Project GoNam Impact
South Korea

Prepared for Google for Education by Panl-Dalberg

September 2024

Executive summary

- **Project Background:**
  - **Goseo Elementary School**, established in 1926, is known for its **'Small School Revitalization Programs'** aimed at enhancing experiential and community-based learning. **Nampyeong Middle School** has been recognized as a **leading AI school** and a **'Green Smart Future School'** in 2021. Both institutions host **multicultural classrooms** that provide unique opportunities for adopting Google for Education (GfE) solutions.
- **Notable Impacts on:**
  - **Learning experience:**
    - **100% of teachers** believe that **students are better equipped to find related knowledge and information for learning.**
    - **85% of students** stated that their **classes became much more or more enjoyable** with Google Workspace and Chromebooks
    - There was a particularly **notable increase in student collaboration**, with **>60%** of students stating that they **helped other students or received help more regularly** with technology in place.
  - **Teaching experience:**
    - Technology made core teaching activities more efficient with average time saved in almost all activities. **50%** of the teachers stated that the systems **save them at least an hour per week**.
    - With technology, **teachers improved their ability to provide feedback and gained higher student engagement levels.**
    - Teachers had **higher comfort level and frequency of use** regarding Google Workspace, Chromebooks, and technology in general in the classrooms.
- **Device Performance:**
  - The data continue to support that Chromebooks are **better educational devices** as compared to smartphones and tablets, rated by both students and teachers.
  - **For teachers**, Chromebooks' most significant competitive edges are in **providing feedback** and **supporting students in problem solving, collaboration, creativity, and homework.**.

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Overview

Objectives

Digital Transformation

High profile DX of a selection of pilot schools in partnership with government and other stakeholders, observed by leading academics

Insight

Generate deep insights into how schools adopt technology within the local cultural, political and economic context

+

Impact

Improve understanding and stimulate demand for our value proposition amongst stakeholders in the education system

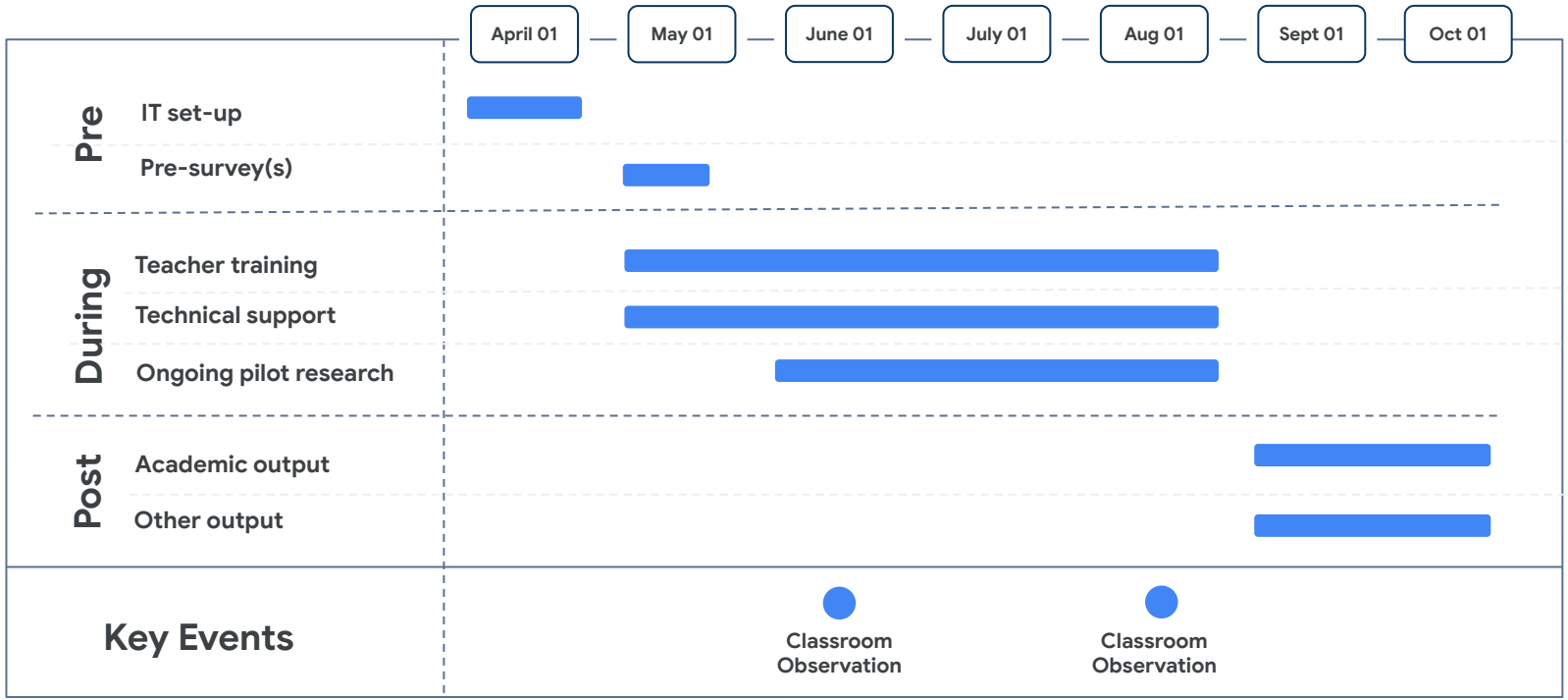
Pilot Schools Profile

Goseo Elementary School, established in 1926, has ~80 students and ~30 teachers. To ensure effectiveness in teaching, the school implemented the 'Small School Revitalization Programs' to foster experiential and community-based learning.

Nampyeong Middle School, comprising ~700 students and ~30 teachers across 6 grades, has been designated as a leading AI school by *'Jeollanam-do Office of Education'*. Further, it was identified as one of 'Green Smart Future School' in 2021.

Both the schools host relatively smaller-sized, multicultural classrooms, thus posing unique opportunities for the adoption of GfE's solutions.

