PhD Mock Dissertation Proposal Defense

Dissertation Title: “Exploring Teachers’ Perceptions of Formative Assessment, Feedback, and Leadership Practices to Enhance Student Learning and Engagement in Ontario Schools”

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Agenda

1. Personal Introduction - Sam Tibi
2. Chapter One Overview – Introduction
3. Chapter Two Overview – Literature Review
4. Chapter Three Overview – Method
5. Concluding Statement
6. References
7. Questions

1. Personal Introduction - Sam Tibi

- Ph.D. Student, Leadership and Policy, Niagara University
- 17 years of teaching experience: Business, Accounting, Economics – secondary & post-secondary
- 5 years of leadership in education: Head of High & Middle School; Acting Diploma Manager; Accreditation & teacher PD workshops
- 10 years of leadership and administrative experience: Banking and Hospitality sectors
- Holds two Master's degrees in MBA and MSEd
- Research focus: Student motivation, achievement, retention
- Research motivation:
  - 17 years observing students, teachers, parents, and institutions
  - Focus on supporting vulnerable students at risk of dropout

2. Chapter One Overview – Introduction

1. Problem Statement
2. Significance of the Study
3. Context of the Problem
4. Purpose of the Study
5. Research Questions

2.1 Problem Statement

- Schools' **vision & mission** focus on high achievement and excellence (TDSB; CIS Ontario).
- **Feedback** improves learning; students should **receive** and request feedback (Arnold, 2011).
- Formative assessment **checks understanding** and provides **feedback** without grades (Gedye, 2015; Alt et al., 2023; Popham, 2006).
- Summative assessment evaluates learning and gives **grades** (Garrison & Ehringhaus, 2007).
- **Feedback strongly impacts learning**, especially when focused on the learning process (Hattie & Timperley, 2007; Panadero et al., 2019).
- **Student engagement and feedback improve learning**, critical thinking, and knowledge building (Ebralidze, 2023; Feng et al., 2025).
- **Interactive** methods and **gamification** increase **motivation**, **engagement**, and effectiveness (Stephenson et al., 2020; Fernández-Espínola et al., 2020).

2.1 Problem Statement (Continued)

- **Intrinsic** and **extrinsic** motivation support knowledge **construction** (Gopalan et al., 2017).
- AI provides **fast**, **personalized feedback** to close learning gaps (Mammadova et al., 2025).
- **Timely**, **personalized digital** feedback meets student expectations (Ithindi et al., 2022).
- **Reflection** and **trial-and-error** develop metacognition and problem-solving (Iwata et al., 2020).
- Leadership focused on **teaching and learning** improves student outcomes (Leithwood et al., 2004).
- Time constraints limit **formative assessment** and **feedback** (van der Steen et al., 2023; Yan et al., 2021).
- Disengagement due to **failure** predicts dropout over time (Mac Iver et al., 2009; Johnston, 2010).
- In Canada, youth pathways: **33%** university, **13%** college, **4%** high school, **38%** workforce, **12% not in education or employment** (Zeman, 2023).

2.2 Significance of the Study

- This study is important because it examines the role of **formative assessment** and **feedback** in **student learning**, **engagement**, and **academic achievement** in secondary schools in Ontario, Canada.
- Formative assessment: **(1)** can significantly **improve student achievement** (Büyükkarcı, 2014). **(2)**impact may be **smaller** than many educators believe (McMillan et al., 2013).
- Engagement is important for learning, as **active participation improves** academic performance (Schnitzler et al., 2020).
- Feedback helps students **improve** their **work** and reach **learning goals** (Hattie & Timperley, 2007).
- Leadership is key to improving teaching and learning when focused on **instruction and student outcomes** (Leithwood et al., 2004).
- Explore the role of leadership in aligning vision and mission, **high achievement** and **excellence**, with student learning outcomes.
- Research is needed on how school **leadership influences teaching** and learning and school improvement (Leithwood et al., 2004). And to identify effective practices for improving student learning (Robinson et al., 2008).
- This study aims to improve student learning achievement, retention, and educational pathways.

