Instructions: These items all use a grid to record your responses. Using the grid, you will be able to record the extent to which you agree and the extent to which you disagree with each statement. Please select the ONE box that best describes your OVERALL feeling about each statement.

Example 1: Taylor is responding to the item "I like eating kale." Taylor really dislikes the taste of kale, but also knows that kale has a lot of nutrients. Taylor chooses the box that corresponds to "Greatly disagree" (because Taylor does not like the taste) and "Moderately agree" (because Taylor appreciates the nutritional value of kale).

The highlighting represents Taylor's thinking – there will be no highlighting on the survey. Taylor selects the box in the corresponding row and column.

Example 2: Drew is responding to the item "I dislike driving in Halifax." Drew really hates the traffic during rush hour, but also finds driving to be more convenient than other transportation options. Drew chooses the box that corresponds to "Completely agree" (because Drew hates driving in heavy traffic) and "Moderately disagree" (because Drew appreciates the convenience driving).

ⓘ Please select ONE box.

	No agreement at all	Slightly agree	Moderately agree	Greatly agree	Completely agree
No disagreement at all	☐	☐	☐	☐	☐
Slightly disagree	☐	☐	☐	☐	☐
Moderately disagree	☐	☐	☐	☐	☐
Greatly disagree	☐	☐	☐	☐	☐
Completely disagree	☐	☐	☐	☐	☐

The highlighting represents Drew's thinking – there will be no highlighting on the survey. Drew selects the box in the corresponding row and column.

ⓘ Please select ONE box.

	No agreement at all	Slightly agree	Moderately agree	Greatly agree	Completely agree
No disagreement at all	☐	☐	☐	☐	☐
Slightly disagree	☐	☐	☐	☐	☐
Moderately disagree	☐	☐	☐	☐	■
Greatly disagree	☐	☐	☐	☐	☐
Completely disagree	☐	☐	☐	☐	☐

1. This class is too stressful.

❶ Please select ONE box.

	No agreement at all	Slightly agree	Moderately agree	Greatly agree	Completely agree
No disagreement at all	☐	☐	☐	☐	☐
Slightly disagree	☐	☐	☐	☐	☐
Moderately disagree	☐	☐	☐	☐	☐
Greatly disagree	☐	☐	☐	☐	☐
Completely disagree	☐	☐	☐	☐	☐

#	Item Text	Format	Source
B5	This class demands too much of my time.	Likert-type and Grid	(Flake et al., 2015) – Task Effort Cost scale
B7	I have to put too much energy into this class.	Likert-type and Grid	(Flake et al., 2015) – Task Effort Cost scale
A8	This class takes up too much time.	Likert-type and Grid	(Flake et al., 2015) – Task Effort Cost scale
A4	This class is too much work.	Likert-type and Grid	(Flake et al., 2015) – Task Effort Cost scale
A9	This class requires too much effort	Likert-type and Grid	(Flake et al., 2015) – Task Effort Cost scale
B9	Learning statistics is a good use of my time.	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
A5	I have more important things to do than spending time learning statistics.	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
B4	I avoid working on statistics because it makes me feel bad	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
A6	Taking statistics will limit my future prospects (for example, lower my GPA).	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
A3	I prioritize other tasks over statistics	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
A2	Acquiring statistical skills is worth the effort.	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
A7	Learning statistics is worth spending money on.	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
B6	If I had to take another course, I would choose a statistics course.	Likert-type and Grid	(Unfried et al., 2018; Whitaker et al., 2019a, 2018)
B2	I worry too much about this class.	Likert-type and Grid	(Flake et al., 2015) – Emotional Cost scale
B3	This class is too exhausting.	Likert-type and Grid	(Flake et al., 2015) – Emotional Cost scale
A1	This class is emotionally draining.	Likert-type and Grid	(Flake et al., 2015) – Emotional Cost scale
B8	This class is too frustrating.	Likert-type and Grid	(Flake et al., 2015) – Emotional Cost scale
B1	This class is too stressful.	Likert-type and Grid	(Flake et al., 2015) – Emotional Cost scale
B10	This class makes me feel too anxious	Likert-type and Grid	(Flake et al., 2015) – Emotional Cost scale
C1	I worked on my homework for 20 hours, and I didn't really understand it.	Grid only	Developed for this project
C2	I worked on my homework for 20 hours, and I think I understood most of it.	Grid only	Developed for this project
C3	I worked on my homework for 20 hours, and I understood all of it and learned some new things.	Grid only	Developed for this project

