ChatGPT_Survey Overview

TEMSE GenAI group - SoM

2024-07-31

1 About Survey Details

The purpose of the survey is to investigate students' experiences and perceptions of generative AI (**GEN-AI SPEX Survey**!). This survey aims to understand how students like you utilize and perceive Generative AI technologies, including but not limited to tools like ChatGPT.

There are **3 main parts (Familiarity - Benefits and Challenges - Future sections)** of the survey including both **5-scale likert type** of questions and **open ended** ones at the end of each section.

Some key aspects;

- University online survey system (Jisc) is used for the survey delivery and management.

- **Students who are taking a course in the School of Mathematics are invited to participate in this study**.

- The survey was live **during the second half of SEM2** (after flexible learning week) until the end of week 10.

- **Total number of responses 295** (around 10% of the sample) in 53 running days!
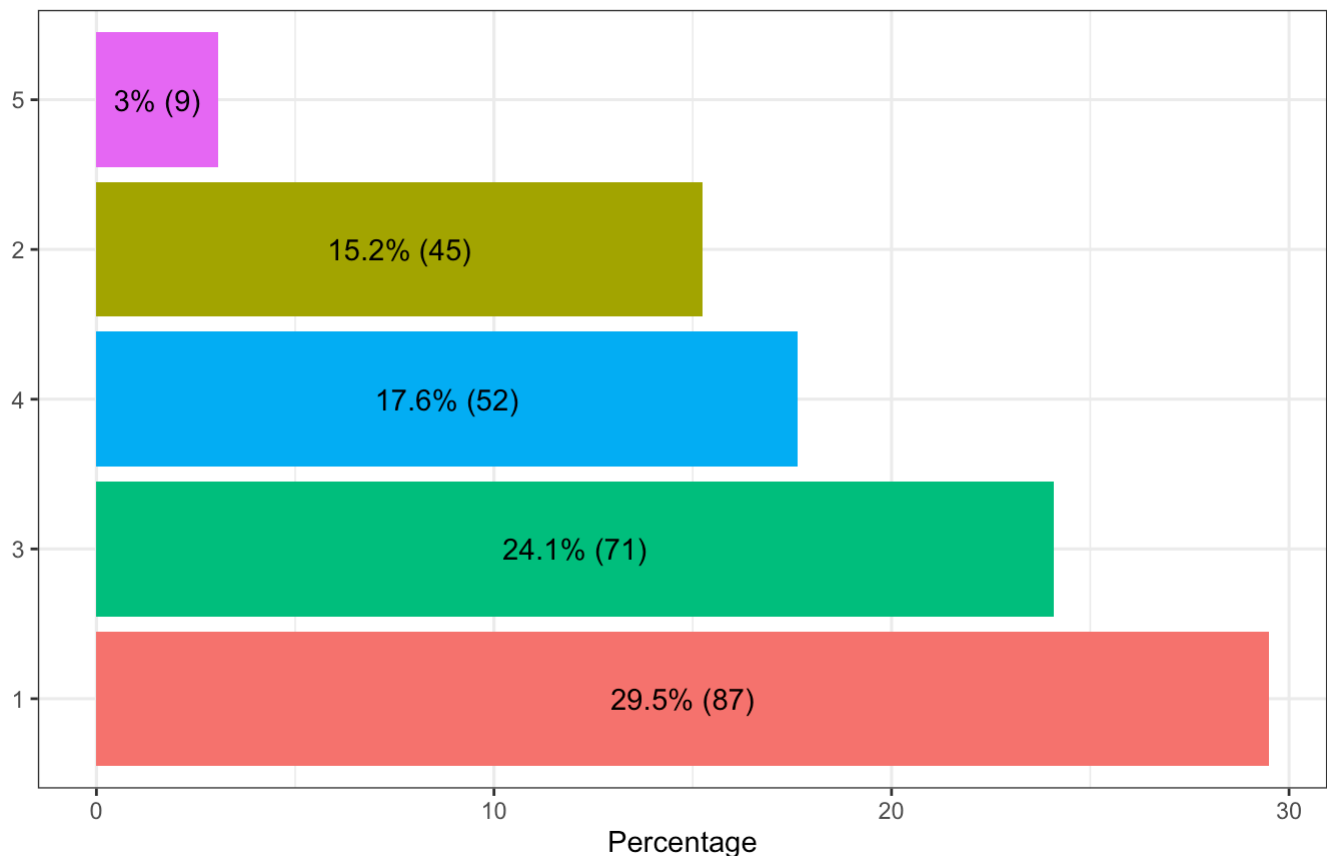
1.1 Data Description

Are you an undergraduate or postgraduate student?
Level overview of the participants
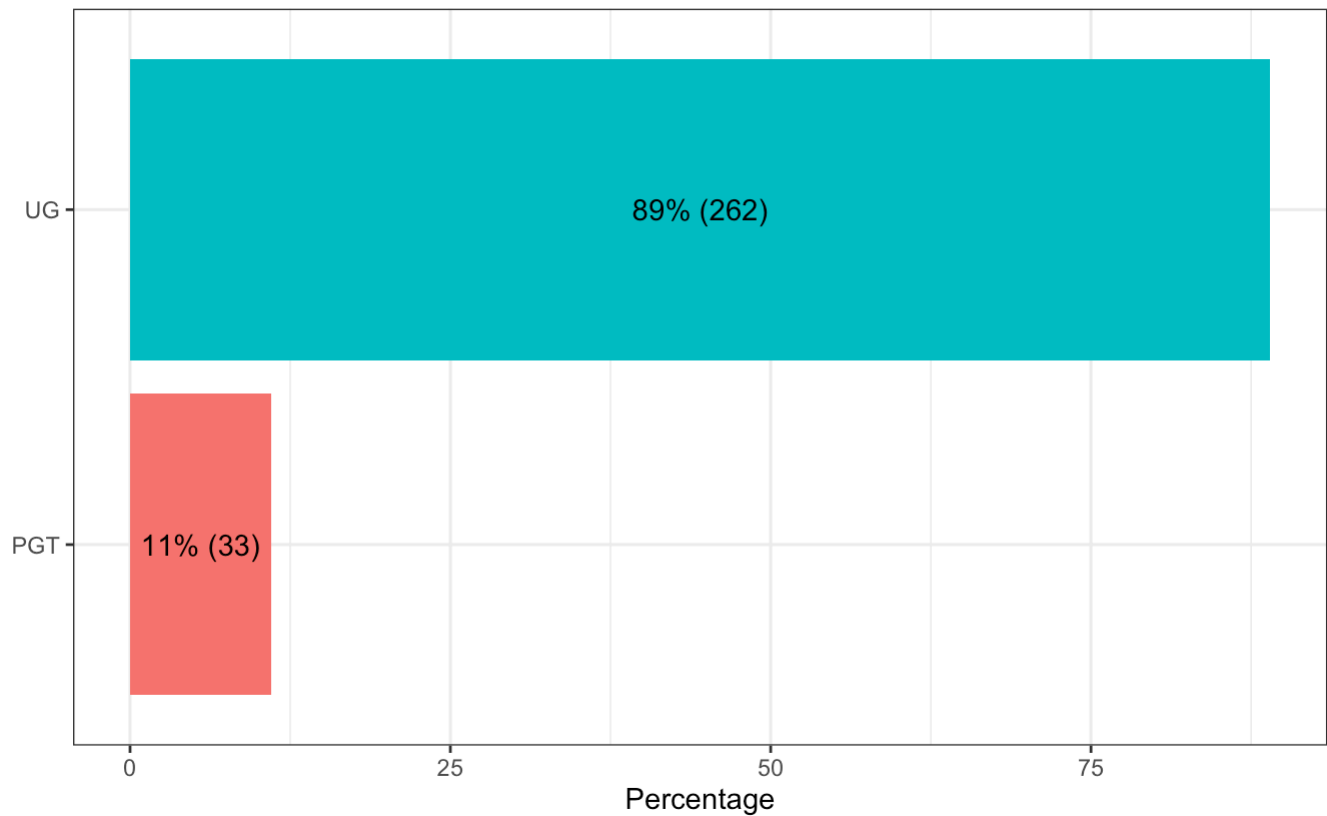
Data Source: SoM GenAI Survey

UG Year level for the participants
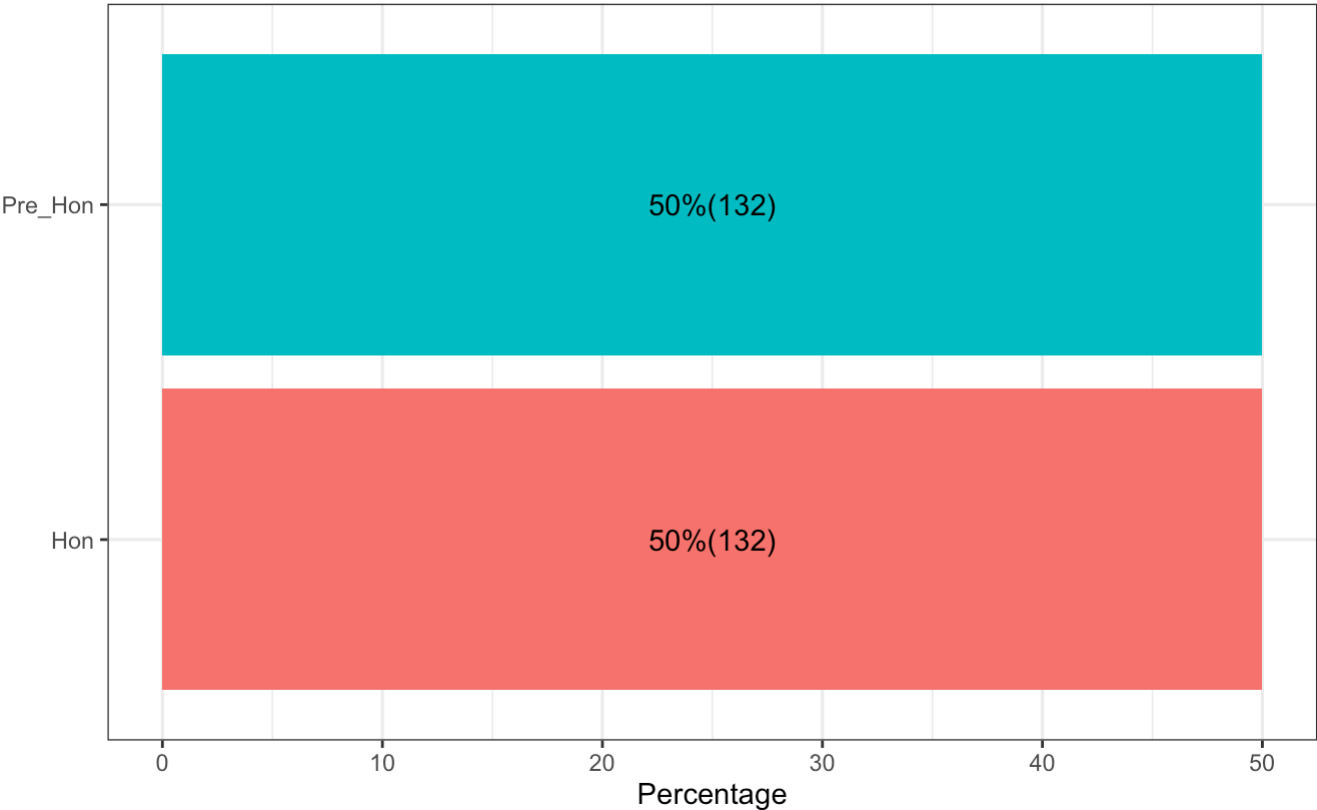

Data Source: SoM GenAI Survey

In terms of Pre-honours and Honours separation, based on year levels (1-2: Pre Honours, 3-4-5: Honours)

Are you an pre-honours or honours student?

