axés sur des questions ou des problèmes qui " poussent " les élèves à rencontrer (et à se démener avec) les concepts et principes centraux d'une discipline.*
9. *Les projets impliquent les élèves dans une investigation constructive.*
10. *Les projets sont dirigés par les élèves dans une large mesure.*
11. *Les projets sont réalistes et ne ressemblent pas à ceux d'une école.*
12. *Les projets visent à améliorer la vie des autres et à promouvoir l'épanouissement humain.*

7. *PBL projects are central, not peripheral to the curriculum.*
8. *PBL projects are focused on questions or problems that "drive" students to encounter (and struggle with) the central concepts and principles of a discipline.*
9. *Projects involve students in a constructive investigation*
10. *Projects are student-driven to a significant degree.*
11. *Projects are realistic, not school-like.*
12. *Projects focus on improving the lives of others and promoting human flourishing.*

Spécifications : tables et données du projet
Specifications: Project Tables & Data

Essentiels du projet :

Project Essentials:

Nom de l'élève ou des élèves Student(s) Name(s)	

Titre du projet Project Title	
Description du projet Project Description	
Organisation du projet Calendrier (anticipé) Project Organization Timeline (anticipated)	
Objectifs à court terme Short-Term Goals	
Objectifs à moyen terme Mid-Term Goals	
Objectifs à long terme Long-Term Goals	

Appendix C: Ethics Board Approval for Research

McGill

Research Ethics Board Office
James Administration Bldg.
845 Sherbrooke Street West. Rm 325
Montreal, QC H3A 0G4

Tel: (514) 398-6831

Website: www.mcgill.ca/research/research/compliance/human/

Research Ethics Board 2
Certificate of Ethical Acceptability of Research Involving Humans

REB File #: 20-11-065

Project Title: From the Ground Up: Building Teaching and Learning Ecosystems at [redacted] through Innovative Partnerships for the 21st Century(adults)

Principal Investigator: Professor Elizabeth Woods

Department: Integrated Studies in Education

Co-investigators: Professor Caroline Riches; Professor Steven Jordan
Anthony Vandarakis(Ph.D. student);Frederick Farmer (Ph.D. student)

Funding: SSHRC 890-2019-0110

Approval Period: **August 17, 2021- August 16, 2022**

The REB 2 reviewed and approved this project by delegated review in accordance with the requirements of the McGill University Policy on the Ethical Conduct of Research Involving Human Participants and the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans.

Lynda McNeil
Associate Director, Research Ethics

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* Approval is granted only for the research and purposes described.
* Modifications to the approved research must be reviewed and approved by the REB before they can be implemented.
* A Request for Renewal form must be submitted before the above expiry date. Research cannot be conducted without a current ethics approval. Submit 2-3 weeks ahead of the expiry date.
* When a project has been completed or terminated, a Study Closure form must be submitted.
* Unanticipated issues that may increase the risk level to participants or that may have other ethical implications must be promptly reported to the REB. Serious adverse events experienced by a participant in conjunction with the research must be reported to the REB without delay.
* The REB must be promptly notified of any new information that may affect the welfare or consent of participants.
* The REB must be notified of any suspension or cancellation imposed by a funding agency or regulatory body that is related to this study.
* The REB must be notified of any findings that may have ethical implications or may affect the decision of the REB.

Appendix D: REB Adults Consent Form

Project Title:

From the Ground Up: Building Teaching and Learning Ecosystems at [name of school]

through Innovative Partnerships for the 21st Century

Principal Investigator:
Elizabeth Wood PhD
Department of Integrated Studies in Education (DISE), McGill University
Email: e.wood@mcgill.ca
Phone:(514) 398-8154

Co-Investigators:

Steven Jordan, PhD,
Department of Integrated Studies in Education (DISE), McGill University
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Anthony Vandarakis, PhD Candidate,
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Frederick Farmer, PhD Student,
Department of Integrated Studies in Education (DISE), McGill University
Email: frederick.farmer@mail.mcgill.ca

Funding: This research is funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) through the Partnership Development Grant program.

