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Using real time student feedback as an emotion awareness and regulation tool in an assessed, online, collaborative project

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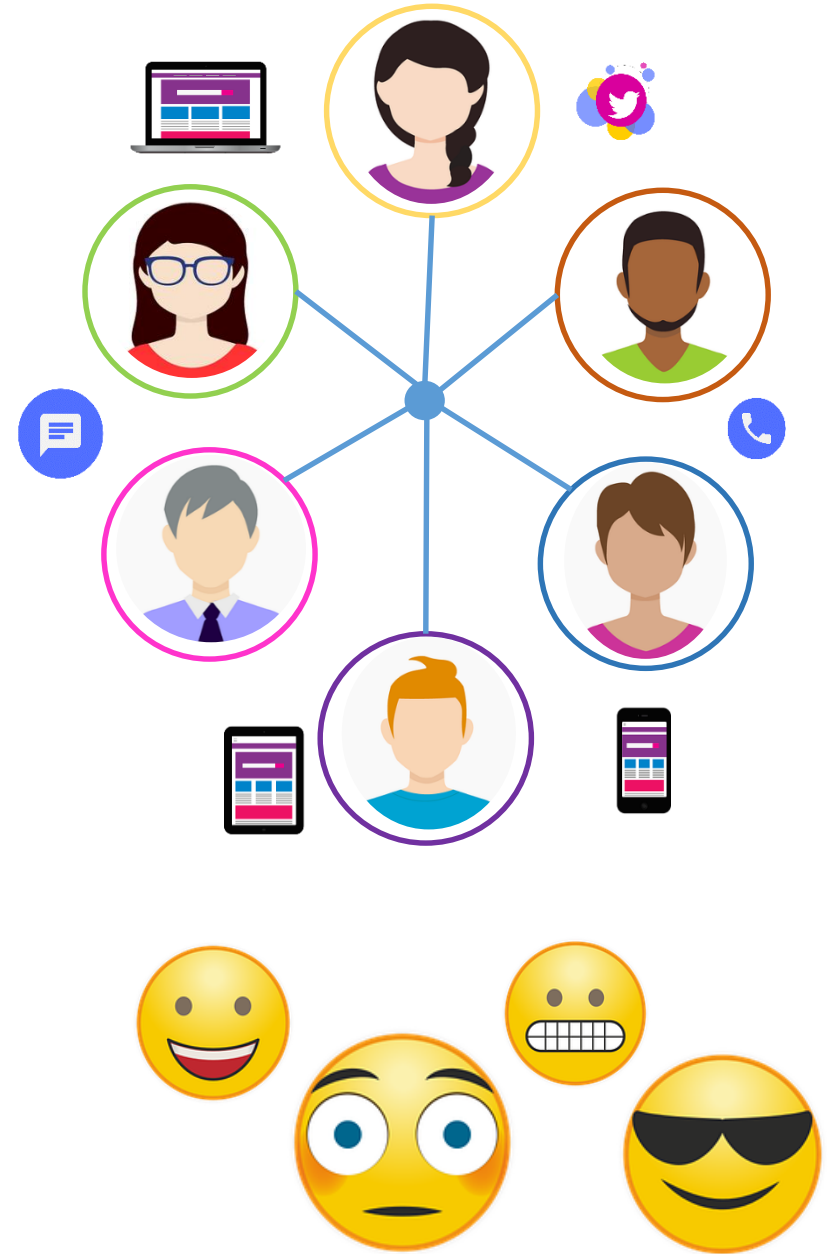
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# Using Real Time Student Feedback (RTSF) as an Emotion Awareness and Regulation Tool in an Assessed, Online, Collaborative Project

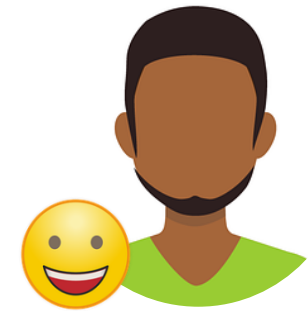
By Jake Hilliard, Patrick Wong, Karen Kear, Helen Donelan, and Caroline Heaney





# Background

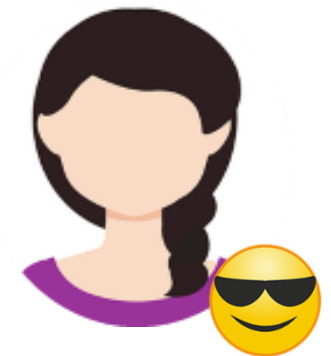
- Over the last decade, research has increasingly highlighted the inextricable links between emotion and cognition as well as the profound effects emotions have in academic contexts (Pekrun and Linnenbrink-Garcia, 2012).
- Although much of this research has been undertaken in individual face-to-face learning settings, such notions have also been evidenced in online and computer-supported collaborative learning environments (Henritius et al., 2019; Reis et al., 2018).
- Being able to effectively regulate one's emotions in online learning can be seen as a crucial process in learning (Xu et al, 2014); this is particularly important in social and collaborative online learning contexts which present a multitude of social, cognitive, and practical challenges that may impact group member's emotional states (Webster, 2019).
- With an increased understanding of the importance of emotions in these social online learning contexts, researchers have started to develop tools that can be used by students to help raise awareness of their emotions and help them regulate their feelings when undertaking collaborative activities (Järvelä et al., 2016).
- One such tool is the Socio-Emotional Sampling Tool (SEST) (Webster and Hadwin, 2013) which has been designed for computer-supported collaborative learning tasks and aims to prompt students to metacognitively monitor and evaluate their current emotional state before, during and after collaborative activities.





# Aim and research questions

- The main purpose of this study was to explore the use of Real Time Student Feedback (RTSF) as emotion awareness and regulation tool in an assessed, online collaborative project.
- The following research questions were addressed:
  1. What emotions do students experience during and after an assessed, online, collaborative project?
  2. What are students' goals and strategies for regulating their emotions?
  3. What are students perceptions of using RTSF as an emotion awareness and regulation tool?





# Study context

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Communication and information technologies