Level overview of the participants

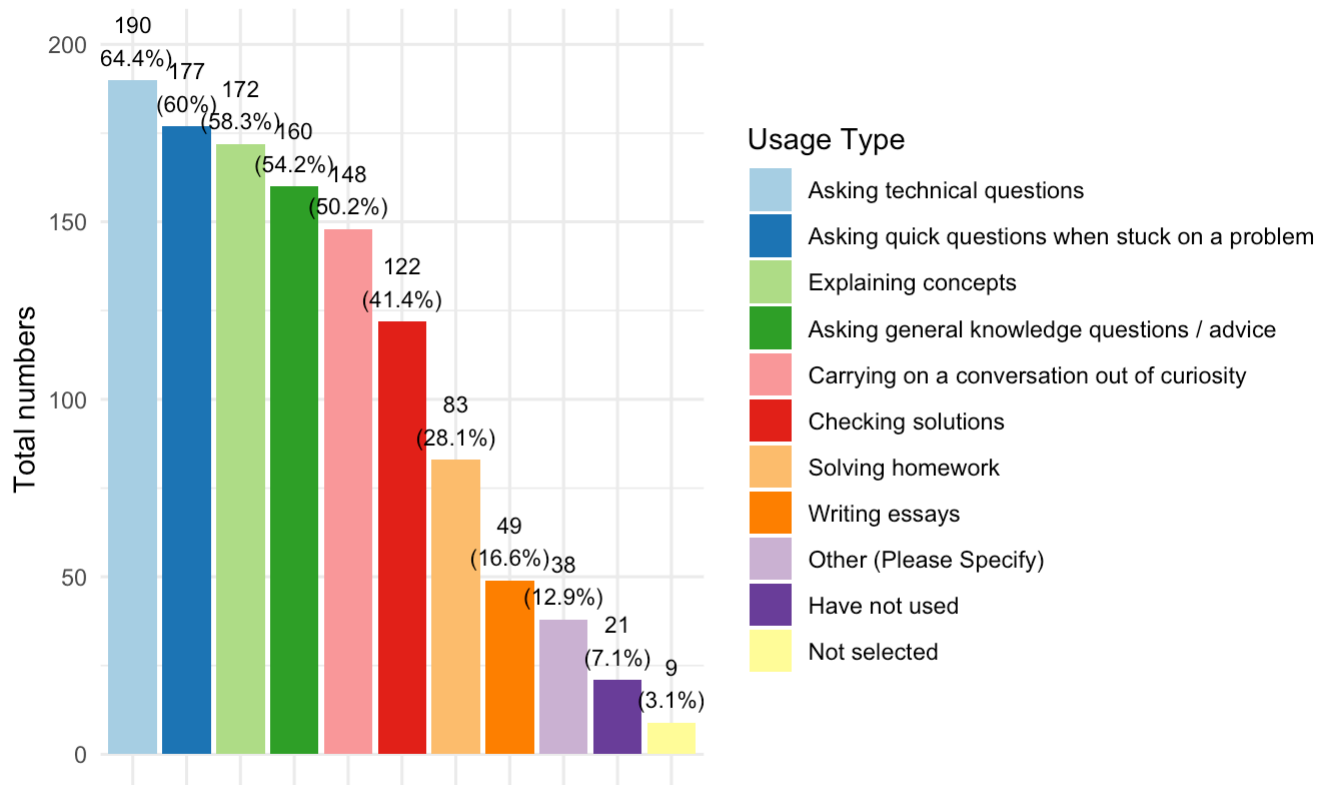Data Source: SoM GenAI Survey

Which degree programme are you currently following (UG)?

Degree Level overview of the participants
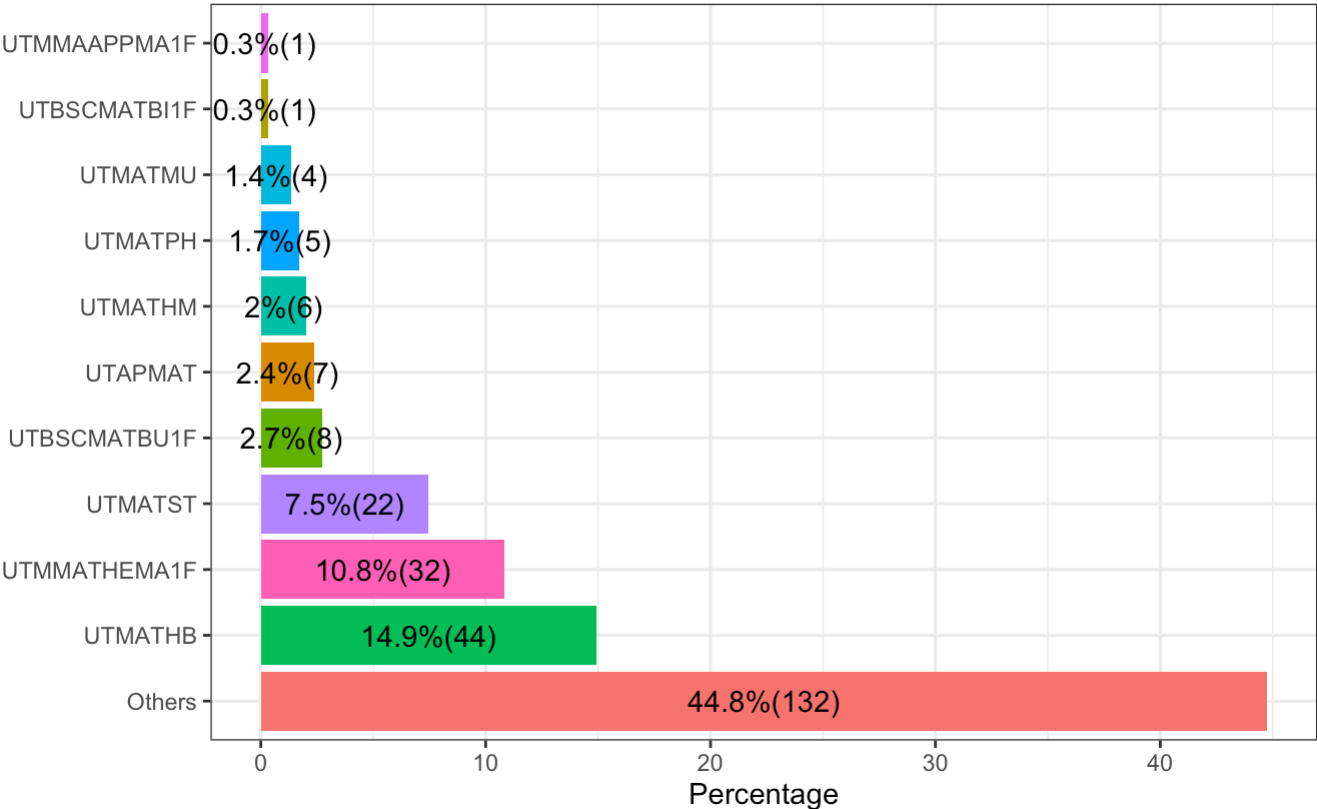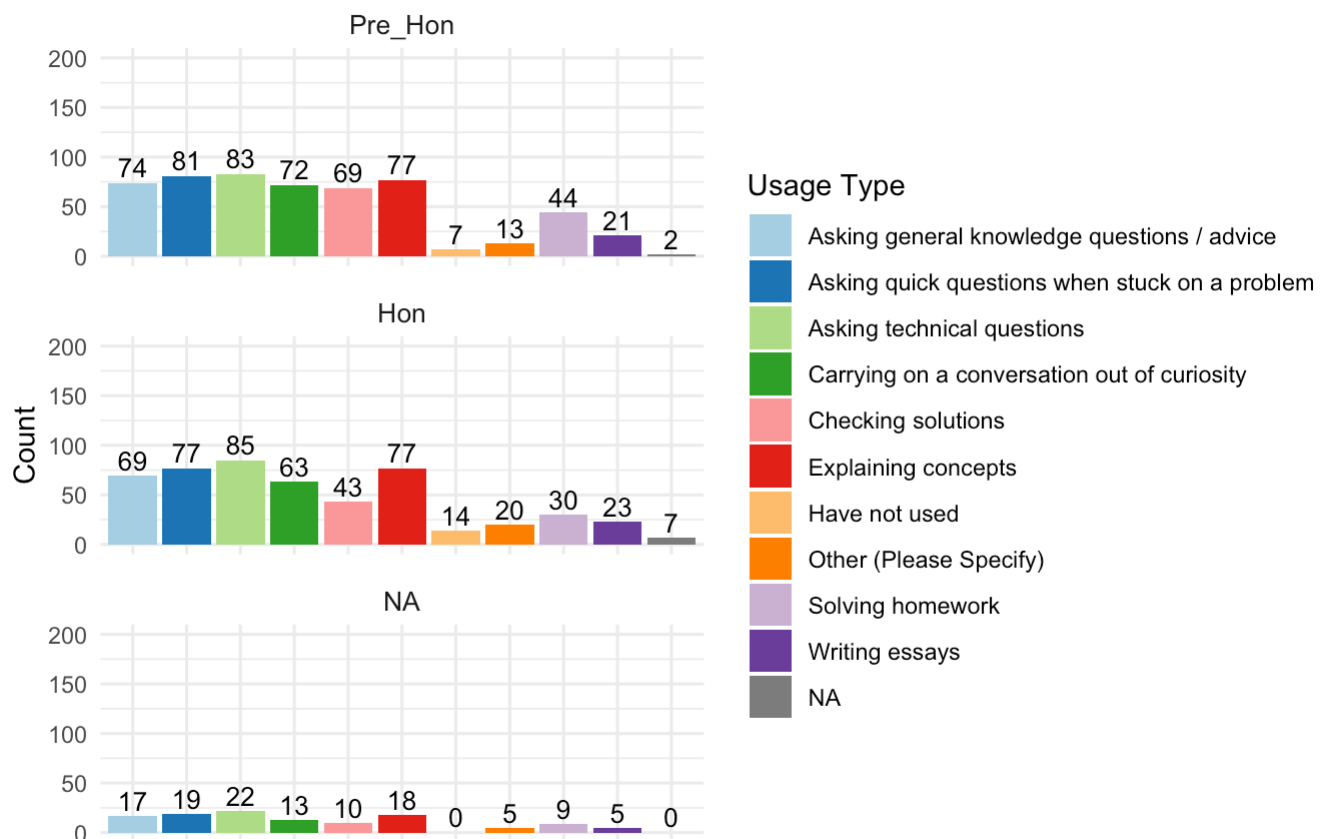

Data Source: SoM GenAI Survey

Distribution of Ways How GenAI is Used

The overall percentages are calculated among all participants.
Note that these items can be selected more than ones

Based on pre-Hon and Hon separation

Distribution of Ways How GenAI is Used

1.2 Survey Key Insight

- **Almost all of our students** report that they have used genAI to some extent.

- **More than half of our students** have used genAI for:

  - asking technical questions ();
  - asking quick questions when stuck on a problem ();
  - explaining concepts (including generating toy examples) ();
  - asking general knowledge questions or advice ().

- **Less than half of our students** report that they have used genAI for:

  - checking solutions ();
  - solving homework ();
  - writing essays ().

- **Some students** mentioned explicitly that they had used genAI tools for

  - coding,
  - summarising,
  - proofreading,
  - producing artwork, or
  - simply "messing around with them for fun".

Below, each item response is visually summarized based on the separation of Pre-Hons vs Hons

2 Familiarity

- *Item 1:* **I believe advancements in generative AI tools will significantly enhance my personal and academic growth.**

Familiarity Item 1

I believe advancements in generative AI tools will significantly enhance my personal and academic growth
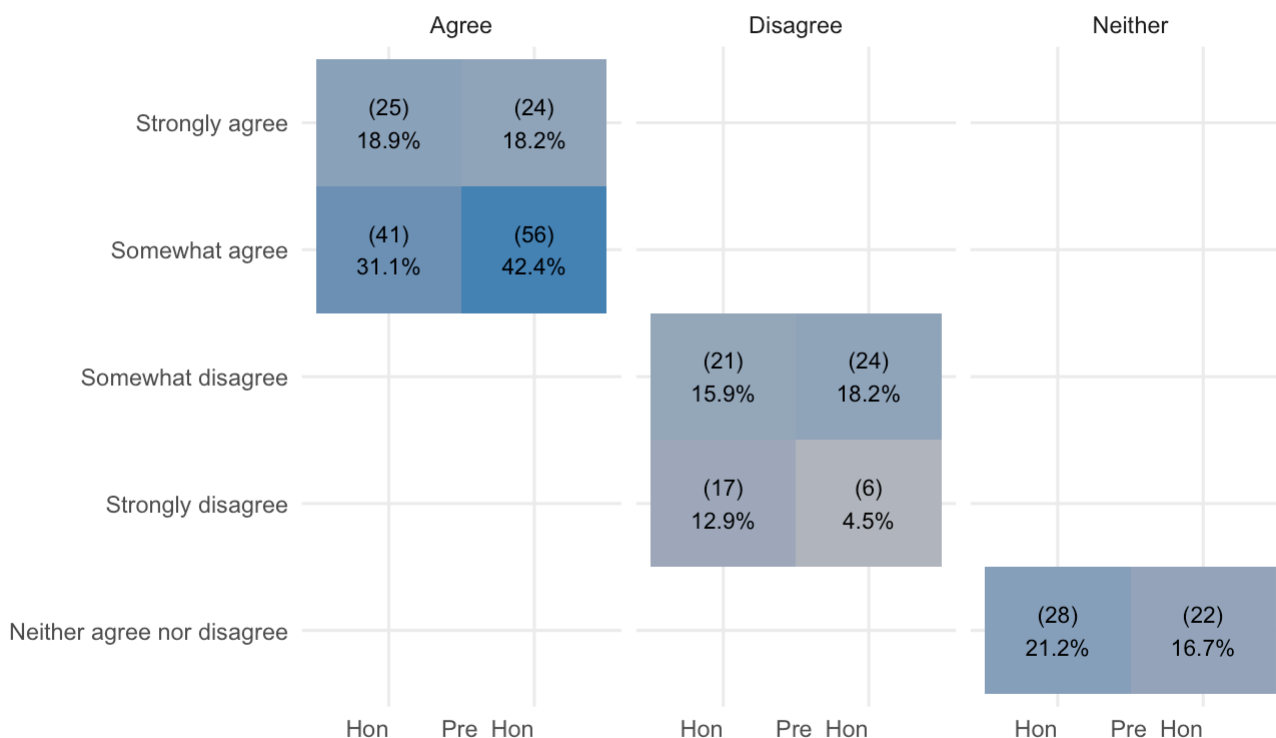
Overall; Agree: %55.3, Disagree: %25.8, Neither: %18.9

Item 2: I prefer traditional search engines over Generative AI tools for information.

