

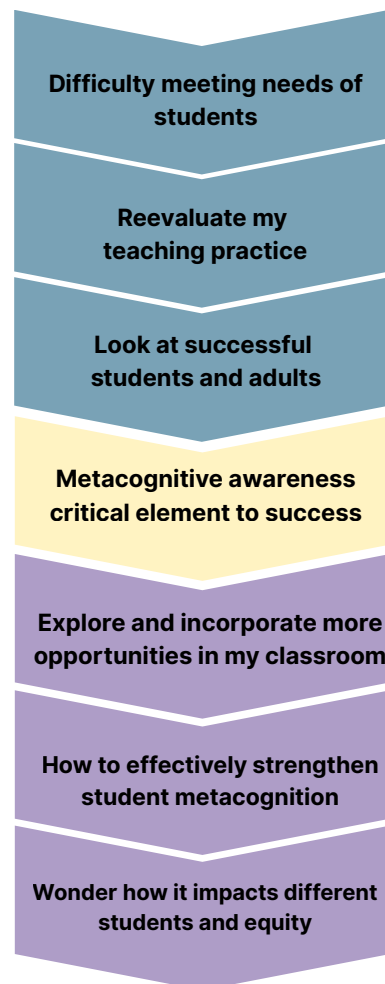
THINKING ABOUT THINKING

THE IMPACT OF METACOGNITIVE INSTRUCTIONAL PRACTICES ON ACADEMIC ACHIEVEMENT INEQUITY

Introduction

This research examines the impact of Metacognitive Instructional Practices on achievement inequity in Canadian urban middle school environments. It aims to provide insight into how instructional practices can address achievement gaps for students who have historically experienced systemic and individual barriers that negatively impact academic achievement, such as students with Attention Deficit Hyperactive Disorder (ADHD).

My Journey



Research Question

How do Metacognitive Instructional Practices influence educational equity among students with ADHD in Canadian urban middle schools?

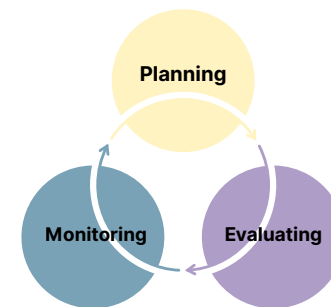
Thesis

Traditional teaching and assessment methodology creates barriers and environmental conditions that exacerbate academic challenges for students, including those with ADHD. This emphasises the need for instructional practices, like Metacognitive Instructional Practices, that develop and strengthen the skills necessary for academic growth and achievement.

Literature Review

Metacognitive Instructional Practices (MIPs)

End goal: Students use self-understanding to personalize their learning processes and academic skills (Atkins et al, 2008; Aulden, et al., 2018).



MIPs & Equity

- MIPs positively impact academic achievement for all students (King & Wang, 2025; Liu et al., 2025; Muteti et al., 2023; Swanson et al., 2024).
- Unclear if MIPs positively impacts equity of student achievement

Attention Deficit Hyperactive Disorder (ADHD) & Academic Performance

Disorder impacting:

- Attention
- Impulsivity
- Hyperactivity
- Executive functioning
- Self-management

(American Psychiatric Association, 2013; Barkley, n.d.)

Middle School Impact & Significance

- Critical time in biological development
- Previously successful intervention strategies not as effective
- Mental health significantly impacted by academic underperformance, social challenges and symptoms

(Dvorsky, Langberg, Becker, & Evans, 2019; Palmu et al., 2024).

Current ADHD School-Based Interventions and Limitations

Goal: develop long-term sustainable strategies to manage ADHD symptoms

- Not accomplishing this effectively (DuPaul, et al. 2020)
- ADHD symptoms cause significant academic barriers (DuPaul, et al. 2020; Molina et al. 2009; DuPaul & Langberg, 2015)
- Students with ADHD achieve academically lower than their non-diagnosed peers, even with attention interventions (DuPaul, et al. 2020; Palmu et al., 2024; Mor & Moreno, 2025).

References



Conclusion

The research shows that Metacognitive Instructional Practices (MIPs) have a positive impact on academic achievement for students with and without ADHD diagnoses. MIPs give all students the opportunity to develop learning strategies that fit with how they think and what they need to effectively learn. They develop skills necessary for academic achievement as well as independence, identity, motivation, self-management, and awareness and achieve academically.

In the Classroom

Middle School educators need to embed Metacognitive Instructional Practices (MIP) for the benefit of all students.

Effective MIP Strategies

- Diagramming
- Modelling
- Practice (guided and independent)
- Thinking aloud
- 'I learned' statements
- Visual models of learning
- Reflection
- Group discussions

(Ellis et al., 2014; Hernberg, 2020)