



Improving scientific writing

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*presenting

Study objective:

The main objective of the current project was to examine student perceptions of the new worksheets and activities in preparing the foundation of their final submission.

Take away message:

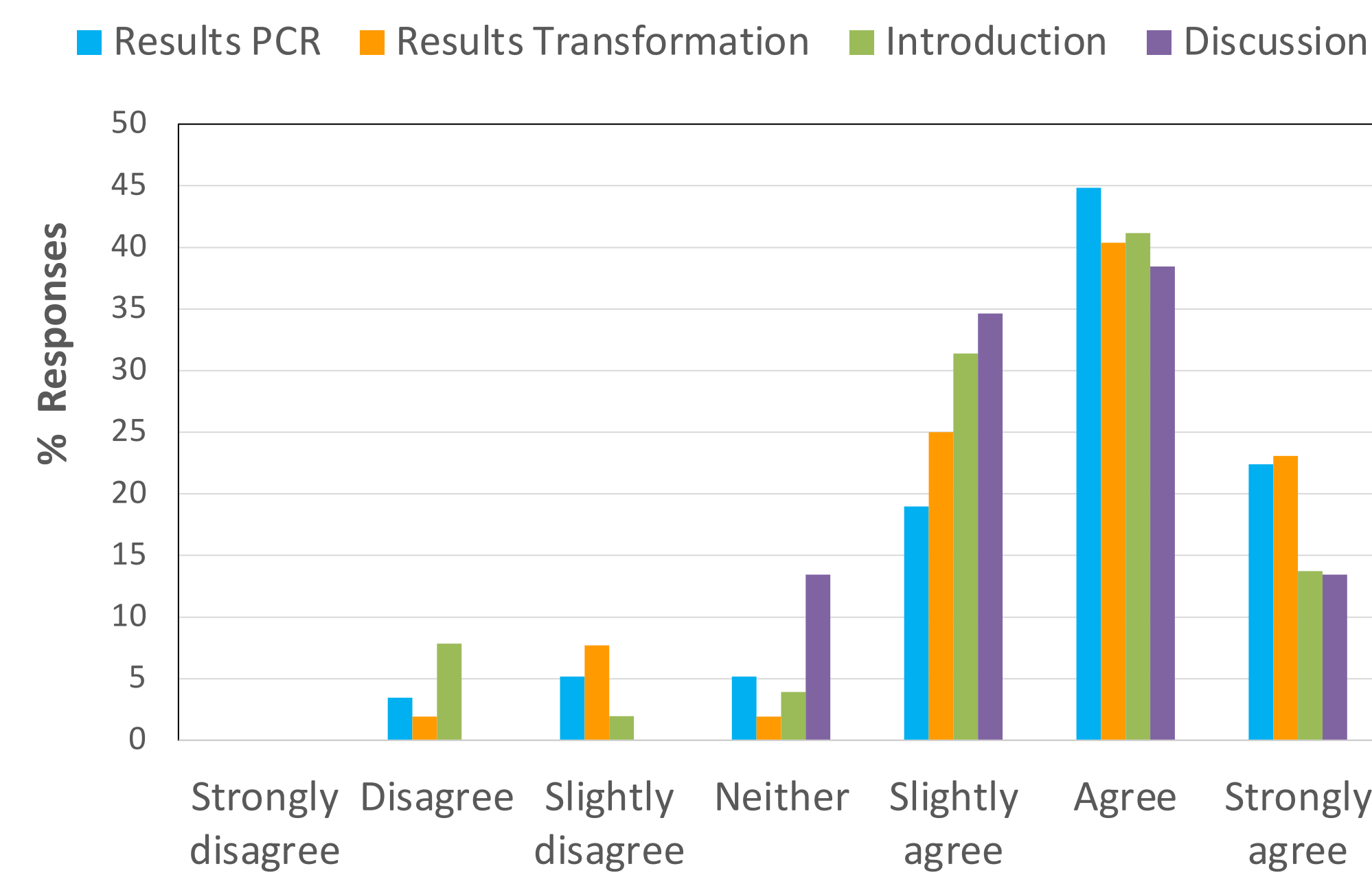
- Overall students perception of the worksheets were positive.
- They perceived the worksheets helpful for organization, preparedness and approach of the writing process.
- There was much more spread in the impact of the worksheets on students' confidence in their writing.
- There is a clear coloration between student perception of confidence to how well the worksheets helped prepare and organized them in their writing.
- Of the four worksheets, the results worksheet scored the highest correlation to confidence.