Familiarity Item 2

I prefer traditional search engines over Generative AI tools for information.
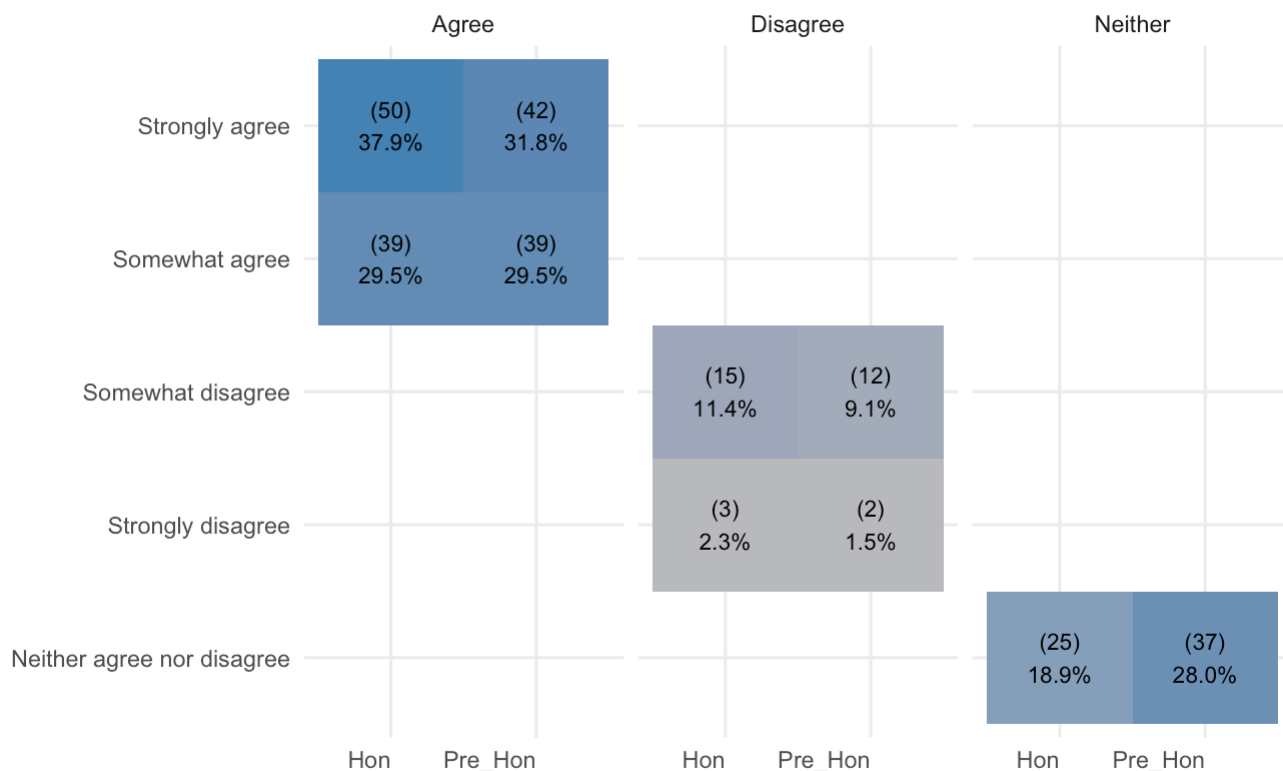
Overall; Agree: %64.4, Disagree: %12.1, Neither: %23.5

- *Item 3:* **I am confident in my ability to use Generative AI tools effectively.**

Familiarity Item 3

I am confident in my ability to use Generative AI tools effectively.
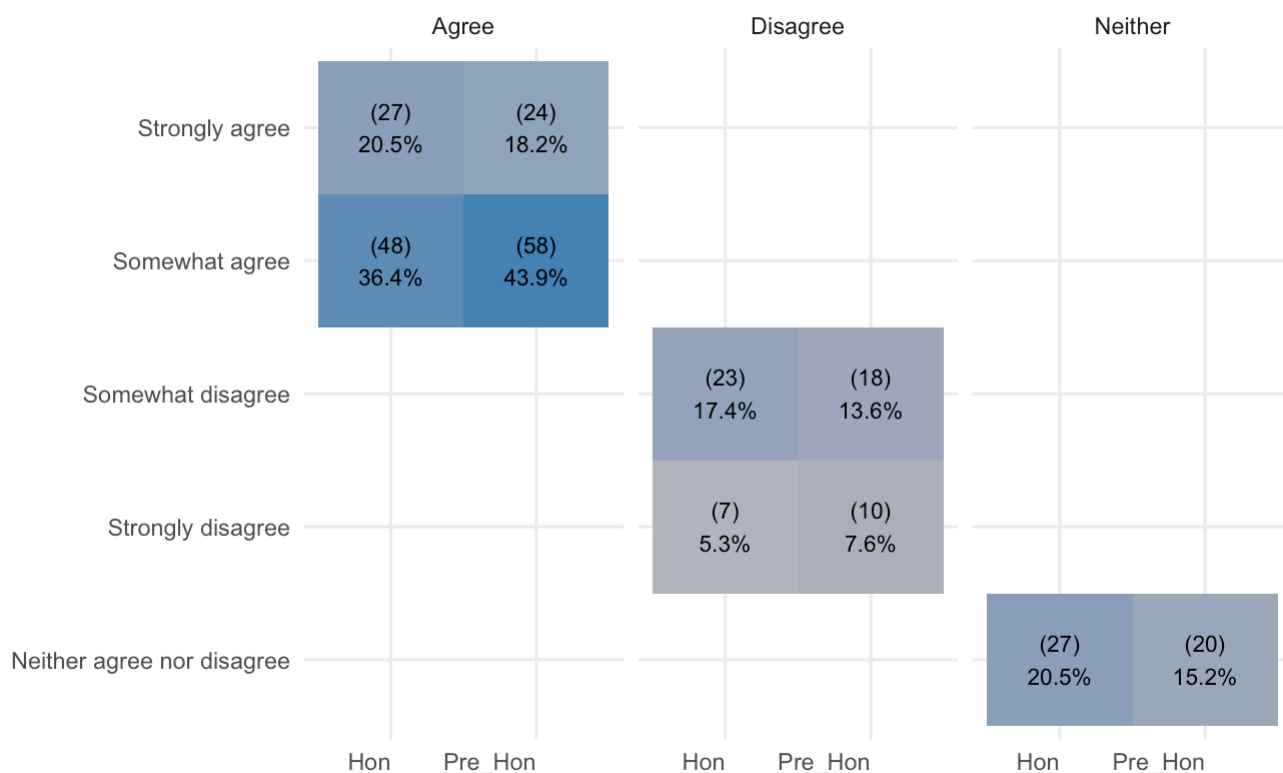
Overall; Agree: %59.9, Disagree: %22.1, Neither: %17.9

- *Item 4:* **Generative AI tools are essential in my self-learning process.**

Familiarity Item 4
Generative AI tools are essential in my self-learning process.

	Agree		Disagree		Neither	
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon
Strongly agree	(18) 13.6%	(10) 7.6%				
Somewhat agree	(17) 12.9%	(26) 19.7%				
Somewhat disagree			(34) 25.8%	(36) 27.3%		
Strongly disagree			(50) 37.9%	(35) 26.5%		
Neither agree nor disagree					(13) 9.8%	(25) 18.9%
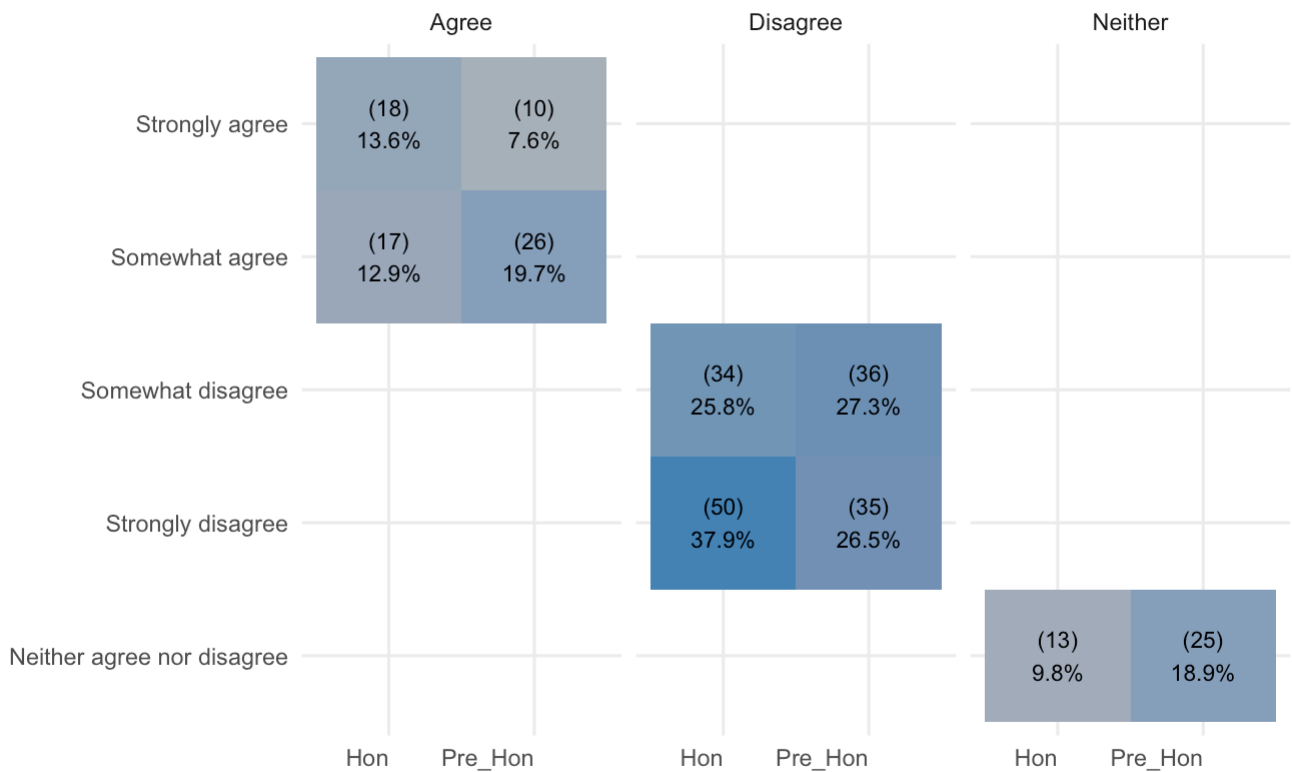
Overall; Agree: %26.9, Disagree: %58.7, Neither: %14.4

- Item 5: I am not concerned with staying updated on Generative AI advancements.

Familiarity Item 5
I am not concerned with staying updated on Generative AI advancements.

	Agree		Disagree		Neither	
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon
Strongly agree	(10) 7.6%	(15) 11.4%				
Somewhat agree	(38) 28.8%	(40) 30.3%				
Somewhat disagree			(42) 31.8%	(44) 33.3%		
Strongly disagree			(15) 11.4%	(12) 9.1%		
Neither agree nor disagree					(26) 19.7%	(19) 14.4%
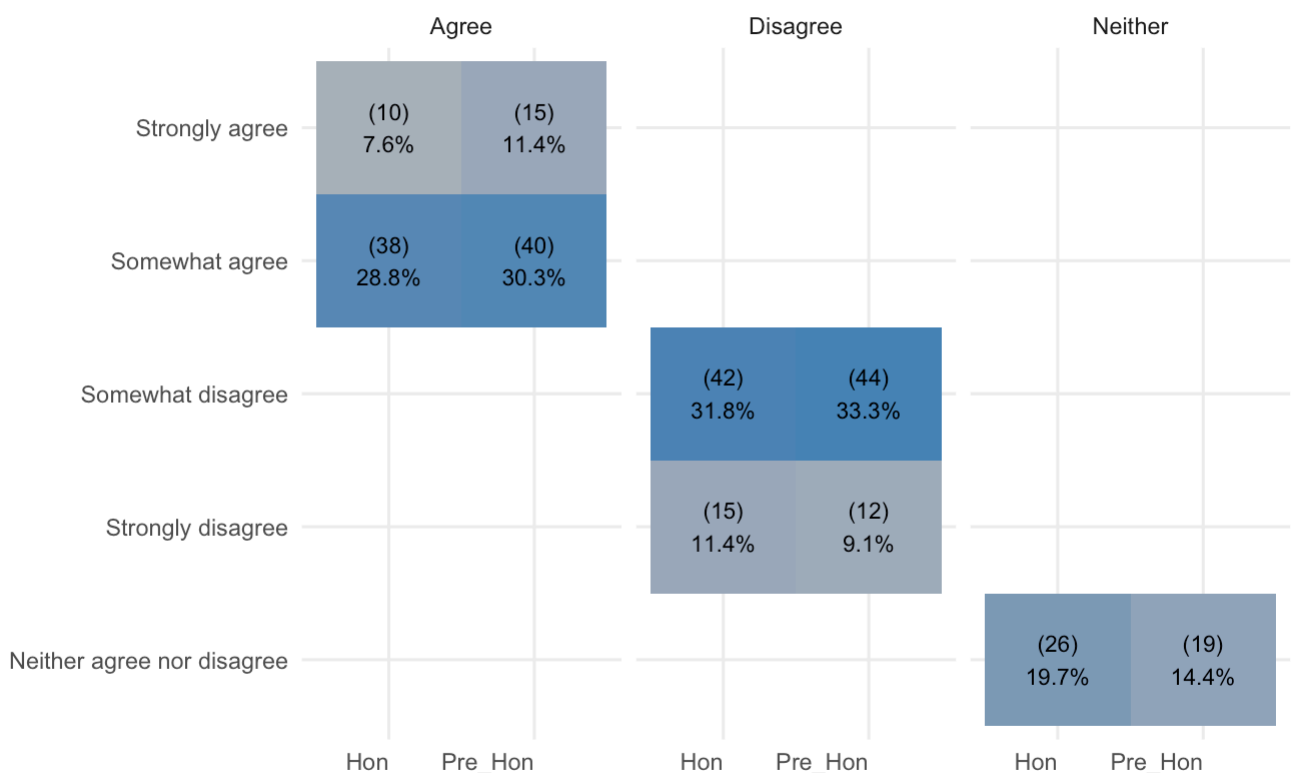
Overall; Agree: %39.5, Disagree: %43.3, Neither: %17.2

- Item 6: Responses from Generative AI tools often lack reliability and contextual appropriateness.