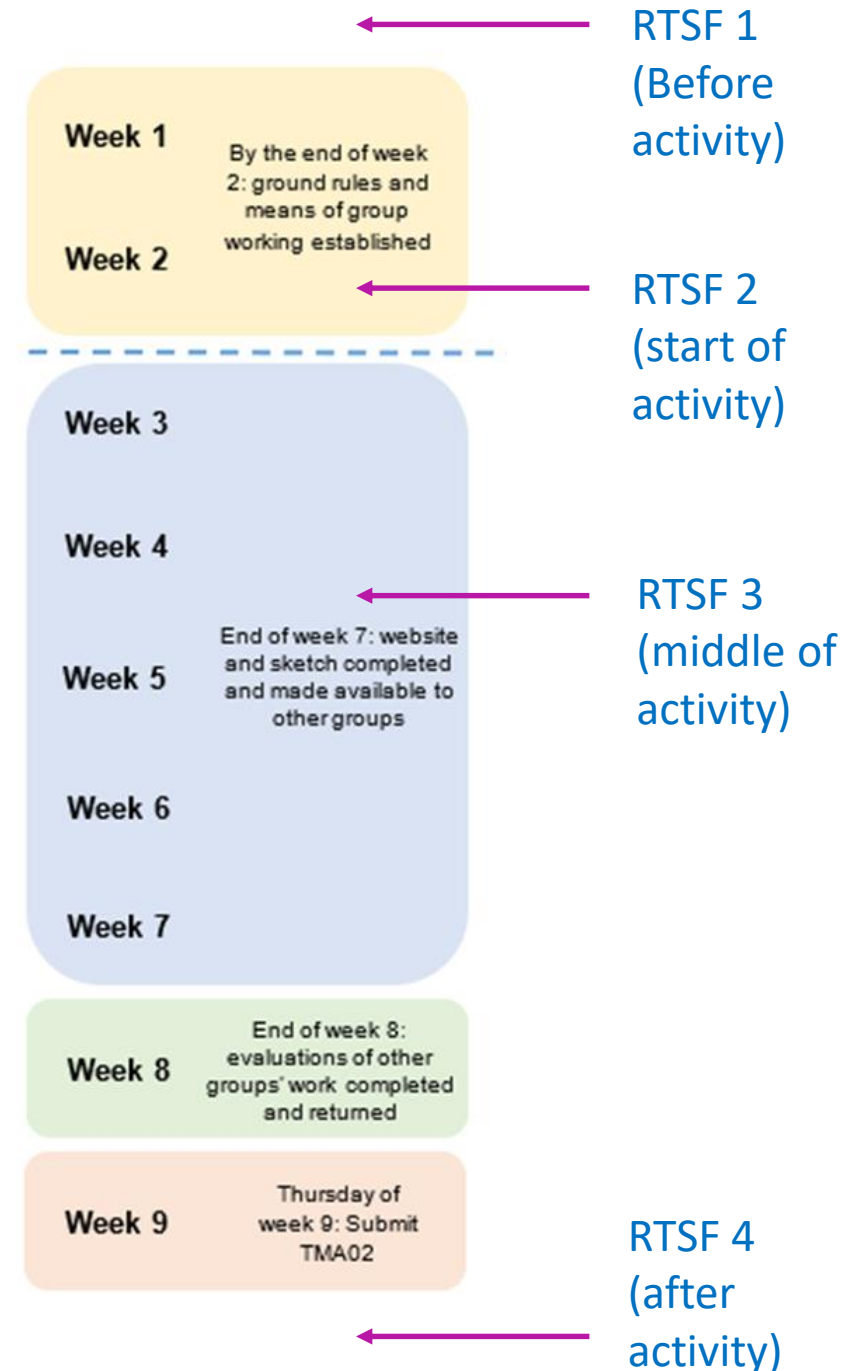
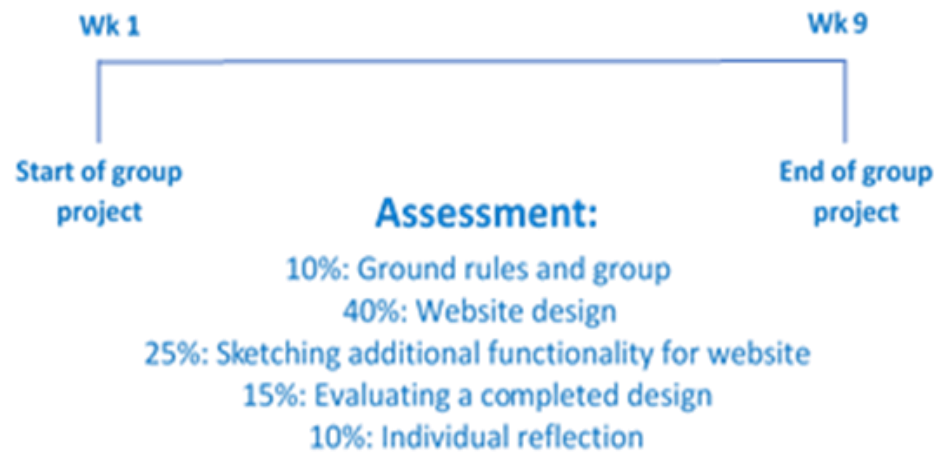


## ASSESSED TEAM PROJECT

9-week collaborative project in which students work in small groups to produce a website for a specific client (e.g. a family-friendly hotel)



Group size: 6-8 people





# The RTSF emotion awareness and regulation tool

Adapted from Webster and Hadwin (2013)

- Excited
- Anxious
- Calm
- Angry
- Confident
- Bored
- Curious
- Confused
- Happy
- Disappointed
- Proud
- Embarrassed
- Relieved
- Frustrated
- Hopeful
- Overwhelmed
- Other

## Example: RTSF 2 and 3

**Collaborative project: How are things going?**

Now that the first week of the collaborative project is complete, please take a few minutes to tell us how you are feeling about the activity.

Your answers will be anonymous and will not be shared with other students.

When I think about how things are going with the collaborative project, I mainly feel...

I feel this way because...

This feeling is...

And I think it is...

I would like to...

I think this can be accomplished by... (select all that apply)

The overall atmosphere in my group is...

Overall, I am...

Open text box

- Good
- Bad
- Neither good nor bad

- Talking to others in the group
- Focusing on the task
- Supporting and encouraging others in the group
- Talking to my tutor
- Creating a good plan
- Thinking positively
- Making sure that I don't become complacent
- Changing the plan or approach
- Carrying on as I am doing
- Taking time to relax
- Talking to family and/or friends
- Changing my thoughts or beliefs
- Other (Please specify)

- Very strong
- Strong
- Moderate
- Weak
- Very weak

- Increase this feeling
- Decrease this feeling
- Maintain this feeling
- Do nothing about this feeling

- Positive
- Negative
- Neutral

- Very satisfied with how things are going
- Moderately satisfied with how things are going
- Not very satisfied with how things are going
- Not at all satisfied with how things are going



# The RTSF emotion awareness and regulation tool

## Feedback to students

### Very or moderately satisfied with how things are going

Thanks for completing this short survey.

It's great that you are feeling satisfied with the collaborative project. This way of learning, although different to what you might have experienced at the OU so far, provides a good way for students to interact with one another, build friendships, and develop skills that are highly valued by employers.

Hopefully filling out this survey has helped you reflect a little more about your feelings on the activity and how you can maintain or change any feelings you are currently experiencing.

In the coming weeks, there will be two more surveys like this one: one in Week 13 and another in Week 21. The first one will ask you to reflect on how you are feeling about the project mid-way through activity and the second will explore your feelings about the project after it has been completed. It would be great if you could fill out both of these.

Please also remember that if you ever feel you need more support, at any point during the project, you can always speak to your tutor about any issues you may be experiencing.

### Not very or not at all satisfied with how things are going

Thanks for completing this short survey.

We're sorry to hear that you might not be as satisfied with the activity as you would like to be. We understand that online group learning can be challenging, especially at the OU, where many students have additional commitments that make it difficult to interact at specific times of the day. However, from previous experiences we have found that, although some students may experience some negative feelings during the activity, their reflections after the activity are often very positive.

