**Institutional Belongingness &
Academic Performance at University:
Mediating Effects of Social Self-Efficacy in the
Classroom and Metacognitive Strategies**

Valerie Sotardi, Senior Lecturer
Xin (Kate) Ren, PhD Candidate
University of Canterbury

Learning, Achievement, & Motivated Behaviour (LAMB) Research Team
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- "...a generalized sense of membership that stems from students' perception of their involvement in a variety of settings and the support they experience from those around them." (Tinto, 2012; p. 66)

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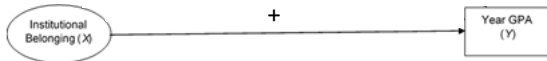

Person-Environment Fit Theory

- Congruence between the person and their environment helps to understand behaviour
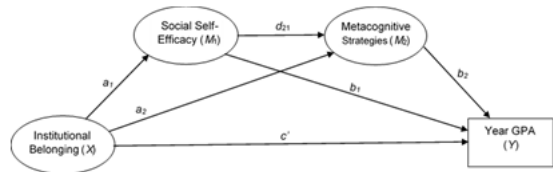- "Does this environment meet my needs and preferences?"

(Lewin, 1951; see also Caplan, 1983; Caplan & Van Harrison, 1993; Edwards et al., 1998; van Vianen, 2018)
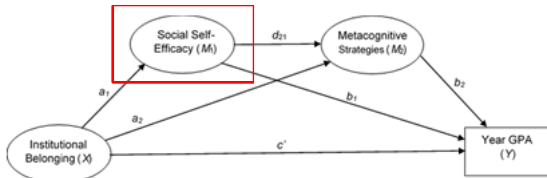
Belonging & Academic Performance

Our Conceptual Diagram

Conceptual diagram examining (1) the indirect effect of Institutional Belonging (X) on Year GPA (Y) through Social Self-Efficacy (M_1) only through a_1b_1, (2) the indirect effect of X on Y through M_1 and Metacognitive Strategies (M_2) in in serial = $a_1d_{21}b_2$, and (3) the direct effect of X on $Y = c'$. UniYear (C_1) and Age (C_2) are included as covariates for X, M_1, M_2, and Y (not displayed).

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- Self-efficacy: academic vs. social
- Social self-efficacy is defined as:
  - One's beliefs in their capabilities to engage in social, interactive tasks in ways that initiate and maintain interpersonal relationships (e.g., Bandura et al., 1999; Smith & Betz, 2000)

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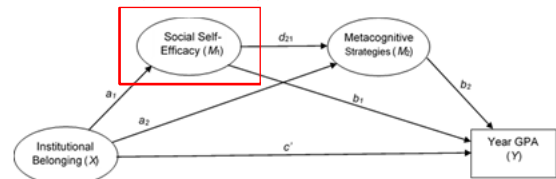
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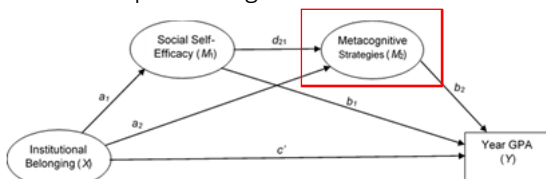- "Social self-efficacy in the classroom" narrows the setting

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Metacognitive Strategies

- Metacognitive strategies are at the heart of self-regulated learning
  - Typical examples goal setting, planning, self-monitoring, self-control, and self-evaluation
- Better strategy use, better academic performance
- Potential ties to belongingness and social self-efficacy
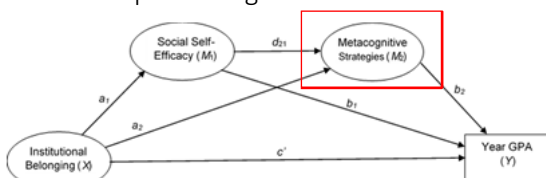

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Research Questions

1. Is Institutional Belongingness positively correlated with Social Self-Efficacy in the Classroom, Metacognitive Strategies, and Year GPA?
2. Do Social Self-Efficacy in the Classroom and Metacognitive Strategies (both independently and in serial) mediate the direct relation between Institutional Belongingness and Year GPA?

