User Evaluation of EmoReflex - Developer insights platform

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You are invited to take part in this online user evaluation study. **You will be paid 6 Sterling Pounds via Prolific for your participation.** Please read this Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the email addresses listed above.

What does the research involve?

Background: With the growing popularity of agile practices, teams have adopted innovative approaches to facilitate productivity and the flexibility of evolving development cycles. Such environments necessitate team
members to welcome possible changing requirements late in development among other things. Examining the subsequent impact on emotions provides an opportunity to explore whether such emotions can be accurately captured and acknowledged to boost productivity. With respect to this, task management and list-making applications assist teams and organisations in managing different tasks.

To this end, we developed an emotion-centric developer insights platform called EmoReflex. EmoReflex has two components. It has a Trello plugin for the team members and an analytical dashboard for the team manager.

Objective: The objective of this study is to evaluate the user experience of EmoReflex's manager dashboard.

What you will have to do: This study involves filling out a questionnaire (this form). This form only focuses on the experience of the managers. i.e., only focuses the usage of the dashboard. The manager dashboard allows the manager to configure metrics and emotions (add, update, delete), view aggregated team emotions and metrics ratings for a particular Trello card/ entire Trello board over a particular time period, and receive AI-based recommendations based on team's emotion and metric ratings.

This form consists of a consent form, questions on demographics, illustrations of four scenarios of using EmoReflex's dashboard followed by a set of questions. Filling the form will take 15–20 minutes

of your time.

Invitation

As a professional software engineering manager, we invite you to participate in this study, and your participation is voluntary.

Consenting to participate in the project and withdrawing from the research

Consenting: As a general practice, you are required to provide consent through the consent form in the next section.

Withdrawing: You can exist without completing this form, and you have the right to withdraw from participation at any time up to 30 days after completion of this form without giving a reason. There are no consequences on withdrawal, and your data will be deleted upon withdrawal.

Possible benefits

Release of EmoReflex to the market for software teams to use.

Confidentiality

Your personal data shall only be accessible by the researchers. The researchers will keep your identity confidential and will de-identify your responses (your responses will be given an ID). Any research publication published as a result of the
study will not identify you, your company or any non-participant in your company.

Storage of data

Data and electronic copies of consent forms will be securely stored in a Google Drive with restricted access (only investigators have access) for a
period of 5 years and destroyed thereafter.

Use of data for other purposes

In accordance with data-sharing guidelines, data may be made available for use by other researchers. This data will be held in Chief Investigator's GitHub and may be a requirement of some journals prior to publication. Any shared data will not include your identity details.

Results

The findings of this study will be published in academic and practitioner-based journals, conferences, and
magazines. Further, free access to the publications in the form of preprints will be available on arXiv (https://arxiv.org/).

Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics Committee (MUHREC):

Executive Officer

Monash University Human Research Ethics Committee (MUHREC)

Room 111, Chancellery Building D,
26 Sports Walk, Clayton Campus
Research Office, Monash University VIC 3800.

Tel: +61 3 9905 2052 Email: muhrec@monash.edu Fax: +61 3 9905 3831

Thank You.

Kashumi Madampe and John Grundy.

* Indicates required question

Project ID: 41279

Consent form

1. I confirm that I have understood the nature of the research, and I have had the opportunity to ask questions and have had them answered to my satisfaction.

   Tick all that apply.

   - [ ] I confirm that I am a professional software engineering manager
   - [ ] I agree to take part in this study
   - [ ] I understand that I am free to withdraw my participation at any time, and to withdraw any data traceable to me up to 30 days from the date of the participation without giving a reason
   - [ ] I agree to fill in this questionnaire
   - [ ] I understand my personal information (age, gender, geographic location) maybe collected in the next section of this questionnaire
   - [ ] I give consent to share the data collected from me with other researchers whose projects have ethics approval

Prolific ID

2. What is your Prolific ID? *

_____

Demographics

This section is intended to gather basic information of the participant.

