



The Daily Smirk: A Preliminary Prototype for Continuous Peer Assessment of Team-based Projects

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Teamwork

- A significant component of higher education, particularly in software engineering
- Offer many educational benefits
 - Promote collaborative learning
 - Improve discipline-specific knowledge and skills



Challenges of Teamwork



Social Loafing



Conflicts



Communication Difficulties

Peer Assessment

Contributions that your team members made, in terms of:

- level of participation;
- working on the project from the start;
- understanding of the design task at hand;
- creative ideas toward forming a solution;
- following through on their tasks; and
- delivering quality work.

Team Member #1 Name *

Your answer

Team Member #1 Contribution *

1 2 3 4 5

Worst ○ ○ ○ ○ ○ Best

Team Member #1 Comments *

Your answer

Simple Q&A Form

Contributing to the Team's Work

<< Back

Next >>

Pat Anderson

Carol Christiansen

Mary O'Neil

Joyce Washington

Description of Rating

- Does more or higher-quality work than expected.
- Makes important contributions that improve the team's work.
- Helps teammates who are having difficulty completing their work.

Demonstrates behaviors described immediately above and below.

- Completes a fair share of the team's work with acceptable quality.
- Keeps commitments and completes assignments on time.
- Helps teammates who are having difficulty when it is easy or important.

Demonstrates behaviors described immediately above and below.

- Does not do a fair share of the team's work. Delivers sloppy or incomplete work.
- Misses deadlines. Is late, unprepared, or absent for team meetings.
- Does not assist teammates. Quits if the work becomes difficult.

The tendency to inflate assessments (mostly upwards, sometimes downwards)

Dedicated Peer Assessment Tool

Daily Smirk Primary Design Decisions



High-frequency assessment



Lightweight workload



Neutral expectation

Satisfaction level



Pre-defined Criteria

Participation

Indicate whether students actively participate in team activities

Criterion 1



Participation (Sarah)

- Despite being unable to attend in person, participated fully from remote
- After missing a meeting, proactively caught up with the project
- Volunteered for a major piece of follow-on work
- Took significant initiative

Collaboration

Assess whether the student helps the team operate together in a smooth manner

Criterion 2



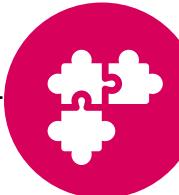
Collaboration (Sarah)

- Succeeded in bringing everyone into the conversation
- Found ways to integrate ideas from others in ways not immediately apparent
- Stood up and corrected a team member who was being disrespectful of others
- Broke through a tense/difficult situation, bringing harmony to the discussion(s)
- Provided outstanding constructive feedback in a positive manner
- Went above and beyond in helping a team member

Contribution

Determine whether the quality of a student's contribution meets expectations

Criterion 3



Contribution (Sarah)

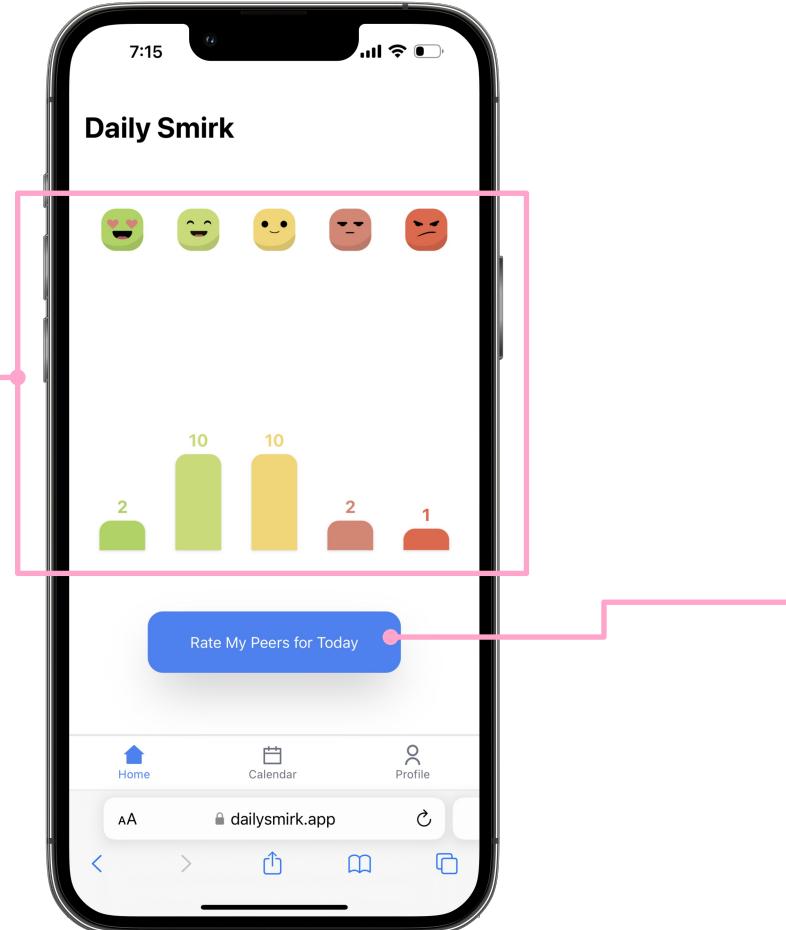
- Produced work of amazing quality
- Delivered key work significantly earlier than needed
- Stepped in and did the work that someone else should have done
- Discovered and solved a major problem with our approach