Familiarity Item 6

Responses from Generative AI tools often lack reliability and contextual appropriateness.
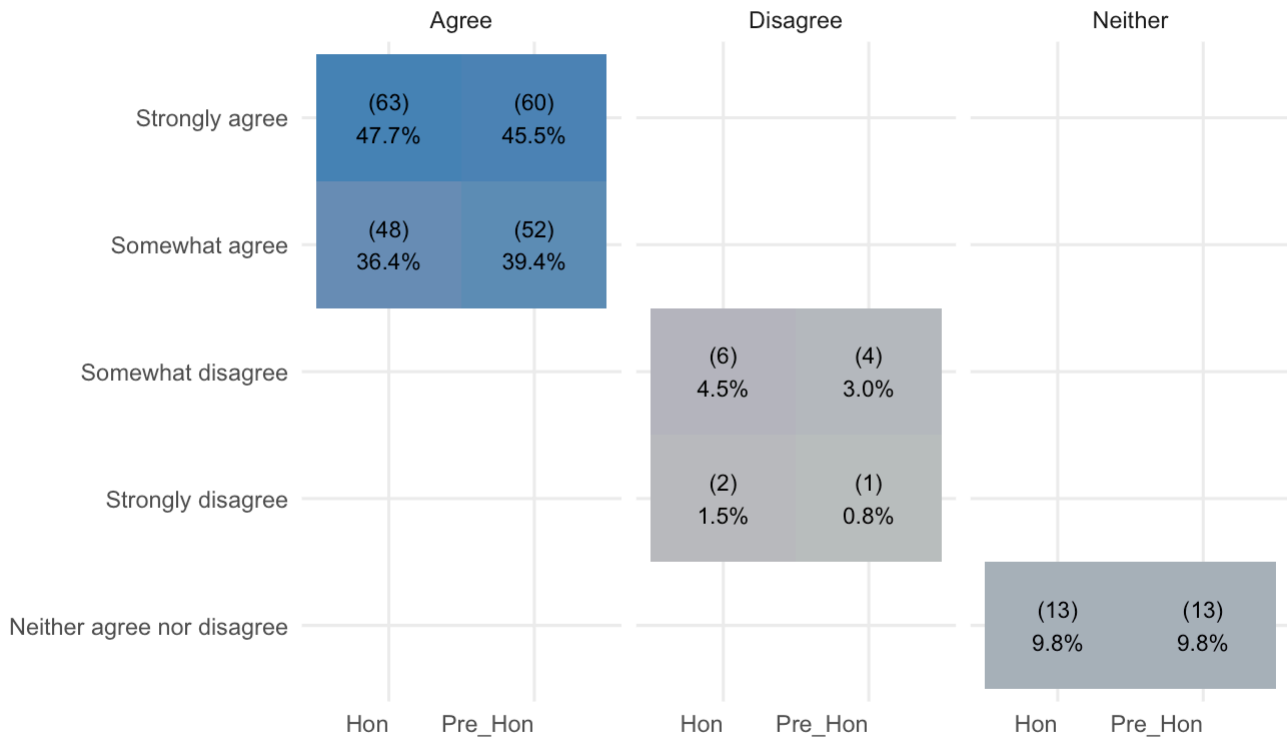
Overall; Agree: %85.1, Disagree: %5, Neither: %9.9

- Item 7: Generative AI tools are accessible and user-friendly, regardless of one's economic or technical background.

Familiarity Item 7

Generative AI tools are accessible and user-friendly,
regardless of ones economic or technical background.
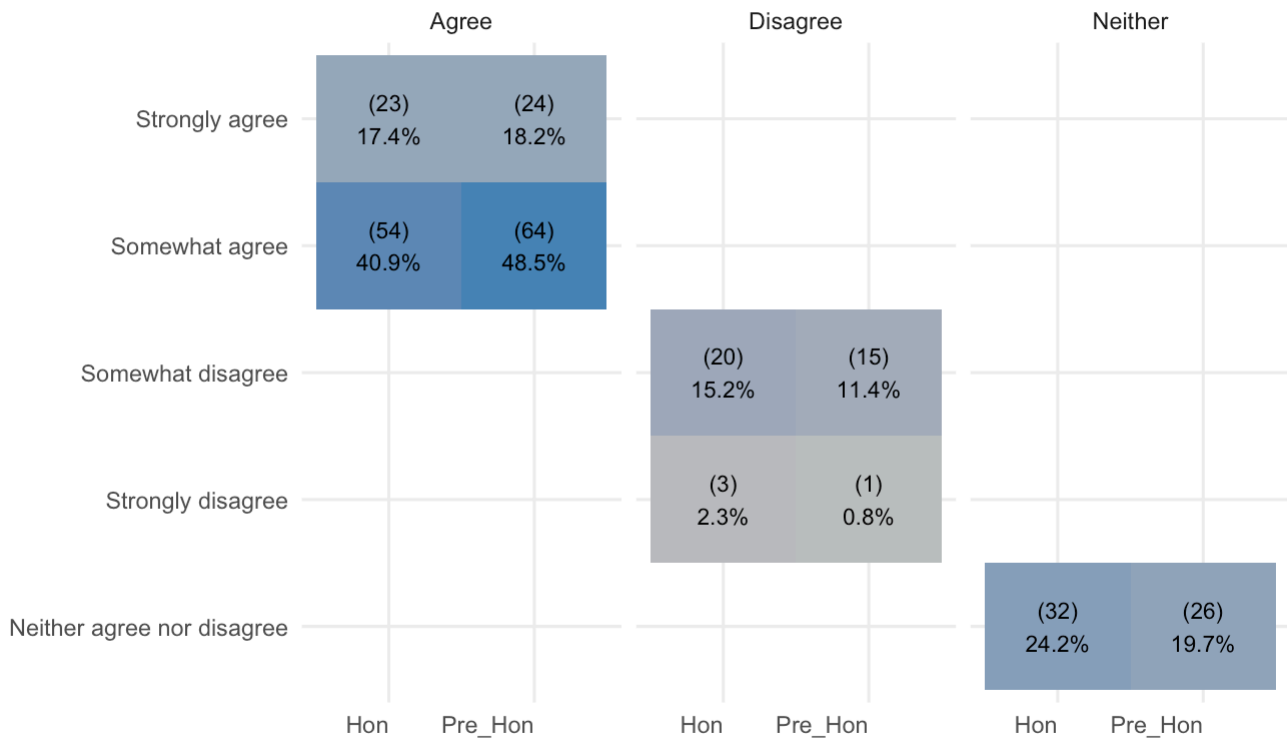
Overall; Agree: %63, Disagree: %14.9, Neither: %22.1

- Item 8: I lack understanding of data security and privacy concerns in using Generative AI tools.

Familiarity Item 8

I lack understanding of data security and privacy
concerns in using Generative AI tools.
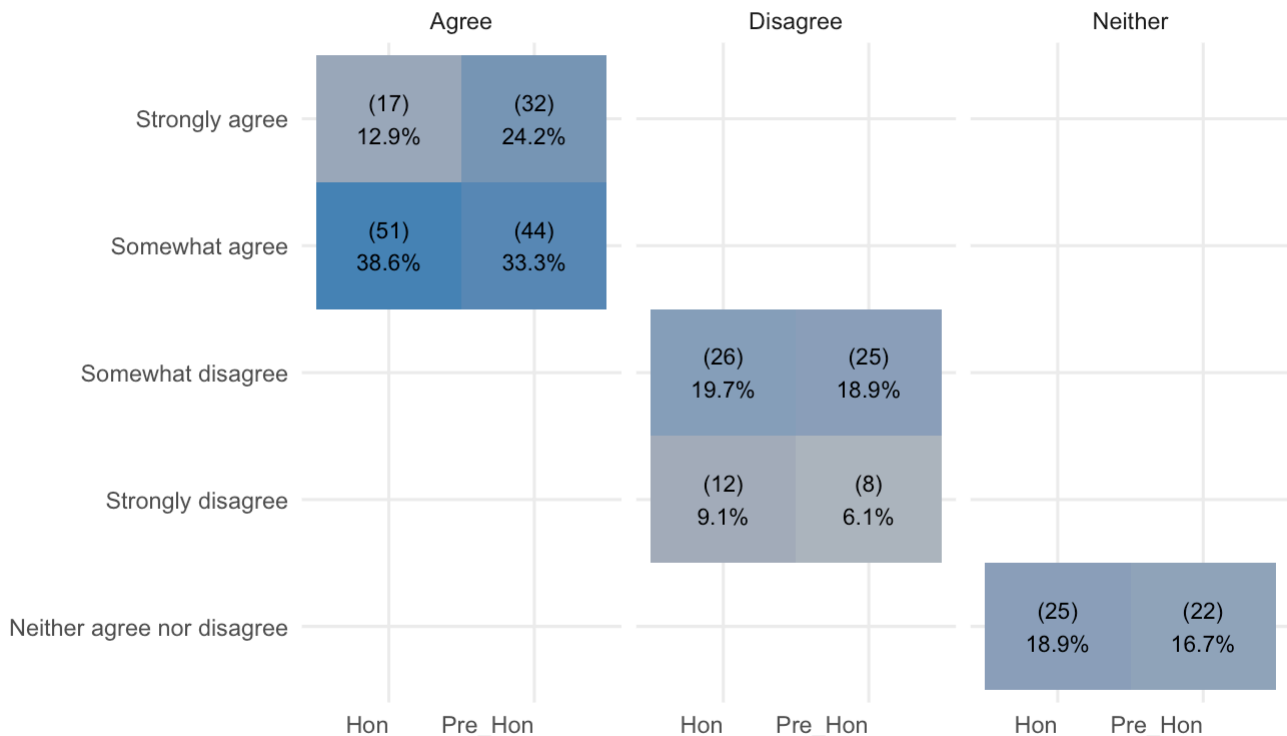
Overall; Agree: %55, Disagree: %27.1, Neither: %17.9

3 Benefits and Challenges

Considered items are given below;

- *Item 1:* **I believe Generative AI tools can help students save time.**

Benefits and Challenges Item 1
I believe Generative AI tools can help students save time.

	Agree		Disagree		Neither	
Strongly agree	(41) 31.1%	(53) 40.2%				
Somewhat agree	(69) 52.3%	(59) 44.7%				
Somewhat disagree			(7) 5.3%	(4) 3.0%		
Strongly disagree			(3) 2.3%	(3) 2.3%		
Neither agree nor disagree					(12) 9.1%	(13) 9.8%
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon
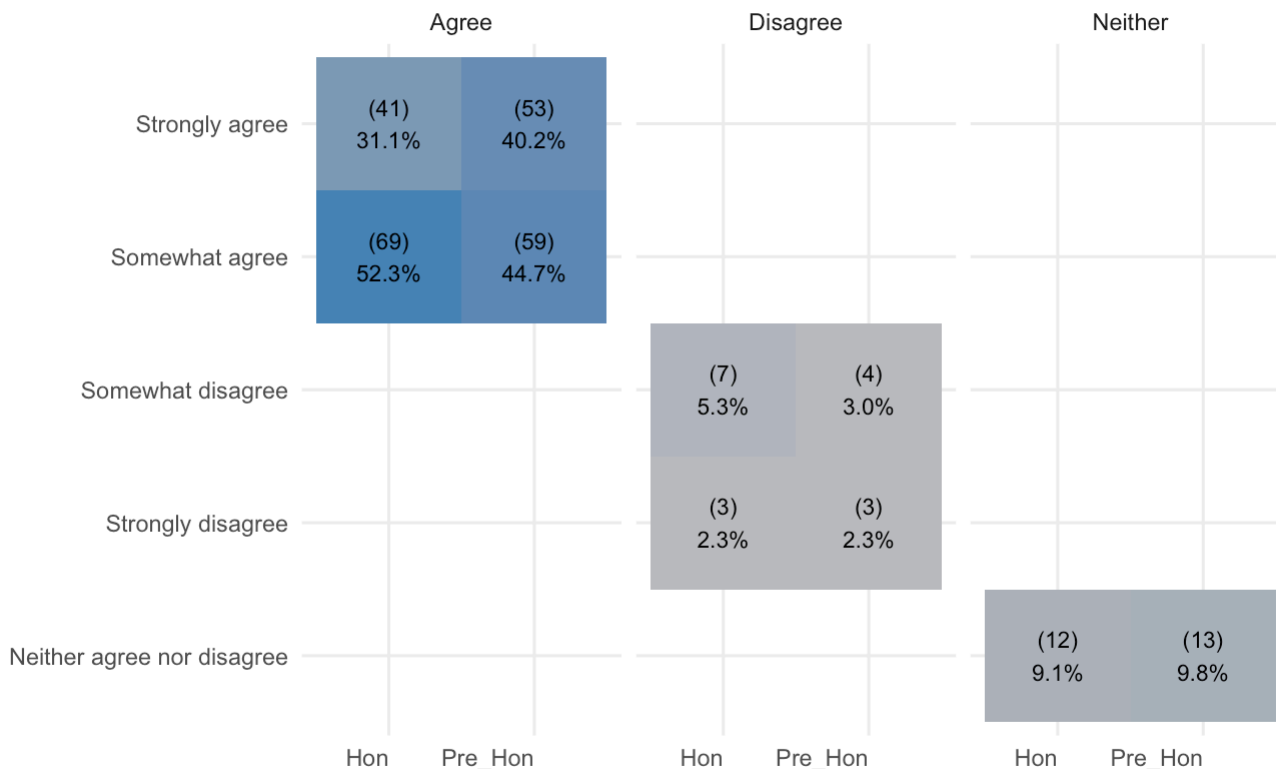
Overall; Agree: %84.1, Disagree: %6.4, Neither: %9.5

- Item 2: I don't think Generative AI tools can help me write more efficiently.