2.3 Context of the Problem

- Ontario schools aim to improve **academic achievement** and prepare students for **higher education** and **careers** (TDSB, n.d.; CIS Ontario).
- Key strategies: Formative assessment, Feedback, Student engagement.
- Formative assessment helps teachers understand what students know and give feedback to improve learning (Popham, 2006; Hattie & Timperley, 2007). However, research shows mixed results, with some studies finding strong effects and others finding smaller impacts (McMillan et al., 2013; Xuan et al., 2022).
- Feedback is most effective when it is **clear**, **specific**, **timely**, and focused on improvement (Shute, 2008; Hattie & Timperley, 2007).
- Engaged students are more likely to stay in school, succeed academically, and transition to university (Stephenson et al., 2020).

2.4 Purpose of the Study

- The study explores how teachers and school leaders use formative assessment, feedback, **digital learning** tools **(gamification, interactive textbooks, exam platforms)** to improve student learning (Popham, 2006; Hattie & Timperley, 2007; Hamari et al., 2014; Iwata et al., 2020).
- It examines how graded assignments **motivate** students and **provide feedback** that helps students reflect and improve learning (Gedye, 2015; Alt et al., 2023).
- It evaluates **school leadership** practices using **Kotter's change model** (urgency, vision, empowerment, culture change) (Kotter, 2012; Leithwood et al., 2004).
- It studies the impact on student **engagement**, **motivation**, **retention**, **transition** to higher education, and reduce **dropout rates** (Ebralidze, 2023; Gopalan et al., 2017; Johnston, 2010; Mac Iver & Mac Iver, 2009).
- The goal is to provide practical guidance to **improve teaching and leadership** for student success.

2.5 Research Questions

1. What do teachers think about the **quality and amount of feedback** they provide during **formative assessment**, and how does it affect student **learning achievement**?
2. What role do formative assessment and feedback play in improving **engagement,** student **confidence**, **motivation**, and **academic success**?
3. What **challenges and barriers** do teachers face when implementing formative assessment and providing effective feedback?
4. What strategies and tools (including educational technologies such as **gamification** and **digital platforms**) do teachers find effective in supporting formative assessment and feedback?
5. What influence do teachers perceive **school leadership** has on formative assessment practices, teaching quality, and student outcomes?

3. Chapter Two Overview – Literature Review

1. Constructivist Learning Theory
2. Motivation Theory, Self-Determination Theory, and Engagement
3. Formative Assessment
4. Feedback Intervention Theory
5. Leadership Role in Education
6. Incorporating Technology and Digital Learning
7. Gamification
8. Dropout Prevention

3.1 Constructivist Learning Theory

- Learning is **constructed**, **active**, **collaborative**, and **inquiry-based**
- Students use prior knowledge and reflect; understanding evolves over time
- Teacher role:
  - **Guiding**, **scaffolding**, encourages questions, discussion, and critical thinking,
  - Creates a **student-centred** environment
  - **Designs activities** that promote thinking and discovery
  - Supports learning through **guidance**
- Student role:
  - Construct their own knowledge
  - Engage in problem-solving, discussion, inquiry, and reflection.
- (Chand, 2024); (Triantafyllou, 2022); (Kimmons, 2016); (Bada, 2015); (Steffe and Gale, 1995); (Oliver, 2000).

3.2 Motivation Theory, Self-Determination Theory, and Engagement

- Motivation:
  - Process of triggering and maintaining **behaviour** toward a goal (Urhahne & Wijnia, 2023)
  - Gives energy and direction to student learning (Gopalan et al., 2017)
- Types of motivation:
  - **Intrinsic** motivation: learning for interest or enjoyment
  - **Extrinsic** motivation: learning for rewards or pressure
  - Amotivation: lack of motivation (Urhahne & Wijnia, 2023).
- Self-Determination Theory (SDT) explains that people have three basic psychological needs:
  - Autonomy: the ability to **choose** and control one's actions
  - Competence: feeling **capable** and effective in achieving results
  - Relatedness: feeling **connected** to others (Fernández-Espínola, Almagro, Tamayo-Fajardo, & Sáenz-López, 2020).
- Impact on learning:
  - Motivated students are more **engaged** and active; demotivated students do not engage or learn effectively
  - Both **intrinsic** and **extrinsic** motivation support knowledge construction
  - High motivation helps students face **challenges** and apply learning. (Gopalan et al., 2017)