Home Screen

1

Summary of rating results

Bar graph displays the number of faces student received

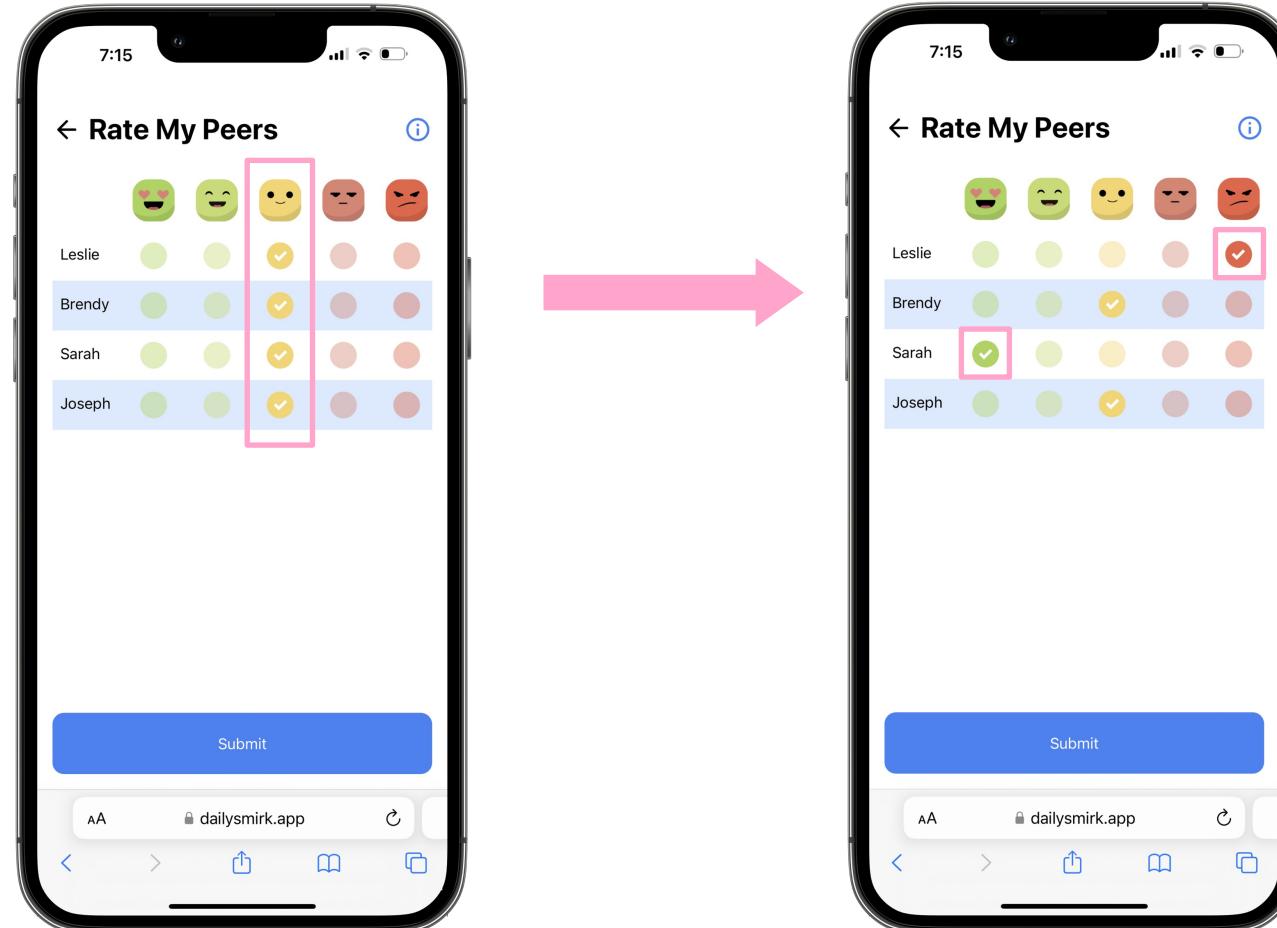


2