Note: We assure details of the participants, and all other confidential information shared will be kept confidential. The details of the participants will not be specified in any of the publications or report.

3. How old are you? *

Mark only one oval.

- ◯ 20-25
- ◯ 26-30
- ◯ 31-35
- ◯ 36-40
- ◯ 41-45
- ◯ 46-50
- ◯ 51 and above

4. To which gender identity do you mostly identify? *

Tick all that apply.

- ☐ Man
- ☐ Woman
- ☐ Non-binary/ gender diverse
- ☐ Prefer not to say
- ☐ Other: _____

5. In which country do you currently reside? *

_____

6. Which of the following describes you, if any?

Mark only one oval.

- ◯ I have a concentration and/or memory disorder (e.g., ADHD, etc.)
- ◯ I have anxiety disorder
- ◯ I have a mood or emotional disorder (e.g., depression, bipolar disorder, etc.)
- ◯ I have autism/an autism spectrum disorder (e.g., Aperger's, etc.)
- ◯ I have learning differences (e.g., Dyslexic, Dyslexia, etc.)
- ◯ Other: _____

Professional Experience

7. Total experience in software industry as a software engineering manager (years) e.g., 2.5 years:

_____

Context

8. In which industry are you employed? *

Mark only one oval.

- ◯ IT
- ◯ Finance and Banking
- ◯ Transport
- ◯ Medical
- ◯ Telecom
- ◯ Healthcare
- ◯ Manufacturing
- ◯ Other: _____

9. How many employees work in your organisation? *

Mark only one oval.

- ◯ Less than 10
- ◯ 11-50
- ◯ 51-100
- ◯ 101-500
- ◯ 501-1000
- ◯ 1001-5000
- ◯ 5001-10000
- ◯ More than 10000