Project Timeline



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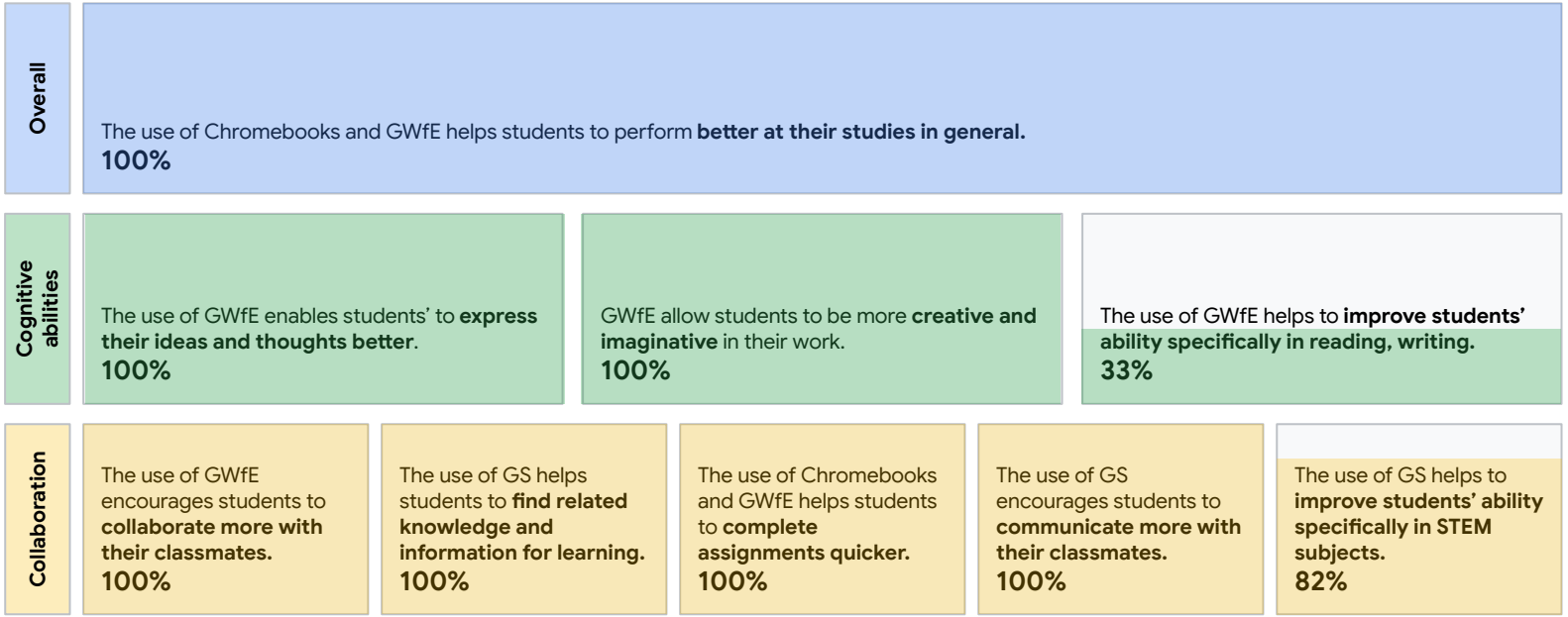
Positive impact on T&L

Positive impact along student journey, especially on researching, participating, and completing assignments

Positive Impact on Student Journey

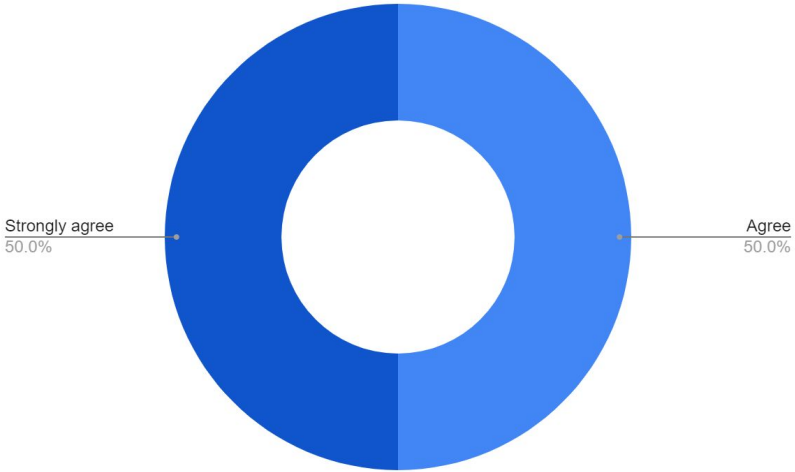


Source: Teacher Survey; "Please provide your opinion on the following statements:"- n = 6

Improve core learning experience

Google for Education

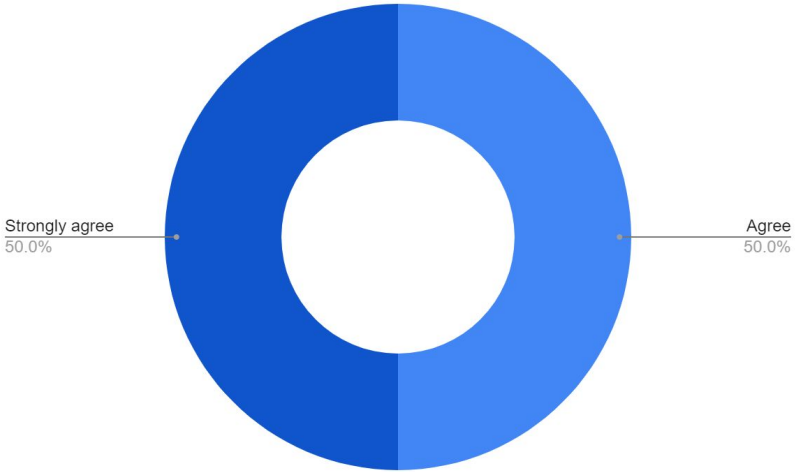
Google tools have enabled students to conduct research to enhance their learning



> It is easy to use [Chromebook] often when doing school assignments, and it is easy to find what I want and create materials [with Chromebook].
>
> **Student**
> Goseo Elementary School

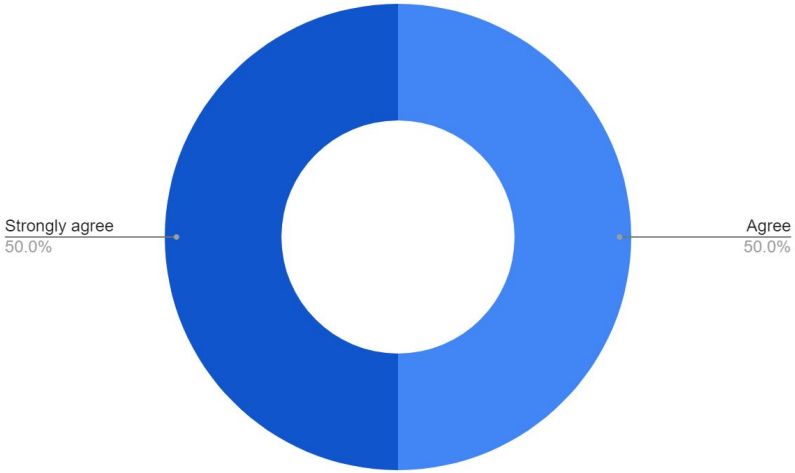
Source: Teacher Survey; “Please provide your opinion on the statement: The use of GWfE helps students to find related knowledge and information for learning.” - n = 6

Students can complete assessments faster with the use of Chromebooks and GWfE



Source: Teacher Survey; “Please provide your opinion on the statement: The use of Chromebooks and GWfE helps students to complete assignments quicker.” - n = 6

The use of Chromebooks and GWfE improves student participation in class with active teacher feedback

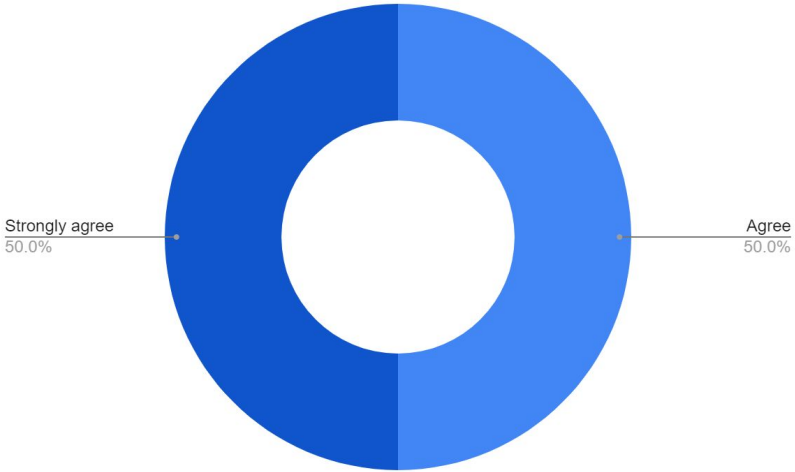


During my participation in the project, my communication with the teacher increased. When I inquired about my personal project, he actively helped me and encouraged me to pay more attention in class.