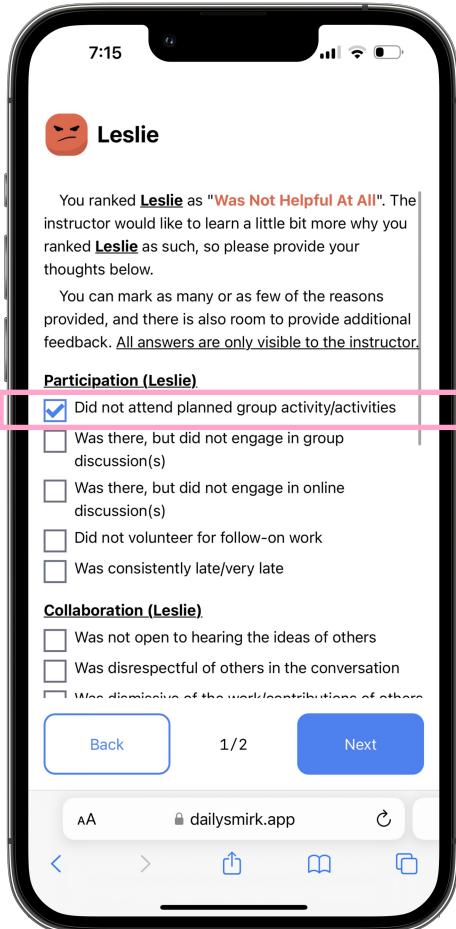
Evaluation button

Start assessment process

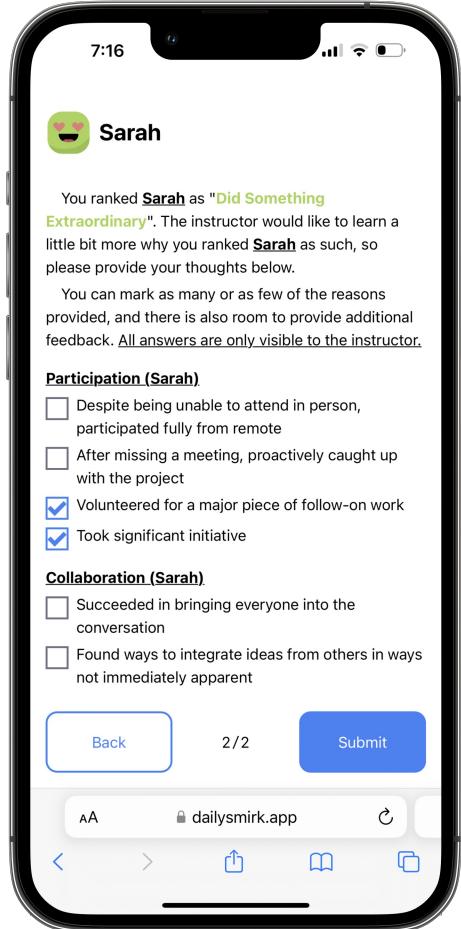
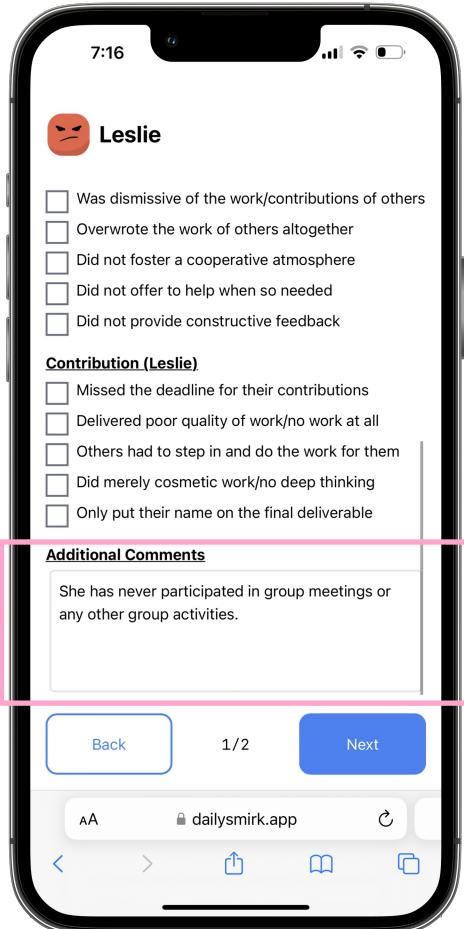
Assessment