10. Team size. i.e., total number of members in your team: *

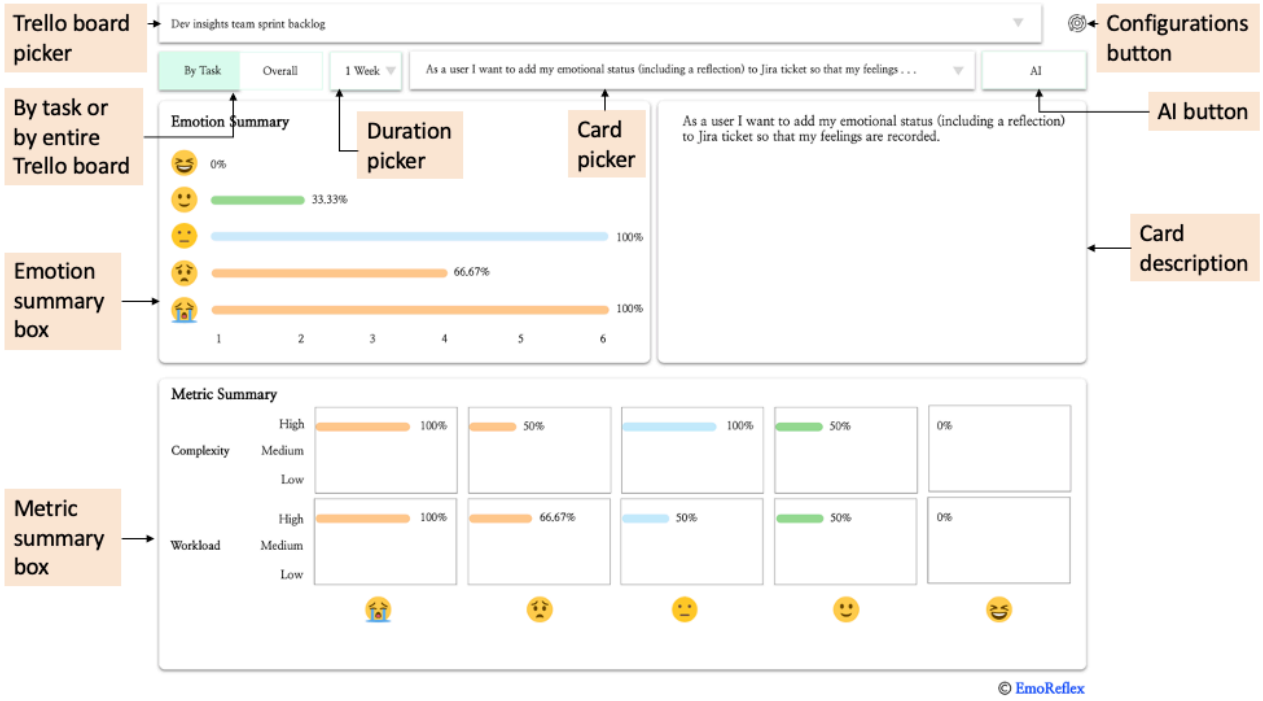
_____

EmoReflex Evaluation

EmoRflex is a two-component app. It has a Trello plugin for the team members and a dashboarc for the manager. Assuming that you are a manager using the dashboard, please answer the questions for each of the scenarios given.

The dashboard component consists of a dashboard view panel, configurations option, and an AI powered option to receive recommendations.
Scenario A - view dashboard: The dashboard view panel allows you to pick a Trello board of a project you have connected the dashboard with and see the summary of team members' ratings against emotions and metrics against a specific card/entire Trello board over a specific time peri you select.
Scenario B - configure Trello plugin: The configurations allow you to add/edit/delete emotions and metrics and set intensity levels for each. These get reflected on the Trello end.
Scenario C - receive recommendations: The AI-powered option allows you to get real-time recommendations on how to better manage the team, based on the team's ratings.

In the next sections of this form, **assuming that the dashboard is connected to your Trello boards**, please answer the questions.

