

We conducted an A/B testing in a regular Python course with 6,067 learners and offered tips for our treatment group. Based on our evaluation, we answer our research questions:

RQ1. How do tips influence the help-seeking behavior?

The introduction of contextual tips does not negatively affect the usage of peer-to-peer help systems. Instead, learners showed a higher chance of requesting comments when they also used tips. Some participants not finishing an exercise reduced the number of *Requests for Comments* when tips were available. This observation might suggest that tips were able to answer upcoming questions for them. Throughout the first half of the course, nearly 25% of learners regularly revealed our contextual hints while implementing an exercise.

RQ2. Which learners profit more from tips than others?

Learners self-identifying as beginners are the user group that benefits most from contextual tips. The higher the skill level at the beginning of a course is, the fewer tips are used. Our research emphasizes that more challenging exercises increase the learners' need for additional hints.

RQ3. Do tips have an impact on key metrics such as the completion rate, working times, or scores?

According to our evaluation, the mere availability of tips slightly increases the mean working time for learners by 2.7%. In particular, beginners using tips to get support spend more time within the exercise and are more likely to use other assistance features. Besides that, neither an impact of tips on the completion rate nor the scores of participants was discernible.

Overall, our findings highlight that tips are valued by novices as a relevant part of their help-seeking behavior. Contextual tips are an additional offer not impeding existing assistance features. Answers from subsequent surveys indicate the great potential tips can have and motivate us to continue researching the impact of tips. The introduction of tips as presented throughout this paper supports students to get contextual assistance within the learning environment of a MOOC.

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