3.3 Formative Assessment

- or Assessment for Learning Formative
- assess students' **understanding** (Popham, 2006).
- Teachers provide students with feedback after these assessments (Popham, 2006).
- helps teachers **improve learning** and **adjust teaching** during instruction (Popham, 2006b; Wiliam, 2011).
- includes discussions, readings, **answering questions**, **problem-solving**, group thinking, **in-class writing assignments**, homework, **formative tests**, and short formative tests (Boston, 2002).
- can significantly **improve student achievement** (Büyükkarcı, 2014).
- impact may be **smaller** than many educators believe (McMillan et al., 2013).

3.4 Feedback Intervention Theory

- Feedback is essential for **understanding**, **improvement**, and **goal** achievement (Hattie & Timperley, 2007)
  - Most effective when it is: **Clear**, **specific**, and **task-focused**
  - Helps students **identify mistakes** and improve
- Types of Feedback
  - **Elaborated feedback:** explanations, hints (highest effect) (Van der Kleij et al., 2015)
  - **Corrective feedback**: strong impact (Wisniewski et al., 2019)
  - **Simple feedback**: grades, praise, rewards (low effect) (Wisniewski et al., 2019)
- Feedback Levels
  - Task/Process/Self-regulation: **more effective** for learning
  - Self-level/praise: **least effective** (Hattie & Timperley, 2007)
  - Effectiveness depends on: Student **level**, **task**, and **context** (Shute, 2008)

3.5 Leadership Role in Education

- School improvement happens when **leadership** and **school capacity** (**Teacher collaboration**, **Resources**, **Student support systems**) work together over time. Leadership alone is not enough (Hallinger & Heck, 2010)
- Leaders are not "**heroic**" but have: Clear **vision**, strong **values**, and **courage**. (Day et al., 2016); (Kotter, 2012)
- Use **data** and **evidence** to improve learning (Day et al., 2016)
- Motivation improves with: **Autonomy**, **mastery**, **purpose**. Leaders should connect work to **meaning and purpose**. Encourage **dialogue**, **innovation**, and **responsibility** (Pink, 2009)
- Kotter Change Framework (Kotter, 2012)
- Fire **bullets**, then **cannonballs** to test ideas before scaling (Collins & Hansen, 2011)

3.6 Incorporating Technology and Digital Learning

- Online Formative Assessment
  - Uses tools like: **online quizzes**, discussion forums, e-portfolios, peer and teacher feedback.
  - Improves: student **engagement**, active learning, **participation**, sense of learning community
  - Effective Practices: provide **continuous feedback**, support **self-regulated** learning, help students **track progress**, enhance **interaction** and **feedback** (Gikandi et al., 2011)
- AI feedback handles **technical errors**. Human feedback gives **deep explanations** and **support** (Aliakbari et al., 2025)

3.7 Gamification

- What is Gamification?
  - Use of **game elements** (points, badges, leaderboards) in learning
  - Goal: increase motivation, **engagement**, and **participation** (Dicheva et al., 2015; Velázquez-García et al., 2024)
- Gamification main parts:
  - Motivational affordances: game elements (points, badges)
  - Psychological outcomes: motivation, enjoyment
  - Behavioural outcomes: participation, activity (Hamari et al., 2014)
- Design Principles: clear rules and goals, **fast feedback**, **visible progress**, social **interaction** (competition, teamwork), freedom to fail (retry tasks) (Dicheva et al., 2015)
- Works better with **intrinsic** motivation (interest, enjoyment), also linked to some **extrinsic** motivation; some students **dislike competition** (Buckley & Doyle, 2014).
- Research is still **new and developing** (Hamari et al., 2014)