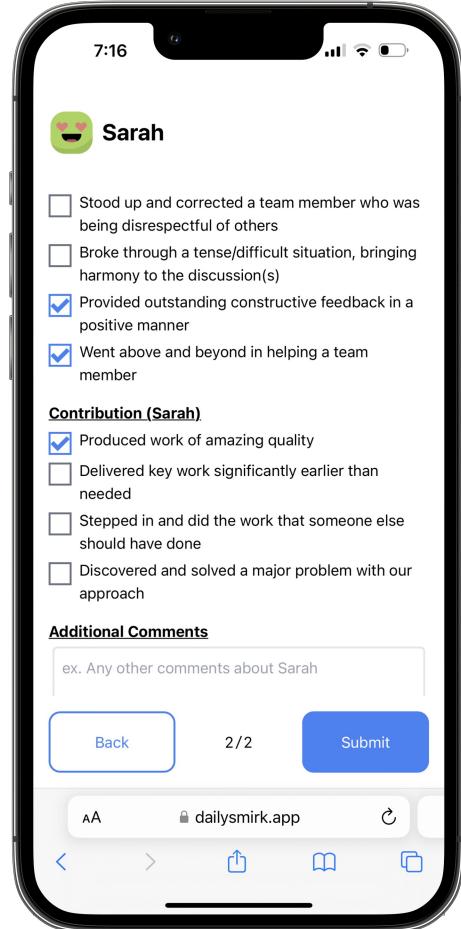
Pre-defined Criteria



Criteria for dark red



Criteria for dark green

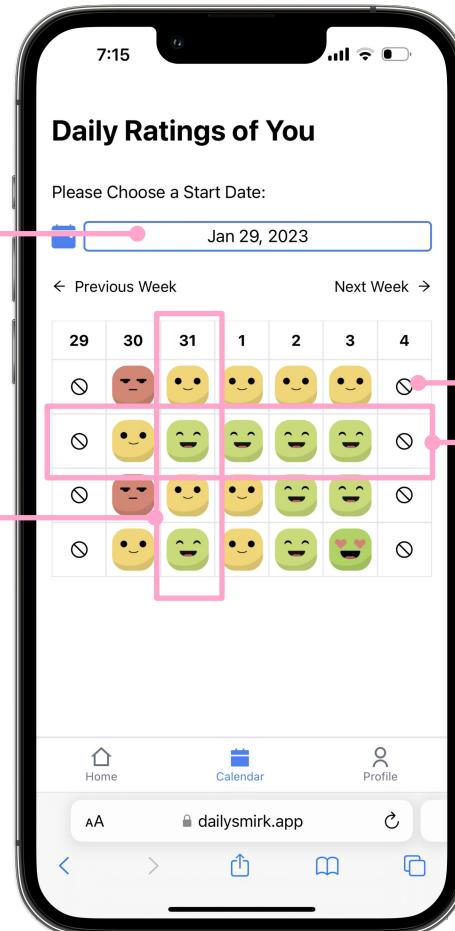


Calendar Screen

1

Date chosen

Select the start date and view the assessment results for a week following this date



2

No rating

No feedback received from this team member

3

Each column

The smirks the student received on that day

4

Each row
Smirks the student received from the same team member

Instructor Dashboard

1

Sort

2

Student details

The screenshot shows a web browser window titled "Daily Smirk - Instructor" with the URL "dailysmirk-instructor". The page displays a list of teams (Team 06 to Team 19) and a detailed view of student performance for Team 15. The student details for Team 15 include:

Student	Email	Worst	Best	Average			
Brendy	brendy@uci.edu	0	3	19	1	0	0.1
Joseph	joseph@uci.edu	0	3	25	0	0	0.1
Leslie	leslie@uci.edu	0	0	14	10	4	-0.6
Malina	malina@uci.edu	0	6	22	0	0	0.2
Sarah	sarah@uci.edu	3	4	22	0	0	0.3

A "Sort By:" dropdown menu is open, showing options: Name, Worst, Best, and Average. The "Name" option is selected. A pink box highlights the "Sort By:" section and the "Name" option.

