

## Study Hypotheses

Outcomes	Variable	Measure		Hypothesis	Analysis
<b>Primary</b>	Mindfulness	Five Facet Mindfulness Questionnaire	1	Mindfulness will increase more for the mindfulness meditation (MM) group than for the sham meditation (SM) group from $t_1$ to $t_4$ ( $a$ ) and $t_5$ ( $b$ )	Mixed ANOVA
	Critical Thinking	Halpern Critical Thinking Assessment <sup>1</sup> , Heuristic and Biases items <sup>2</sup>	2	Critical thinking will increase more for the MM group than for the SM group from $t_1$ to $t_4$ ( $a^{1,2}$ ) and $t_5$ ( $b^{1,2}$ ) and this effect will be moderated by baseline endorsement of thinking dispositions ( $c$ )	Mixed ANOVA, ANCOVA
	Thinking Dispositions	Actively Open-minded Thinking <sup>1</sup> , Need for Cognition <sup>2</sup>	3	Endorsement of critical thinking dispositions will increase more for the MM group than for the SM group from $t_1$ to $t_4$ ( $a^{1,2}$ ) and $t_5$ ( $b^{1,2}$ )	Mixed ANOVA
	Executive Control	Sternberg Working Memory Task	4	Executive control dispositions will increase more for the MM group than for the SM group from $t_1$ to $t_4$ ( $a$ ) and $t_5$ ( $b$ ) and this increase will mediate the relationship between levels of mindfulness and critical thinking performance following the intervention ( $c$ )	Mixed ANOVA, SEM
<b>Secondary</b>	Wellbeing	Warwick-Edinburgh Mental Wellbeing Scale	5	Wellbeing will increase and negative affect will decrease more for the MM group than for the SM group from $t_1$ to $t_4$ ( $a$ ) and $t_5$ ( $b$ )	Mixed ANOVA
	Positive Affect and Negative Affect	Positive Affect and Negative Affect Schedule subscale	6	Positive affect will increase more for the MM group than for the SM group from $t_1$ to $t_4$ ( $a$ ) and $t_5$ ( $b$ )	Mixed ANOVA
	Real-world Outcomes	Real-world Outcomes Inventory	7	Negative real-world outcomes will decrease more for the MM group than for SM group from $t_1$ to $t_4$ ( $a$ ) and $t_5$ ( $b$ )	Mixed ANOVA
<b>Manipulation Checks</b>	Meditation Quality	Practice Quality-Meditation	8	Meditation quality will be positively associated with increases in mindfulness ( $a$ ), executive control ( $b$ ) and critical thinking ( $c^{1,2}$ ) and meditation quantity ( $d$ ), task enjoyment ( $e$ ) and task difficulty ( $f$ ) and it will be higher in the MM group and across time.	Correlation, Mixed ANOVA
	Meditation Quantity	Total Minutes Spent Meditating	9	Meditation quantity will be positively associated with increases in mindfulness ( $a$ ), executive control ( $b$ ) and critical thinking ( $c^{1,2}$ ) and meditation quality ( $d$ ), task enjoyment ( $e$ ) and task	Correlation, Mixed ANOVA

				difficulty ( <i>f</i> ) and will not differ across time or groups.	
Task Enjoyment	Technology Acceptance Model Questionnaire subscale	10	Task enjoyment will be positively associated with increases in mindfulness ( <i>a</i> ), executive control ( <i>b</i> ) and critical thinking ( <i>c</i> 1,2) and meditation quality ( <i>d</i> ), meditation quantity ( <i>e</i> ) and task difficulty ( <i>f</i> ) and will not differ across time or groups.	Correlation, Mixed ANOVA	
Task Difficulty	Technology Acceptance Model Questionnaire subscale	11	Task difficulty will be positively associated with increases in mindfulness ( <i>a</i> ), executive control ( <i>b</i> ) and critical thinking ( <i>c</i> 1,2) and meditation quality ( <i>d</i> ), meditation quantity ( <i>e</i> ) and task difficulty ( <i>f</i> ) and will not differ across time or groups.	Correlation, Mixed ANOVA	
Intervention Acceptability	Items from Kirkpatrick et al. (2013)	12	Intervention acceptability will be positively associated with increases in mindfulness ( <i>a</i> ), executive control ( <i>b</i> ) and critical thinking ( <i>c</i> 1,2) and meditation quantity ( <i>d</i> ), task enjoyment ( <i>e</i> ) and task difficulty ( <i>f</i> ) and it will be higher in the MM group but will not differ across time.	Correlation, Mixed ANOVA	
Attrition	No. of participants lost from baseline to t <sub>4</sub>	13	Attrition will be negatively associated with meditation quality ( <i>a</i> ), meditation quantity ( <i>b</i> ), task enjoyment ( <i>c</i> ) and task difficulty ( <i>d</i> ) and will not differ across time or groups.	Correlation, Mixed ANOVA	