Sample Descriptives

- 1,480 university students
- Female = 60.8%, Male = 38.6%, Gender Diverse = 0.5%
- Mean age = 24.68 years (SD = 9.01), and Median age = 21.00 years
- Undergraduate = 88.3%, Postgraduate = 11.7%
- Domestic students (86.2%)
- New Zealander and Australian (64.2%)
- English as first/native language (86.8%)

Instrumentation

- Institutional Belongingness (IB)
  - Items: "I feel welcomed by [institution]", "I have a sense of meaning or purpose at [institution]", "I feel safe at [institution]" (IB3), "I belong to the [institution's] community" (IB4), and "The [institution] thinks I matter as an individual" (IB5).
- Social Self-efficacy in the Classroom (SSEC)
  - Items: "I am confident in my ability to talk to lecturers" (SSEC1), "I am confident in my ability to talk to other [institution] staff" (SSEC2), "I am confident in my ability to participate in class discussions" (SSEC3), and "I am confident in my ability to ask a question in class" (SSEC4).

Instrumentation

- Metacognitive Strategies (MCS)
  - Items: "I have a long-term plan for what I am learning at [institution]"; "I take time to reflect on what I have been learning"; "I try to relate what I learn to what I already know or have experienced"; "I have a deep understanding of my personal learning strategies."
- Year Grade Point Average (GPA)
  - GPA scores at the end of the academic year.
  - Extracted from internal transcripts based on students' enrolled coursework

	IB	SSEC	MCS	Year GPA	UniYear	Age
1. Institutional Belonging (IB)	1	-	-	-	-	-
2. Social Self-Efficacy in the Classroom (SSEC)	.216**	1	-	-	-	-
3. Metacognitive Strategies (MCS)	.323**	.305**	1	-	-	-
4. Year GPA	.096**	.242**	.203**	1	-	-
5. UniYear	-.106**	.182**	.055*	.197**	1	-
6. Age	-.128**	.294**	.218**	.106**	.201**	1

Note. *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

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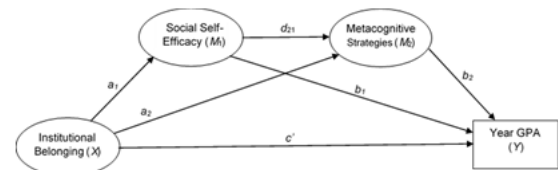Note. *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