Student
Goseo Elementary School

Source: Teacher Survey, “Please provide your opinion on the statement: The use of GWfE increases students’ confidence to participate actively in the class.” - n = 6

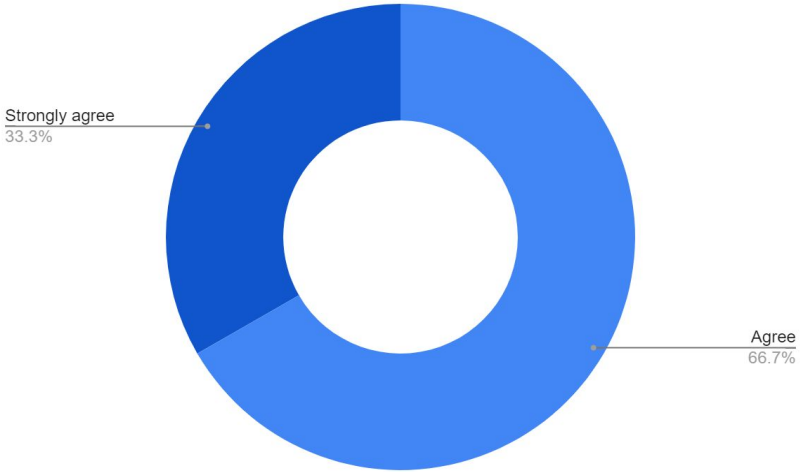
Chromebook enables students to study in more effective manners



> The keyboard lets children write at length, which expands their thinking.
>
> **Teacher**
> Nampyeong Middle School

Source: Teacher Survey; “Please provide your opinion on the statement: The students learn more effectively with GWfE.” - n = 6

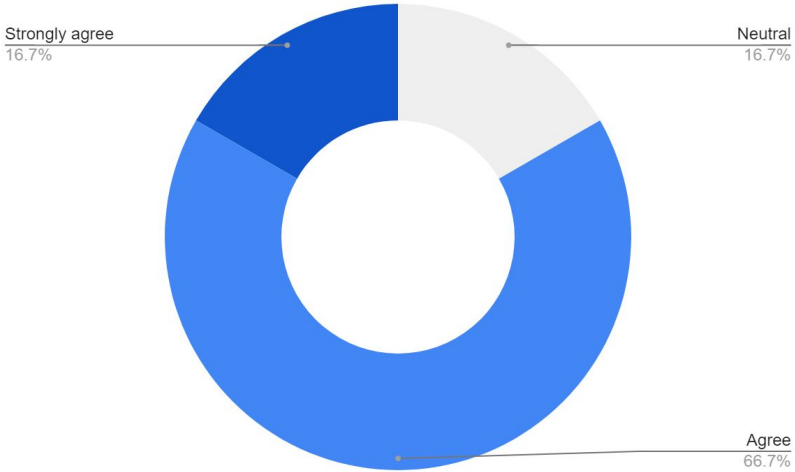
Chromebook and GWfE supports students to better perform in class



> The positive effectiveness is clearly evident in the classroom.
>
> **Teacher**
> Yeongsanpo Girls' Middle School

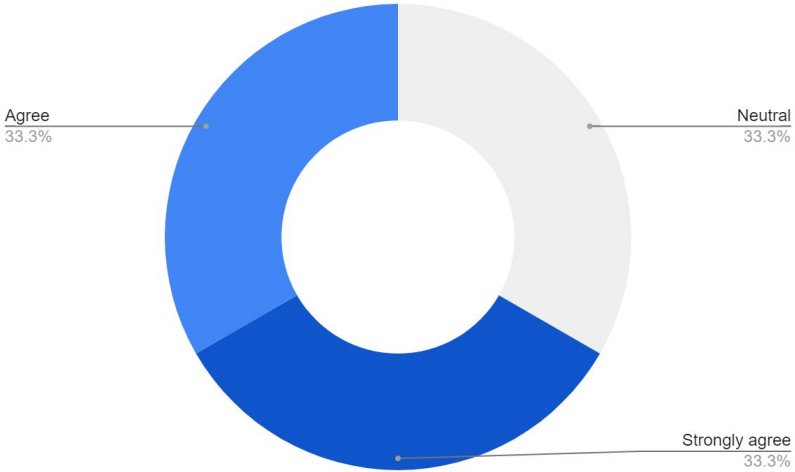
Source: Teacher Survey; "Please provide your opinion on the statement: The use of Chromebooks and GWfE helps students to perform better at their studies in general." - n = 6

Students' increased comfort with technology also expands to other STEM subjects



Source: Teacher Survey; "Please provide your opinion on the statement: The use of GWfE helps to improve students' ability specifically in STEM subjects." - n = 6

Chromebook’s ease of use supports smooth progress in the classroom

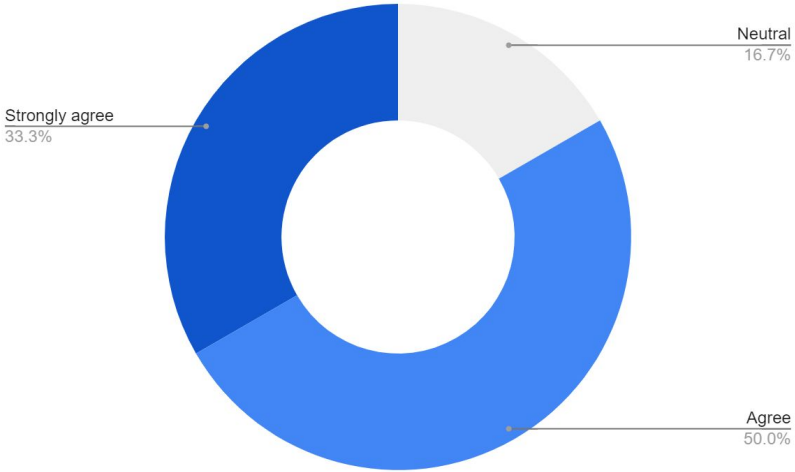


> The class progressed smoothly and there were no difficulties in class using Chromebooks.

Teachers
Nampyeong Middle School

Source: Teacher Survey; “Please provide your opinion on the statement: The students are better behaved with the use of GWfE.” - n = 6

The enhanced level of student engagement enables a better understanding of the subject matter

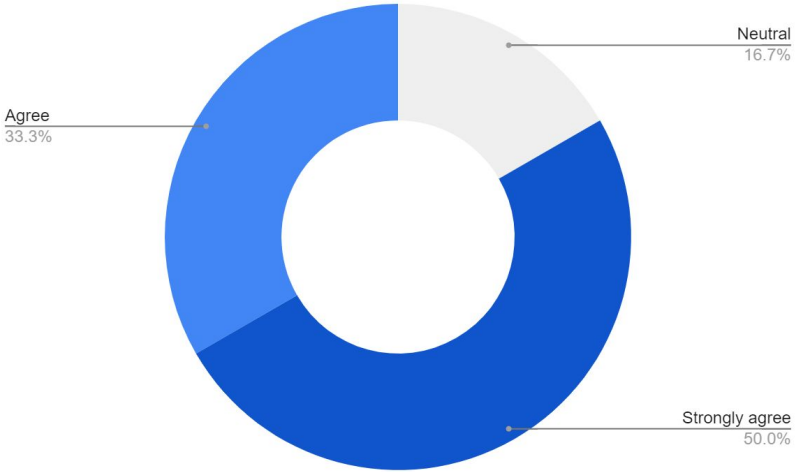


I can now freely engage in activities that I originally did only at home while at school.

