

## Nomination Dossier

University of Calgary Teaching Award for Full-Time Academic Staff

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As one of the students described about me in the letter of support, teaching is more than a job, but the essence of who I am. This dossier presents my commitment to 1) equity, diversity and inclusion throughout my teaching career, 2) research-informed and impactful teaching practices, 3) fostering a community of learners toward democratic and generative exchange of ideas, and 4) a collective act to maintain and improve quality of teaching at the University of Calgary.

In 2020, I was honoured to receive the Teaching Excellence Award from the Werklund School of Education (WSE) for my efforts to promote democracy and social justice through all the courses that I teach and through my teaching and research supervising in the undergraduate teacher education program. I am devoted to both graduate and undergraduate education as well as to extra-curricular professional development for teachers and future teachers. I continuously reflect on and improve my teaching practices through four Scholarship of Teaching and Learning (SoTL) projects in collaboration with colleagues and students. The impact of my teaching, which centralizes equity, diversity and inclusion goes beyond the WSE and extends to Kindergarten to Grade 12 (K-12) school practices and international and national academic communities on teaching and learning.

### Teaching Philosophy Statement

Teaching, to me, has always been double-faceted: it is both a passion and a challenge. While I acknowledge that teaching is a personal act that relies heavily on one's disciplinary depth and efforts for community building, there is a historical pattern of minoritized faculty members facing greater challenges in gaining legitimacy and trust in their teaching capabilities (e.g., Mohamed & Beagan, 2019). As a racialized queer woman who engages in language practices that transcend multiple languages, this historical pattern has always been a source of fear and doubt for my teaching capabilities. At the same time, because of my social identities and lived experiences, throughout my career, I have always posited equity, diversity and inclusion at the core of my teaching. I believe in capability of teaching that enables "a movement against and beyond boundaries" (hooks, 1994, p. 12) and moves us toward equity and social justice in education.

In teaching future generations of academics, educational leaders, and teachers, my commitment to equity, diversity and inclusion has been a personal act as well as a historical and collective act. With the collective effort, we can impact on the historical pattern that has been working against the validation of contributions and capabilities of minoritized teachers and learners and move toward more equitable and socially just society. In my 15 years of teaching in postsecondary education, I have always committed to equity by validating historically silenced voices. For the courses I design, I carefully curate my course outlines to integrate resources that reflect diverse ways of knowing and being. I engage in dialogues about expectations and classroom norms with students and embrace democratizing assessment. Each class, I bring my gratitude for the opportunities to be with each student and respect our time together.

To promote learning at the university level, I strongly commit to synthesizing theory and practice, research and teaching. As a researcher whose work is on equity and social justice in mathematics education and more broadly in Science, Technology, Engineering and Mathematics (STEM) education, I bring current research and a breadth and depth of theories of learning into my teaching. I continually engage in SoTL to implement and

reflect on teaching innovations such as the use of video-based interactional analysis and visual arts to open the conversations around equity and social justice in STEM disciplines.

Learning is a vulnerable act. Vygotsky's (1978) theory of zone of proximal development prompted me to look carefully at the "buds of development" or *what is becoming*. Through my teaching, I create generative dialogues with and among my students where we can collectively renew what we already know and notice what we do not know yet. As such, I create a safe space where my students and I can be comfortable with the discomfort of not knowing yet. I respect humility in learners to open new horizons in their seeing and knowing. I value fostering a sense of community where learners can bring their personal histories, various disciplinary knowledges and agency to our collective learning.

Teaching is a reciprocal act. Teaching is my commitment to the collective community of the University of Calgary. Together with my colleagues, I engage in pedagogical innovations and improve our teaching practices through diverse SoTL projects. I commit to life-long professional development by organizing and attending relevant conferences and seminars. Through my leadership role as a coordinator in the undergraduate teacher education program, I facilitate communities of instructors to collectively improve our teacher education and work together toward the collective vision for equity, diversity and inclusion. I hope to continue offering support to my colleagues in the way my colleagues have helped me grow as a teacher.