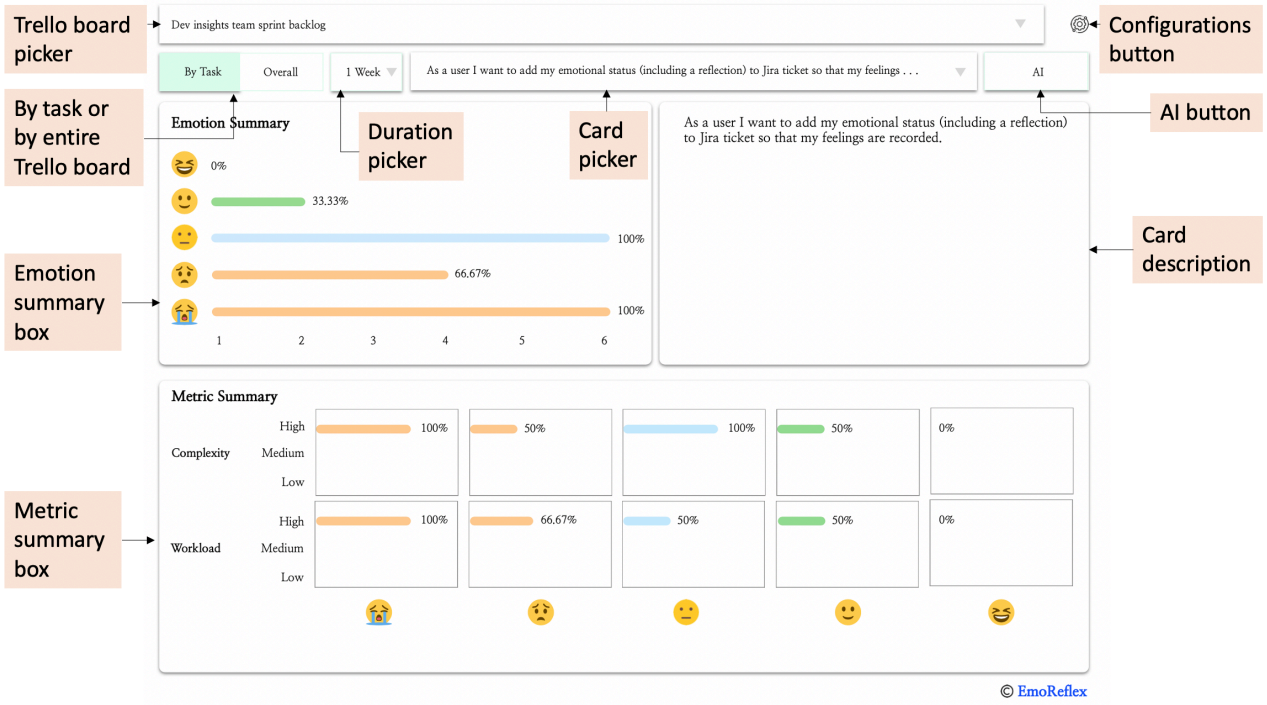


The same set of questions will be repeated for all scenarios. This section is for **Scenario A - view dashboard.** Assume that the dashboard is connected to your Trello boards and you followed the following steps.

1. Select the Trello board
2. Select "by task/overall"
3. Select the duration
4. Select the Trello card

This will populate the dashboard with a summary of emotions, and metrics with the description of the Trello card selected.

Scenario A - view dashboard:



11. **Scenario A - view dashboard:** How mentally demanding was the task? *

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

12. **Scenario A - view dashboard:** How physically demanding was the task? *

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

13. **Scenario A - view dashboard:** How hurried or rushed was the pace of the task? *

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

14. **Scenario A - view dashboard:** How successful were you in accomplishing what you were asked to do?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

15. **Scenario A - view dashboard:** How hard did you have to work to accomplish your level o performance?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

16. **Scenario A - Metric box:** How insecure, discouraged, irritated, stressed, and annoyed were you?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

This section is for **Scenario B.1- Configure Trello plugin - emotions**. Assume that the dashboard is connected to your Trello boards and you followed the following steps.

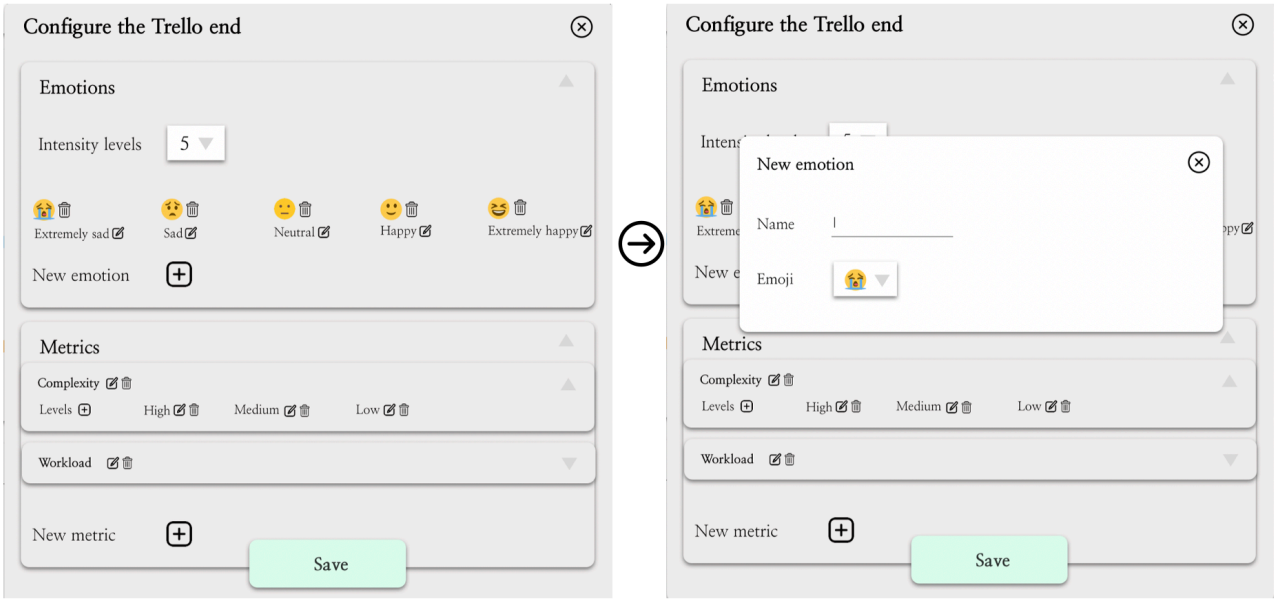
1. Click on "configurations" button
2. Under emotions, adjust the intensity level. This is universal to all emotions added.