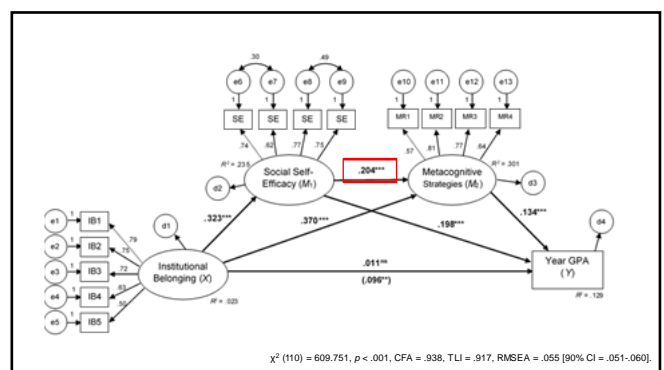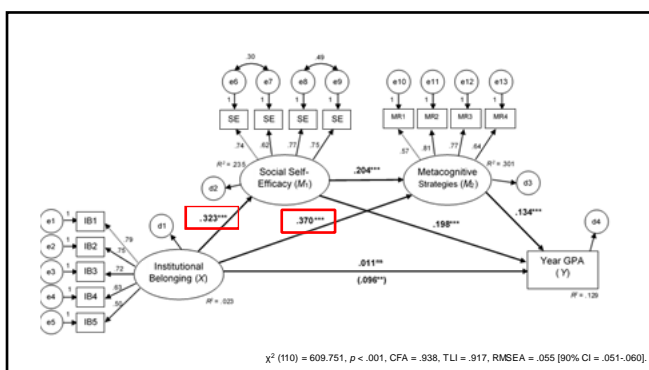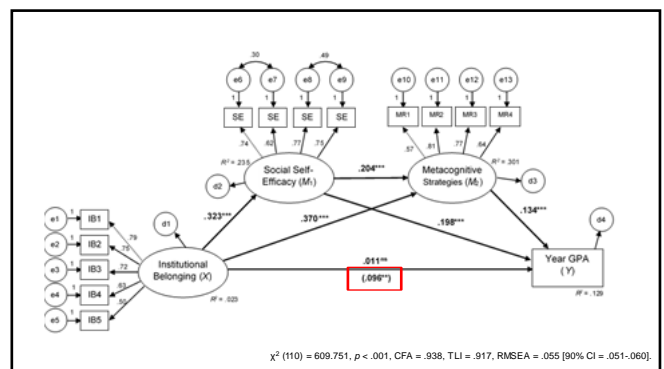|	IB	SSEC	MCS	Year GPA	UniYear	Age
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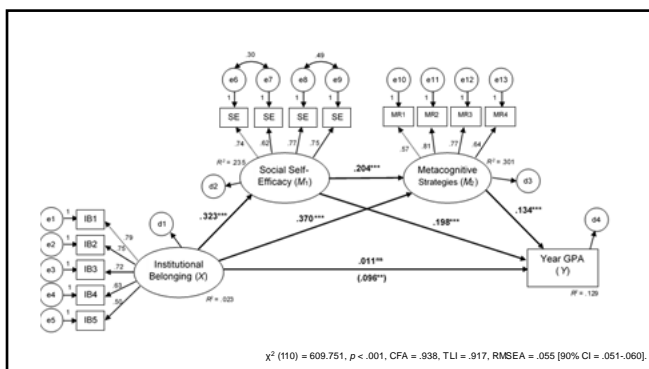|	IB	SSEC	MCS	Year GPA	UniYear	Age
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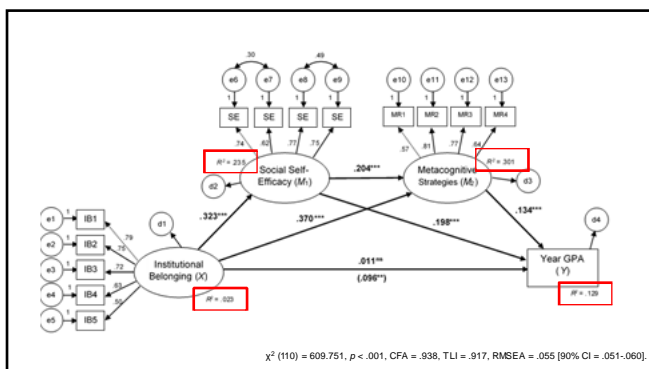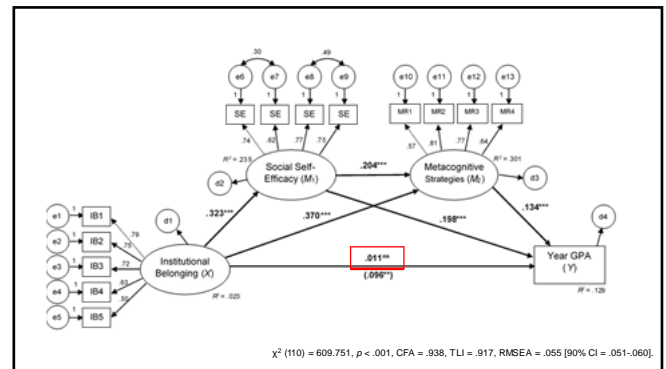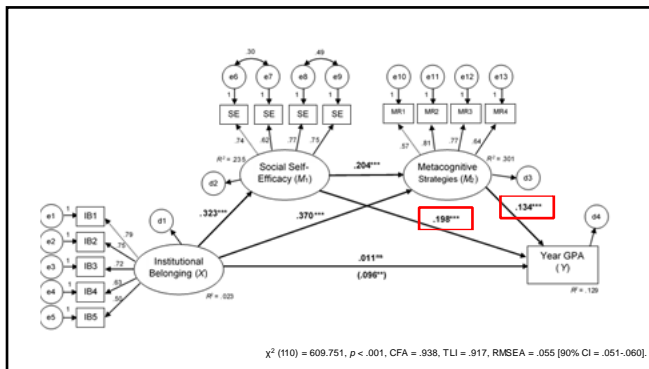Conceptual diagram examining (1) the indirect effect of Institutional Belonging (X) on Year GPA (Y) through Social Self-Efficacy (M_1) only through a_1b_1, (2) the indirect effect of X on Y through M_1 and Metacognitive Strategies (M_2) in in serial = $a_1d_{21}b_2$, and (3) the direct effect of X on Y = c'. UniYear (C_1) and Age (C_2) are included as covariates for X, M_1, M_2, and Y (not displayed).

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Takeaway Points

- How, in general, a learning environment communicates (and is *perceived* by students as having) a sense of belonging may shape:
  - How students perform academically, which can be explained by:
    - How students interact with members in the classroom
    - How students reflect on and approach their learning

- Teachers and educational staff should remember that:
  - Belongingness is not arbitrary "fluff"
  - Belonging intentions versus student perceptions may differ widely
  - Understanding such perceptions matter, from classroom to education policy

Thank you! Questions?

- Contact: valerie.sotardi@canterbury.ac.nz

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