### **Specific Teaching Strategies and Their Impact**

Since 2015, at the University of Calgary, I have taught a total of 20 courses (online and face-to-face) both in the graduate education programs and in the undergraduate teacher education programs. I have taught a total of 119 graduate students, 270 undergraduate students, and mentored 8 graduate students (including ongoing supervisees) and 4 undergraduate students in their research projects. As follows, I describe three key teaching strategies that characterize my pedagogy and teaching philosophy and I also demonstrate the impact of my teaching.

#### **1) Integrating Research into Teaching: Video Analysis for Equity and Diversity in Action**

One of the challenges in first-year teacher education courses is the students' limited interactions with the realities of the K-12 classroom — a challenge heightened during the past year, with pandemic, when pandemic restrictions limiting access. To provide opportunities for experiential learning to students with limited or no access to K-12 students, I integrated video data analysis into my teacher education courses and my research methodology course. The videos were collected through my research collaborations with diverse Canadian schools over the past 10 years. Using these allowed me to add video-based interactional analysis sessions to my courses, where I can facilitate a dialogue amongst students between theory and practice and promote equity and diversity in education. Developing and researching this pedagogical strategy was funded by the Scholarship of Teaching and Learning Grant (the Office of Teaching and Learning, WSE), 2019-2021 (PI: Miwa Takeuchi).

Most of the graduates of our undergraduate teacher education program are going to teach in linguistically and racially diverse classrooms. Yet current dominant theories of human development and learning do not necessarily fully integrate the issues of equity and diversity. In this context, I used video interaction analysis as a strategy for the teacher candidates to see teachers' equity-oriented pedagogy in action and reflect on their own teaching practices and assumptions. Students engaged both in individual reflections and group discussions on how the segmented classroom interactions relate to these theoretical constructs. Group discussion is instrumental in students noticing differences in what they see in the same classroom video. Such noticing can

serve as an opportunity to reflect on their own pedagogical assumptions and their own actions as a future teacher.

The impact of this strategy on student learning was evidenced in the surveys and interviews made possible through the Scholarship of Teaching and Learning Grant. All students in a teacher education course (EDUC460) agreed that these video-based interactional analysis sessions were valuable in the surveys. Some of anonymous comments included “*Classroom video and reflection helps me physically see what’s going on in a classroom which helps me visualize and understand what’s going on and see the theories/concepts in practice,*” – “*It helps to see the ways we see culturally relevant pedagogy in action (or not),*” – “*It is so helpful that even though we cannot be in the field yet, we can still observe that,*” – “*It is helpful to see the practices we are learning about in action,*” and “*I am able to observe the classroom environment and make connections to what we are learning*” (Taken from EDUC460 Specialization I 2020 Winter, a teacher education course).

I mentored three undergraduate students who received a competitive University of Calgary PURE Award and Werklund Undergraduate Research Award (funding to support undergraduate students’ summer research projects), that supported the continuation of their classroom-based research and video interactional analysis. For example, Silvana Valera, a 2017 PURE Award winner and currently a teacher in a local school board in Calgary, analyzed classroom videos focusing on the influence of gender and race in mathematics classrooms. In her final report, she commented, “*I have learned how important it will be to foster positive math identities in my future students and to become more aware of the impacts of heteronormative classroom practices.*” A 2019 recipient Jenny Yuen, who also became a teacher, commented that analyzing videos of STEM classrooms helped her develop equitable STEM pedagogy in the early years of her teaching career. I mentored these students to write academic conference proposals and encouraged them to engage in knowledge mobilization to promote equity and diversity in Canadian schools, at national and international conferences as demonstrated in the following list (\*\*indicates student mentees).