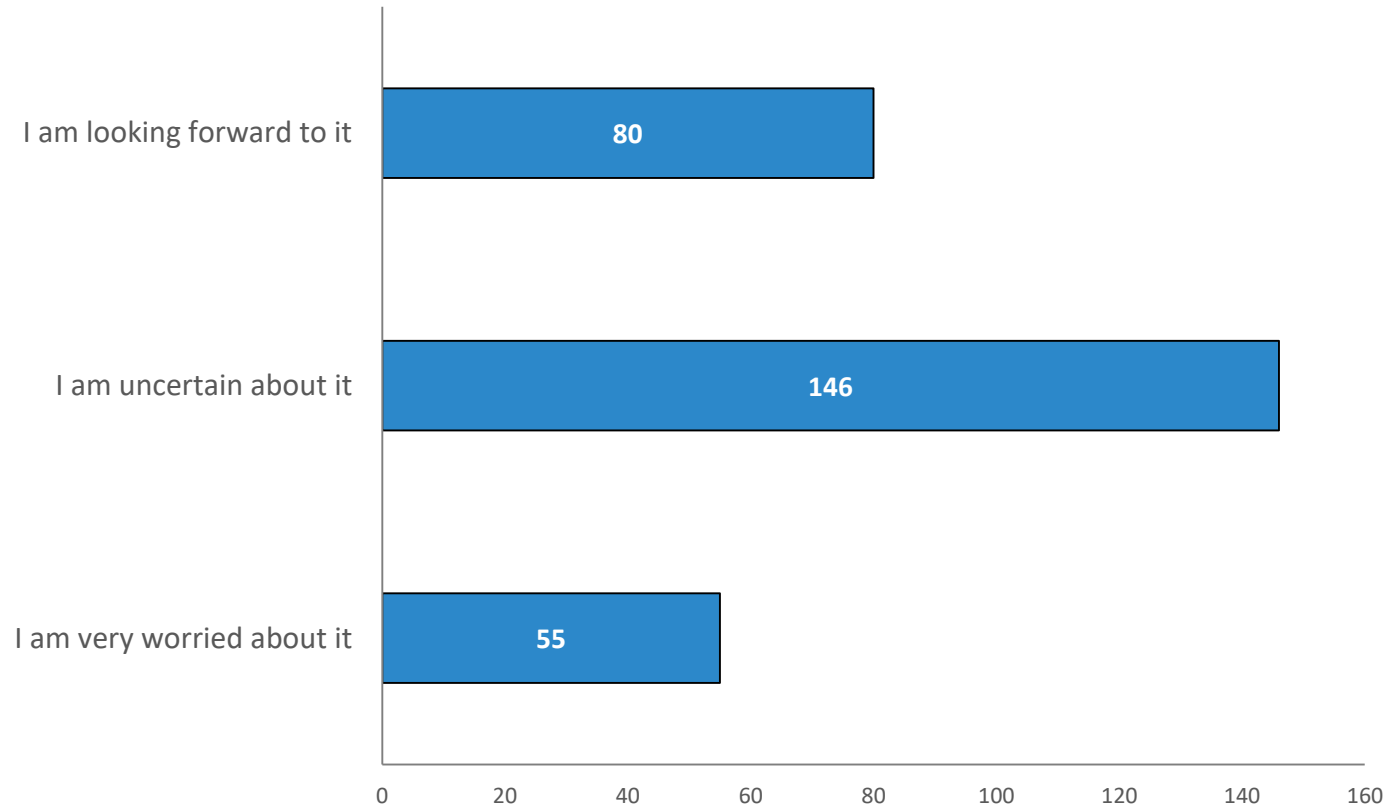
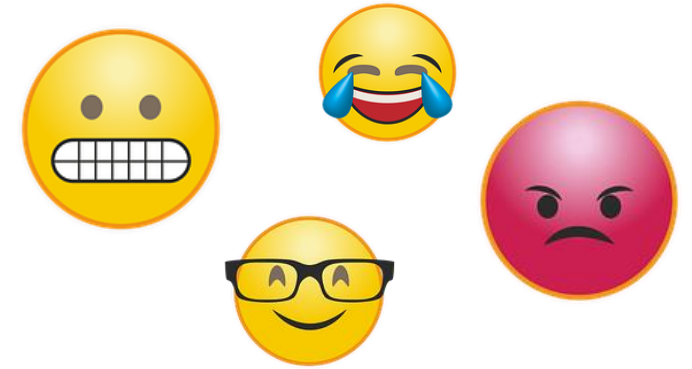
Hopefully filling out this survey has helped you reflect a little more about your feelings on the activity, and how you can change (or maintain) any feelings you are currently experiencing. In the coming weeks, there will be two more surveys like this one: one in Week 13 and another in Week 21. The first one will ask you to reflect on how you are feeling about the project mid-way through the activity and the second will explore your feelings about the project after it has been completed. It would be great if you could fill out both of these.

Please also remember that if you ever feel you need more support, at any point during the project, you can always speak to your tutor about any issues you may be experiencing. There is also some additional information about study support on OU Support area.



# Findings

Perceptions before the collaborative activity (RTSF 1)



281 respondents out of a possible 491 (57.2% response rate)

The majority of students were uncertain about the activity

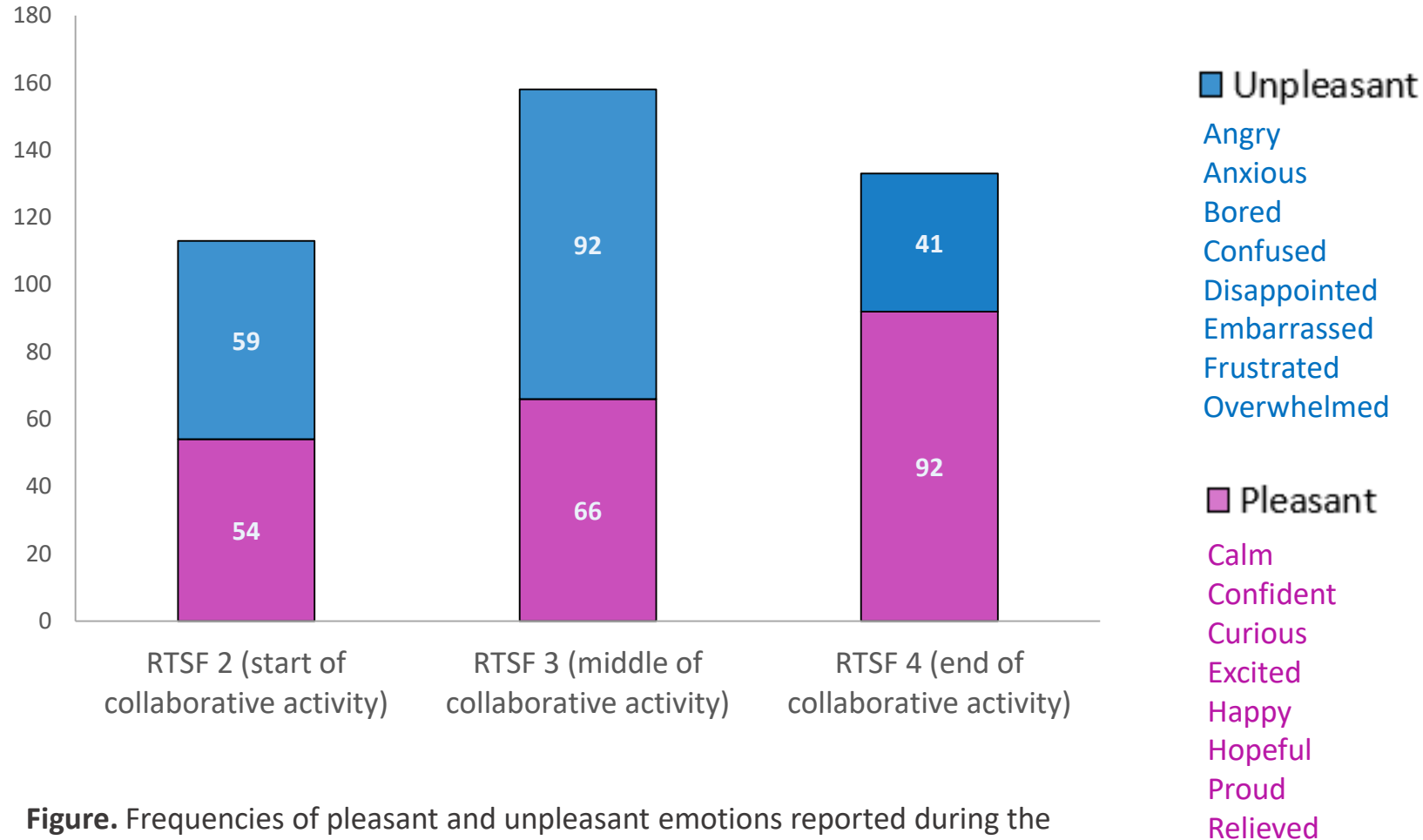
**Figure.** Feelings about the assessed, online, collaborative activity, before it began.