Cost items used on the *Grid Item Pilot Survey* (March 2020)

Handout to accompany "CHALLENGES ASSESSING STATISTICS ATTITUDES: OPPORTUNITIES AND COSTS", RCML 2020

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Heatmaps of Group B Items 1-9
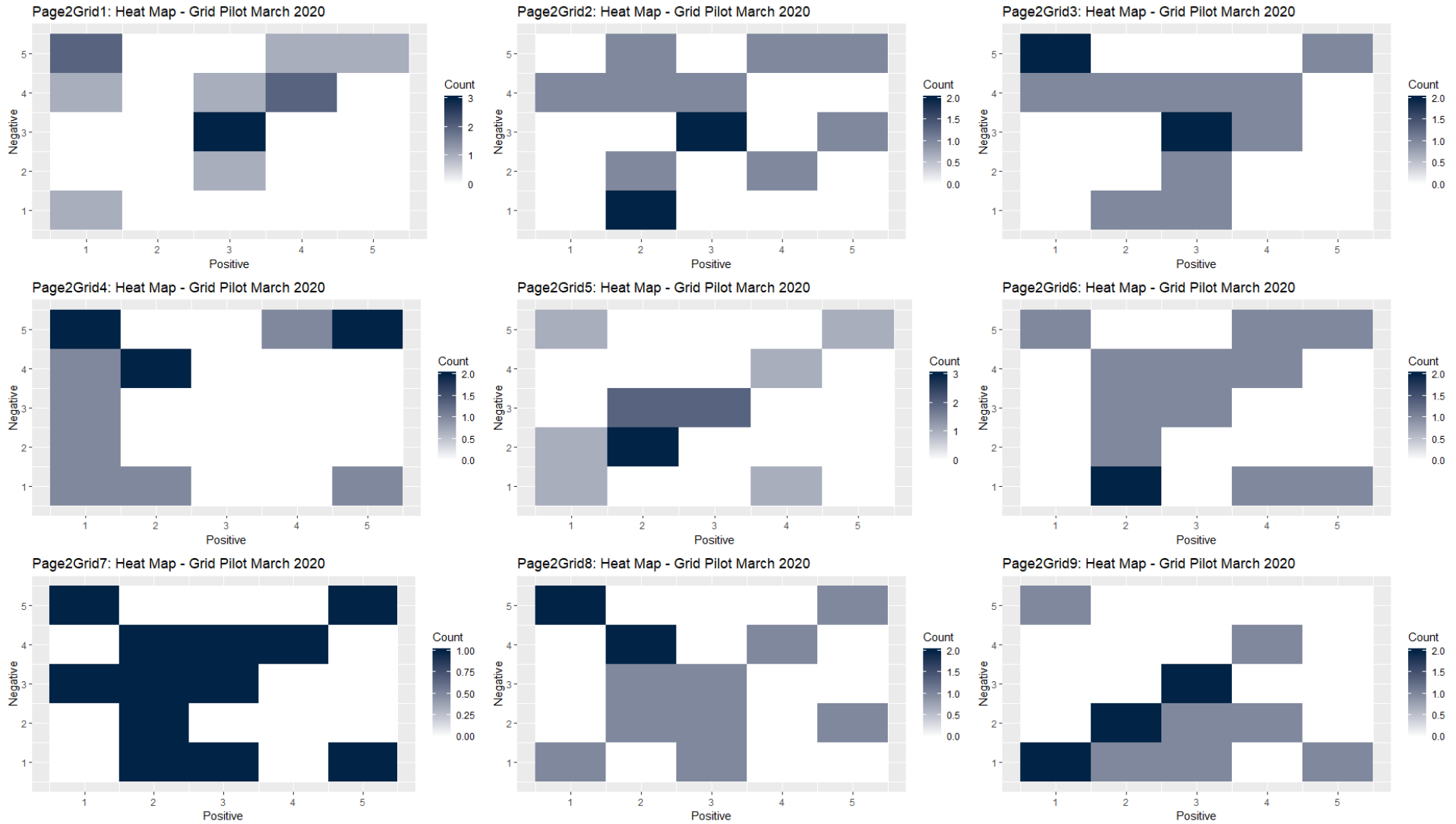
Heatmaps illustrating the number of participants who selected each cell in the grid for each of the first 9 items in Group B (presented before Group A).

All heatmaps are based on n=13 responses except Page2Grid7 which is based on n=12.

These are <u>preliminary</u> results based on a small sample size.