

# Evaluating an evaluation

Every day, four Europeans fill in an ELIXIR Training evaluation. Is it worth it?

## Introduction

ELIXIR is an EU funded initiative with the mission to enable scientists to access and analyse life science data. The ELIXIR Training platform provides the training to help do so. After training, its participants are sent a link to an evaluation form, to 'assess the quality and impact of bioinformatics training' [Gurwitz et al., 2020].

**How well does that evaluation achieve its goal?** Here, we focus on the mandatory questions that are part of section a section called 'Quality metrics'.



QR code to the paper (in preparation)

## Goal

To evaluate the ELIXIR Training evaluation, by:

- 1) a literature review
- 2) comparing it to an evaluation that is created transparently with evidence-based informed decisions

## Research questions

- 1) What is the history of the ELIXIR evaluation questions?
- 2) How does the academic literature relate to the ELIXIR evaluation questions?
- 3) Which ELIXIR evaluation questions are concluded from a fully transparent process?
- 4) How different are the newly suggested questions from the current ones?

## Conclusions so far

There is only **weak evidence** for **one out of five evaluation questions** that it can be used to 'assess the quality and impact of bioinformatics training'. There is **strong evidence** that **one question** (see example) is **useless**.

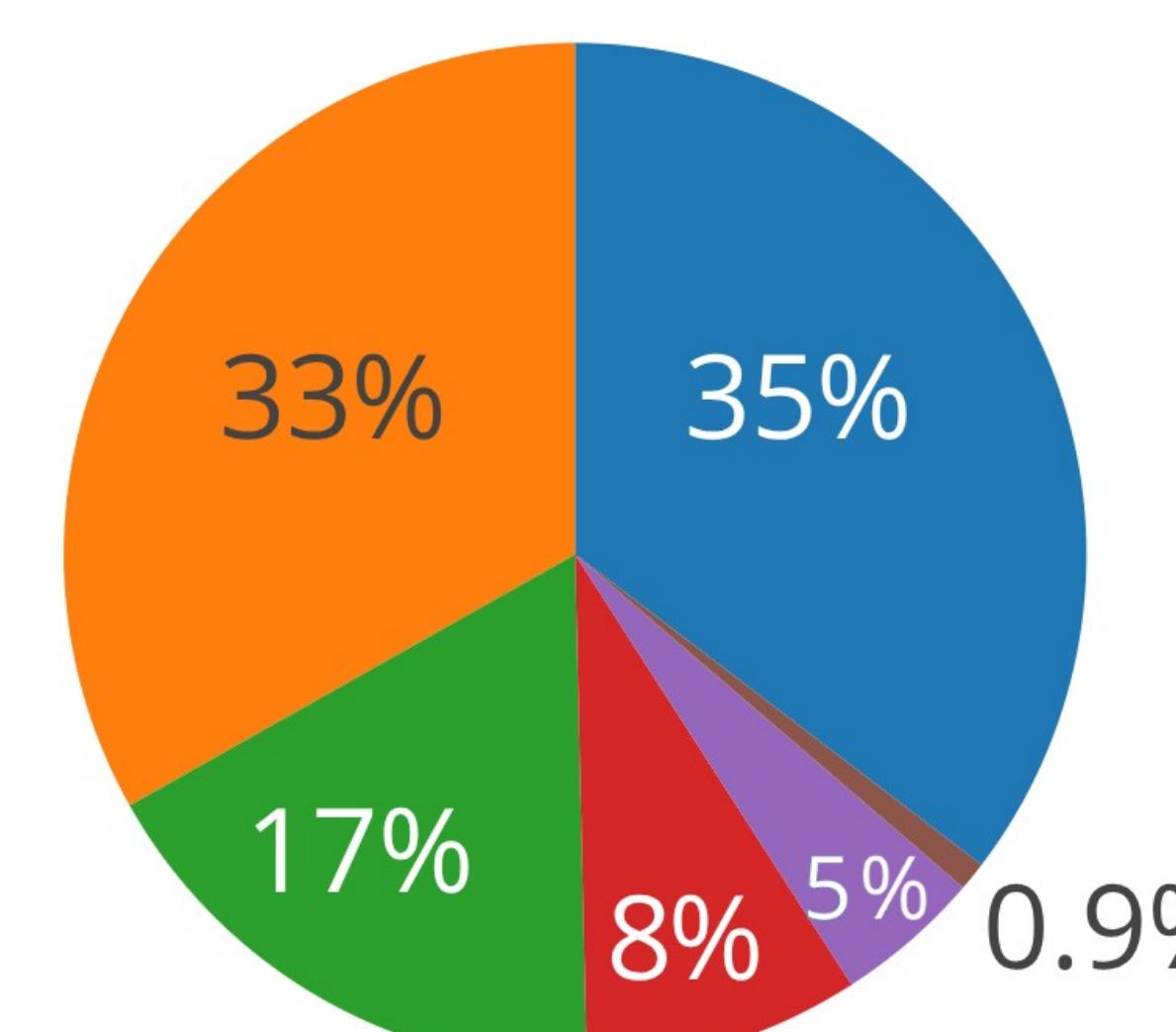
Evaluation question	Connection to the academic literature
Have you used the tools/resource(s) covered in the course before?	None found
Will you use the tools/resource(s) covered in the course again?	None found
Would you recommend the course?	This question is suitable to assess course quality, according to the only study on this [Ang et al., 2018]
What is your overall rating for the course?	Many papers. A critical meta-analysis concludes that this question is unsuitable to assess course quality [Uttl et al., 2017]
May we contact you by email in the future for more feedback?	None found