3.7 Dropout Prevention

- Push-out (School Factors)
  - Student dropout can be influenced by school **policies and environment**
  - Includes:
    - Strict discipline policies
    - Suspensions
    - **Negative school environment** (Stearns & Glennie, 2006)
- Student Support Strategies
  - Provide continuous **support** for students
  - Use Early Warning Systems (EWS) to **identify at-risk students**
  - Use **data-driven** decisions to guide interventions
  - Involve **students** in understanding their **own needs** (Morgan, 2014)

4. Chapter Three – Methodology

1. **Research Design**
2. **Participants**
    a. ***Sampling***
    b. ***Ethical Considerations***
    c. ***Data Collection***
3. **Data Analysis**
    a. *Thematic coding concept map.*

4.1 Research Design

- This study uses a **qualitative phenomenological research** design to explore teachers' **lived experiences** of: **Formative assessment**, **Feedback**, Educational **technology**, School **leadership** role in improving **student learning** (Creswell & Creswell, 2018)
- Qualitative phenomenological research focuses on how participants experience and **make meaning of a phenomenon** (Marshall & Rossman, 2021) The phenomenon is **teachers' use** of formative assessment, feedback, and technology to improve student **achievement**, **engagement**, and **motivation**.

4.2 Participants

- Targeted population are **secondary school teachers** from Public schools (TDSB) and Private schools (CIS Ontario)
- Inclusion of both settings **allows comparison** of different school contexts
- Private schools are included due to **high university transition rates 100%** (The Reading School, 2021)
- Participants must have experience with:
  - Formative assessment
  - Feedback practices
  - **(Optional)** Educational technology
- Teachers **without** these practices may:
  - Try tools (e.g., graded work, exam platforms, digital learning textbooks, gamification)
  - Participate in a follow-up interview after 3 months

4.2.a Sampling

- Sample size: 5–10 teachers (Creswell & Creswell, 2018)
- Sampling method:
  - Purposive / convenience sampling (Creswell & Creswell, 2018)
  - Participants selected based on availability and relevant experience

4.2.b Ethical Considerations

- Participation is **voluntary**, no incentives, and informed consent is required
- Participants can **withdraw** or skip questions anytime
- Confidentiality is protected using **codes (Teacher 1–10)**, not names
- No identifying data will be included
- Data will be **Zoom**-recorded (with permission) and stored in protected files
- Only the **researcher has access**; data is used for academic purposes only
- **No student involvement, no harm, and no school intervention**
- Study focuses on **professional experience** only
- No **conflict of interest**, no funding, and no compensation
- Follows Niagara University guidelines and requires **IRB approval before starting**