To add a new emotion. [Click here to watch the video]():

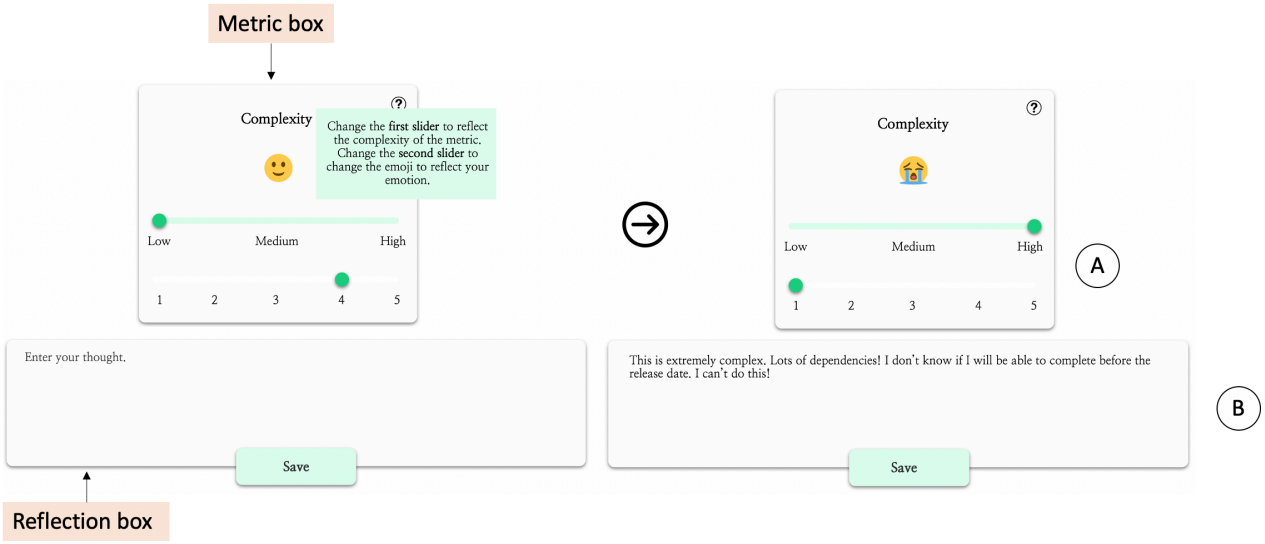
3. Click on the plus sign next to "New emotion"
4. Name the emotion
5. Select an emoji
6. Click "Save"

Deleting and editing emotions are straightforward.
To delete: Click on the delete icon next to the emotion.
To edit: Click on the edit icon next to the emotion.

Scenario B.1- Configure Trello plugin - emotions:



How a configured Trello plugin looks like. This is only for you to get an idea of the Trello plug as the configuration changes get reflected on the Trello board end. This form focuses only on th dashboard. Therefore, please answer the questions only considering of the experience of the dashboard.