## References

- [Ang et al., 2018] Ang, Lawrence, Yvonne Alexandra Breyer, and Joseph Pitt. "Course recommendation as a construct in student evaluations: will students recommend your course?." *Studies in Higher Education* 43.6 (2018): 944-959.
- [Gurwitz et al., 2020] Gurwitz, Kim T., et al. "A framework to assess the quality and impact of bioinformatics training across ELIXIR." *PLoS computational biology* 16.7 (2020): e1007976.
- [Uttl et al., 2017] Uttl, Bob, Carmela A. White, and Daniela Wong Gonzalez. "Meta-analysis of faculty's teaching effectiveness: Student evaluation of teaching ratings and student learning are not related." *Studies in Educational Evaluation* 54 (2017): 22-42.

## Example

Please tell us your overall rating for the entire course



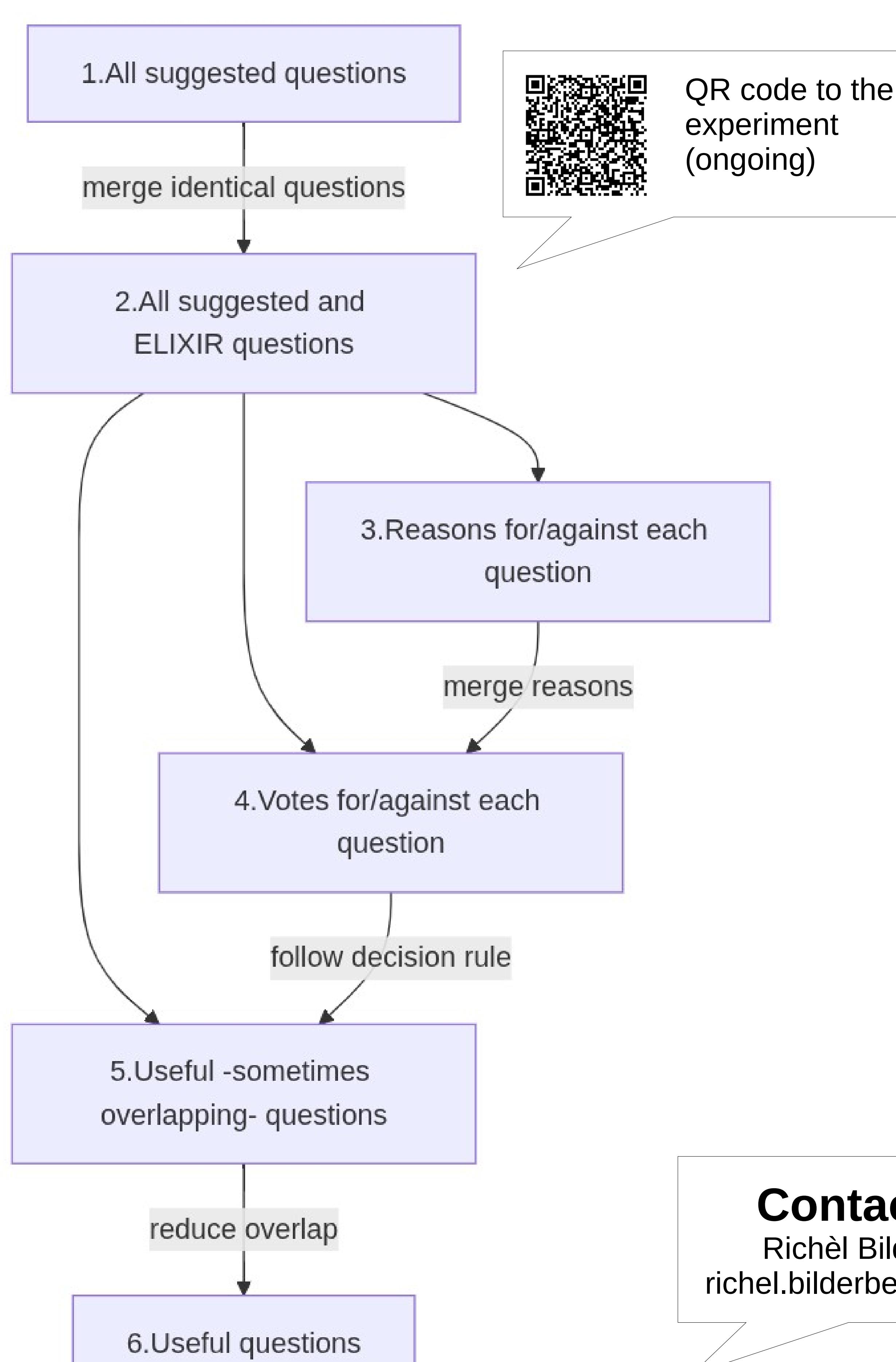
- Very Good (4)
- Excellent (5)
- Good (3)
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- Satisfactory (2)
- Poor (1)



Adapted from <https://tmd.elixir-europe.org/report/set/quality>

Searching the literature for 'using course satisfaction in evaluations' (and sentences alike) resulted in many relevant papers. The most important paper is a meta-analysis [Uttl et al., 2017]: The paper concludes that there are many papers that report a link between participant satisfaction and any metric. However, this effect vanishes for bigger studies and/or studies with rigorous metrics. It concludes that there is **no relation between training quality and participant satisfaction**.

This means that the ELIXIR evaluation question 'What is your overall rating for the course?' does **not** achieve the goal to assess training quality.



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