Benefits and Challenges Item 2
I dont think Generative AI tools can help me write more efficiently.

	Agree		Disagree		Neither	
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon
Strongly agree	(19) 14.4%	(14) 10.6%				
Somewhat agree	(28) 21.2%	(23) 17.4%				
Somewhat disagree			(41) 31.1%	(59) 44.7%		
Strongly disagree			(16) 12.1%	(8) 6.1%		
Neither agree nor disagree					(27) 20.5%	(26) 19.7%
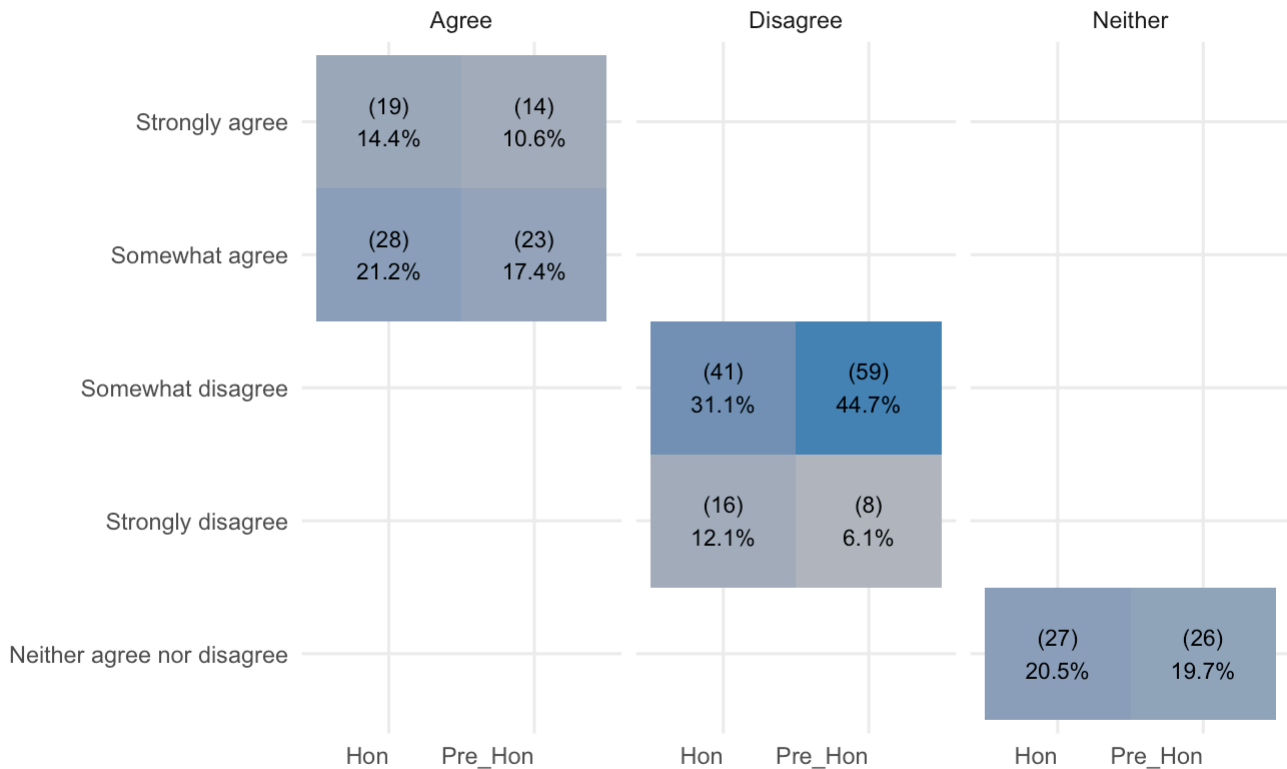
Overall; Agree: %32.2, Disagree: %47.5, Neither: %20.3

- Item 3: I think Generative AI tools can provide me with personalized and immediate feedback.

Benefits and Challenges Item 3
I think Generative AI tools can provide me with personalized and immediate feedback.

	Agree		Disagree		Neither	
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon
Strongly agree	(15) 11.4%	(22) 16.7%				
Somewhat agree	(51) 38.6%	(53) 40.2%				
Somewhat disagree			(30) 22.7%	(22) 16.7%		
Strongly disagree			(14) 10.6%	(10) 7.6%		
Neither agree nor disagree					(21) 15.9%	(24) 18.2%
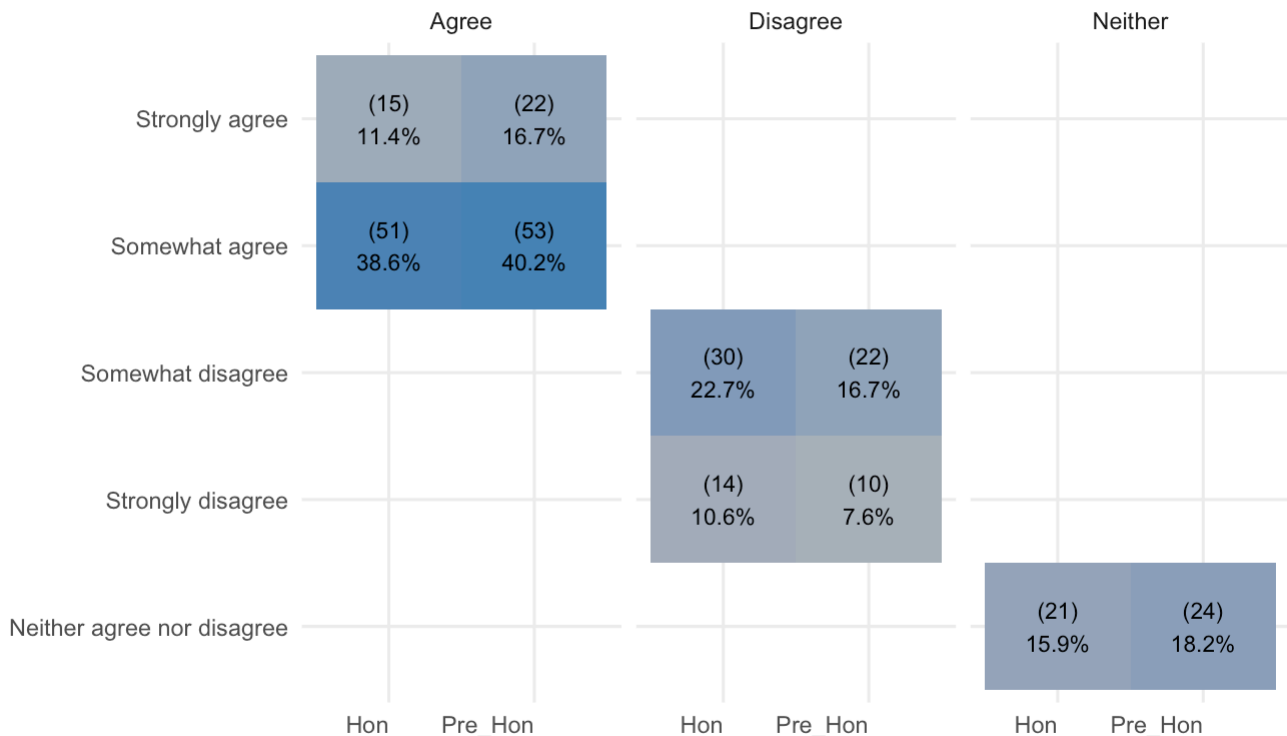
Overall; Agree: %53.8, Disagree: %29, Neither: %17.2

- *Item 4:* **Generative AI tools are as effective as human instructors in guiding coursework.**

Benefits and Challenges Item 4
Generative AI tools are as effective as human instructors in guiding coursewo

	Agree		Disagree		Neither	

Agree

	Hon	Pre_Hon
Strongly agree	(2) 1.5%	(6) 4.5%
Somewhat agree	(18) 13.6%	(14) 10.6%

Disagree

	Hon	Pre_Hon
Somewhat disagree	(33) 25.0%	(39) 29.5%
Strongly disagree	(65) 49.2%	(61) 46.2%

Neither

	Hon	Pre_Hon
Neither agree nor disagree	(12) 9.1%	(11) 8.3%
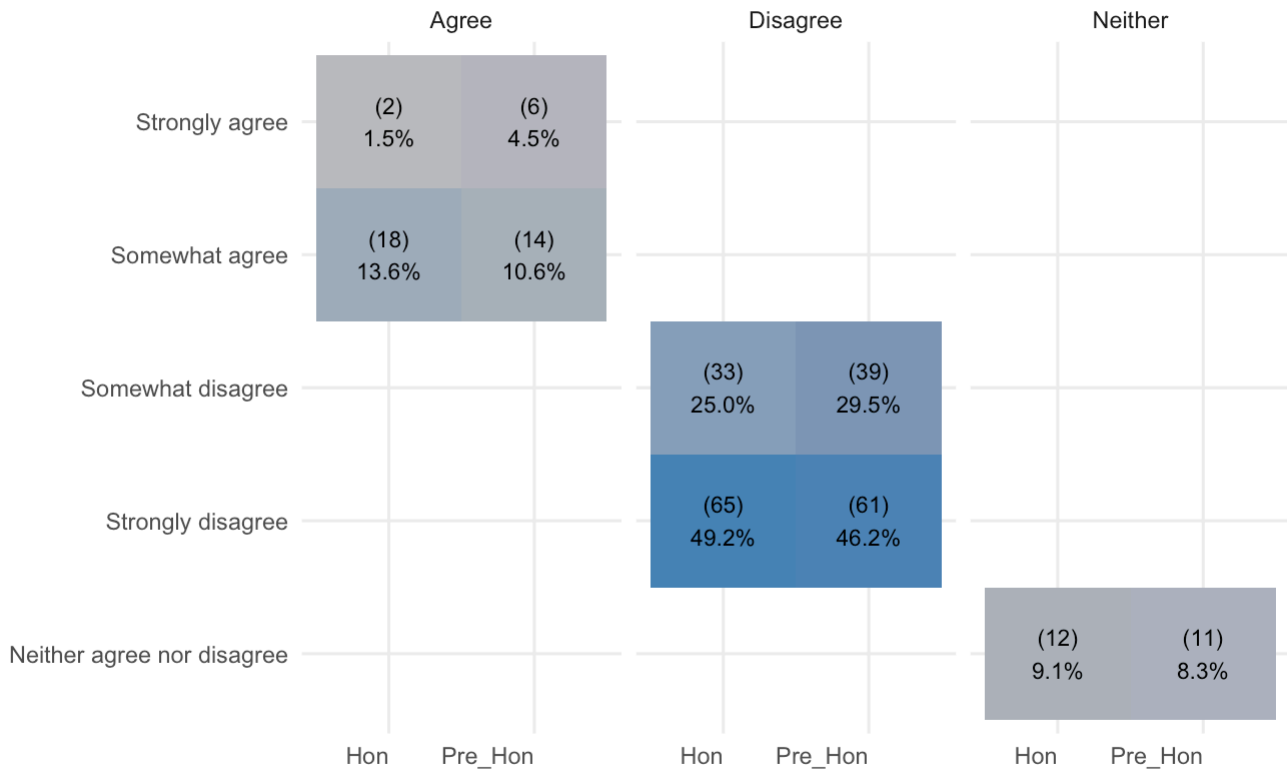
Overall; Agree: %15.3, Disagree: %75.9, Neither: %8.8

- Item 5: Using Generative AI tools boosts my development of transferable skills.

Benefits and Challenges Item 5
Using Generative AI tools boosts my development of transferable skills.

