

## SUPPLEMENTARY MATERIAL

Fisher, C.R., Thompson, C.D., & Brookes, R.H. (2022). Levels of Science Identity, Belonging and Experiences of Discrimination for Commencing Science Students at an Australian University. *International Journal of Innovation in Science and Mathematics Education*, 30(2), 1-13.

**Table S1. Final Questionnaire Items**

<b>Theme</b>	<b>Question items</b>	<b>Reference</b>	
<b>Science identity</b>	In general, my interest in science is an important part of my self-image. My interest in science is an important reflection of who I am. I feel like I belong in the field of science. I have a strong sense of belonging to the community of scientists. I am a scientist.	Chemers et al. (2011)	
<b>Belonging</b>	I feel that I belong to the scientific community.	Good et al. (2012)	
1. <i>Membership</i>	I consider myself a member of the scientific community. I feel like I am part of the scientific community. I feel a connection with the scientific community.		
2. <i>Acceptance</i>	I feel like an outsider. I feel accepted. I feel respected. I feel disregarded. I feel valued. I feel neglected. I feel appreciated. I feel excluded. I feel like I fit in. I feel insignificant.		
3. <i>Affect</i>	I feel at ease. I feel anxious. I feel comfortable. I feel tense. I feel nervous. I feel content. I feel calm. I feel inadequate.		
4. <i>Desire to fade</i>	I wish I could fade into the background and not be noticed. I try to say as little as possible. I enjoy being an active participant. I wish I were invisible.		
<b>Perceived identity</b>	I don't think that my gender will affect how others view me in my major.		London et al. (2011)
<b>compatibility between gender and major</b>	I don't think that my gender will affect how well I do in my major.  I think my gender and my major are very compatible. I think I have experienced difficulties in my major because of my gender. I think my gender will be an important factor in the type of career I decide to pursue. I don't think I would pursue certain fields because of my gender.		
<b>Gender biased science majors</b>	Women in my major experience discrimination. Women have a hard time succeeding in my major. My major is more welcoming to men than it is to women. What percentage of students in this major do you estimate are women? (0-25, 26-35, 36-45, 46-55, 56-65, 66-75, 76-100%)		

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**Table S2. Internal consistency reliability of survey sub-scales.**

Scale	Cronbach's $\alpha$
Science identity	0.83
Belonging – Membership	0.93
Belonging – Acceptance	0.90
Belonging – Affect	0.89
Belonging – Desire to fade	0.79
Perceived identity compatibility between gender and major	0.68
Gender biased science majors	0.86

**Table S3. Codebook for qualitative analysis.**

Theme	Theme description
No gender issues in science	Students reporting no direct issues of bias or discrimination while at university in the science fields so far
Discrimination	Students reporting personal experiences of discrimination while studying science at university
a. Against women	Female students reporting experiences of discrimination
b. Against men	Male students reporting experiences of discrimination
Gender imbalance in STEM	Students directly discussing gender ratios in science classrooms
Confidence	Students discussing issues of confidence or doubt in their ability in the science fields
Parents	Students discussing the influence of their parents
Transgender issues	Students discussing experiences relating to their transgender identity

**Table S4. Fisher's exact test (two-sided) for demographic variables.**

Demographic variable	<i>p</i> -value
Ethnicity	0.28
First-generation student status	0.93
Previous science experience	0.13
High achieving student	0.42
Mature age status	0.22