# Findings

Emotions experienced during and after the collaborative activity (RTSF 2, 3 and 4)



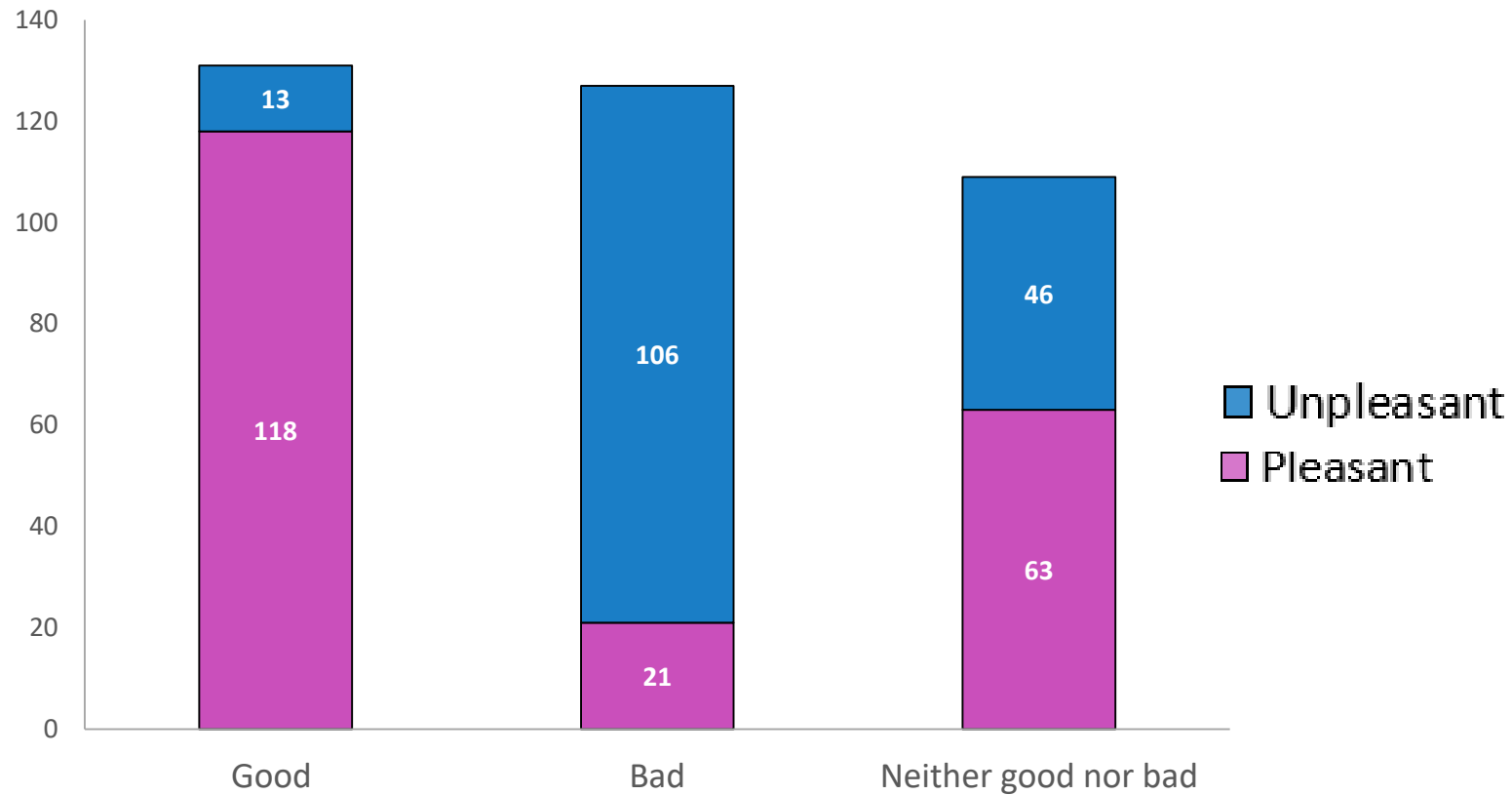
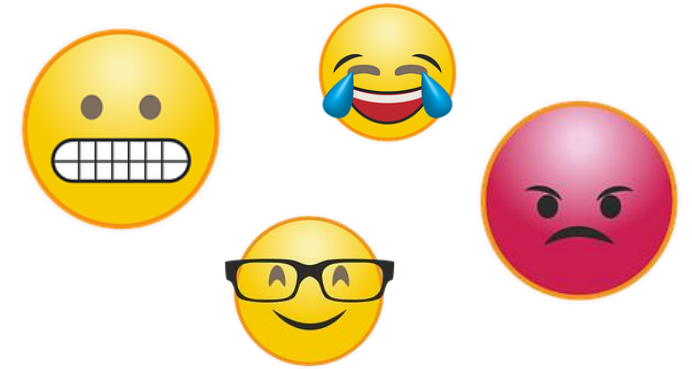
A range of emotions were reported by students. During the middle of the activity more unpleasant emotions were reported whilst after the activity more pleasant emotion were reported. Overall, the emotions of anxiety, frustration and relief most frequently reported

**Figure.** Frequencies of pleasant and unpleasant emotions reported during the assessed, online collaborative project.



# Findings

Evaluation of emotions (RTSF 2, 3 and 4)