Agree

	Hon	Pre_Hon
Strongly agree	(8) 6.1%	(5) 3.8%
Somewhat agree	(34) 25.8%	(44) 33.3%

Disagree

	Hon	Pre_Hon
Somewhat disagree	(34) 25.8%	(35) 26.5%
Strongly disagree	(22) 16.7%	(13) 9.8%

Neither

	Hon	Pre_Hon
Neither agree nor disagree	(33) 25.0%	(34) 25.8%
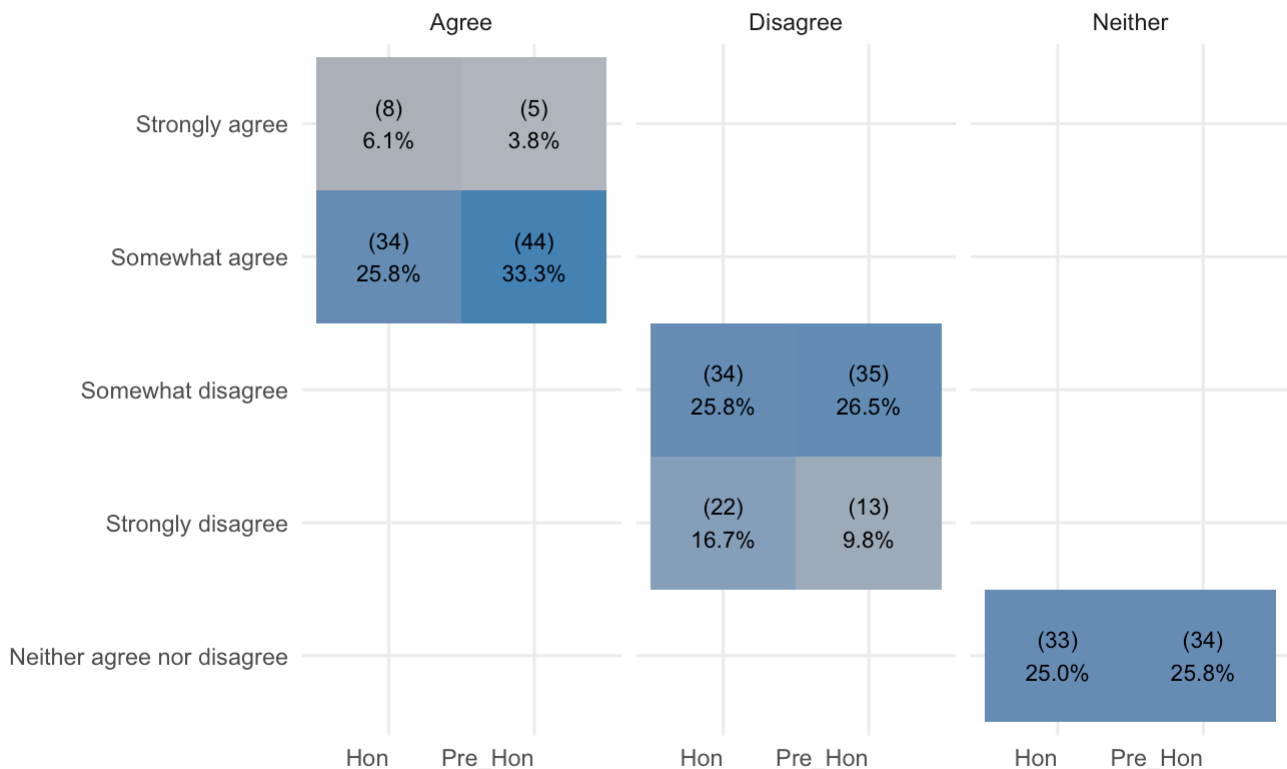
Overall; Agree: %34.7, Disagree: %39.7, Neither: %25.6

- Item 6: My use of Generative AI tools does not significantly involve critical thinking.

Benefits and Challenges Item 6
My use of Generative AI tools does not significantly involve critical thinking.

	Agree		Disagree		Neither	
Strongly agree	(10) 7.6%	(17) 12.9%				
Somewhat agree	(34) 25.8%	(30) 22.7%				
Somewhat disagree			(32) 24.2%	(36) 27.3%		
Strongly disagree			(21) 15.9%	(13) 9.8%		
Neither agree nor disagree					(34) 25.8%	(35) 26.5%
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon

Overall; Agree: %34.7, Disagree: %38.9, Neither: %26.3
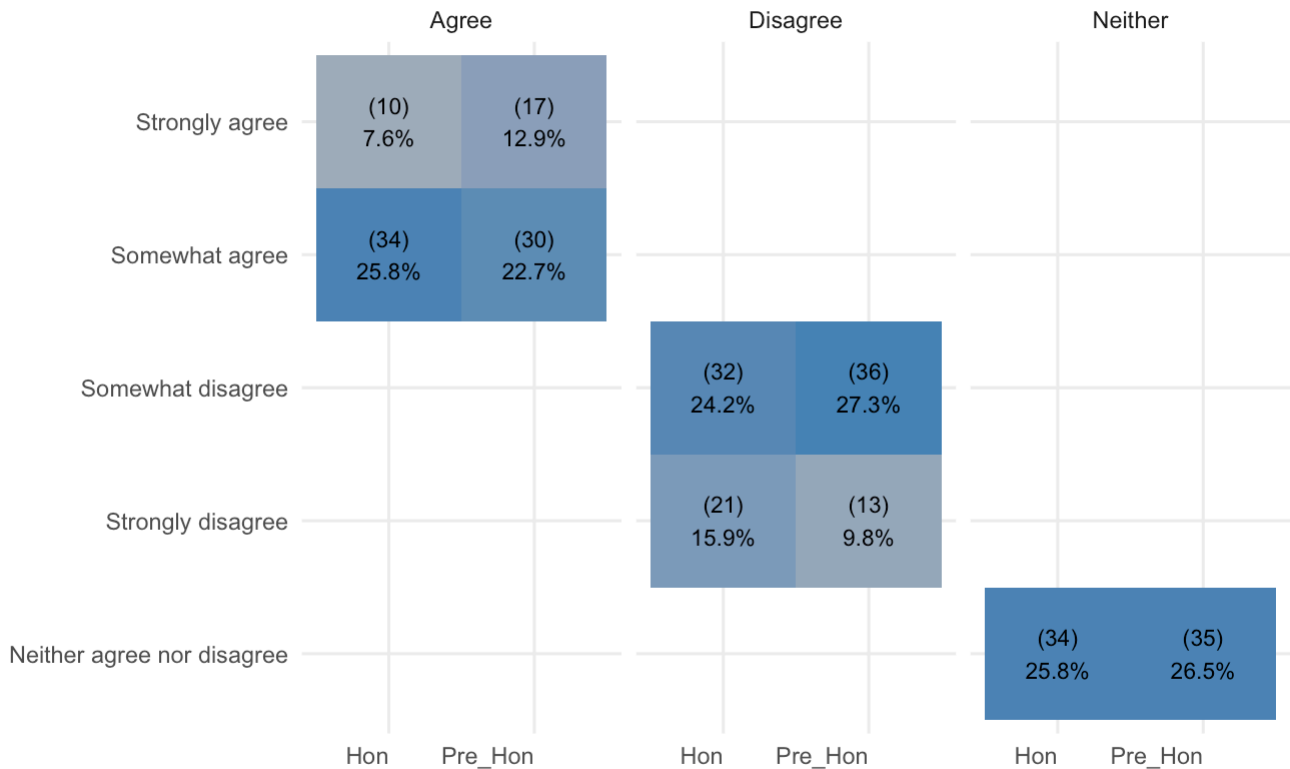
- *Item 7:* **Generative AI tools provide little assistance in numerical and quantitative subjects.**

Benefits and Challenges Item 7
Generative AI tools provide little assistance in numerical and quantitative subjects.

	Agree		Disagree		Neither	
Strongly agree	(28) 21.2%	(22) 16.7%				
Somewhat agree	(38) 28.8%	(42) 31.8%				
Somewhat disagree			(32) 24.2%	(36) 27.3%		
Strongly disagree			(12) 9.1%	(6) 4.5%		
Neither agree nor disagree					(20) 15.2%	(25) 18.9%
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon
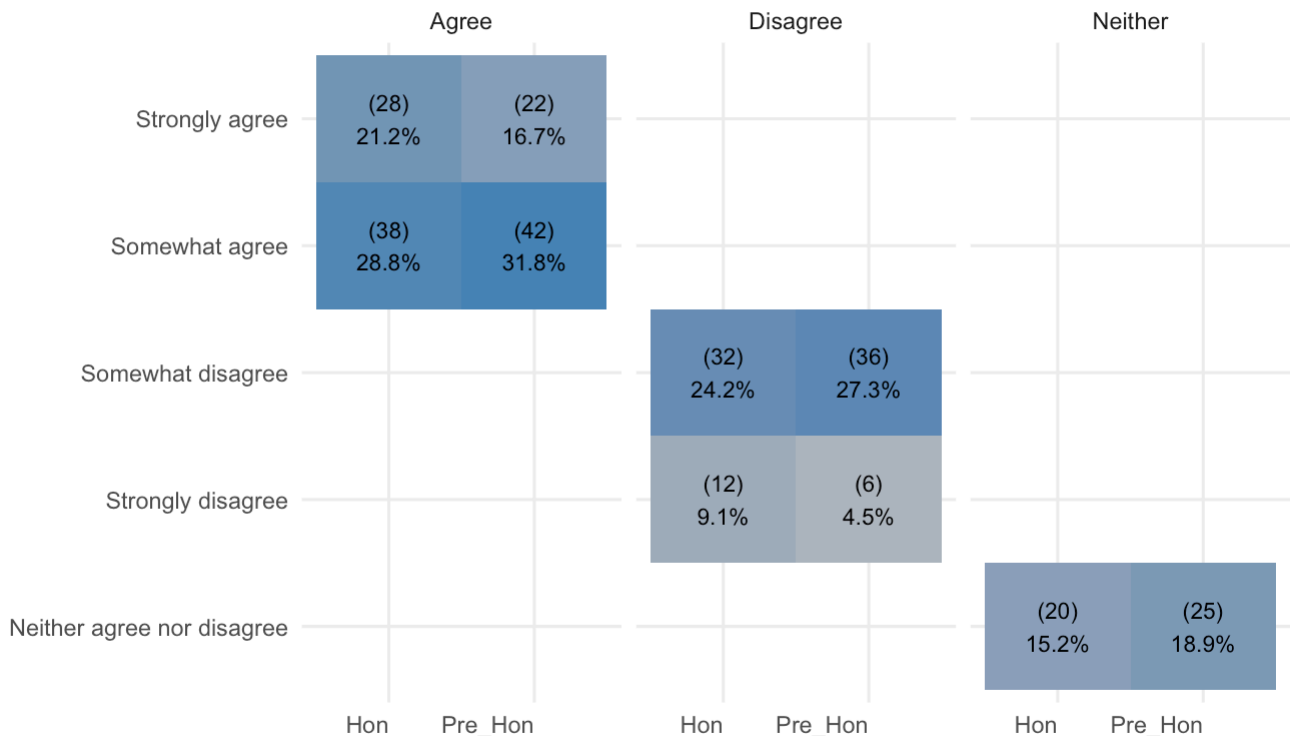
Overall; Agree: %49.8, Disagree: %33, Neither: %17.2

- Item 8: Generative AI tools effectively overcome language barriers in education.

Benefits and Challenges Item 8
Generative AI tools effectively overcome language barriers in education.