Student
Goseo Elementary School

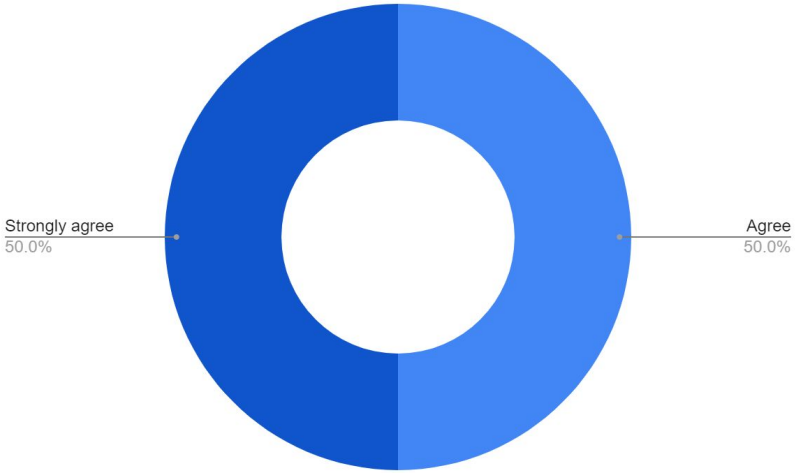
Source: Teacher Survey; “Please provide your opinion on the statement: The use of Chromebooks and GWfE allows students to absorb the core subject matter quicker.” - n = 6

Students can use digital tools to research relevant materials on their own



Source: Teacher Survey; “Please provide your opinion on the statement: The use of Chromebooks and GWfE allows students to develop a better understanding of subjects through their own research.” - n = 6

Chromebooks enhance the students' interaction with each other



When I wasn't using the Chromebook, I didn't have time to talk to my friends in class. However, since I started using the Chromebook for the same activities and apps, I found myself talking more.

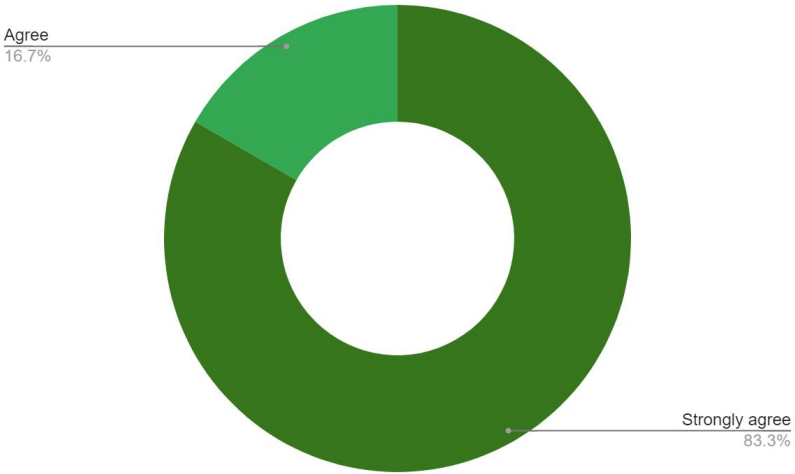
Student
Goseo Elementary School

Source: Teacher Survey; "Please provide your opinion on the statement: Chromebooks were well suited to my students." - n = 6

Improve cognitive abilities

Google for Education

Chromebooks and GWfE can support students to express themselves

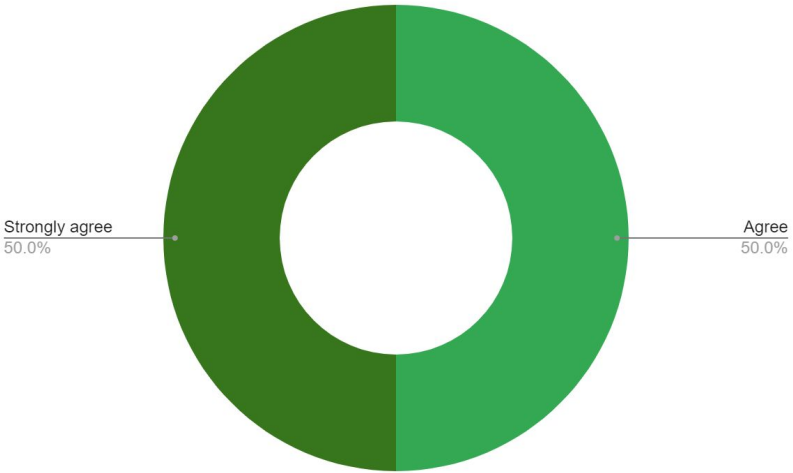


> Using a Chromebook has made it easier to communicate with friends and allow me to share more opinions through chat.

Student
Goseo Elementary School

Source: Teacher Survey; “Please provide your opinion on the statement: The use of GWfE enables students to express their ideas and thoughts better.” - n = 6

Chromebooks and AI tools help students explore and engage creative activities more easily

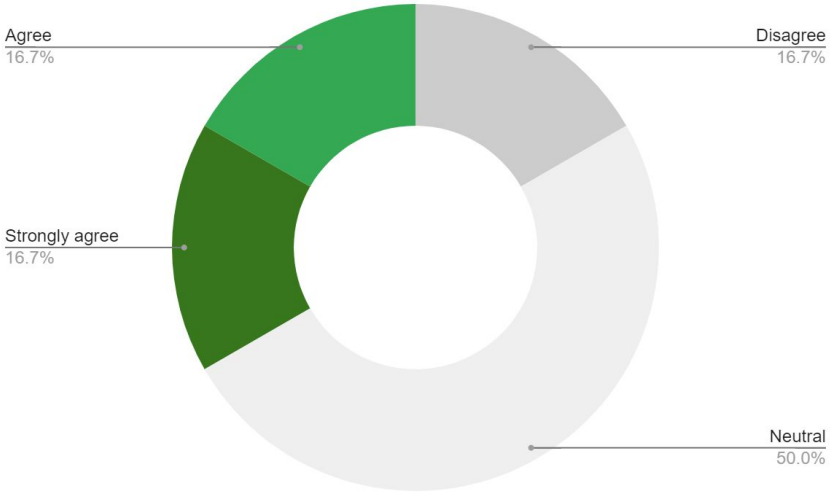


> [Chromebook] comes with a keyboard and pen, allowing you to write documents and do creative work (e.g. drawing, animation).

Teacher
Nampyeong Middle School

Source: Teacher Survey; “Please provide your opinion on the statement: GWfE allow students to be more creative and imaginative in their work.” - n = 6

Chromebook encourages students to write more through typing



> [Chromebook] is fun, and you can become proficient at typing and writing well, even if you initially struggle with writing.