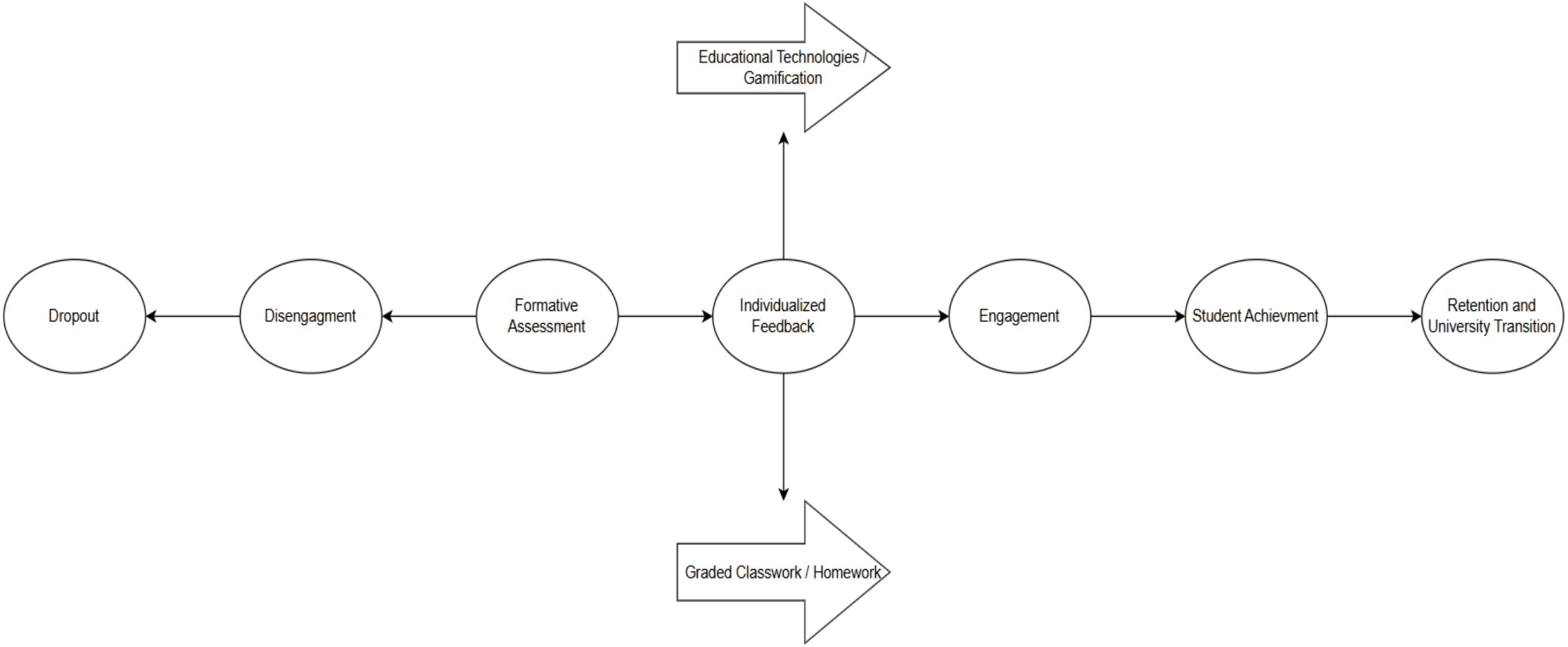
4.2.b Data Collection

- Data collected through structured interviews
  - In addition, teachers will be asked to share samples of their formative assessments or other resources **(optional)**.
- First interview: 25 open-ended questions (1 hour): Teacher **background**, **Formative assessment** practices, **Feedback** practices, **Technology** use, School **leadership**, Impact on **student learning**, **Time** management, Student **performance** data, **Challenges**/opportunities, **Open** comments
- Second interview **(optional)**: 6 questions (15 minutes, after 3 months)
  - Focus on changes in practice and reflect on the impact of:
    - **Graded** work and **immediate** feedback
    - Educational technology use
  - Looks at changes in student outcomes and teaching practices
- Interviews focus on in-depth qualitative data (Marshall & Rossman, 2021)

4.3 Data Analysis

- Uses **thematic inductive** analysis (Saldaña, 2025)
- Themes are developed from **participants' words**, not pre-set
- Steps of Analysis
  - **Familiarization**: read transcripts multiple times
  - **Initial coding** (descriptive coding): label key ideas in short phrases
  - **Pattern coding**: group similar codes into larger patterns
  - **Theme development**: combine patterns into preliminary themes
  - **Refining themes**: review for clarity and consistency
  - **Final step**: name themes and create a codebook

4.3.a Projected Thematic Coding Theoretical Map



5. Concluding Statement

- This study focuses on improving: (1) Student learning, (2) Engagement, (3) Academic achievement
- Emphasizes role of: (1) Formative assessment, (2) Effective feedback, (3) School leadership
- Guided by key theories: (1) Constructivist Learning Theory, (2) Motivation Theory, (3) Feedback Intervention Theory, (4) Change Theory
- Provides practical insights for: (1) Teachers, (2) School leaders
- Supports: (1) Student motivation and engagement, (2) Improved teaching practices
- Main goal: (1) Increase student retention, (2) Reduce dropout, (3) Support successful educational pathways

6. References

- 79 out of al least 100 references targeted.
- Provided below in the Notes pane (or Speaker Notes area).

7. Questions

- Questions
- Thank you
- The end