To the right, a sidebar shows a list of comments from students:

- Leslie (leslie@uci.edu):
 - From Joseph (November 4th 2022, 10:00:17 pm)
 - From Brendy (November 3rd 2022, 1:29:34 am)
 - Collaboration:** Did not offer to help when so needed
 - Contributions:** Others had to step in and do the work for them
 - Participation:** Did not attend planned group activity/activities
 - Participation:** Did not volunteer for follow-on work
 - From Sarah (November 3rd 2022, 12:35:49 am)
 - Participation:** Did not attend planned group activity/activities
 - From Joseph (November 3rd 2022, 12:33:42 am)
 - From Malina (November 3rd 2022, 12:33:37 am)
 - From Malina (November 3rd 2022, 12:33:37 am)
 - From Sarah (October 30th 2022, 6:00:53 pm)
 - Comments:** Has not reached out yet to join the group or communicate.
 - From Brendy

3

Rating details

Preliminary Evaluation – Setting and Goals

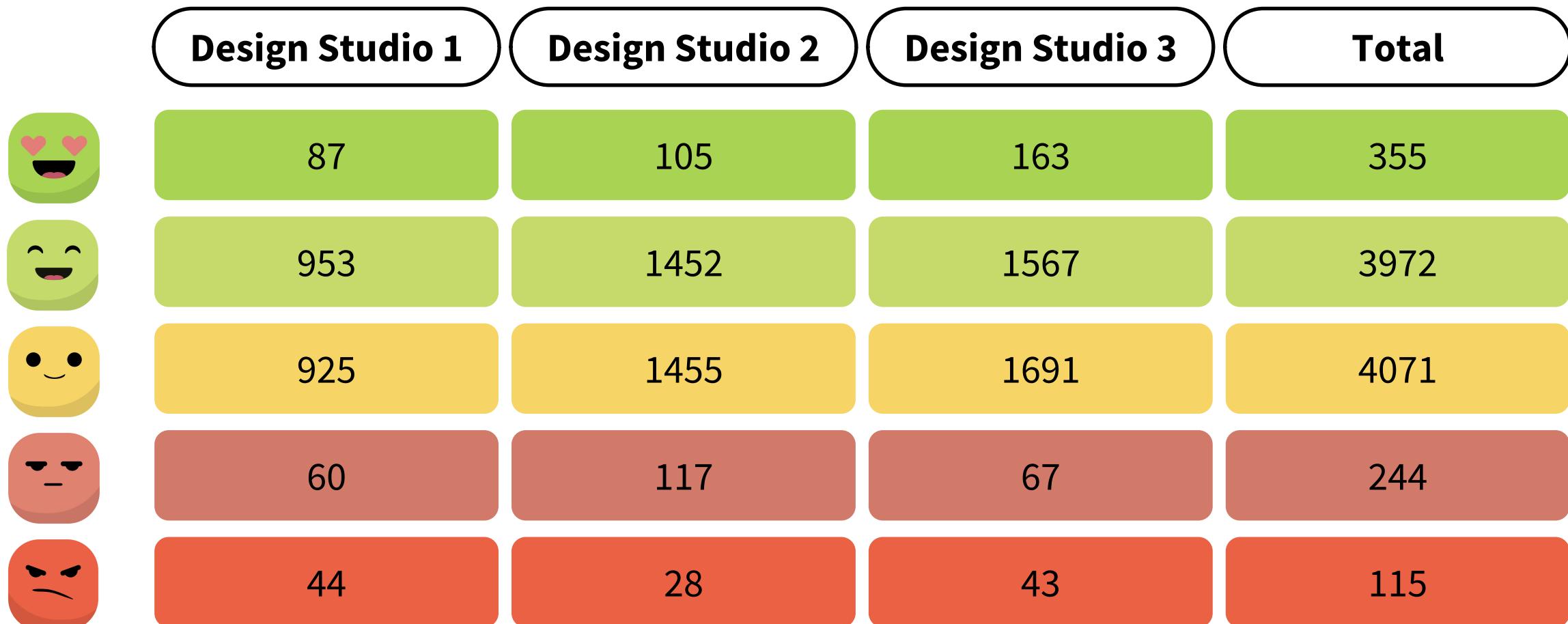
- An undergraduate software design course at the University of California, Irvine
- 144 students enrolled, with groups consisting of 4 or 5 students
- 3 group projects