17. **Scenario B.1- Configure Trello plugin - emotions:** How mentally demanding was the task?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

18. **Scenario B.1- Configure Trello plugin - emotions:** How physically demanding was the task?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

19. **Scenario B.1- Configure Trello plugin - emotions:** How hurried or rushed was the pace of the task?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

20. **Scenario B.1- Configure Trello plugin - emotions:** How successful were you in accomplishing what you were asked to do?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

21. **Scenario B.1- Configure Trello plugin - emotions:** How hard did you have to work to accomplish your level of performance?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

22. **Scenario B.1- Configure Trello plugin - emotions:** How insecure, discouraged, irritated, stressed, and annoyed were you?

Mark only one oval.

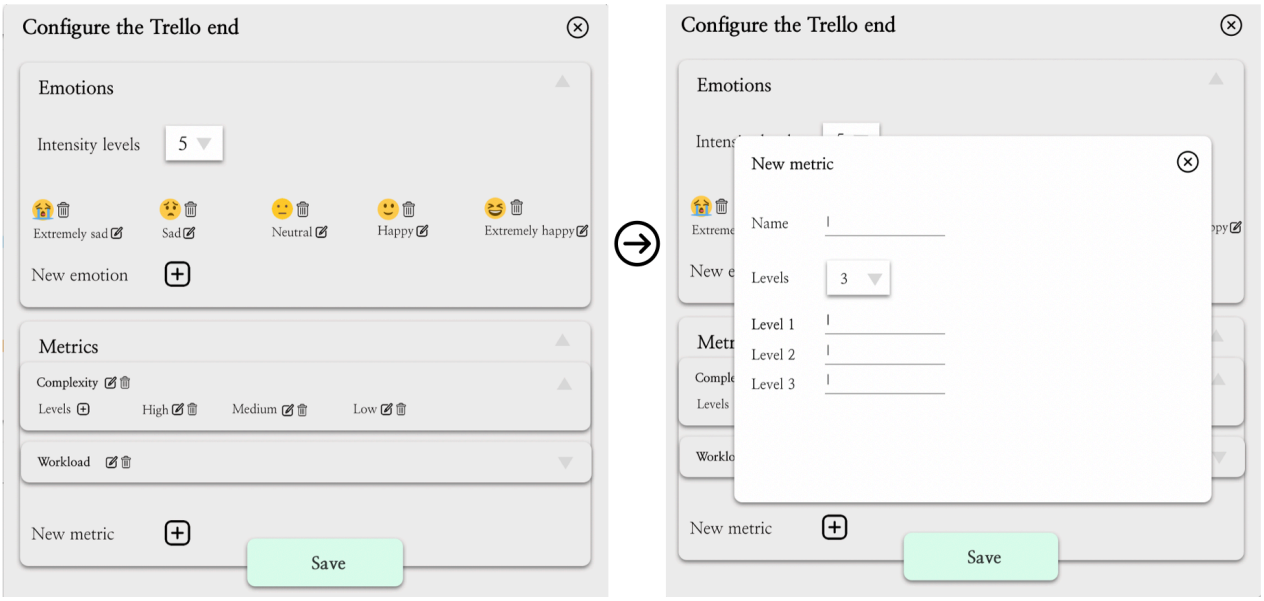
	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

This section is for **Scenario B.2- Configure Trello plugin - metrics**. Assume that the dashboard is connected to your Trello boards and you followed the following steps.