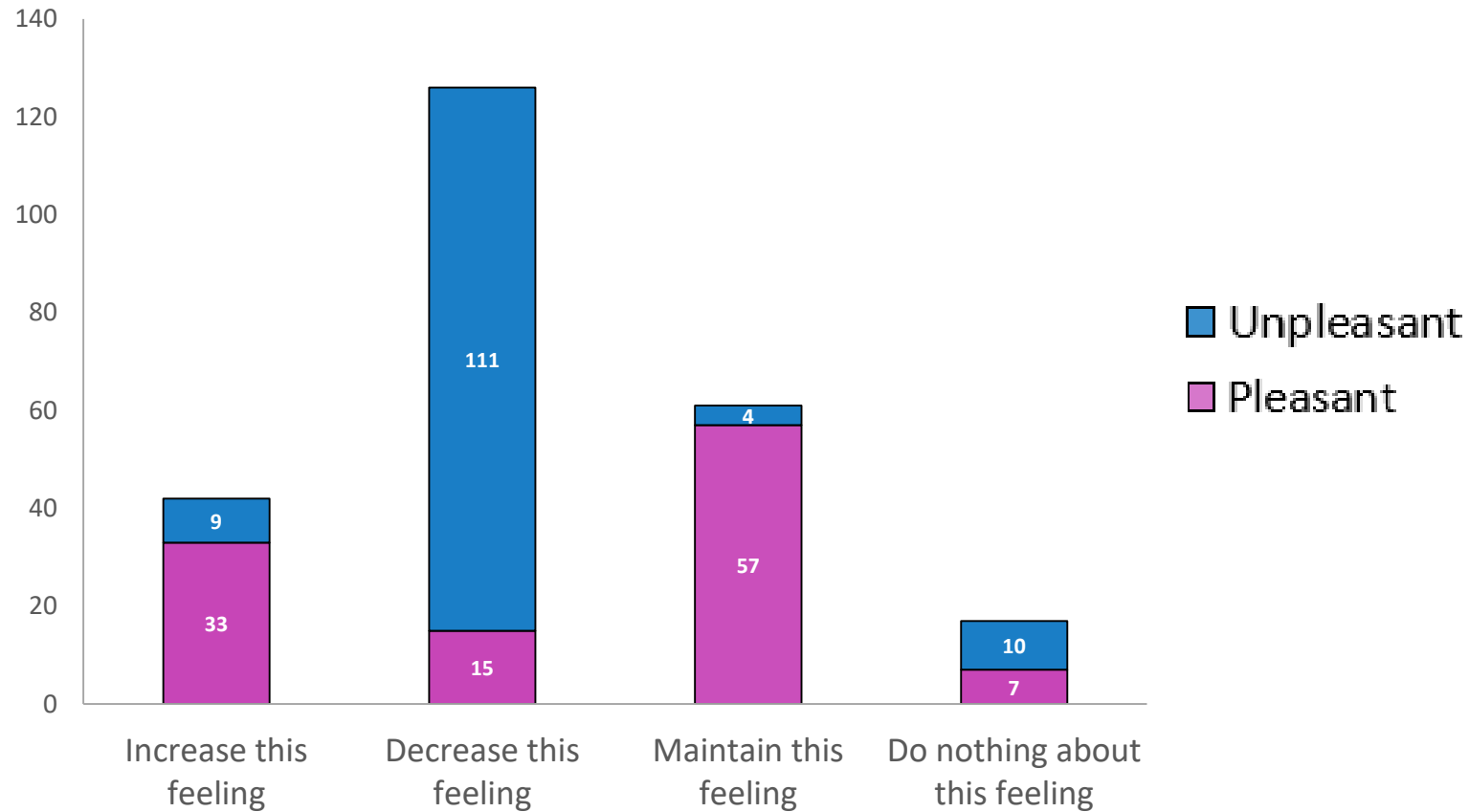
As may be expected, pleasant emotions were predominantly perceived as 'good' whilst most unpleasant emotions were perceived as 'bad'. There was some instances where students perceived pleasant and unpleasant emotions as 'bad' and 'good', respectively.

**Figure.** Students' evaluations of pleasant and unpleasant emotions during the assessed, online collaborative project.



# Findings

Goals for regulating emotions (RTSF 2 and 3)



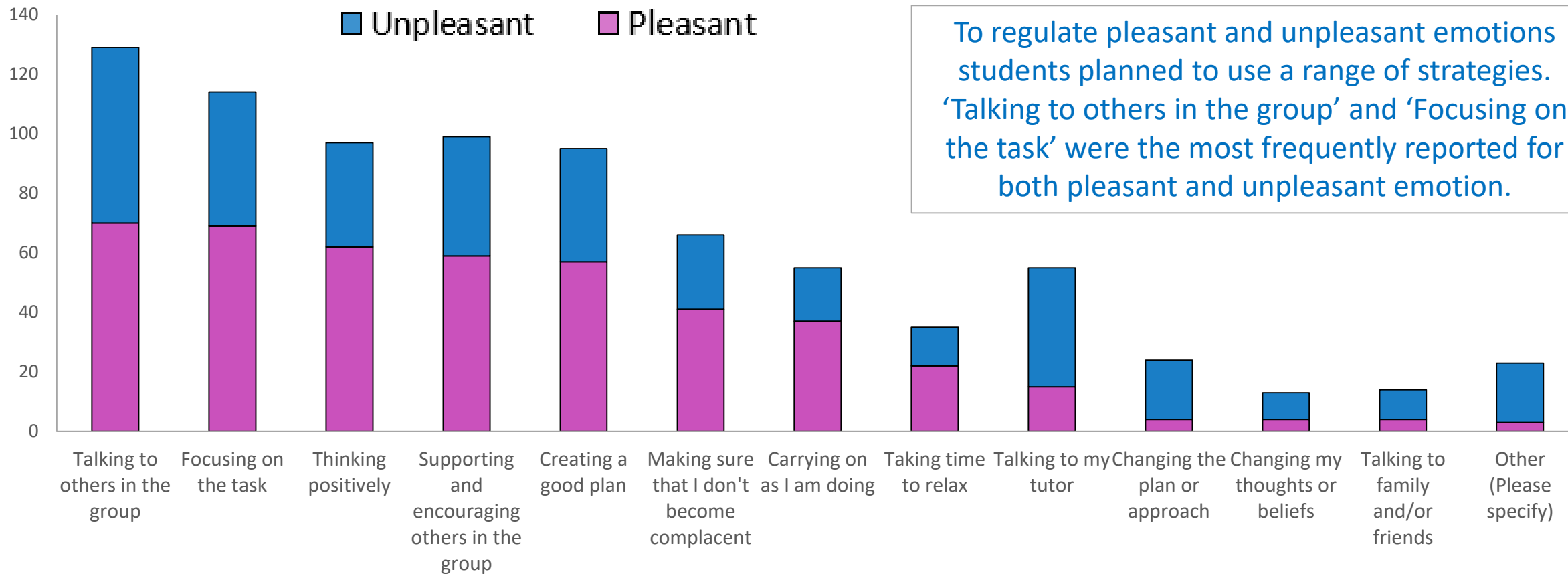
Students planned to predominantly maintain or increase pleasant emotions and decrease unpleasant emotions. There were some instances where students planned to increase unpleasant feelings and decrease pleasant emotions.

**Figure.** Students' goals for regulating pleasant and unpleasant emotions during the assessed, online collaborative project.