OVERALL GOAL AND SPECIFIC OBJECTIVES: *To engage with and then research the process of developing relationships between an educational institution and local partners; aligning the partnerships to students' 21st C learning goals.*

STUDENT ENGAGEMENT OBJECTIVES: (a) to increase student engagement by providing partnerships/experiences with outside school institutions (b) to connect students' passions with real world opportunities (c) to empower students to see themselves and to contribute as vital members of society.

GROUND UP PARTNERSHIP (GuP): To create a network of committed expert partners each contributing based on their strength to the realization of [name of school] as a 21st C learning institution.

PROFESSIONAL DEVELOPMENT OBJECTIVE: To develop teachers 21st C skills at [name of school] to increase student engagement and teacher agency.

Purpose of the Research: The purpose of the research is: a) to understand the limitations and potential of an individual institution to achieve the 21st C learning goals. b) to understand the process and barriers in building relationships with local partners. c) to document the teachers' practice and implementation of new partner-developed approaches.

Importance of the Research: The proposed project will contribute to existing educational research and may generate a new educational model. This project will document and analyse the development of PBL between [name of school]and contributing partners. This has the potential to increase the school's ability to attain its ambitious pedagogical aims, solidifying its importance in the progressive educational landscape in Quebec, Canada, and internationally. As the project documents and analyses the process of building relations between university, educational organizations and community partners and the impact of this on teachers and students' attainment of 21st C skills, the study may inform new educational policies in Quebec. Ideally, if impactful, this partnership model will be replicated by other small schools.

Research outcomes: Quebec has struggled to determine what approaches are best suited to prepare individuals for an unknown and rapidly changing future. The research has the potential to add a successful narrative to the absent literature from Montreal on school-university partnerships (Valli et al., 2014; Goodlad, 1988; Fullan et al., 1995) and community partners (Miller & Hafner, 2008). Moreover, the role of the McGill research team as a catalyst for the collaboration will add to the partnership broker literature (Wheeler, Guevara & Smith, 2018).

Scholarly benefits: Outcomes from this project will inform subsequent research, and the project's robust Knowledge Mobilization plan will target community and government educational professionals, administrators, and policy makers positioned to mandate broader implementation of its approaches.

What is involved: If you agree to voluntarily participate in this study, your participation would include one (or more) of the following:

a) Responding to 2 surveys, one at the beginning of the year and one at the end of the year.

b) Engaging in at most 2 individual interviews per school year. Each interview will last no more than 30 minutes.

c) Taking part in small focus groups comprised of 8 to 12 participants (with students, teachers and community partners). Focus groups will not exceed 2 hours, twice per year.

d) Field observations: The field observations will occur during the regular activities of the school both in the building and on various field experiences with the purpose of group observation being to uncover the [name of school] culture, mission and vision. It is not focused on individuals, nor does it rely on individual contributions to inform the research.

These activities in which you participate (individual interviews and focus groups) will be audio recorded and transcribed; copies will be provided to you at your request.

Risks: There are no known or anticipated risks to you by participating in this research.

Benefits: This project will document and analyse the development of PBL between [name of school] and contributing partners. This has the potential to increase the school's ability to attain its ambitious pedagogical aims, solidifying its importance in the progressive educational landscape in Quebec, Canada, and internationally. As the project documents and analyses the process of building relations between university, educational organizations and community partners and the impact of this on teachers and students' attainment of 21st C skills, the study may inform new educational policies in Quebec. Ideally, if impactful, this partnership model will be replicated by other small schools.

Voluntary Participation: Participation in this research must be completely voluntary. You may withdraw at any time without any explanation, consequence or impact on employment. While data may be destroyed following withdrawal, this is only possible up to the point when the study

is published. After that time, you can only withdraw your data from future analysis and publications.

Dissemination of Results:

The research findings will be disseminated in the following ways: conference presentations, partner network analysis, publications, symposium, social media, blogs and websites.