1
Test the Daily Smirk

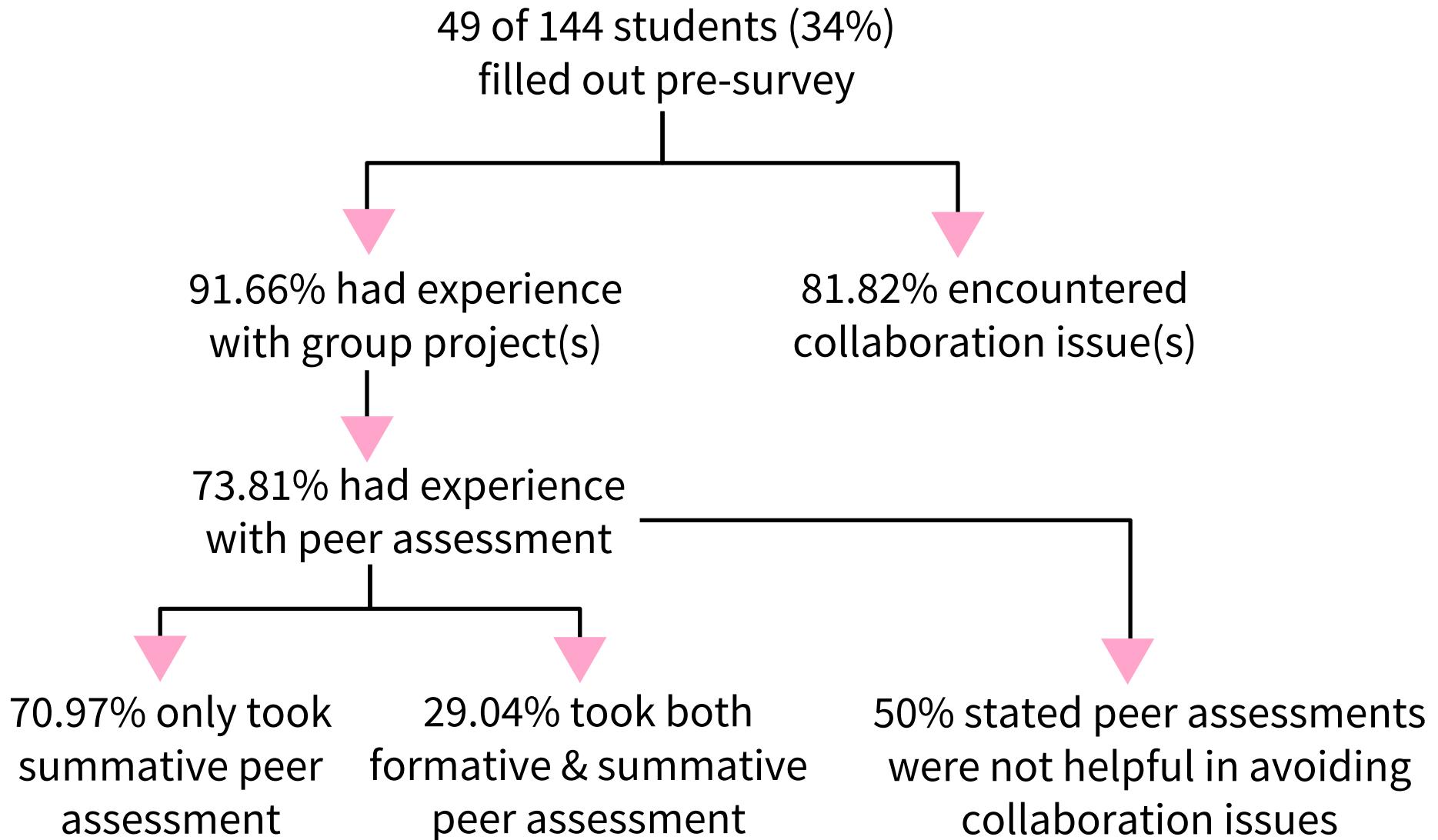
2
Not force students to use it, but regularly remind them to use