# Findings

Planned regulation strategies (RTSF 2 and 3)



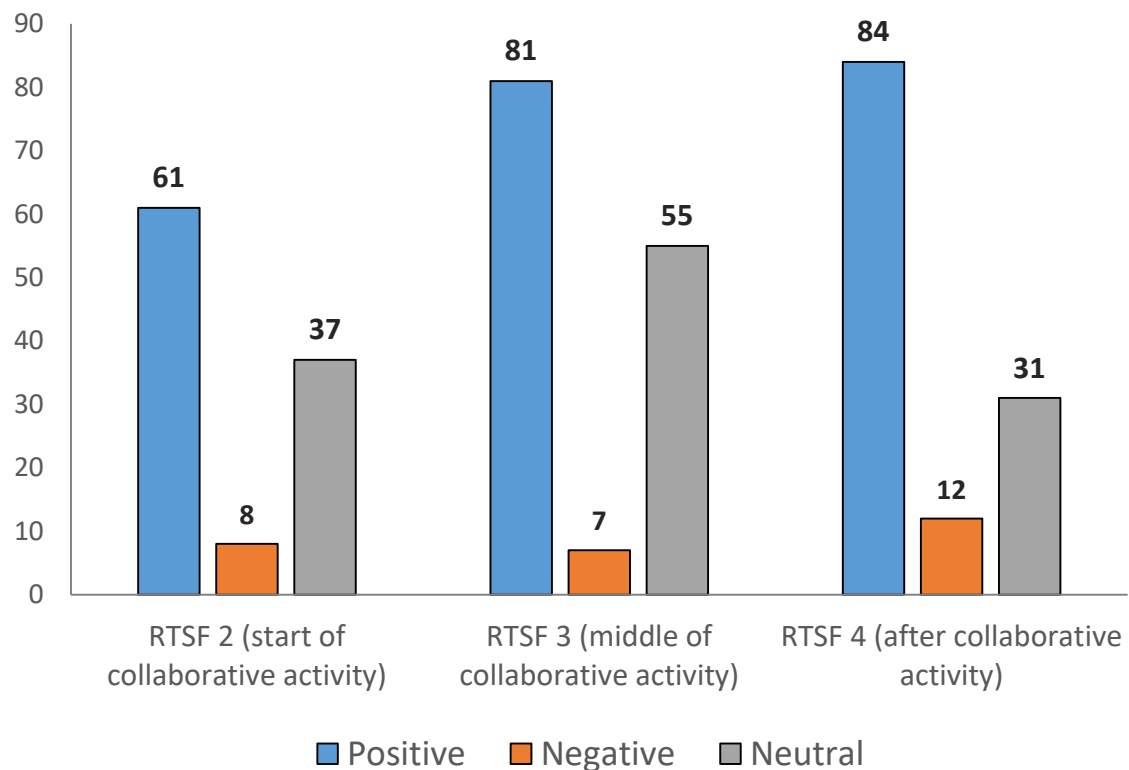
To regulate pleasant and unpleasant emotions students planned to use a range of strategies. 'Talking to others in the group' and 'Focusing on the task' were the most frequently reported for both pleasant and unpleasant emotion.

**Figure.** Planned strategies for regulating pleasant and unpleasant emotions during the assessed, online collaborative project.

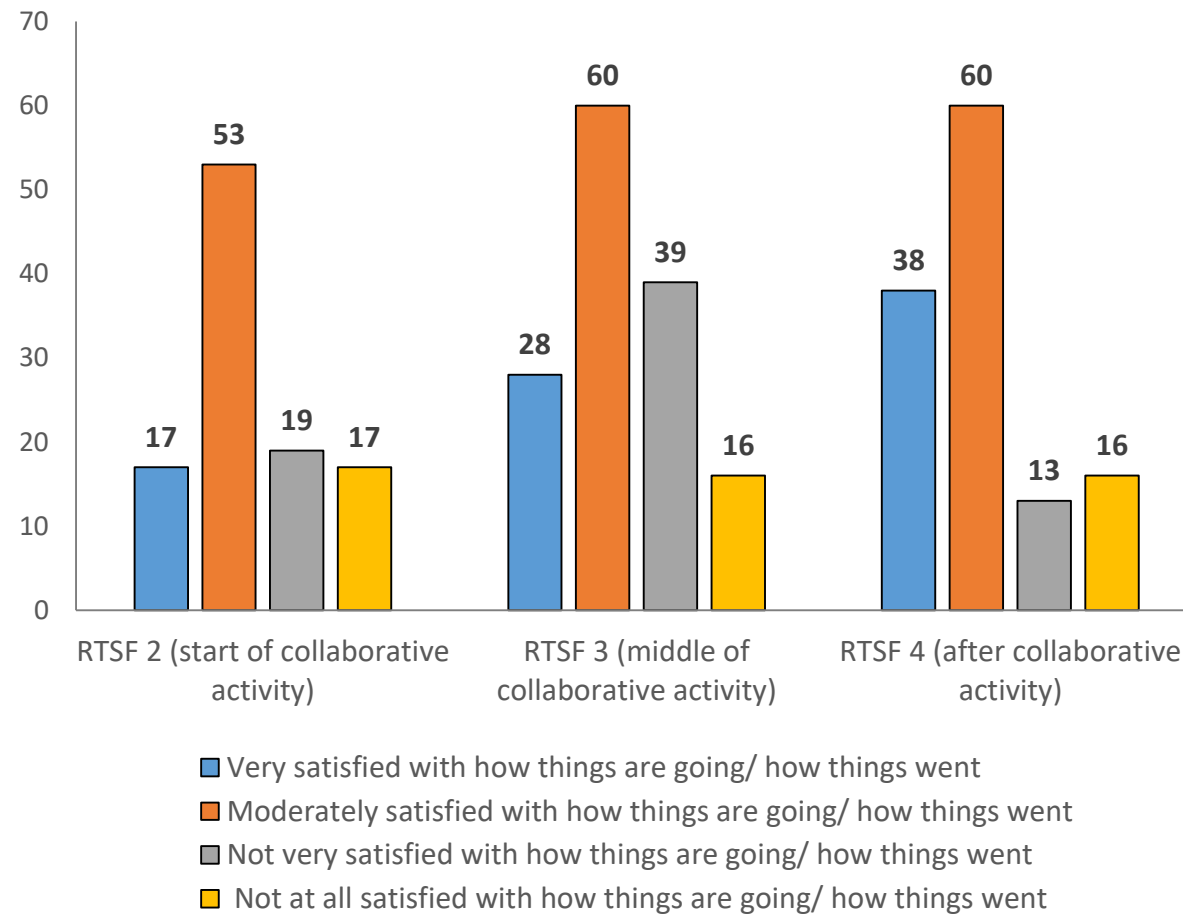


# Findings

Group atmosphere and overall satisfaction (RTSF 2, 3 and 4)



