

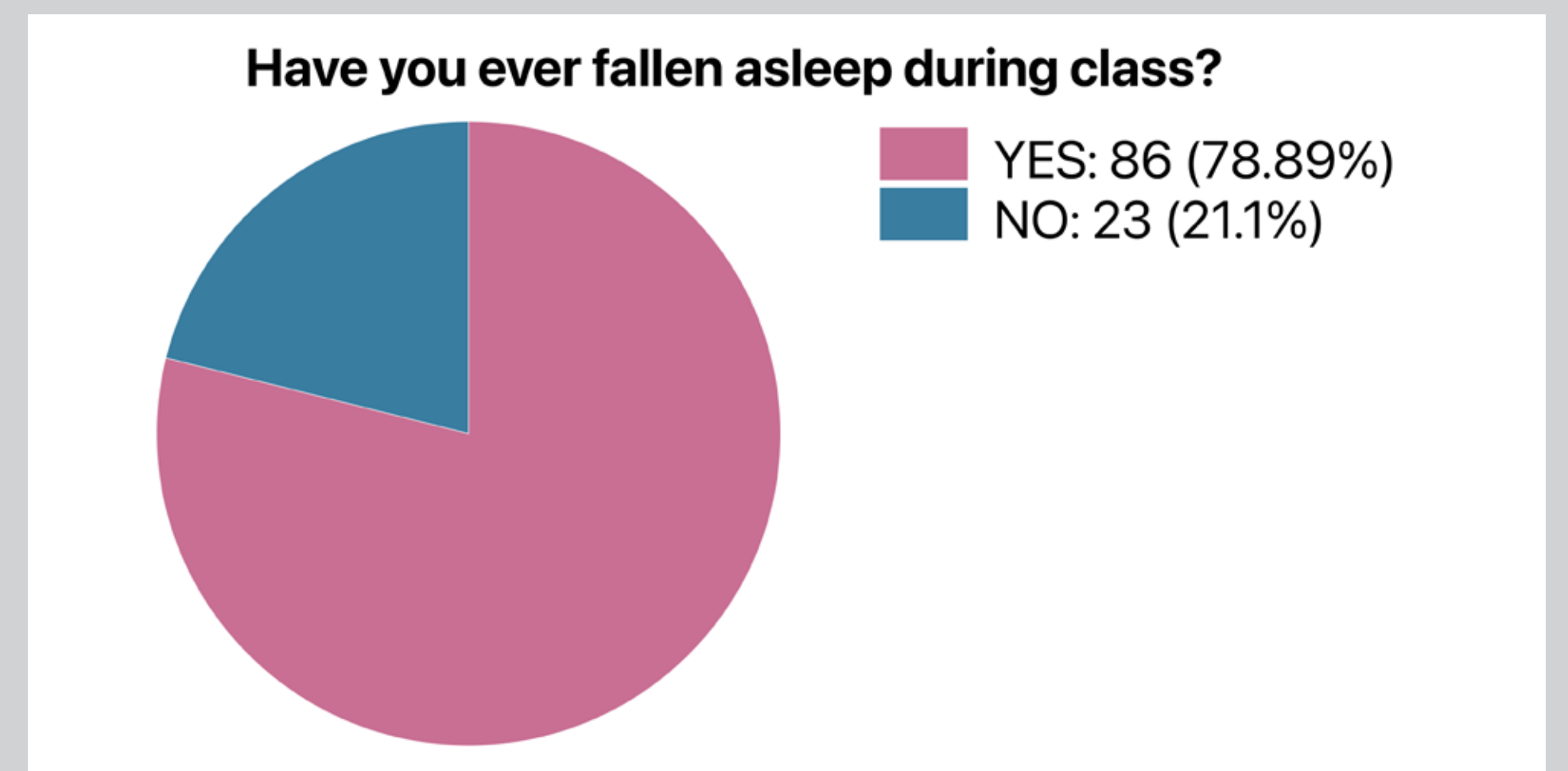
Creating an Environment in which Students Can Focus on Classes

Okayama Prefectural Okayama Joto Senior High School (92)

Background

Why did we start this research?

- Many students sleep during classes compared to other countries.
- Japanese high school students get less sleep compared to other countries.
- Sleeping in classes negatively affects grades and even their future.



Research 1: Standing Desks

Hypothesis

One reason for falling asleep is that students feel tired from sitting all day. If students have a chance to stand, they will not fall asleep.