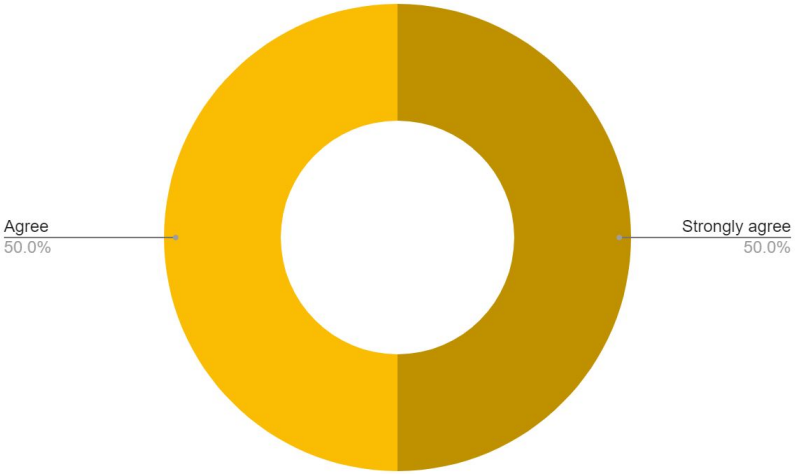
Student
Goseo Elementary School

Source: Teacher Survey; “Please provide your opinion on the statement: The use of GWfE helps to improve students’ ability specifically in reading, writing.” - n = 6

Improve collaboration

Google for Education

Google Workspace and other Google tools enable collaboration among students

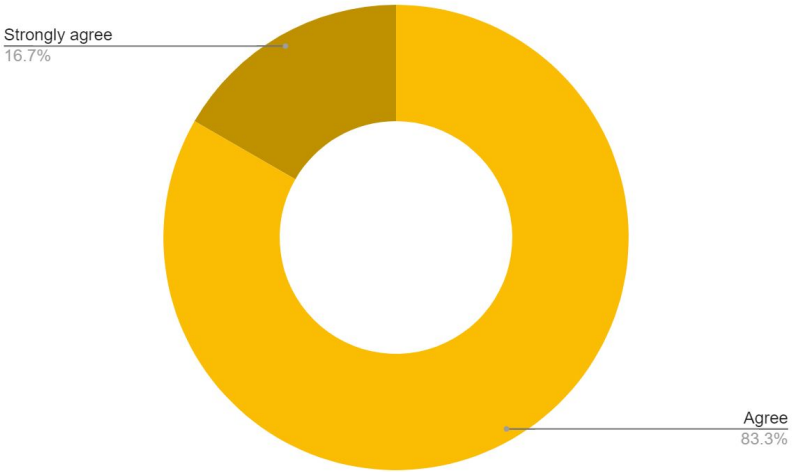


> The collaboration time and collaborative processes among students increased through the use of Google Slides, Jamboard, and other tools."

Teacher
Goseo Elementary School

Source: Teacher Survey; “Please provide your opinion on the statement: The use of GWfE encourages students to collaborate more with their classmates.” - n = 6

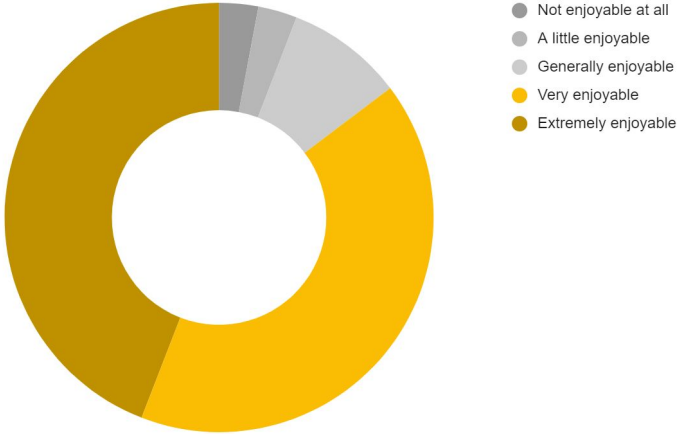
Chromebooks help students communicate with each others beyond physical classrooms

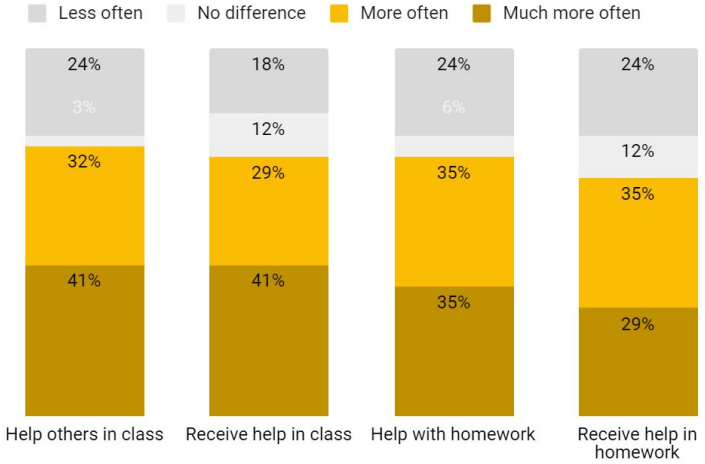


> If you get used to [Chromebook] well at first, it becomes convenient to collaborate with friends and the classes become more diverse and more enjoyable.
>
> **Student**
> Goseo Elementary School

Source: Teacher Survey; “Please provide your opinion on the statement: The use of GWfE encourages students to communicate more with their classmates.” - n = 6

Both collaboration levels and classroom experience are significantly improved





85% Students say that the classroom experience is enjoyable with Google tools

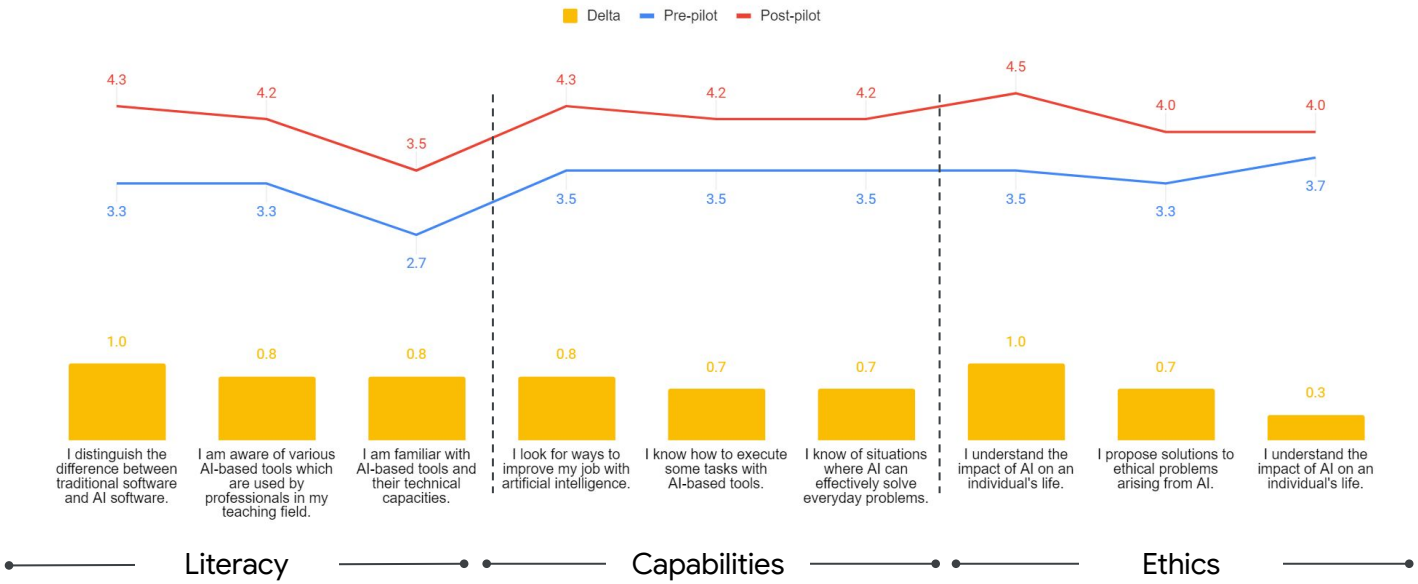
>60% Students claim to help and receive help more often both in class and with homework