\*\*Langevin, N., Takeuchi, M. A., & \*\*Yuen, J. (submitted, under review). Fostering genetic mathematical understanding through the early STEM classroom. *Delta-K Journal of the Mathematics Council of the Alberta Teacher’s Association.*

\*\*Yuen, J., & Takeuchi, M.A. (2020, July 9–11). *Owning STEM: Pre-service teacher’s professional development through a collaborative research project.* STEM 2020 Conference, Vancouver, Canada. <http://stem2020.ubc.ca/> (Conference postponed until 2021 due to COVID-19)

\*\*Valera, S., & Takeuchi, M.A. (2018, May). *Students’ identities and collaboration in mathematics group work.* Paper presented at the annual conference of Canadian Society for the Study of Education, Regina, Canada.

In a graduate methodology course EDER701: Ethnographic Research Approaches, students learn how to conduct ethnographic research using various tools including video recorders. In this methodology course, I also used the corpus of video data that I created to teach students methodology of video-based interaction analysis. By providing opportunities for students to analyze micro-level interactions, they not only learn the research techniques but also come to see how our daily interactions shape and are shaped by the broader contexts surrounding equity and diversity. I extended such exercises to apply key theoretical constructs to analyze data beyond videos (e.g., fieldnotes taken by students in public spaces, photographs of learning spaces). Along with this exercise, I introduced and demonstrated the way I use qualitative data analysis software, so students can apply such research skills in their own studies. The impact of these teaching practices was evident in the 2019 Winter WSE qualitative post-course survey for EDER701: “*By doing actual observation and in class writing, I was able to develop my understandings of topics in this course,*” – “*We practiced a lot, we wrote down fieldnotes, we observed and reflected. I really appreciated learning by doing.*” Aligned with my teaching

philosophy, by creating opportunities for analyses in my courses, I try to synthesize theory and practice, toward deepening the discussion on equity and diversity in education research.

## **2) Fostering Collaborative Communities of Learners for Democratic Exchange of Ideas**

Fostering collaborative communities of learners is at the core of my undergraduate and graduate courses. When a community of learning is created, students learn from each other and diversify knowledge bases. The transition to online teaching during the pandemic presented unique challenges for community building. When I taught a Year 1 graduate course (EDER 779 Introduction to the Learning Sciences) with a new cohort of doctoral students online in Summer 2020, I used various strategies to foster a sense of community. For example, I created an online visual wall where students shared their professional, academic, and personal backgrounds. I also asked them to post video introductions and set up a space within D2L where students could pose questions and share ideas and resources. I balanced small group discussions and whole class discussions during the Zoom meetings. I also made responding to peers an integral part of learning tasks. Introducing theories of learning that emphasize collective and social nature of learning, I emphasized the importance of becoming a member of the academic community for learning. After these efforts, it was a delight to see how students voluntarily formulated reading and writing groups beyond the course. Stephanie Hladik, the EDER779 Teaching Assistant, commented, *“I am learning so much from you, especially about how to foster community and communication in an online course, and to see a strong commitment to care and love for your students in everything you do”* (unsolicited email feedback). This aspect of my teaching practice — fostering a sense of community — stems from my deep gratitude and respect to new generations of our academic community.

In my graduate courses, I bring in both classic texts in educational theories as well as contemporary literatures to interrogate canonical knowledge. As we unpack the readings, I facilitate conversations on the archaeology of knowledge — historical roots and trajectories of particular constructs and humanize scholars by situating them in historical contexts that they lived. During one class in a 2016 specialization course on the learning sciences, students and I spontaneously started mapping this archaeology of knowledge as we discussed the readings. Since then, I use this exercise as part of my pedagogical repertoires. This activity was done through concept-mapping software. This collective map can orient students as they navigate their own research in the discipline.

In my undergraduate courses for teacher candidates (EDUC450 Diversity in Learning and EDUC460 Specialization I), I used the medium of visual arts as a tool for students to critically examine the ethos surrounding teaching and rebuild a new ethos that is more equitable. For example, as one of my strategies, I shared illustrated stories of historically marginalized families’ mathematics knowledge that was based on a research project in which I collaborated with a visual artist. Through the discussion mediated by these illustrated stories, students realized that protagonists in many picture books on the topic of mathematics are boys. They also realized that picture books used in schools are racially biased. Students individually or collectively rewrote the dominant stories used in mathematics teaching through the medium of their choice: writing, oral storytelling or drawing. To further extend the discussion, I am currently creating a website to showcase counter-stories created by students to raise public awareness about the ethos of (in)equity in mathematics learning.