Procedure



Raising the height

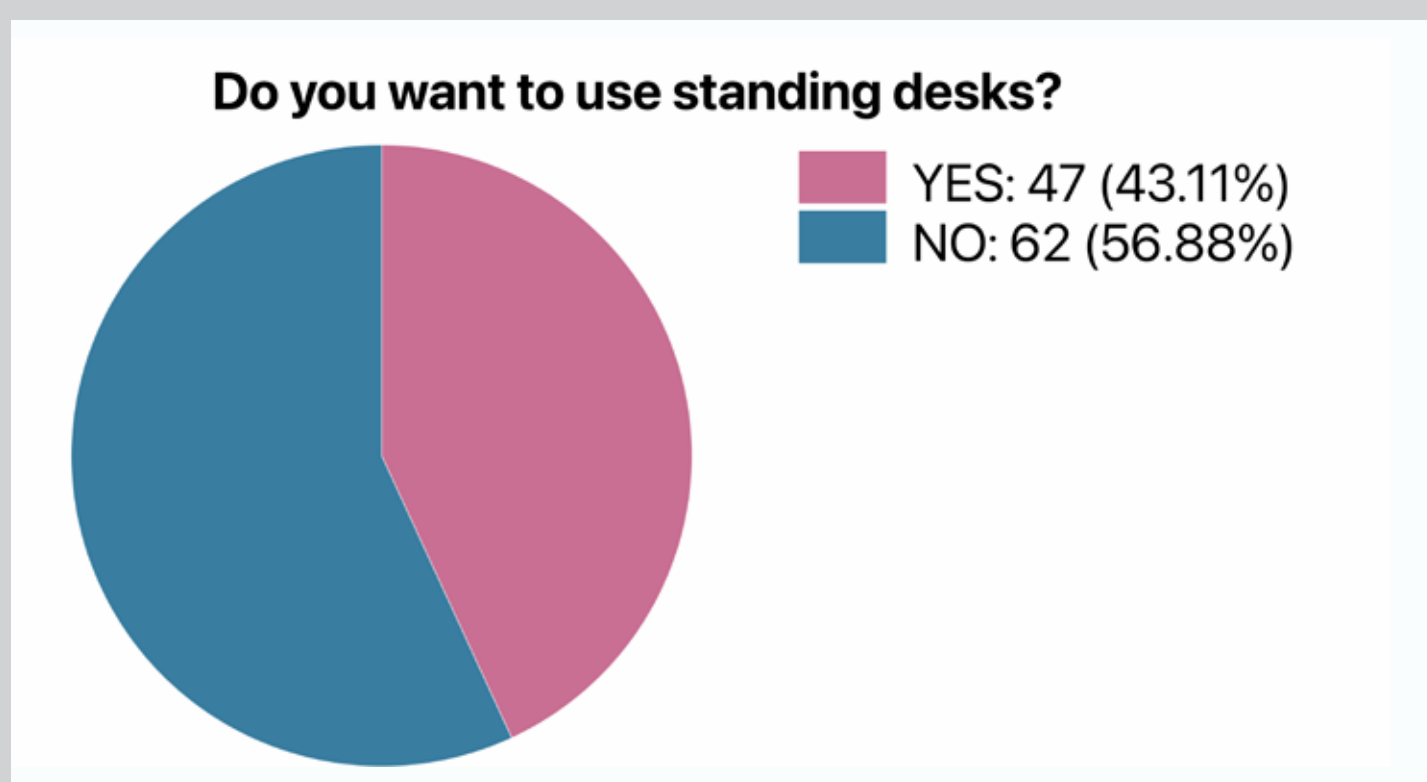
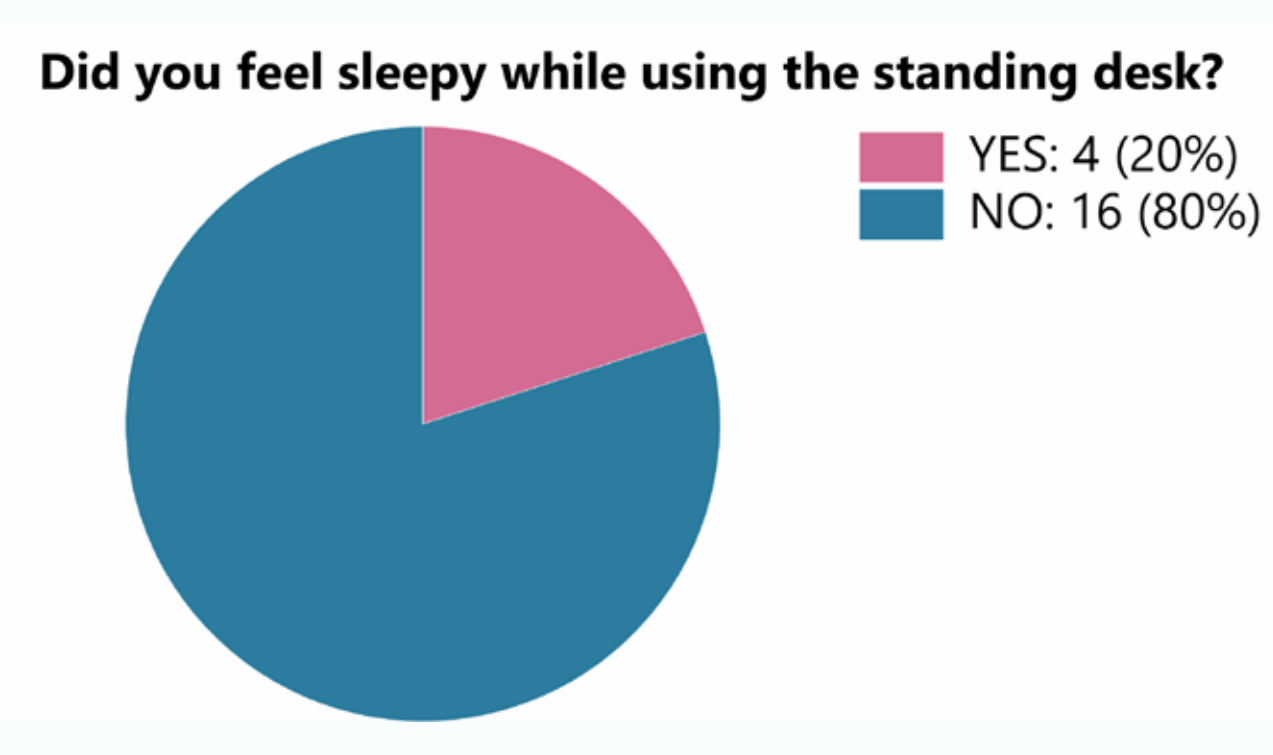
Placing two in the back of a classroom