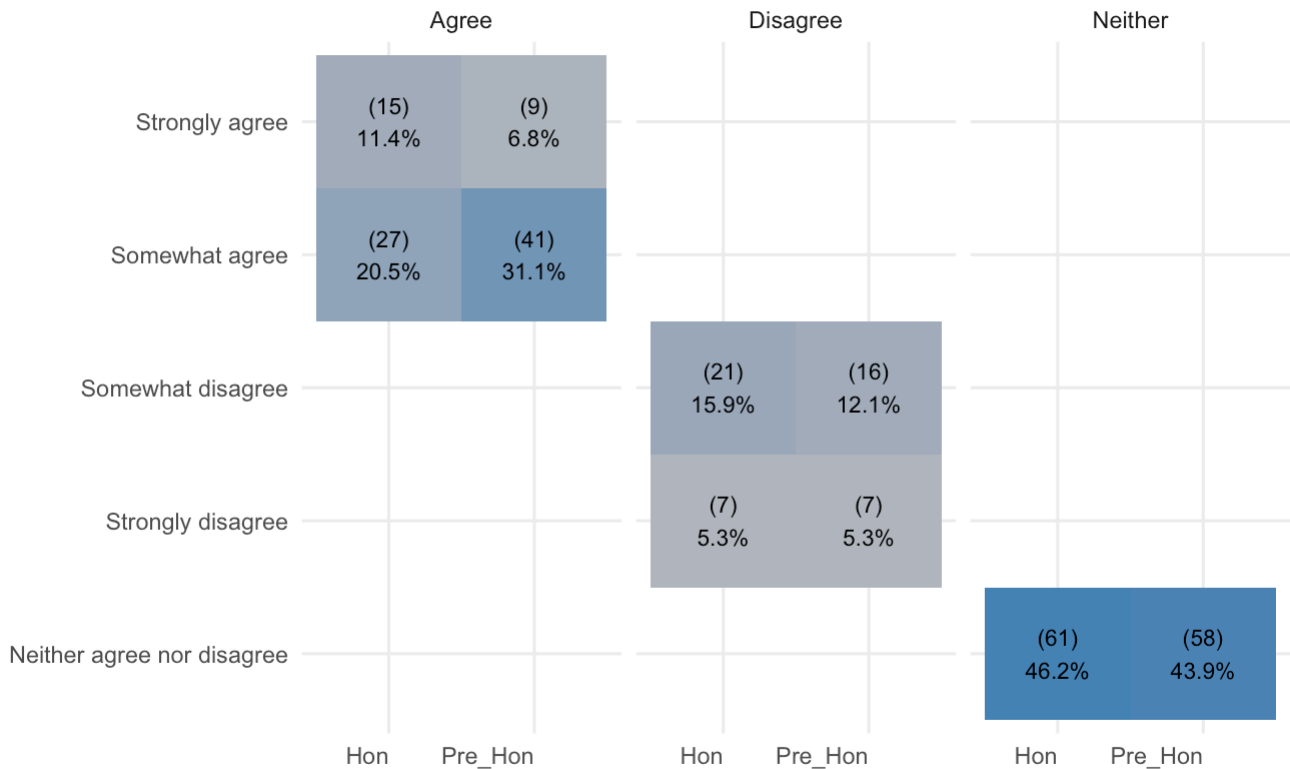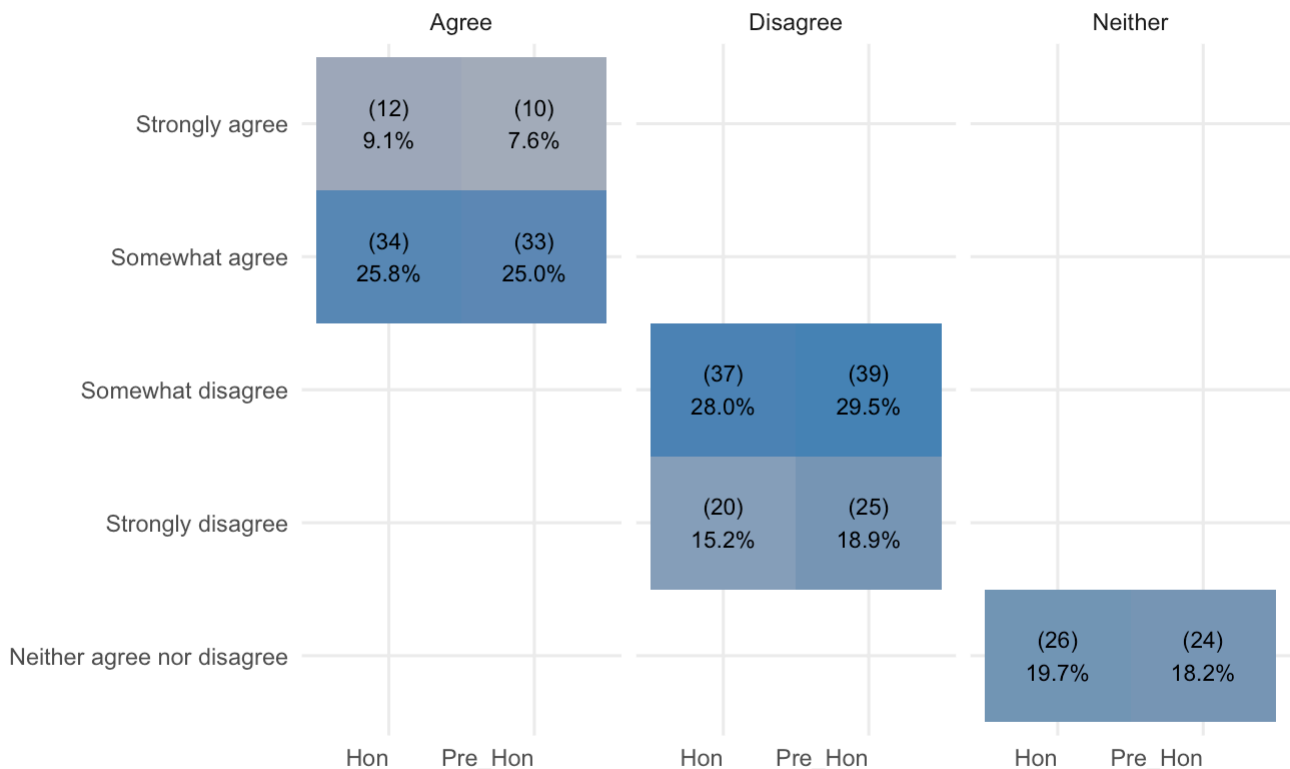|	Agree		Disagree		Neither	

	Hon	Pre_Hon
Strongly agree	(15) 11.4%	(9) 6.8%
Somewhat agree	(27) 20.5%	(41) 31.1%
Somewhat disagree	(21) 15.9%	(16) 12.1%
Strongly disagree	(7) 5.3%	(7) 5.3%
Neither agree nor disagree	(61) 46.2%	(58) 43.9%

Overall; Agree: %35.1, Disagree: %19.5, Neither: %45.4

- *Item 9:* **Using Generative AI for homework does not diminish the educational value.**

Benefits and Challenges Item 9
Using Generative AI for homework does not diminish the educational value.

	Agree		Disagree		Neither	

	Hon	Pre_Hon
Strongly agree	(12) 9.1%	(10) 7.6%
Somewhat agree	(34) 25.8%	(33) 25.0%
Somewhat disagree	(37) 28.0%	(39) 29.5%
Strongly disagree	(20) 15.2%	(25) 18.9%
Neither agree nor disagree	(26) 19.7%	(24) 18.2%

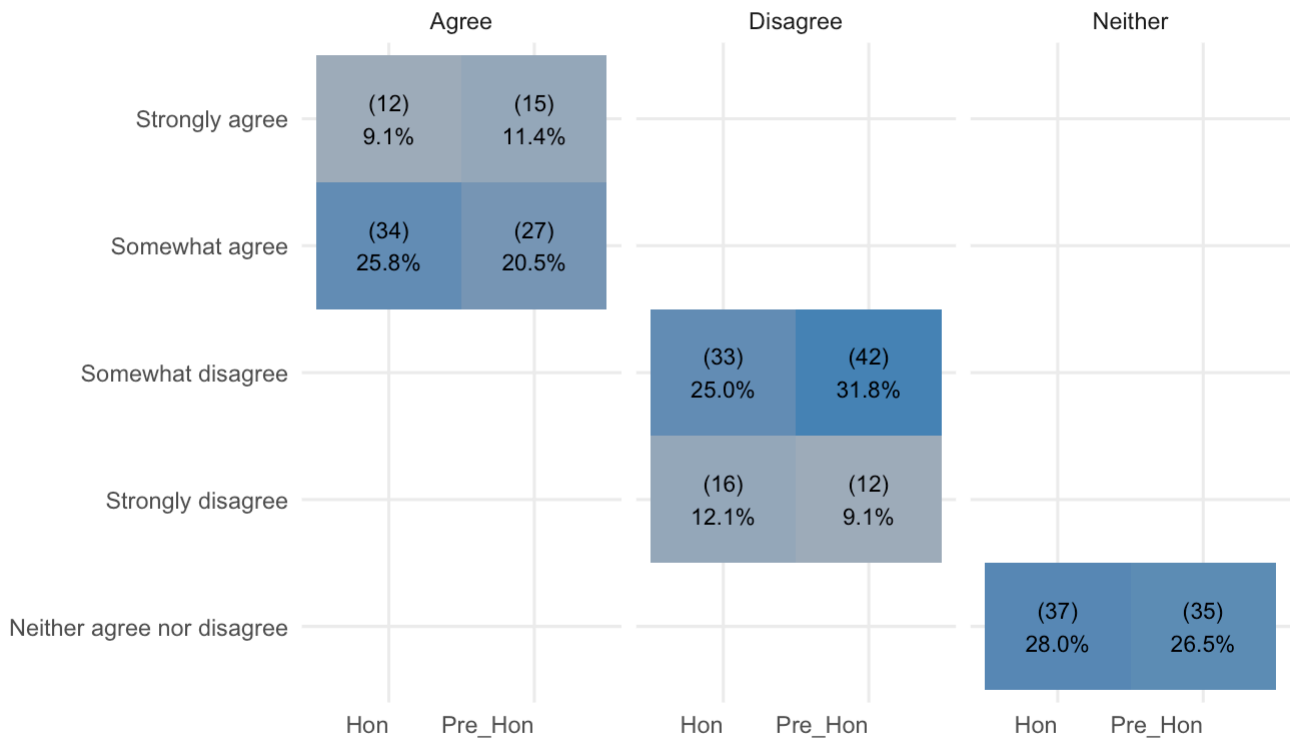Overall; Agree: %34.2, Disagree: %46.5, Neither: %19.2

4 Future

Considered items given below;

- *Item 1:* **The possible integration of Generative AI tools in higher education will have a negative impact on teaching and learning.**

Future Item 1

The possible integration of Generative AI tools in higher education will have a negative impact on teaching and learning.

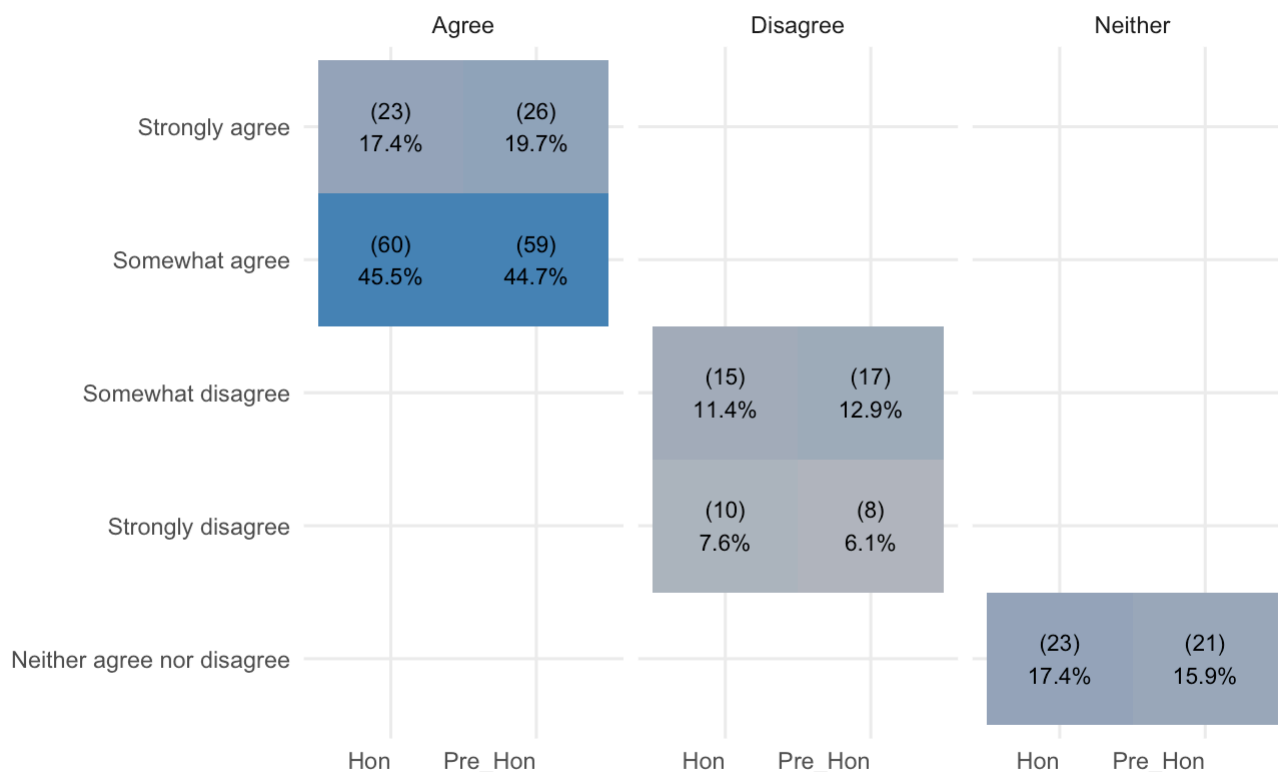|	Agree		Disagree		Neither	
Strongly agree	(12) 9.1%	(15) 11.4%				
Somewhat agree	(34) 25.8%	(27) 20.5%				
Somewhat disagree			(33) 25.0%	(42) 31.8%		
Strongly disagree			(16) 12.1%	(12) 9.1%		
Neither agree nor disagree					(37) 28.0%	(35) 26.5%
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon

Overall; Agree: %33.5, Disagree: %39.2, Neither: %27.4

- *Item 2:* **The use of Generative AI tools in academic settings should be allowed.**

Future Item 2

The use of Generative AI tools in academic settings should be allowed.