**Figure.** Perceptions of group atmosphere in the assessed, online collaborative project.

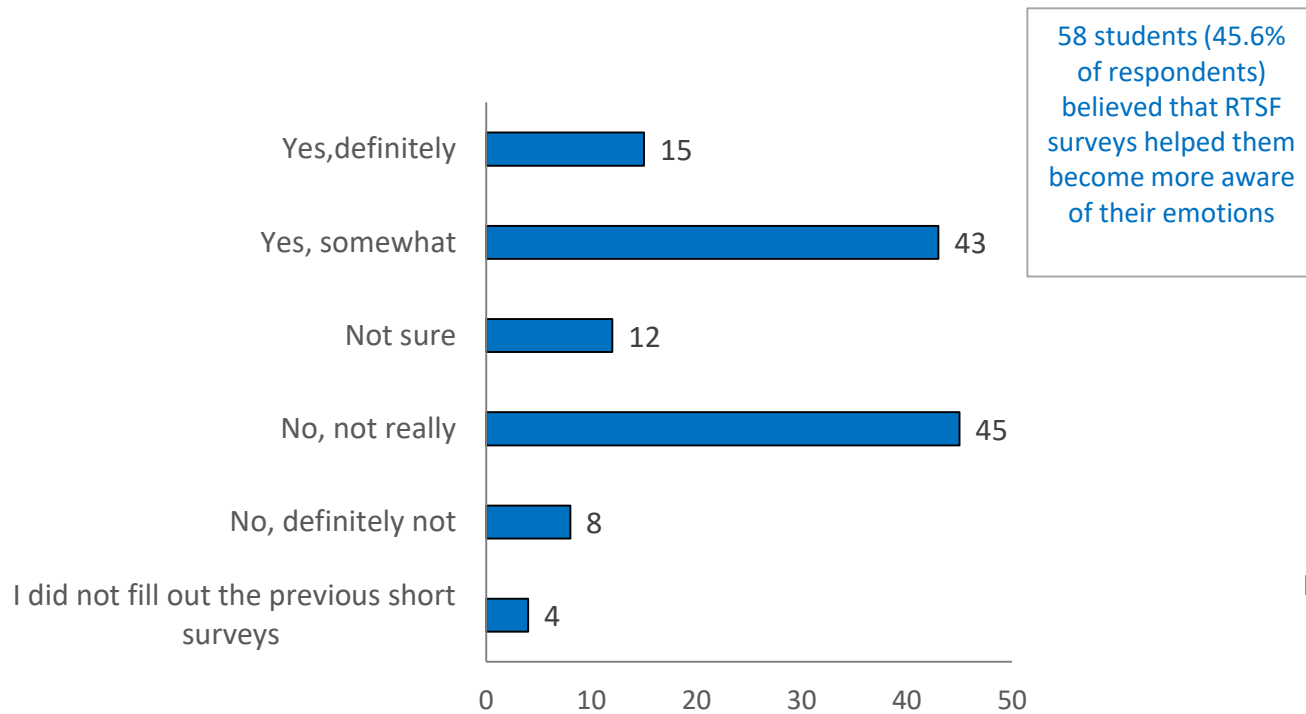


**Figure.** Satisfaction of undertaking the the assessed, online collaborative project.

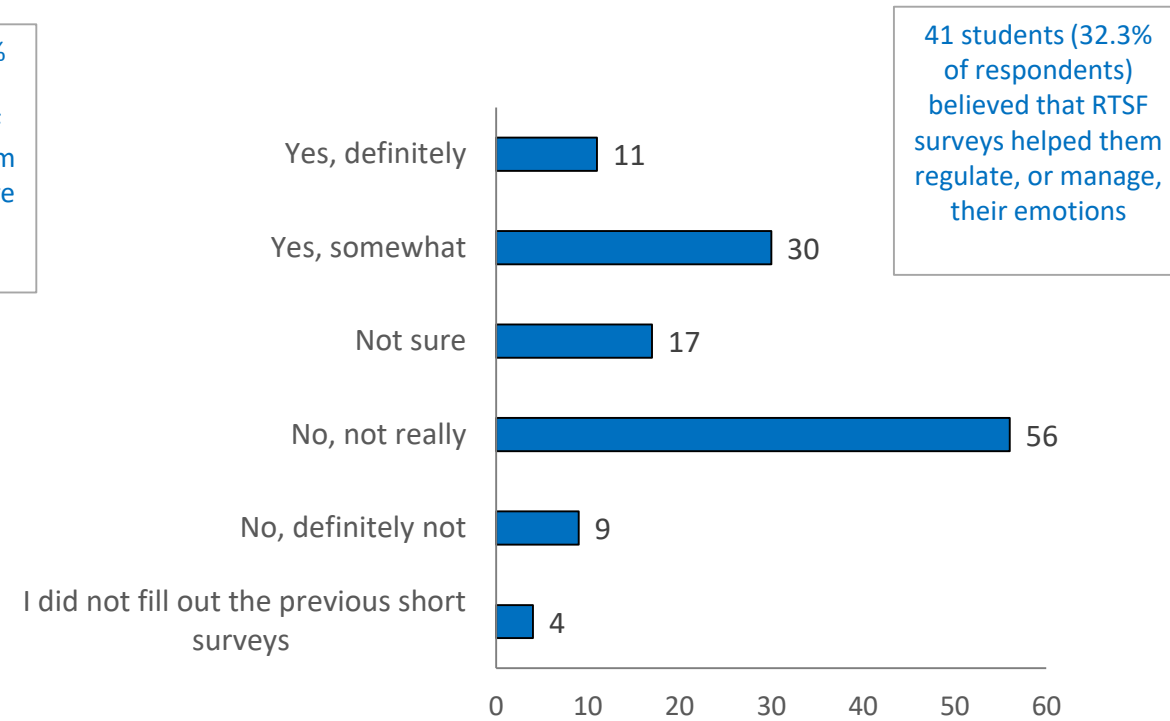


# Findings

Feedback on using RTSF as an emotion awareness and regulation tool (RTSF 4)



**Figure.** Did filling out the surveys help you become more aware of how you were feeling about the group project?

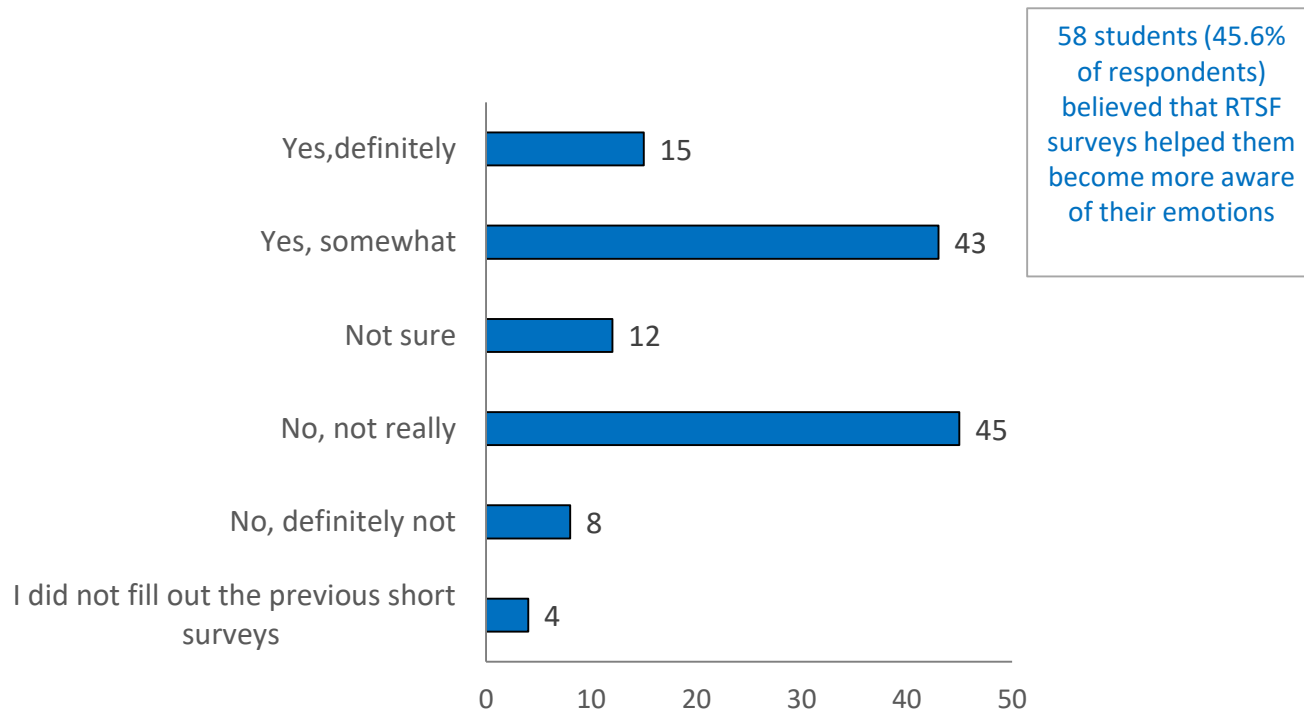
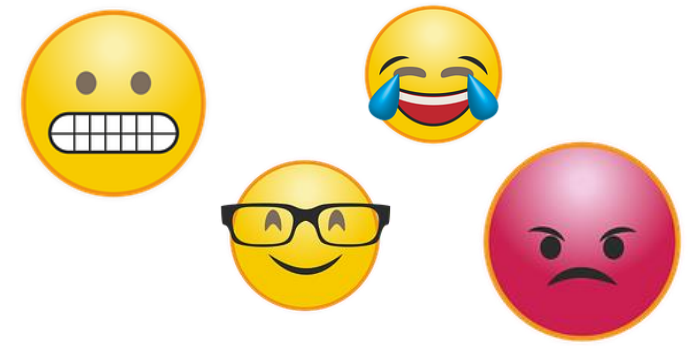