Source: Student Survey; “Compared to the class without Google Workspace for Education and Chromebooks, how do you find the class experience?” n = 255
“Please describe the new classroom experience compared to before the introduction of Google Solutions.” - n = 255

AI literacy and capability

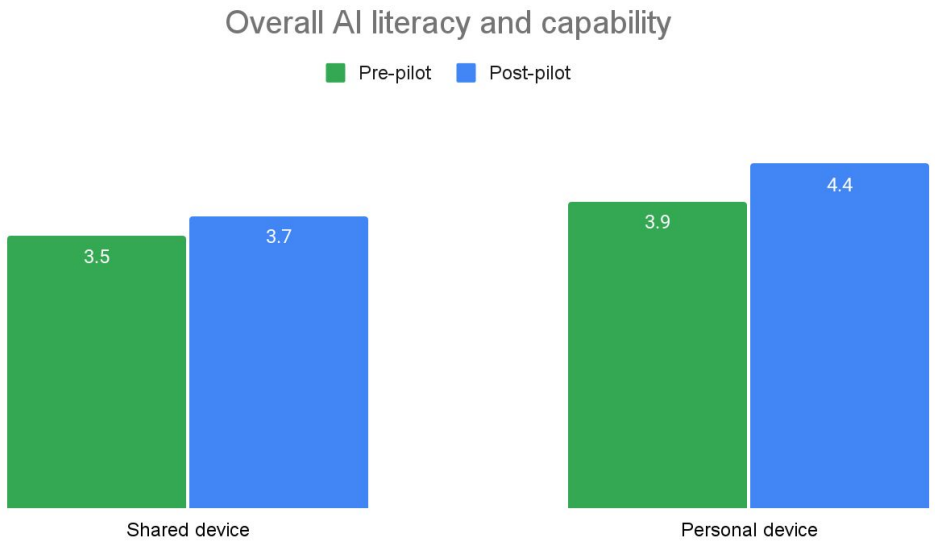
Google for Education

Teachers' literacy, capabilities and ethics on AI have improved in all directions



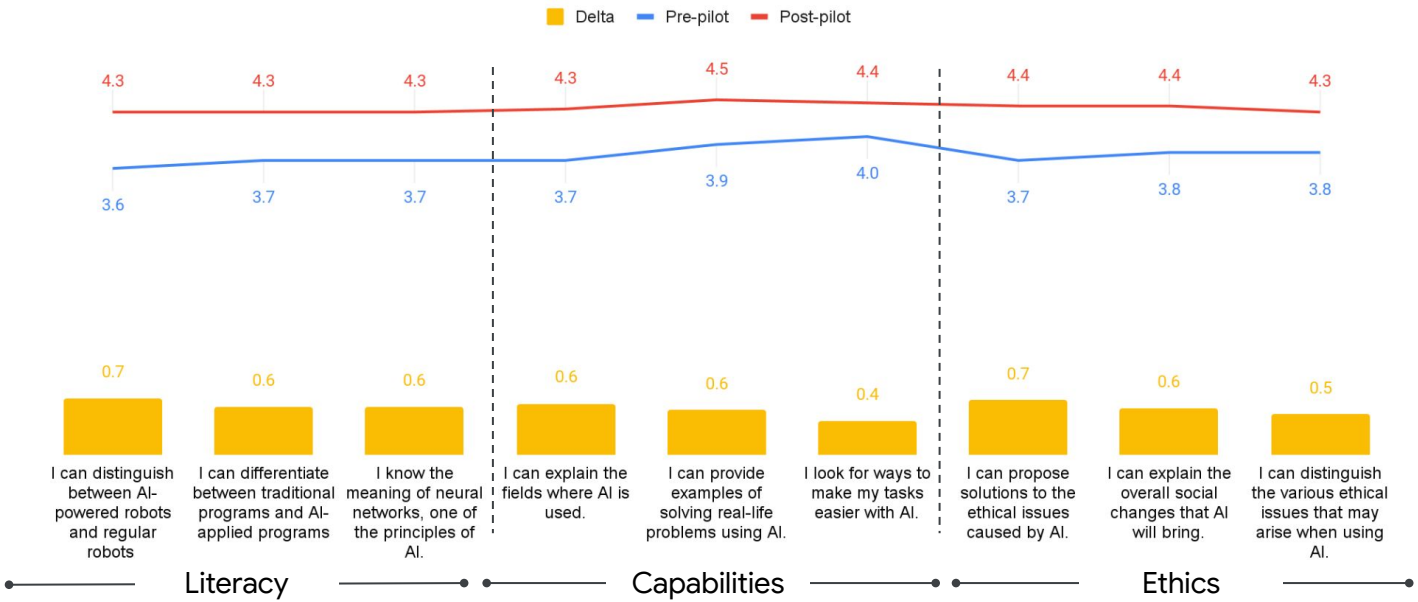
Source: Teacher Survey; "Please rate your level of familiarity on the statement." - n = 6

Students with their own devices demonstrate greater progress in AI capability than those with shared devices



Source: Student Survey; “Please rate your level of familiarity on the statement.” - n = 217 secondary students

Students with their own devices have improved in literacy, capabilities, and ethics related to AI



Source: Student Survey; “Please rate your level of familiarity on the statement.” - n = 26 students with individual devices

Positive impacts on Teaching Experience

Google for Education

Google Solutions (GWfE) save teachers' time

66%

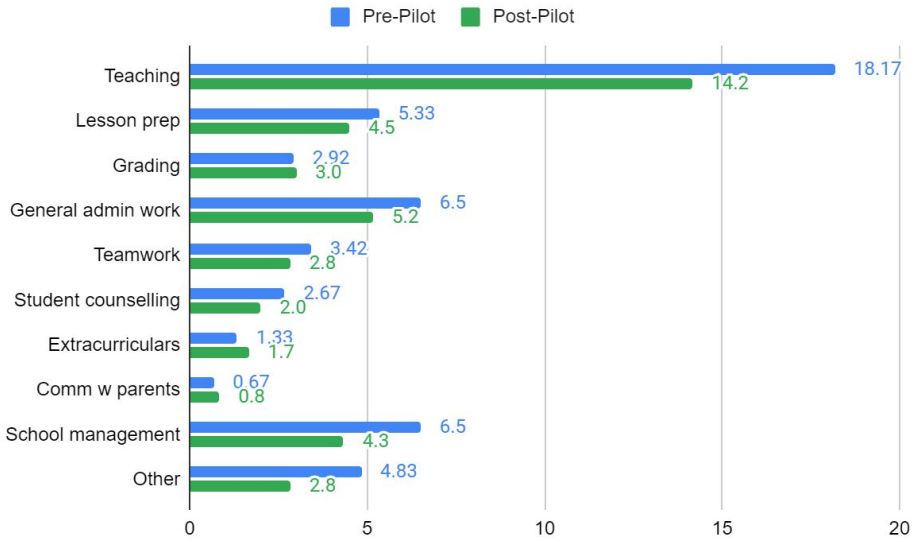
Teachers report that GWfE saves their time