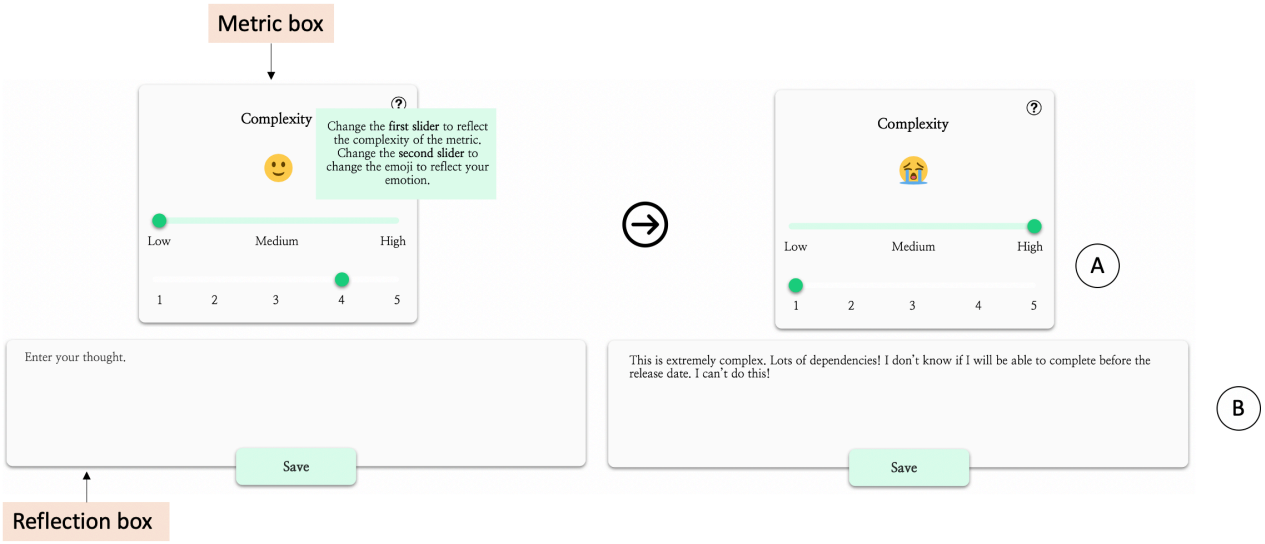
1. Click on "configurations" button
To add a new metric. Click here to watch the video:
3. Click on the plus sign next to "New metric"
3. Name the metric
4. Select number of levels
5. Name the levels
5. Click "Save"

Deleting and editing emotions are straightforward.
To delete: Click on the delete icon next to the metric/level.
To edit: Click on the edit icon next to the metric/level.

Scenario B.2- Configure Trello plugin - metrics:



How a configured Trello plugin looks like. This is only for you to get an idea of the Trello plug as the configuration changes get reflected on the Trello board end. This form focuses only on th dashboard. Therefore, please answer the questions only considering of the experience of the dashboard.



23. **Scenario B.2- Configure Trello plugin - metrics:** How mentally demanding was the task?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

24. **Scenario B.2- Configure Trello plugin - metrics:** How physically demanding was the task?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

25. **Scenario B.2- Configure Trello plugin - metrics:** How hurried or rushed was the pace of the task?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

26. **Scenario B.2- Configure Trello plugin - metrics:** How successful were you in accomplishing what you were asked to do?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

27. **Scenario B.2- Configure Trello plugin - metrics: H**ow hard did you have to work to accomplish your level of performance?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