**Figure.** Did filling out the surveys help you regulate, or manage, your feelings in relation to the group project?

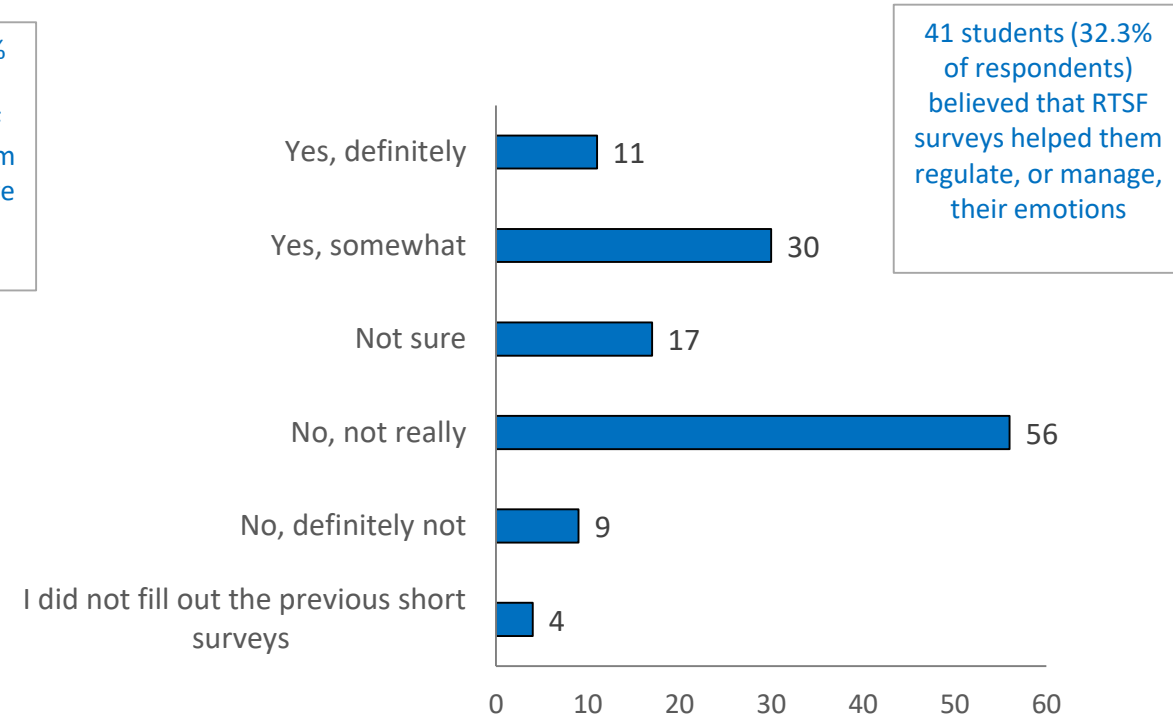


# Findings

Feedback on using RTSF as an emotion awareness and regulation tool (RTSF 4)



**Figure.** Did filling out the surveys help you become more aware of how you were feeling about the group project?

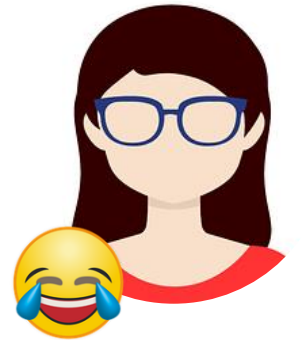


**Figure.** Did filling out the surveys help you regulate, or manage, your feelings in relation to the group project?



# Conclusions

- *What emotions do students experience during and after an assessed, online, collaborative project?*
  - Start of activity: Approximately equal pleasant and unpleasant emotions (most reported: anxious, frustrated, hopeful and curious).
  - Middle of activity: More unpleasant emotions (most reported: anxious and frustrated).
    - Technical difficulties, e.g. WordPress problem, could be a reason for high levels of frustration.
  - After activity: More pleasant emotions (most reported: relieved).
- *What are students' goals and strategies for regulating their emotions?*
  - Respondents mostly aimed to maintain or increase pleasant emotions and decrease unpleasant emotions.
  - Students planned to use a range of strategies to regulate emotions; 'Talking to others in the group' and 'Focusing on the task' were the most frequently reported for both pleasant and unpleasant emotion.
- *What are students perceptions of using RTSF as an emotion awareness and regulation tool?*
  - 58 students (45.6% of respondents) believed that RTSF surveys helped them become more aware of their emotions.
  - 41 students (32.3% of respondents) believed that RTSF surveys helped them regulate, or manage, their emotions.

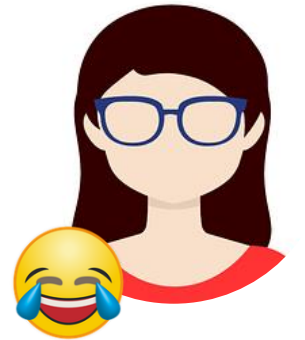






# Conclusions

- Benefits for the module team – an unbiased (by other students' comments) insight into how students are feeling about the group work as the forums can seem very negative and one sided – the results indicate that actually the majority of students had a good experience and were happy with group project.
- Benefits for students – a way of raising awareness of their emotions and strategies that they might consider for managing their feelings – but maybe also to inform future students that it is likely their emotions and feelings towards the project is likely to change over time.
- Additionally, RTSF was easy/quick to get approved and embedded in the module website, and it allowed for quick responses that can be used to apply interventions.





# Thank you

[jake.hilliard@open.ac.uk](mailto:jake.hilliard@open.ac.uk)

[patrick.wong@open.ac.uk](mailto:patrick.wong@open.ac.uk)

[karen.kear@open.ac.uk](mailto:karen.kear@open.ac.uk)

[helen.donelan@open.ac.uk](mailto:helen.donelan@open.ac.uk)

[caroline.heaney@open.ac.uk](mailto:caroline.heaney@open.ac.uk)