3
Force them to use, might affect their group projects grade

Usage Summary



Pre-Survey



Average Time to Complete Peer Assessment

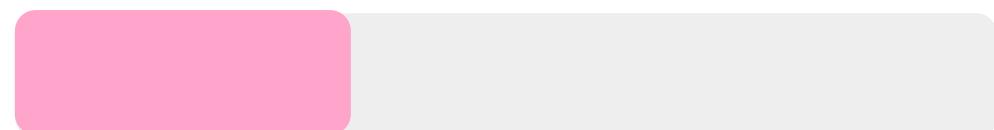
Percentage of Responses



61.36%

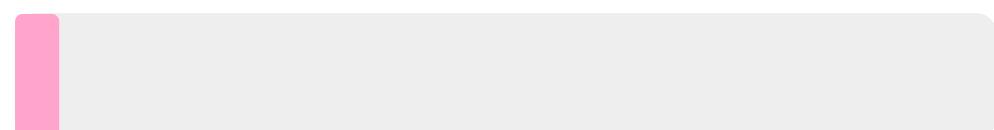
Average Time

< 1 minute



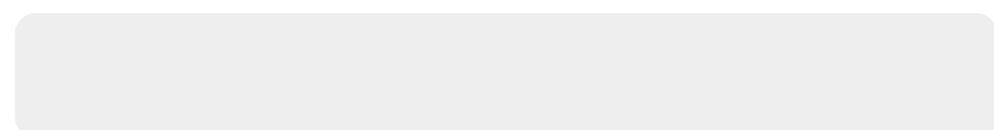
34.09%

1 - 3 minutes



4.55%

3 - 5 minutes



0.00%

> 5 minutes

Thoughts on Providing Continuous Feedback

Scale Percentage of Responses

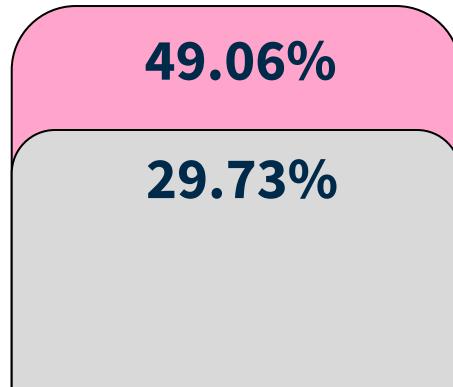
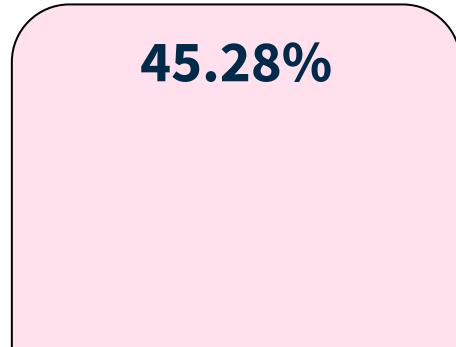


“It gives people a chance
to adjust performance ...”

“It definitely helps
increase productivity...”

“It helps document how
things go ...”

Inflation of Rating Results



Assessed more positively than they feel

“I believe that positive regard/feedback is better than negative/punishment.”

“Felt bad every time I give them bad marks.”

Assessed accurately with respect to their feelings

“Because it was anonymous, I felt no need to hide how I felt.”

“It would be counterproductive to lie when I would always want my team to know if we aren't working well together.”

Assessed more negatively than they feel

“(No comments provided by students)”