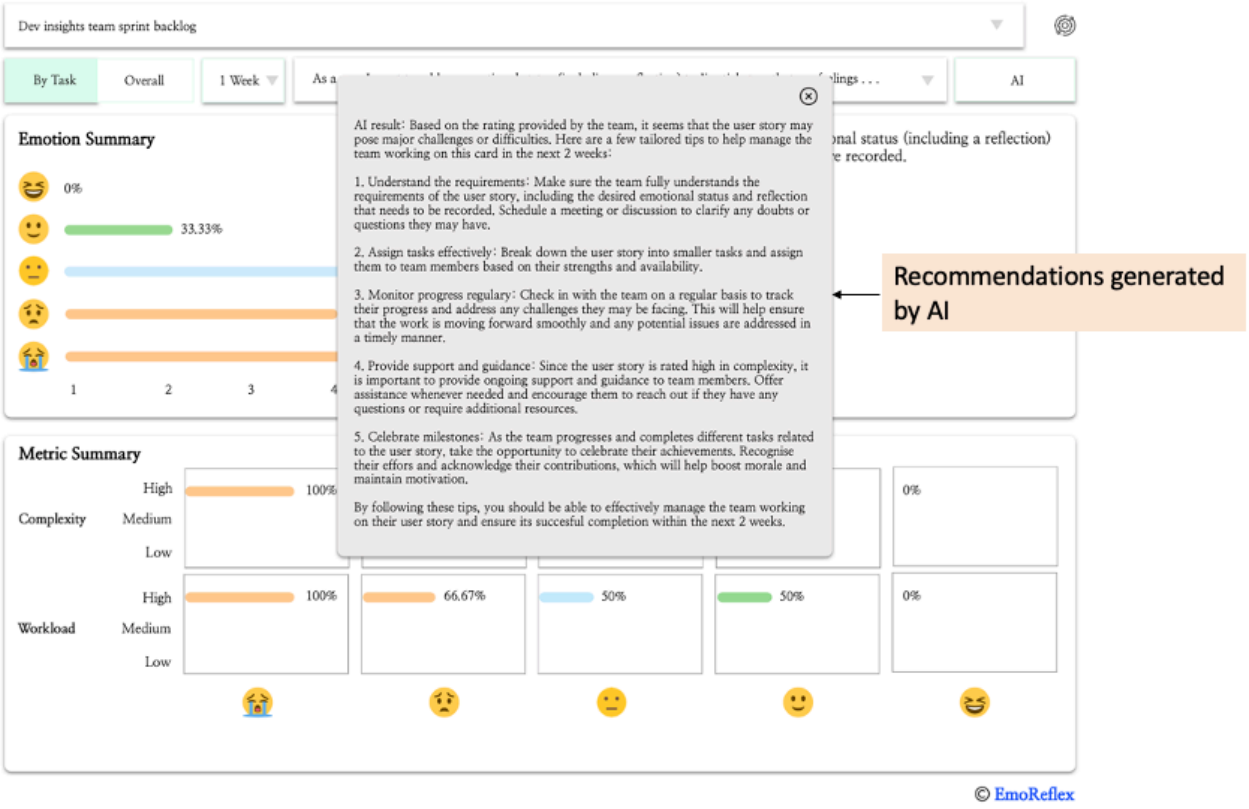
28. **Scenario B.2- Configure Trello plugin - metrics:** How insecure, discouraged, irritated, stressed, and annoyed were you?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

This section is for **Scenario C- receive recommendations**. Assume that the dashboard is connected to your Trello boards and you clicked on "AI" button. Click here to watch the video.

Scenario C- receive recommendations:



29. **Scenario C- receive recommendations:** How mentally demanding was the task? *

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

30. **Scenario C- receive recommendations:** How physically demanding was the task? *

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

31. **Scenario C- receive recommendations:** How hurried or rushed was the pace of the task

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

32. **Scenario C- receive recommendations:** How successful were you in accomplishing wha you were asked to do?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

33. **Scenario C- receive recommendations:** How hard did you have to work to accomplish your level of performance?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

34. **Scenario C- receive recommendations:** How insecure, discouraged, irritated, stressed, and annoyed were you?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	◯	◯	◯	◯	◯	◯	◯	Very high

This section is about the entire tool. i.e., EmoRlex with the two components: a Trello plugin for the team members, and a dashboard for the manager. Assuming you are a manager who uses only the dashboard, answer the following questions.

35. I think I would like to use this system frequently. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

36. I found the system unnecessarily complex. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

37. I thought the system was easy to use. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

38. I think that I would need the support of a technical person to be able to use this system. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

39. I found the various functions in this system were well integrated. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

40. I thought there was too much inconsistency in this system. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

41. I would imagine that most people would learn to use this system very quickly. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

42. I found the system very cumbersome to use. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

43. I felt very confident using the system. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

44. I needed to learn a lot of things before I could get going with this system. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

This is the last section of this questionnaire.

45. From your perspective, what are the pros and cons of using EmoReflex at work? *

46. What improvements would you expect from EmoReflex? *

47. Please feel free to enter any other thing you would like to share with us with regard to EmoRlex.

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