Results

Post-Experiment Questionnaire

80% of users didn't feel sleepy. Over half could focus on class more.

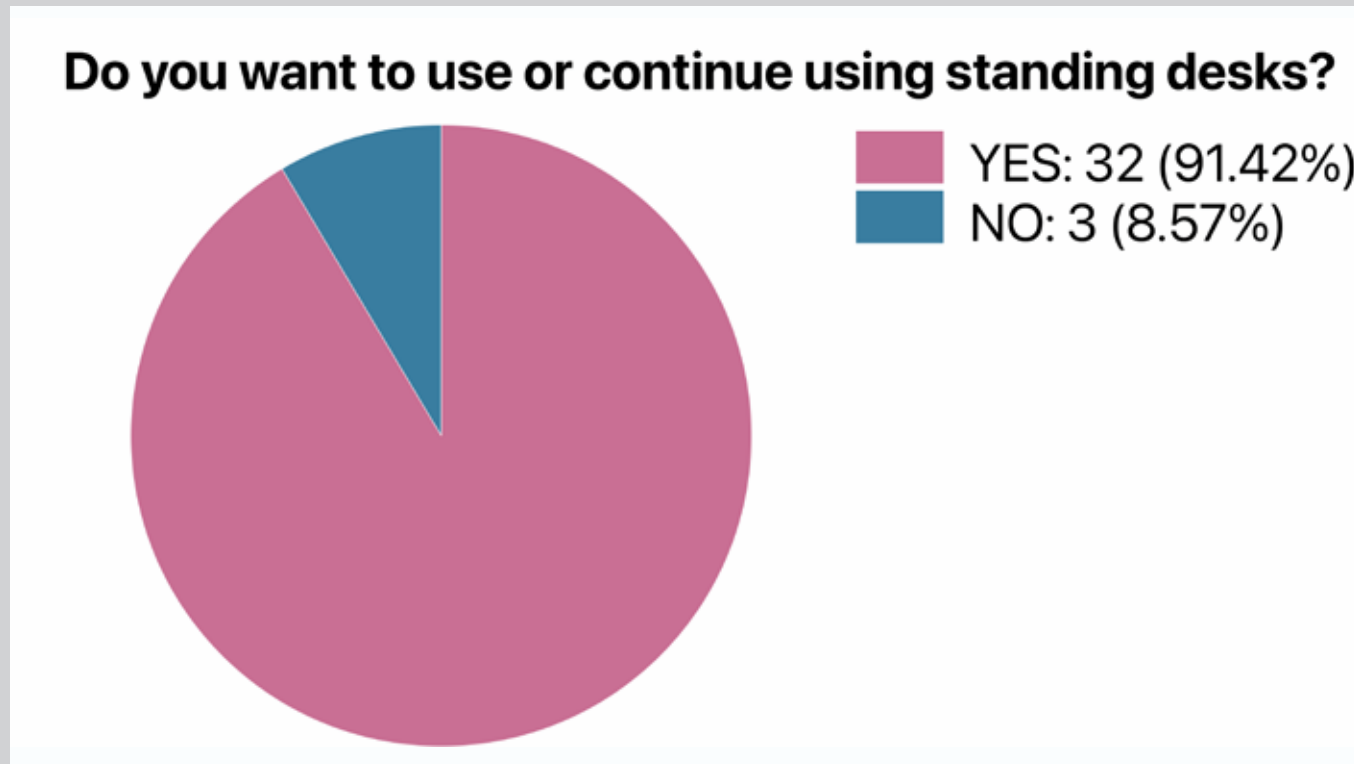


Preliminary Questionnaire

Not everyone welcomed standing desks at first.

Post-Experiment Questionnaire

The desks were favorably accepted after the experiment.



Issues

- Some peoples' legs hurt.
- Not everyone can use them at once.

Research 2: Desk Arrangement

Hypothesis

Students might fall asleep due to having few chances to interact with classmates. The closer desks are, the more conversation there will be.

Procedure

To change the arrangement:

We chose two classrooms with a total of 71 students, changed the desk arrangement, and surveyed students about the change a week later.