Students' Reactions to Assessment Results

After receiving **good** ratings

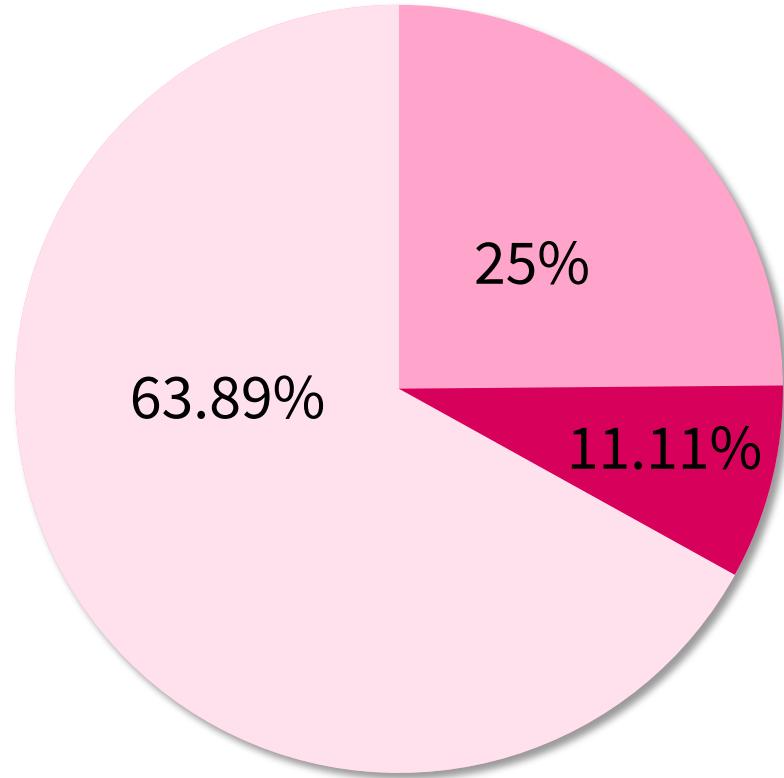


After receiving **bad** ratings



Changed Behaviors	Never Changed	Changed Behaviors	Never Changed
<p>"I took more initiative and tried to be more inclusive in the teamwork."</p> <p>"Worked harder to try and get another dark green."</p>	<p>"It wasn't that altered my behavior as much as I saw it as confirmation that I should continue doing what I have been doing."</p>	<p>"Made more efforts to contribute when couldn't be there."</p> <p>"Started showing up to meetings on time."</p>	<p>"My ratings were out of my control."</p> <p>"My behavior couldn't really change because I didn't know what I did wrong."</p>

Impression of Compared to Other Tools



The results of the comparison to other peer assessment tools



Prefer the Daily Smirk

“The interface was clearer and give quick feedback in fewer steps.”



Feel the same

“It feels like just another peer reviewing app.”



Prefer other tools

“Not everyone uses it the same. The ratings are biased and based on mood.”

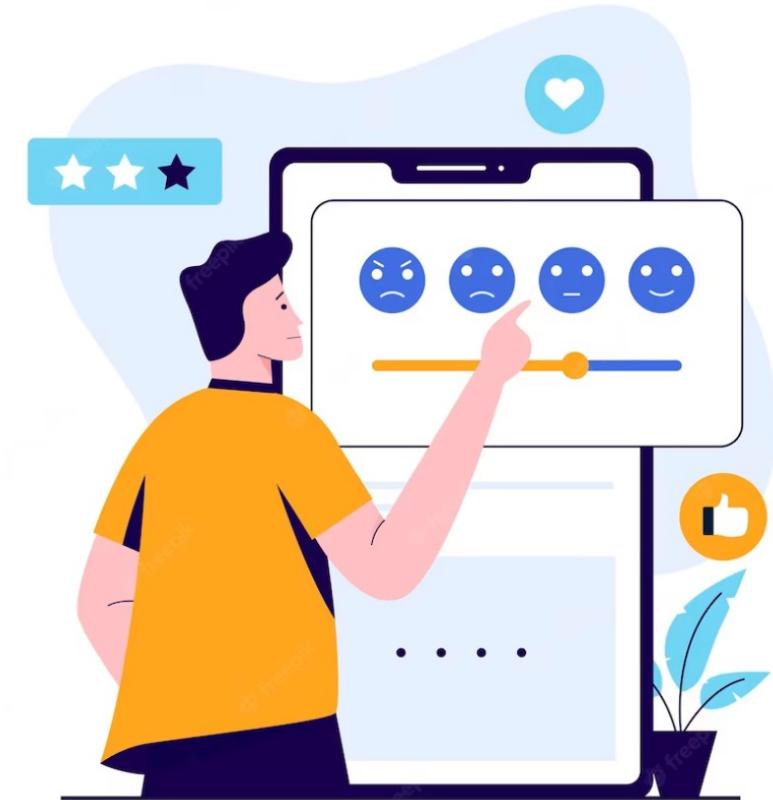
Student Suggestions for Improvement



- 1 Optional comments for the other three smirks
- 2 Add/Edit past ratings with reasons
- 3 Release comments to students
- 4 Better calendar
-
-
-

Overall Findings

- Reduces workload to complete a single round of peer assessment
- Corrects inflation of rating results to some extent, but definitely not fully
- Encourages students to adjust their performance
- Preferable compared to other peer assessment tools



Summary

- Daily Smirk, a novel smiley-based peer assessment tool for team-based projects
- Supports high-frequency peer assessment with pre-defined criteria
- Enables lightweight workload while providing continuous and timely feedback
- Allows instructors to inspect assessment results and monitor ongoing teamwork



Thank you!