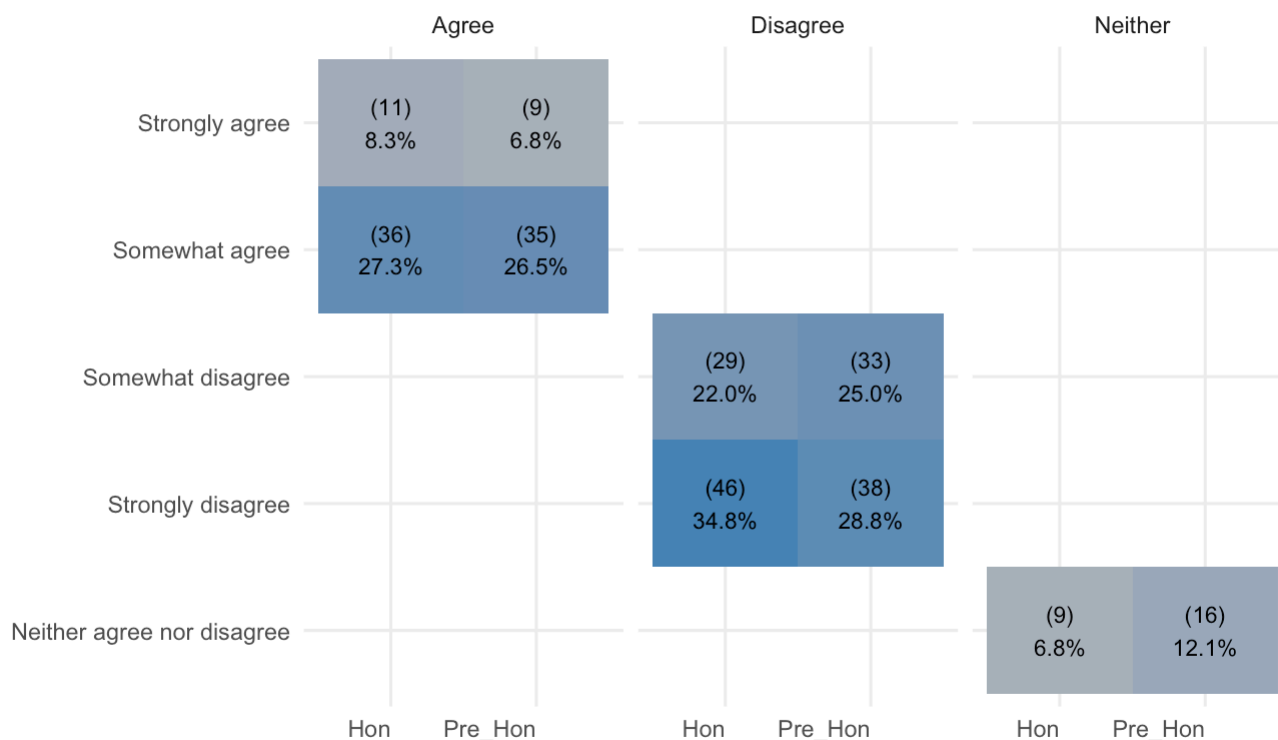|	Agree		Disagree		Neither	
Strongly agree	(23) 17.4%	(26) 19.7%				
Somewhat agree	(60) 45.5%	(59) 44.7%				
Somewhat disagree			(15) 11.4%	(17) 12.9%		
Strongly disagree			(10) 7.6%	(8) 6.1%		
Neither agree nor disagree					(23) 17.4%	(21) 15.9%
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon

Overall; Agree: %64.1, Disagree: %19.1, Neither: %16.8

- Item 3: Generative AI tools could potentially substitute for some functions of human teachers and tutors.

Future Item 3

Generative AI tools could potentially substitute for some functions of human teachers and tutors.

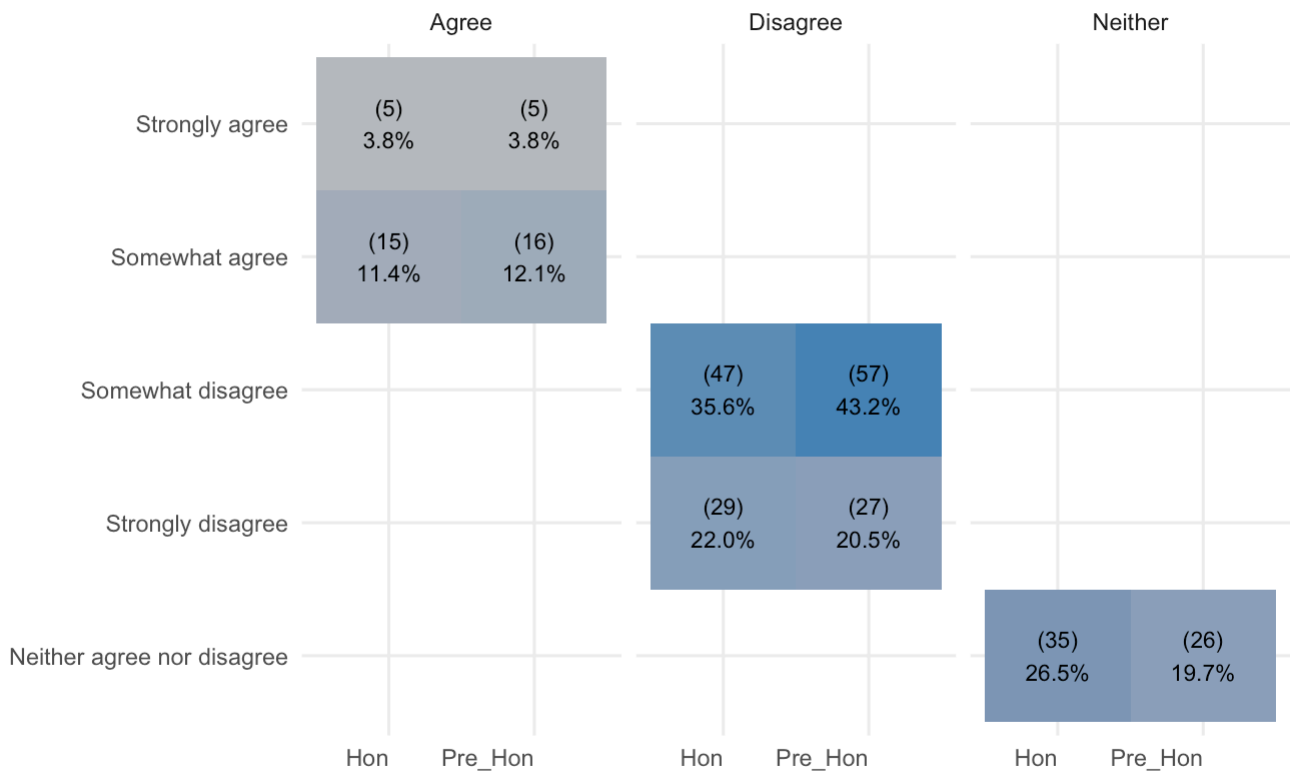|	Agree		Disagree		Neither	
Strongly agree	(11) 8.3%	(9) 6.8%				
Somewhat agree	(36) 27.3%	(35) 26.5%				
Somewhat disagree			(29) 22.0%	(33) 25.0%		
Strongly disagree			(46) 34.8%	(38) 28.8%		
Neither agree nor disagree					(9) 6.8%	(16) 12.1%
	Hon	Pre_Hon	Hon	Pre_Hon	Hon	Pre_Hon

Overall; Agree: %34.7, Disagree: %55.7, Neither: %9.5

- Item 4: It is unlikely that personal Generative AI assistants will become widespread.

Future Item 4

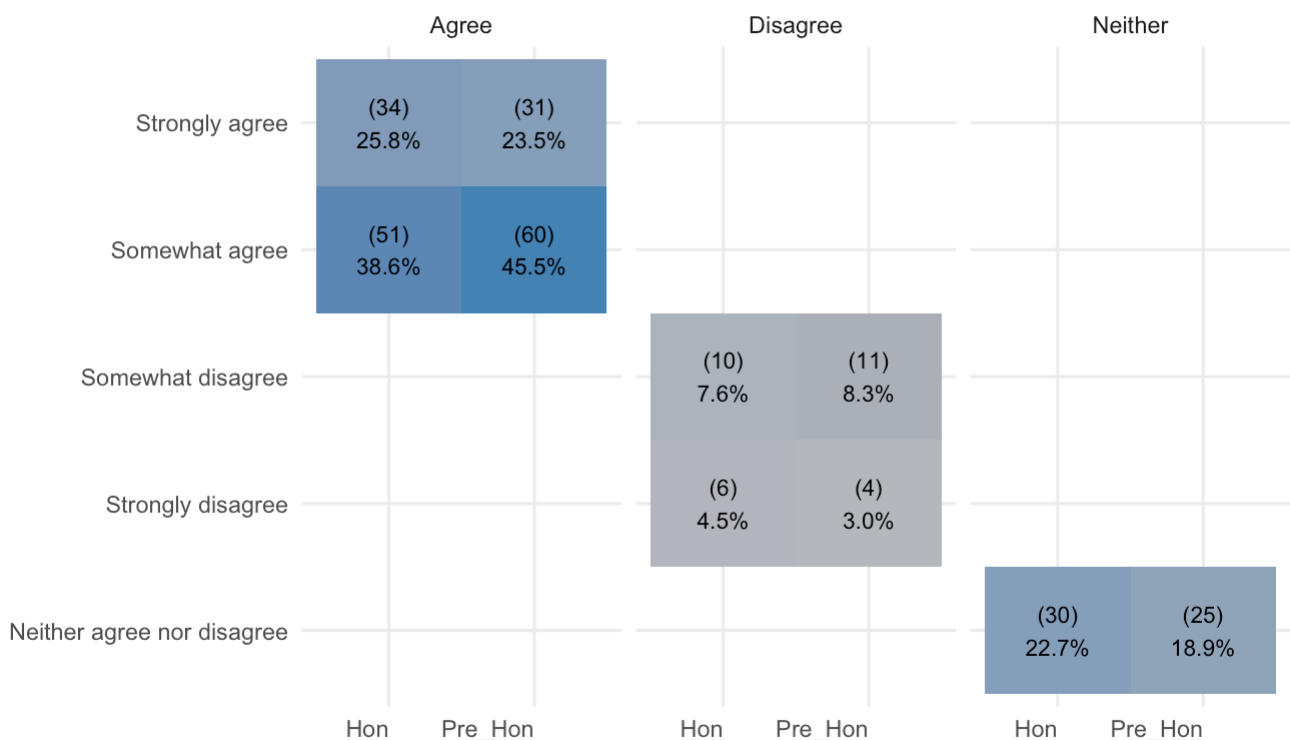It is unlikely that personal Generative AI assistants will become widespread.

Overall; Agree: %15.6, Disagree: %61.1, Neither: %23.3

- *Item 5:* **Proficiency in Generative AI tools will be crucial for competitiveness in future job markets.**

Future Item 5

Proficiency in Generative AI tools will be crucial for competitiveness in future job markets.
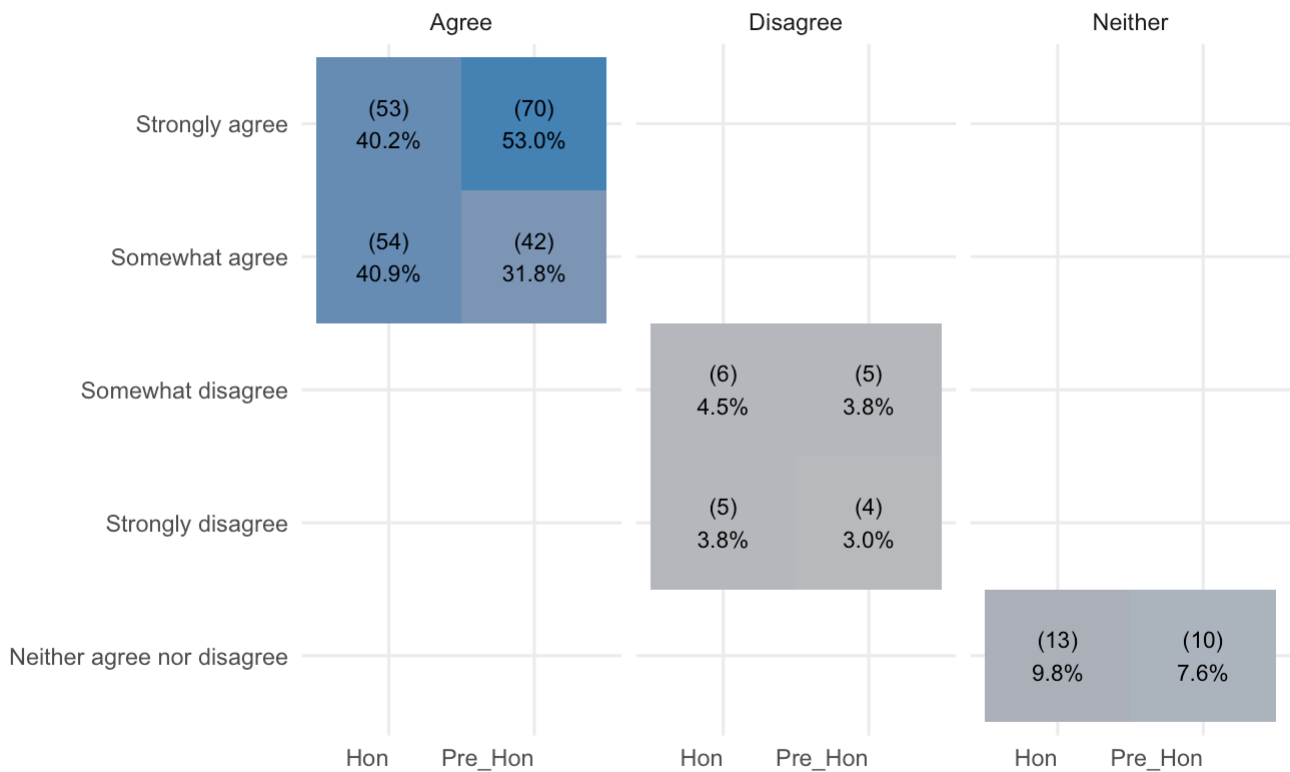

Overall; Agree: %67.2, Disagree: %11.8, Neither: %21

- Item 6: AI will dramatically influence work, society, and daily life in the next 5 years.

Future Item 6

AI will dramatically influence work, society, and daily life in the next 5 years.

	Agree	Disagree	Neither

Strongly agree — Agree: (53) 40.2%, (70) 53.0%

Somewhat agree — Agree: (54) 40.9%, (42) 31.8%

Somewhat disagree — Disagree: (6) 4.5%, (5) 3.8%

Strongly disagree — Disagree: (5) 3.8%, (4) 3.0%

Neither agree nor disagree — Neither: (13) 9.8%, (10) 7.6%

Hon   Pre_Hon   Hon   Pre_Hon   Hon   Pre_Hon

Overall; Agree: %83.6, Disagree: %7.6, Neither: %8.8