## **3) Facilitating Active Engagement of Learners through Teaching Innovations**

In my courses, I use teaching innovations to facilitate active engagement of learners as much as possible. For example, when I co-taught the course EDER 689.99 Analytical and Algorithmic Reasoning with Dr. Michael Pawliuk in the Department of Mathematics, we focused on real-world problems such as algorithmic thinking and democracy (e.g., voting). In modeling and visualizing these problems, we introduced various programming languages and online platforms (GitHub, Jupyter Notebook for Python, Scratch, Excel) to facilitate discussions

on pedagogical affordances of these technologies. Our purpose of connecting algorithmic thinking to real-world problems was to facilitate students' active engagement in relevant social issues.

I have made similar efforts in my STEM education course (EDUC 427) for teacher candidates. At the beginning of the course, I engage in discussions on STEM literacy in the context of our everyday problems and democracy. Such discussions result in students' inquiries that they use in their STEM unit plans around social and environmental justice issues (e.g., students' central questions in the unit design: "*How can we mitigate damages caused by wildfire?*" – "*How can we clean the polluted ocean?*" – "*How can technologies help people with less mobility?*"). The impact of such discussion shifts perspective toward STEM as demonstrated in the following student comments at the end of the semester: "*The course introduced the idea of bringing technology into the class as a topic of innovation rather than just as a tool for completing work.*"

For the 2018 offering of EDUC427 STEM Education, I collaborated with my WSE colleagues, Dr. Beaumie Kim and Dr. Barb Brown, to incorporate play and redesign of existing board games to mobilize teacher candidates' disposition toward mathematics. This collaboration allowed me to reflect on my own teaching and receive feedback by welcoming my colleagues to my classes. Each year, many teacher candidates in the early childhood education cohort and elementary school cohort express negative relationships with the discipline of mathematics. In this context, my colleagues and I incorporated whole class and small group discussions on properties of games such as rules, winning strategies and game board design. This activity contributed to facilitating mathematically rich discussions and challenged some of the negative relationships with mathematics with future early childhood educators and elementary school teachers. Also, as seen in the following unelicited email from a student in the class, this teaching strategy helps students start to see mathematics beyond calculations and arithmetic: "*If the larger system is predicated on a belief that ability in mathematics shows itself in strong arithmetic skills, accurate calculations, etc., then students like me will still feel themselves to have a deficit in their comprehension and abilities and won't see their strengths.*"

Takeuchi, M.A., Kim, B., \*\*Bastani, R., Brown, B., & \*\*Dadkhahfard, S. (2019, June). *Mobilizing teacher dispositions toward mathematics thinking through games*. Paper presented at the annual conference of Canadian Society for the Study of Education, Vancouver, Canada.

### **Summary of Data from Student Feedback and Signs of Learning**

In this section, by using the relevant USRI scores (Fall 2015 to Fall 2019, Winter and Summer 2020 data is not available due to the pandemic), written student comments, mid-term feedbacks (collected by the WSE Office of Teaching and Learning), I demonstrate my teaching effectiveness in the following areas: 1) motivating students' interest and learning and establish relevance of subject matter & set clear goals and expectations & challenge learners to develop their critical thinking; 2) designing learning experiences that actively engage students and encourage collaboration, and 3) designing student assessment strategies that enhance learning & exhibit respect for students. I showcase student comments from courses for each year I have taught at the University of Calgary (2015 EDUC450, 2016 EDER 679, 2017 EDUC427 and EDUC535, 2018 EDER 779, and 2019 EDER 701) that are deemed as compelling to convey the impact of my teaching on student learning. Student comments for these selected courses were reviewed by a third party in the WSE Office of Teaching and Learning and verified as representative quotes.