Future directions:

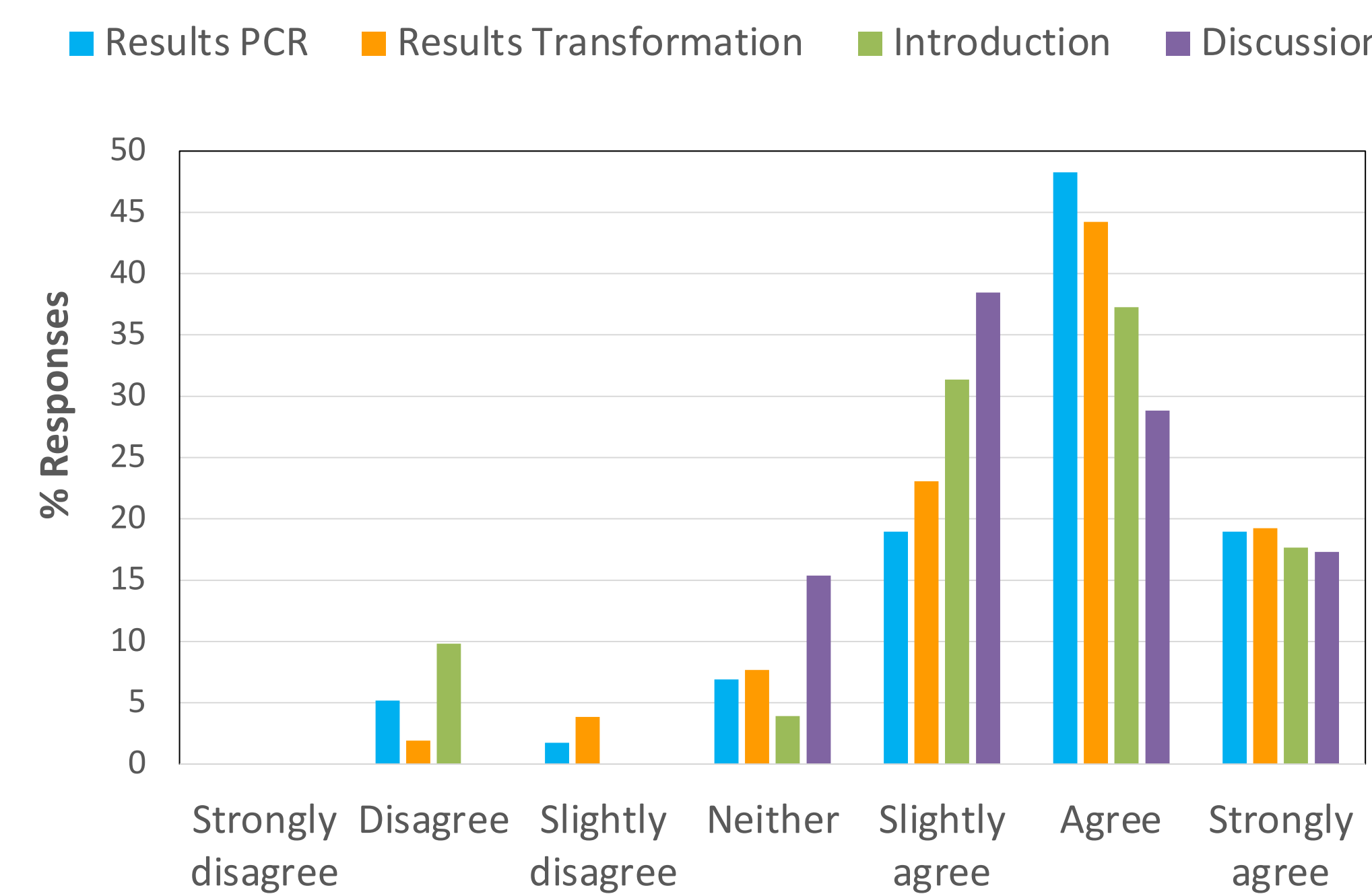
Conduct small group discussion to better understand student definition of confidence and how we can boost their confidence in scientific writing.

Results:

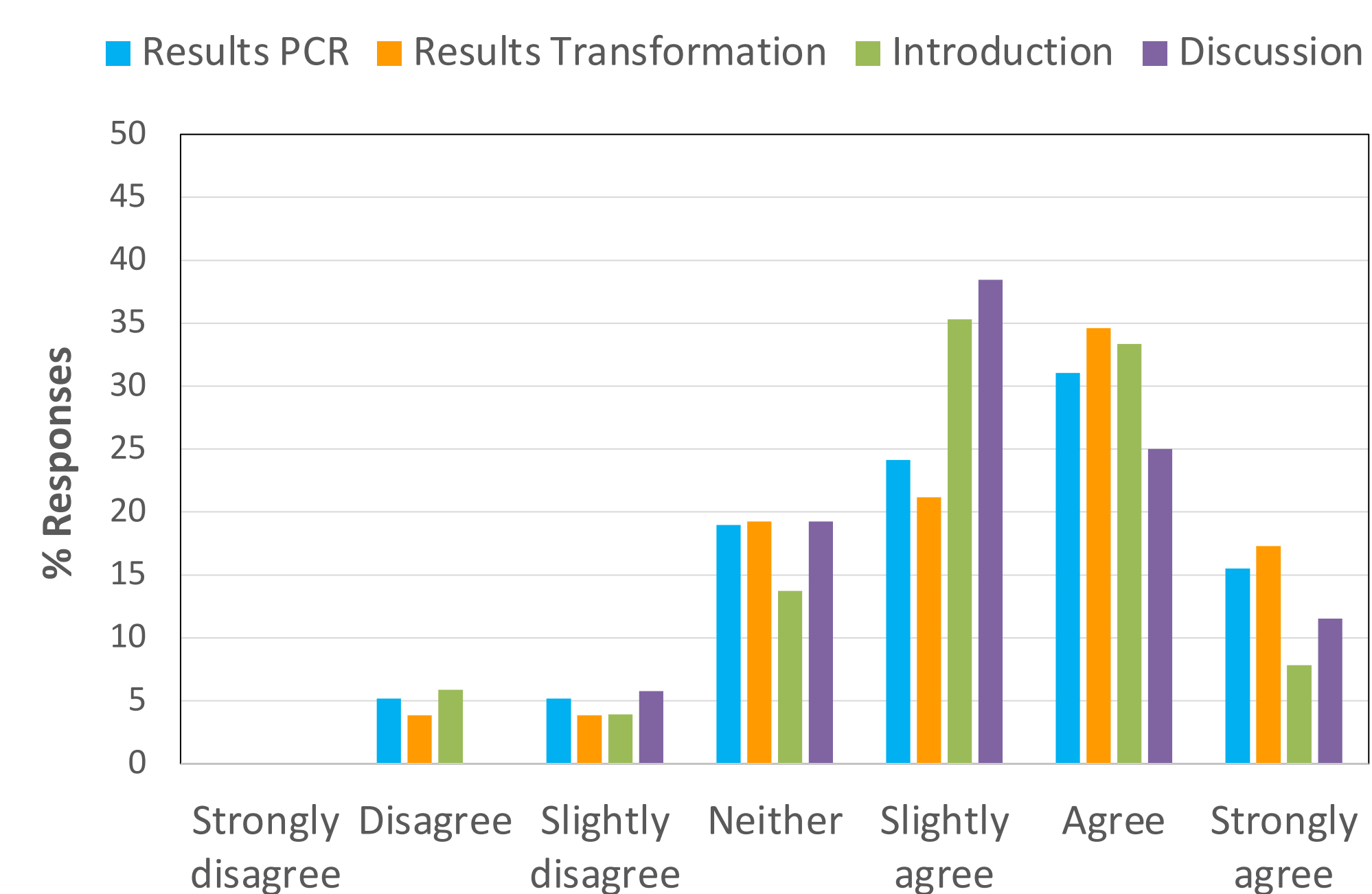
Preparedness: The worksheet helped me feel more prepared to write my final report.



Usefulness: The worksheet was a useful resource for working toward my final report.



Confidence: The worksheet helped me feel more confident about writing my final report.



Coloration studies

Table 1. Correlations between all questions on confidence-related questions on end-of-term survey. These correlations show that there is fairly good reliability amongst the questions, with the exception of the reverse-coded question about receiving more guidance.

	Overall, the worksheets helped my improve confidence in my writing.	I think that the scientific worksheets used in this course helped me feel more confident in my ability to write a scientific report.	Now that I have completed Biology 341, I feel confident in my ability to organize my thoughts and write a scientific report/article.	Although I have completed Biology 341, I still lack confidence in my ability to organize my thoughts and write a scientific report/article and would like to receive more guidance.
Overall, the worksheets helped my improve confidence in my writing.	1	.883**	.342*	-.076
I think that the scientific worksheets used in this course helped me feel more confident in my ability to write a scientific report.		1	.340*	-.121
Now that I have completed Biology 341, I feel confident in my ability to organize my thoughts and write a scientific report/article.			1	.098
Although I have completed Biology 341, I still lack confidence in my ability to organize my thoughts and write a scientific report/article and would like to receive more guidance.				1

**Correlation is significant at the 0.01 level
*Correlation is significant at the 0.05 level

Table 2. Correlations between end-of-term survey questions about the worksheets. These results show that confidence is linked to feeling more prepared, better understanding how to start, write step-by-step, and organize thoughts.

	feel more confident in my ability to write a scientific report.	feel more prepared to write a scientific report.	better understand how to start the writing process.	better understand the step-by-step process of writing a scientific report.	organize my thoughts.
feel more confident in my ability to write a scientific report.	1	.804**	.663**	.529**	.614**
feel more prepared to write a scientific report.		1	.751**	.526**	.650**
better understand how to start the writing process.			1	.582**	.579**
better understand the step-by-step process of writing a scientific report.				1	.450**
organize my thoughts.					1

**Correlation is significant at the 0.01 level

Selected quotes:

"I am very glad to have these writing series because they make sure I stay on top of the writing and do not do it all in one night like all of my previous large papers."

"Helped me organize my idea and identify what the overall big picture of the report is."

Methodology:

Student perception on four different writing series worksheets were collected via brief surveys. This study has been conducted over three terms.

Students were asked to evaluate the worksheets based on whether the worksheets helped students:

- feel more prepared
- better understand how to start writing + the step-by-step process of writing (useful)
- improve student confidence in their writing

Acknowledgement:

- This study was funded by UBC SoTL seed grant.
- We thank the Biology 341 students who participated in this study