of which

50%

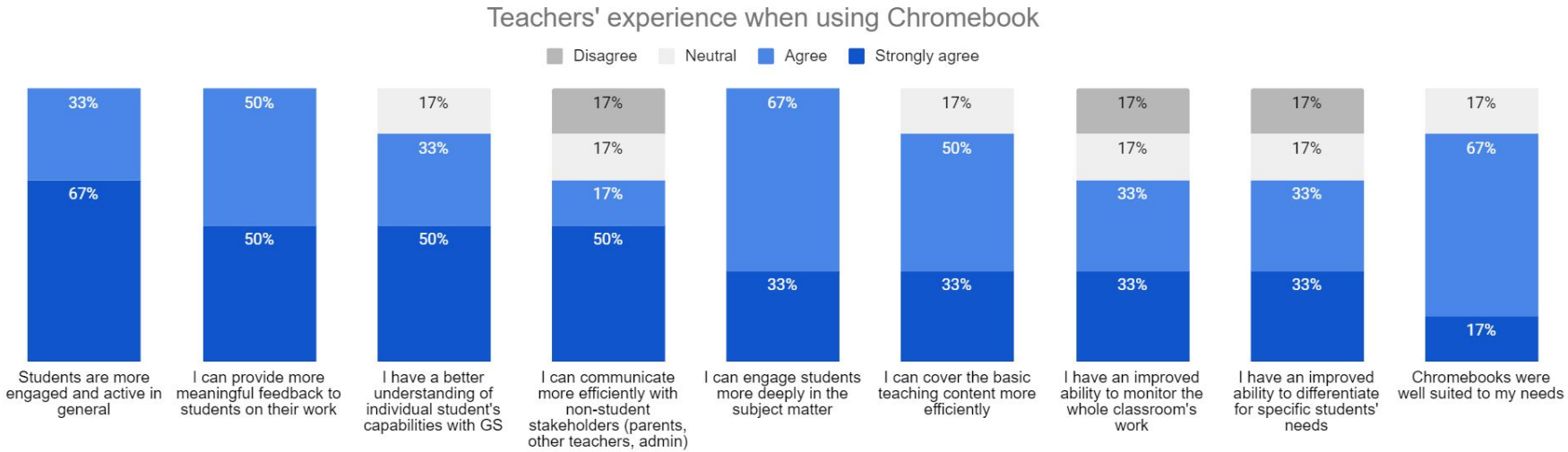
GWfE saves their time by at least 1 hour per week

Pre- vs Post-pilot time spent on each activity



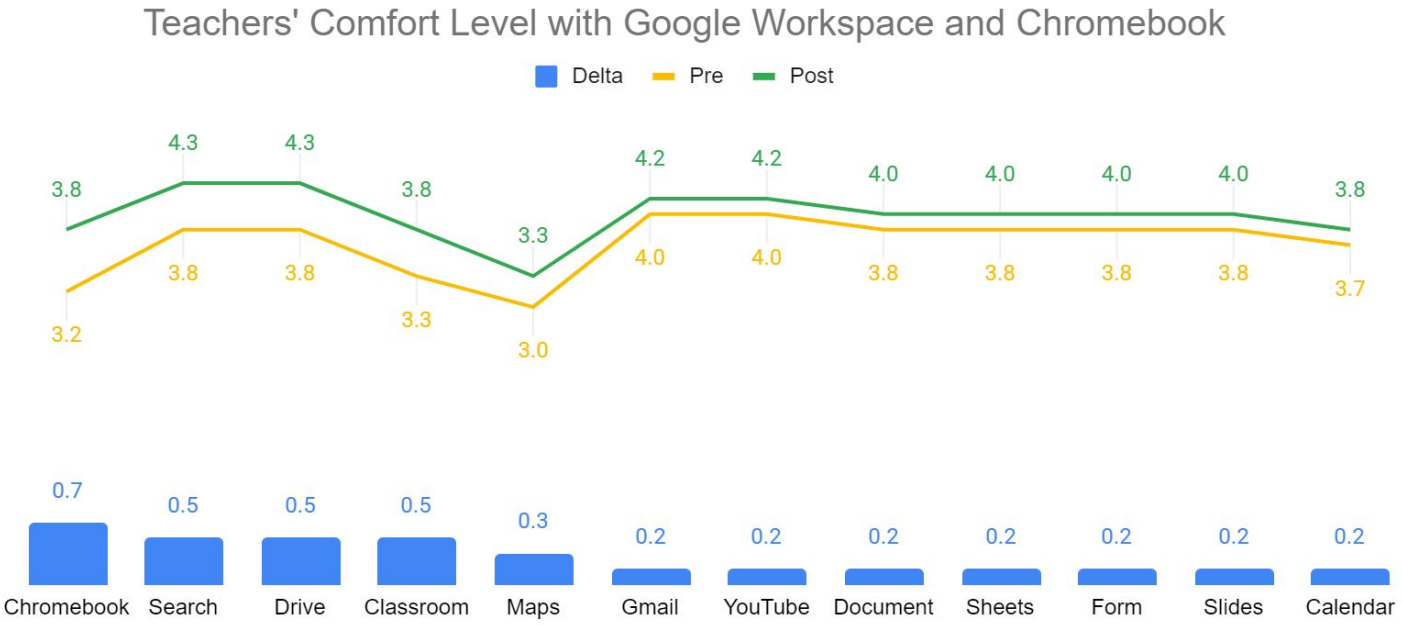
Source: Teacher Survey; "Section 3: Questions about Your Schedule and The Effect of Google Solutions (GWfE) on your time." - n = 6

Higher student engagement levels and improved teachers' ability to provide meaningful feedback



Source: Teacher Survey; "Please tell me your opinion about the following statements" - n = 6