**1) Motivate students' interest and learning and establish relevance of subject matter & Set clear goals and expectations & Challenge learners to develop their critical thinking**

The following table summarizes mean scores (range: 0-7) for the following three USRI rating items: Q1. The overall quality of instruction, Q4. The course material was presented in a well-organized manner, Q5. Student questions and comments were responded to appropriately. Overall, scores for Q4 and Q5 show that students felt the course material was presented in a well-organized manner and I responded student questions and comments appropriately. When the score for Q4 was low (i.e., 5.75 EDUC427 in 2016), I discussed with other instructors about ways to add clarity to the collective course outline. Since then, I also decided to add more time to unpack the course outline together.

Course and Year (“u” is for undergrad “g” for graduate)	n of students	Q1	Q4	Q5
EDUC450 Diversity in Learning 2015 (u)	24	6.89	6.83	6.94
EDER689 Introduction to Mathematics Education Research 2015 (g)	9	7	7	7
EDUC427 STEM Education 2015 (u)	19	6.31	6.42	7
EDUC450 Diversity in Learning 2016 (u)	39	6.75	6.63	6.63
EDER779 Introduction to the Learning Sciences 2016 (g)	16	6.5	6.9	6.8
EDER679 Conceptualizing Learning Sciences 2016 (g)	14	6.5	6.88	7
EDUC427 STEM Education S01 2016 (u)	23	6.75	6.75	7
EDUC427 STEM Education S02 2016 (u)	26	6.5	5.75	6.75
EDUC535 Specialization II 2017 (u)	14	6.86	7	7
EDUC427 STEM Education 2017 (u)	14	6.69	6.86	6.93
EDER678 Instructional Design and Development 2018 (online) (g)	8	6.67	6.83	7
EDER779 Introduction to the Learning Sciences 2018 (g)	14	6.57	6.79	7
EDER689 Analytical and Algorithmic Reasoning 2018 (online) (g)	11	6.2	6.2	6.8
EDUC460 Specialization I 2019 (u)	24	6	6.25	6.24
EDER701 Ethnographic Research Approaches 2019 (g)	12	6.64	6.73	7
EDUC427 STEM Education 2019 (u)	32	6.37	6.21	6.68
EDER600 Research Methodology in Education 2019 (online) (g)	14	6.1	6.4	6.8
Mean		6.55	6.61	6.86

For undergraduate education, students commented on my passion, interests and expertise in the disciplinary areas of mathematics and STEM education. As exemplified in the following comments from STEM education (EDUC427 2016, 2017, 2019) and Specialization courses (EDUC535 2017), my passion and interests for these disciplinary areas inspired some students, even those who used to have negative relationships with these disciplines.

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*“Miwa’s passion regarding early childhood education and numeracy inspired me to learn more about math.” “I now think math can be fun and exciting for children, not scary and unrelatable.” (EDUC 535, 2017, Specialization)*

*“This course made me interested in math and science as well as coding. Miwa made it very easy and engaging for myself and the whole class.” – “I had a limited view of STEM before but had a ton of fun in this class and have a new appreciation for science, technology, engineering and math. I’m actually excited to try these projects and lessons with my classes in the future.” (EDUC 427, 2019, STEM Education)*

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For graduate courses, my passion for research and theories of learning were appreciated. Students often commented how my disciplinary knowledge made them think deeper and shaped their own research interests.

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*“She has changed my perspectives toward all the settings around me or toward even myself. All things and ones in and around me could be taken as an ethnographic object to scrutinize. This is what Miwa taught me.” (EDER701, 2019, Ethnographic Research Approaches)*

*“This course and instructor helped me reshape my conception of learning. The instructor was essential in figuring out my research interests.” (EDER779, 2018, Introduction to the Learning Sciences)*

*“Miwa is a gifted instructor. Her depth of knowledge and ability to guide and generate discussions was wonderful. She is modest but at the same time commanding in her ability.” (EDER 679, 2016, Conceptualizing the Learning Sciences)*

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There are limitations as to how much research, methodology and theory I can cover in one course. Because of this limitation, my goal is to inspire learners to read more and deepen their understandings of theories and methodologies after my course ends.