Any information collected (words, photos, video and academic materials) will not be identifiable if posted on the web, social media, or other forms of dissemination unless assent and consent is given.

Anonymity and Confidentiality: You will be known to the principal investigators, the research assistants and your peers. Names will not be identified for dissemination. Recordings of interviews will be used for transcription purposes only. No audio clips will be used in the presentation of this research. The words and data generated as a result of this research may be shared with other researchers through academic and/or professional community publications and presentations. The principal investigator will keep all identifiable information on a secure, password protected file on a password protected computer for a period of 7 years after which time all identifying information will be destroyed.

Statement of Consent

I agree to take part in the described McGill University research. I have had the project explained to me, and I have read the consent form, which I keep for my records. Being part of the research is voluntary and I can leave at any stage without being disadvantaged in any way.

Further use of data: Funding agencies and publishers often ask researchers to make their research data accessible to other researchers upon completion of their study. Making research data available to others allows qualified researchers to reproduce scientific findings and stimulates exploration of existing data sets. In line with these requirements, we will preserve the data for future reuse. To ensure confidentiality, any shared data will be stripped of any information that could potentially identify the participant. Audio recordings will not be shared.

Please sign below if you have read the above information and consent to participate in this study. Agreeing to

participate in this study does not waive any of your rights or release the researchers from their responsibilities. To ensure the study is being conducted properly, authorized individuals, such as a member of the Research Ethics Board, may have access to your information.

Printed name of participant:	
Signature of participant:	

Date:	

If you have any questions or concerns regarding your rights or welfare as a participant in this research study, please contact the McGill Ethics Manager at 514-398-6831 or lynda.mcneil@mcgill.ca

A copy of this consent will be left with you, and the researcher will take a copy.

Appendix E: REB Minors Assent Form

Dear Student of [name of school],

We are a group of McGill University researchers (Elizabeth Wood, Frederick Farmer & Anthony Vandarakis) who many of you already know. We are returning to your school with a new research project. Our goal is to better understand how [name of school] is working on the new curricular initiatives.

Specifically, we want to understand

a. how students engage with the Project Based Learning initiative

b. how working with the schools partnerships connects with your learning at [name of school]

c. what and how do you learn from your projects and from the partners

If you choose to participate, your responses will only be known to the researchers, not to other students, the partners or any [name of school] teachers. At any point, you are free to stop participating without giving a reason. You will not be penalized in any way. You also are free to decide which of the research activities you want to participate in. If there is a question you do not want to answer, you don't have to.

We will visit your school and the other locations that you learn at (online and in-person) often throughout the year, and will carry out our research in several ways. We will observe students, teachers and partners who have agreed to be research participants. We may also ask you to take photographs and videos of things that help you learn.

We will also ask you to answer some questions at the beginning of the year and at the end of the year in interviews of about 10-20 minutes. We will also schedule short meetings with small groups of students to discuss what you are learning with the partners (focus groups). Researchers cannot guarantee confidentiality of what you say in the focus group. The researchers will strongly encourage all participants to keep what is discussed in the focus group private.

- If you agree to participate, please sign below.
- If you have any questions before signing this letter, please feel free to ask.
- If you do not want to participate in this study, you don't have to. You will not be penalized.

Thank you,

Elizabeth Wood, PhD

Principal Researcher

e.wood@mcgill.ca

Student Assent Confirmation

From the Ground Up: Building Teaching and Learning Ecosystems at [name of school]

through Innovative Partnerships for the 21st Century

	Select with an X the activities <u>you agree to participate in</u>.
I agree to participate in this McGill University research at my school this year.	
Researchers may collect and look at some of my academic work.	
Researchers may audio record interviews with me.	
Researchers may audio record focus group in which I participate.	
Researchers may use the photographs and videos I took as part of the research.	
Researchers may take and use audio, photos, and videos documenting the projects I am a part of.	
Researchers may include my work (including photographs and videos) in research publications.	

<u>I agree to participate in this study.</u>

Student name (printed):

_____

Date:

_____

Your signature:

_____