Increase in comfort level with Chromebooks and different GWfE apps



Source: Teacher Survey; “What is your comfort level when using _____?” - n = 6

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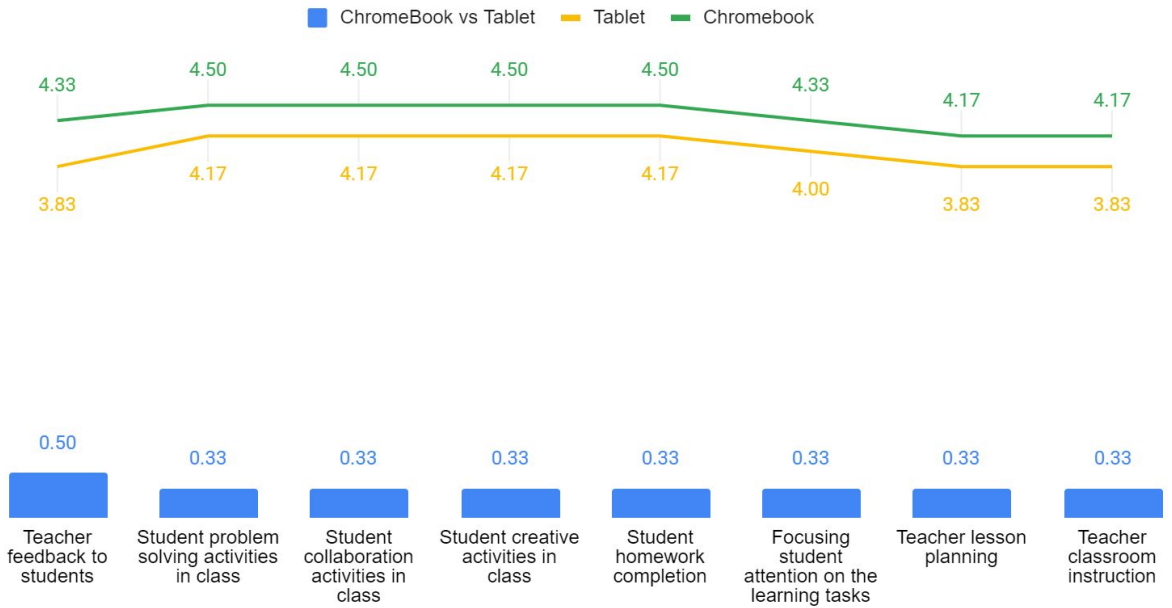
Device comparison

Chromebooks are rated higher than tablets especially in teachers' feedback to students



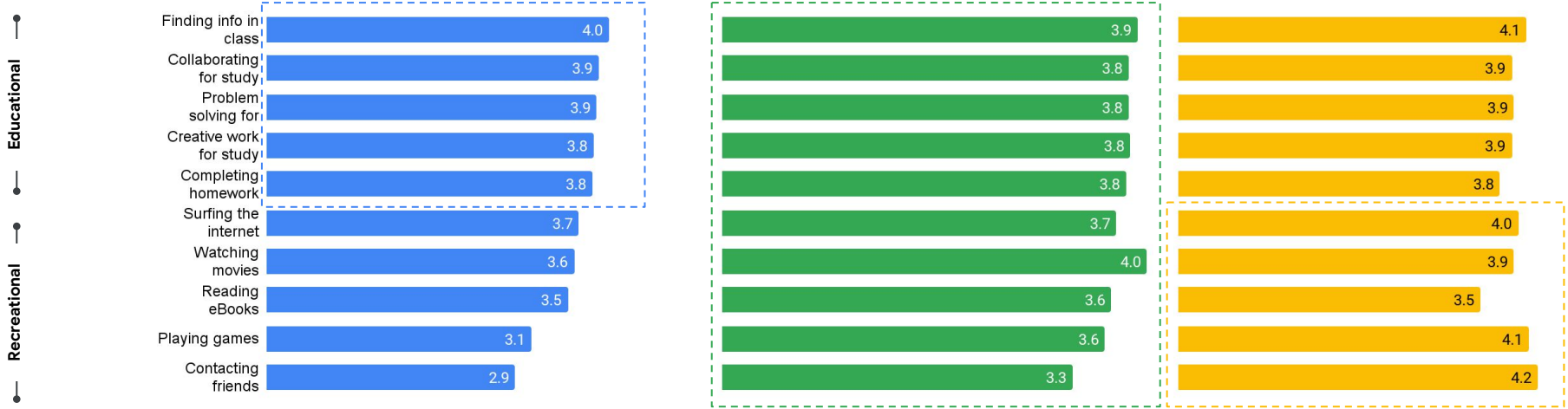
Source: Teacher Survey; "Please rate how suitable Chromebooks / Tablets are for the following activities:" - n = 6

Competitive advantage of devices differs between education and recreation

CBs are seen as consistent, **educational devices** and not as recreational

Tablets are seen as **both educational and recreational**

Smartphones are seen as the most effective **recreational devices**



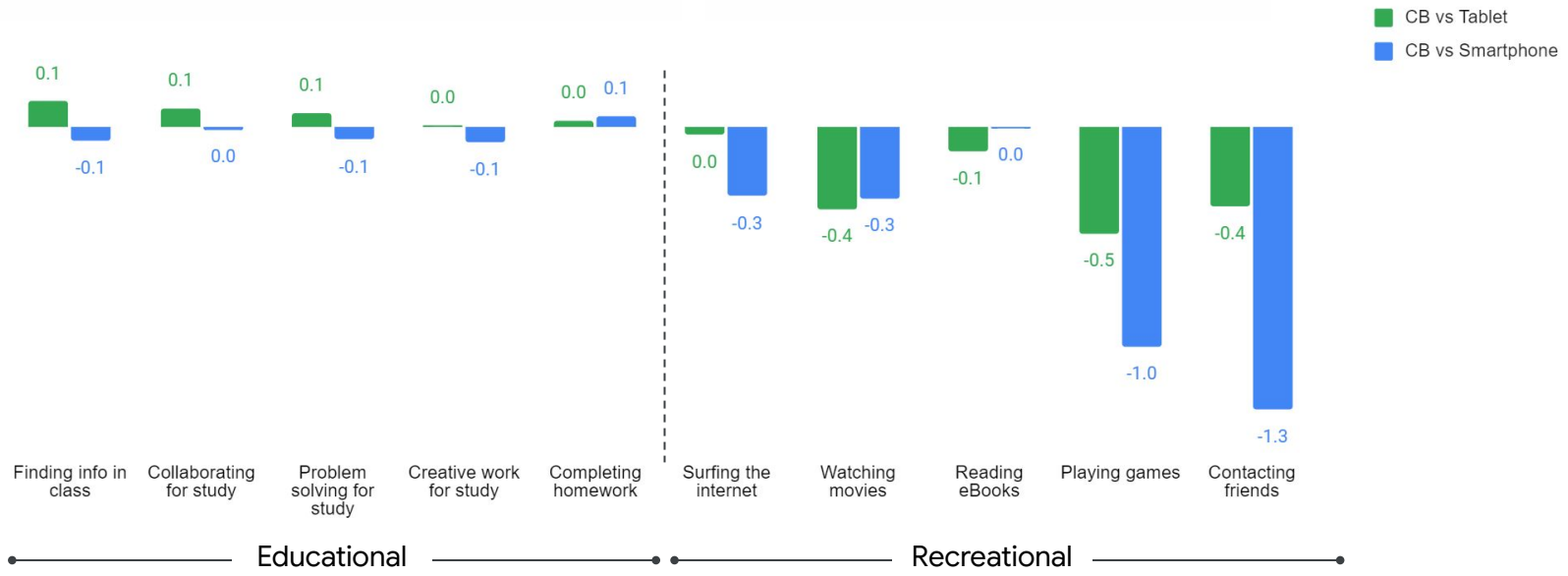
Optimal configuration for a student could be **CB for study** and **smartphone for recreational** to allow focus and differentiation of device usage, and to allow parents and teachers to control usage more easily

Source: Student Survey; "Please rate how suitable Chromebooks / Tablets/ Smartphones are for the following activities:" - n = 255

Chromebooks are more suitable for educational activities, whilst less so for recreational ones

Chromebooks **perform better on educational** activities...

... and are **not seen as recreational** devices



Source: Student Survey; “Please rate how suitable Chromebooks / Tablets/ Smartphones are for the following activities:” - n = 255

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Thank you!