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*“I have a stronger grounding in theory now and I am now in a good place to continue to read and think.” (EDER 779, 2018, Introduction to the Learning Sciences)*

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Deepening my knowledge of disciplinary areas will never end. This endless learning is the very reason why I chose this profession and I look forward to continuing to passionately learn.

## **2) Design learning experiences that actively engage students and encourage collaboration**

Creating a generative, safe, and productive learning environment cannot be accomplished merely by the instructor’s efforts. As my teaching philosophy, I value co-construction of learning communities and I try to listen to and observe what each learner brings to the classroom and create respectful spaces for diverse voices to be heard.

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*“Miwa was so awesome at sharing her knowledge with us and acknowledging what we already know and what we have been learning. She always thanked us for sharing and never made the subject uncomfortable to talk about. She encouraged a lot of discussion, often trying to draw quieter students to share their perspectives but also allowing those of us who talk a lot, to go on tangents discussing the readings in a way that was meaningful and also relevant.” (EDUC450, 2015, Diversity in Learning)*

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Because my learning environments are co-constructed with students, I try to achieve a good balance between honouring their voices and agencies, and sharing relevant resources and shaping the discussion. This is not necessarily achievable all the time and in all my courses. As the following quote taught me, some class discussions may not connect well with the readings. This kind of feedback taught me to ground our discussion in readings, theory and research, instead of merely sharing of our stories.

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*“The class activities were worthwhile although on occasion I didn’t feel there was an opportunity to connect the reading I’d done with the class discussion.” (EDER 779, 2018, Introduction to the Learning Sciences)*

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To achieve engaged discussions, I make time in each class for pair talk, small group talk, and whole group discussions and I both step back and step in, listening carefully. For less vocal voices to be heard, I also create online discussion spaces even within my face-to-face courses.

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*“Engaged in class discussion both in class and in digital documents to support, challenge and inspire students. Assignments tailored to our personal research work.” (EDER701, 2019, Ethnographic Research Approaches)*

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*“The most important things Miwa is doing are letting us guide our own learning and creating an environment where questions and the expression of misunderstandings are actually encouraged.” – “Miwa is enthusiastic about and engaged in our learning. She gives us enough space for emergent discourse, while intervening strategically and effectively to ensure discourse is relevant and constructive.” (EDER 679, 2016, Conceptualizing the Learning Sciences)*

As a researcher in the learning sciences, I try to situate our conversation and discussion in epistemology — what knowledge is, how we come to know, and how we come to learn. I introduce historical debates that happened in the field by key figures (e.g., opposing views toward the nature of knowledge). I also embrace lived experiences of learners to interact. The following student comments show how such learning environment helped students to find theories and research topics that resonate with them.

*“Miwa’s instruction reflects the epistemological framework she is facilitating us in constructing. She greatly probes and prods, but always respects our need for agency, practice-authenticity, and emotional, social, and aesthetic comfort and engagement.” (EDER 679, 2016, Conceptualizing the Learning Sciences)*

*“This course exposed me to a variety of topics within learning sciences, which allowed me to explore where my research interests were. Miwa is also extremely knowledgeable and was such a great resource for information, ideas, and support. It was also extremely helpful to listen to the stories and ideas of my classmates because they helped focus my ideas and directed where else I could look.” (EDER, 779, 2018, Introduction to the Learning Sciences)*

### **3) Design student assessment strategies that enhance learning & Exhibit respect for students**

The following table summarizes mean scores (range: 0-7) for the following three USRI rating items: Q7. Opportunities for course assistance were available, Q8. Students were treated respectfully, and Q10. Students’ work was graded in a reasonable amount of time. As stated in the Teaching Philosophy Statement, I posit equity, diversity, and inclusion at the core of my teaching. Each class, I am grateful for the opportunities to be with each student and try to respect our time together. As such, students’ responses for Q7 and Q8 are important to me and I will continue to pay attention to how students respond to these questions. Responses to Q10 show that students feel that grading was done in a reasonable amount of time throughout all the courses I taught.