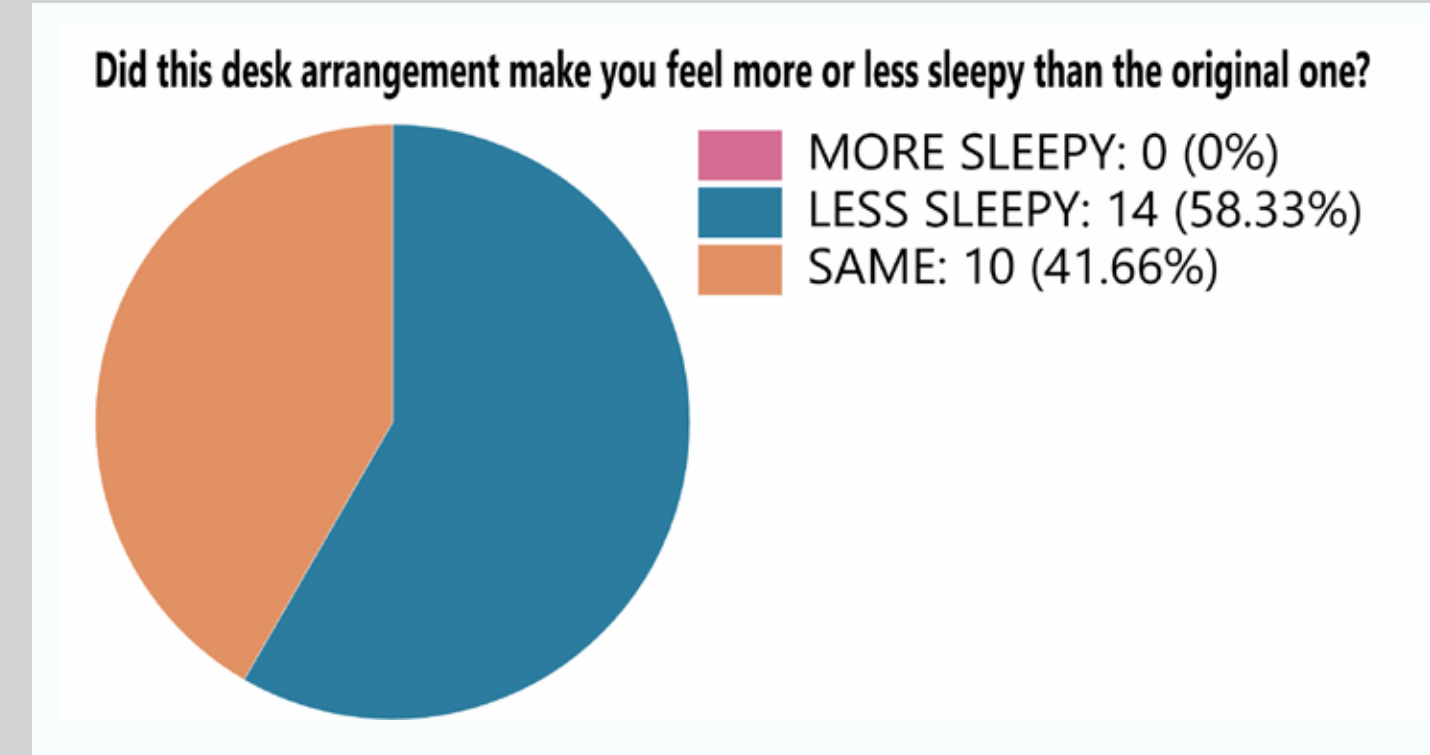


Results

Post-Experiment Questionnaire

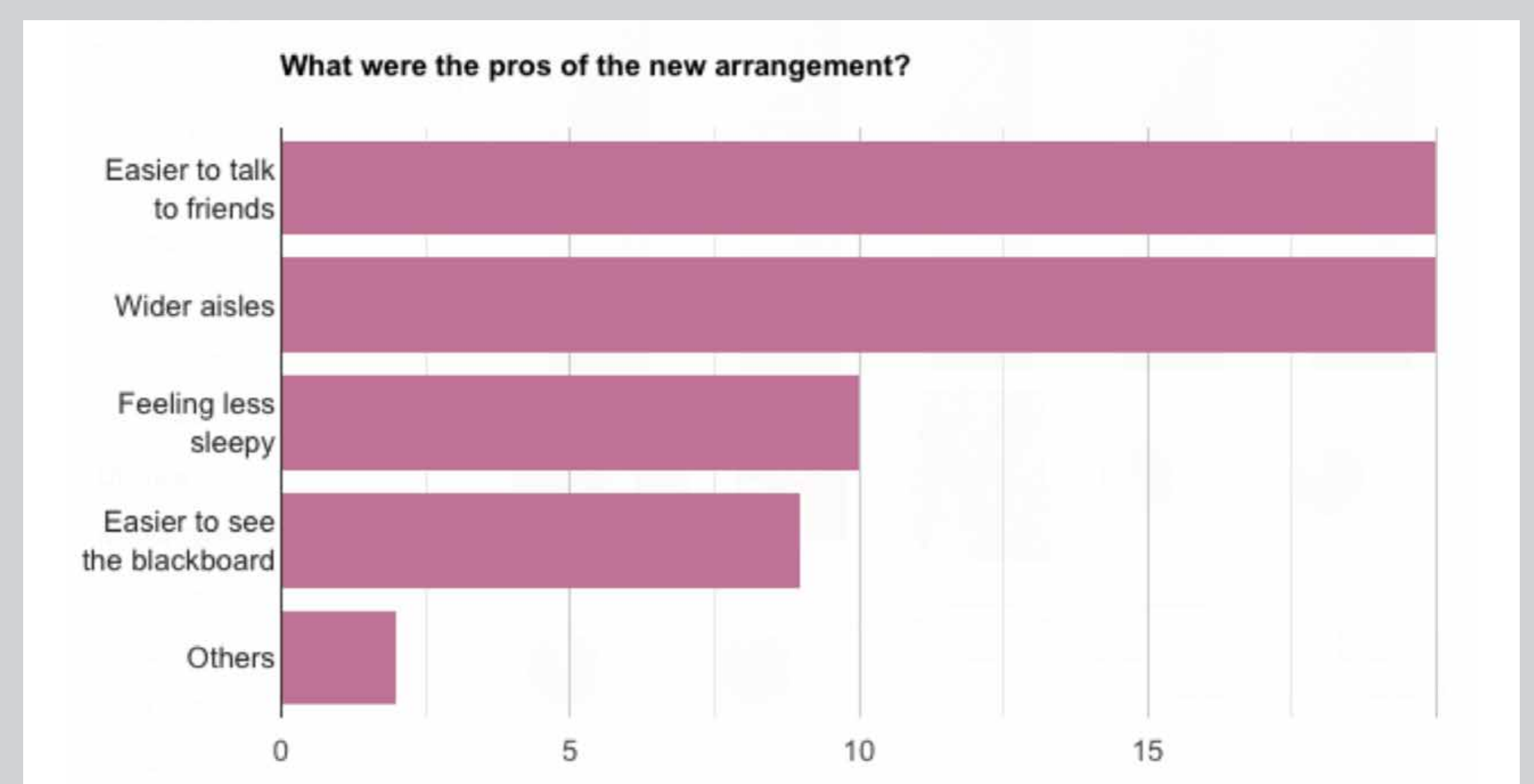
95.8% liked the new arrangement.

58.3% felt less sleepy.



Other benefits:

- More discussion
- Wider aisles



Conclusion and Future Research

We could prove that even a small change like desk arrangements can help students stay awake and alert in class. We will continue looking for ways to physically improve the learning environment.

References

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