Course and Year (“u” is for undergrad “g” for graduate)	n of students	Q7	Q8	Q10
EDUC450 Diversity in Learning <b>2015 (u)</b>	24	6.94	7	6.61
EDER689 Introduction to Mathematics Education Research <b>2015 (g)</b>	9	7	7	7
EDUC427 STEM Education <b>2015 (u)</b>	19	7	7	7
EDUC450 Diversity in Learning <b>2016 (u)</b>	39	6.63	6.88	6.63
EDER779 Introduction to the Learning Sciences <b>2016 (g)</b>	16	6.5	7	6.6
EDER679 Conceptualizing Learning Sciences <b>2016 (g)</b>	14	6.88	7	6.63
EDUC427 STEM Education S01 <b>2016 (u)</b>	23	6.75	7	7
EDUC427 STEM Education S02 <b>2016 (u)</b>	26	7	7	7
EDUC535 Specialization II <b>2017 (u)</b>	14	6.86	7	7
EDUC427 STEM Education <b>2017 (u)</b>	14	7	7	7
EDER678 Instructional Design and Development <b>2018 (online) (g)</b>	8	7	7	7
EDER779 Introduction to the Learning Sciences <b>2018 (g)</b>	14	7	7	6.93
EDER689 Analytical and Algorithmic Reasoning <b>2018 (online) (g)</b>	11	6.8	7	6.6
EDUC460 Specialization I <b>2019 (u)</b>	24	6.29	6.48	6.6
EDER701 Ethnographic Research Approaches <b>2019 (g)</b>	12	6.91	7	6.82
EDUC427 STEM Education <b>2019 (u)</b>	32	6.59	6.9	6.86
EDER600 Research Methodology in Education <b>2019 (online) (g)</b>	14	6.9	6.9	6.75
<i>Mean</i>		<i>6.83</i>	<i>6.95</i>	<i>6.83</i>

I value formative assessments, both peer and instructor feedback, and personalize my support and feedback to each student's needs. I offer formative feedback and support both in class and during my office hours before students make official submission of their assignments. As my teaching philosophy, I try to create generative dialogues with and among my students where we can collectively renew what we already know and notice what we do not know yet. As such, my assessment practice reflects my efforts to create a safe space. The following student comments from both undergraduate and graduate courses represent the impact of my assessment practices and feedback I provide to students. These student feedback continue to shape my teaching.

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*"Her formative assessments were fantastic. Very thorough. She wanted us to succeed. Rubrics were clear and she modified them to suit us. Also, her marking was very quick to make sure we had feedback before continuing our projects."*  
(EDUC427, 2017, STEM Education)

*"Well planned process of receiving peer and instructor feedback in stages during process of writing paper. This was done in class and via D2L and Miwa was available for extra support."* (EDER 779, 2018, Introduction to the Learning Sciences)

*"For our mid-term assessment, we were constantly invited to share our progress and get feedback. After submitting, we also had the option to follow up with the instructor and get more detailed feedback and assessment on our work aside from the brief evaluation on D2L."* (EDER701, 2019, Ethnographic Research Approaches)

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I strongly commit to synthesizing theory and practice, research and teaching. For graduate courses, I incorporate activities which allow learners to act, think, and discuss as researchers. Through this teaching practice, pedagogy and research become integrated.

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*"Almost every class she encouraged me to practice or to act as an ethnographer. She used amazing pedagogy for this class." – "Brought in her own extensive research experiences. We did a lot of research-ish activities including informal data collection, analysis and writing."* (EDER701, 2019, Ethnographic Research Approaches)

*"Miwa brought up research and scholars constantly during discussions and showed us how our experiences and practices connected to theory."* (EDER 779, 2018, Introduction to the Learning Sciences)

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For undergraduate courses, I also incorporate research in our discussion and activities by anchoring our discussions in research and theory at the undergraduate level allows us to engage in open and informed discussions beyond the exchange of personal anecdotes or opinions.

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*"Miwa provided us with timely articles throughout the course, relevant to each sub-topic that we were covering at the time. She also verbally commented on new research as she was teaching basically every class."*  
(EDUC 427, 2019, STEM Education)

*"Miwa brought in research and material meaningfully and at appropriate times. Very efficient and appreciated by the class. Game based play, bringing in her own research and colleagues, playing music in the class... Very great."*  
(EDUC535, 2017, Specialization II)

*The instructor was very knowledgeable about course content and allowed students to create discussions that promoted critical thinking. The instructor also effectively integrated research-informed/research-active content after every facilitation and discussion, which gave a more detailed explanation of certain topics.* (EDUC450, 2015, Diversity in Learning)

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## Reflective Summary Statement: Toward Building a Learning Community of Equity and Inclusion

As stated in my Teaching Philosophy Statement, I see my teaching as a collective act to foster a learning community toward equity, diversity and inclusion at the University of Calgary, through research-informed teaching innovations. Commitment to equity, diversity and inclusion has been always at the core of my teaching throughout my career. The impact of this commitment goes beyond the University of Calgary, as I actively engage in international and national knowledge mobilization efforts to deepen our understanding on equity and social justice in learning. For example, I was invited to a panel on sociopolitical and ethical issues in learning at the International Conference of the Learning Sciences 2020 where more than 200 audiences attended internationally. My PURE award mentees are now working as teachers in local school boards and making changes on equity, diversity and inclusion in K-12 schools. Beyond my formal teaching load, in the past 4 years, I have voluntarily organized or helped students organize extra-curricular professional development seminars for teacher candidates. For example, in 2021, in collaboration with the University of Calgary Education Students' Association as well as my community and teacher partners, I organized a panel for teacher candidates on anti-racism, anti-homophobia and social justice in the context of disciplinary learning such as mathematics and STEM. These voluntary efforts beyond my teaching load are rooted in my care and passion to foster a learning community of equity, diversity and inclusion in the University of Calgary.

My efforts to foster a learning community at the University of Calgary are also demonstrated in my educational leadership activities and desire to share pedagogical insights with other instructors. In my leadership role as a coordinator for the teacher education program at the Werklund School of Education, I am facilitating collaboration and knowledge sharing among instructors, opening conversations on equity, diversity and inclusion, and helping to create better alignment across all the courses. As a recipient of the 2020 Werklund Teaching Excellence Award, I value sharing both my success and areas of improvement with my colleagues. In preparation for online transition during the pandemic, with colleagues, Dr. Barb Brown, Dr. Polly Lee Knowlton Cockett, and graduate Teaching Assistant Stephanie Hladik, we offered a workshop on online pedagogy in one of the seminar series hosted by the Werklund Office of Teaching and Learning. I also share my course design with colleagues who would like to learn more about online teaching. For MEd Contemporary and Emerging Mathematics, which was collaboratively taught between WSE and the Department of Mathematics, I co-taught the very first course (EDER 689.99 Analytical and Algorithmic Reasoning, with Dr. Michael Pawliuk). When the course was over, we offered presentations to WSE and Mathematics colleagues to share pedagogical insights including integration of relevant technologies based on our experiences of teaching this first collaborative online course.

Enacting equity, diversity and inclusion through my teaching will continue to be my ongoing commitment. I will humbly listen to students' voices (especially quieter voices) and commit to cutting-edge research to provide current and in-depth understanding of scholarly knowledge on designing learning environment for equity. This dossier is accompanied by letters of support from a group of graduate students and a group of undergraduate students. I conclude with a sincere gratitude to those who thought I was worthy of this award, to all the colleagues who nurtured my growth, and to all the students who allowed me to learn.

### References

- hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. Routledge.
- Mohamed, T., & Beagan, B. L. (2019). 'Strange faces' in the academy: experiences of racialized and Indigenous faculty in Canadian universities. *Race Ethnicity and Education*, 22(3), 338–354.  
<https://doi.org/10.1080/13613324.2018.1511532>
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.