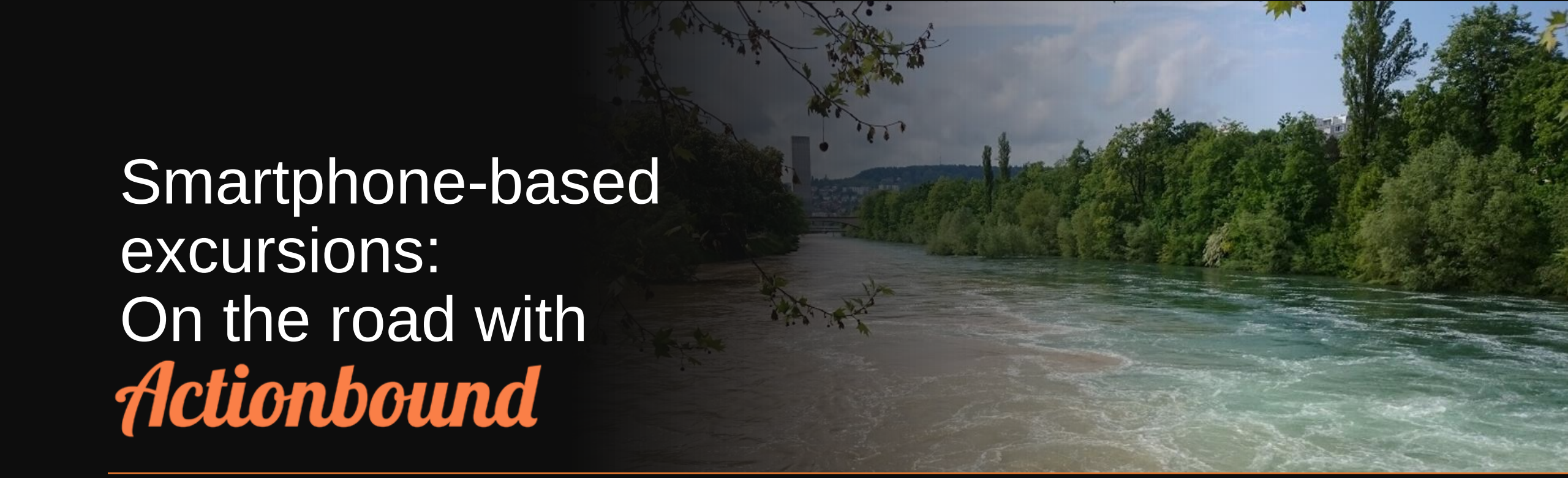


Smartphone-based excursions: On the road with Actionbound

Franziska Schwarzenbach, Jan Seibert, Ilja van Meerveld

Department of Geography

University of Zurich

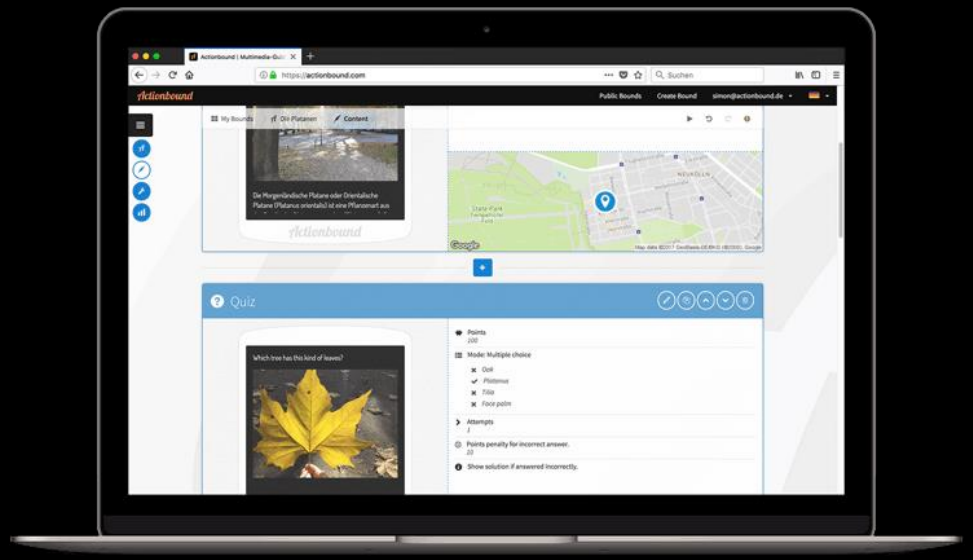

Fundort
Lindenhof

What is Actionbound?

A tool to design self-guided excursions and interactive guides that can be played on a smartphone.

How does the bound get on a smartphone?

Design on a computer
actionbound.com



Play in the app
Free app Actionbound

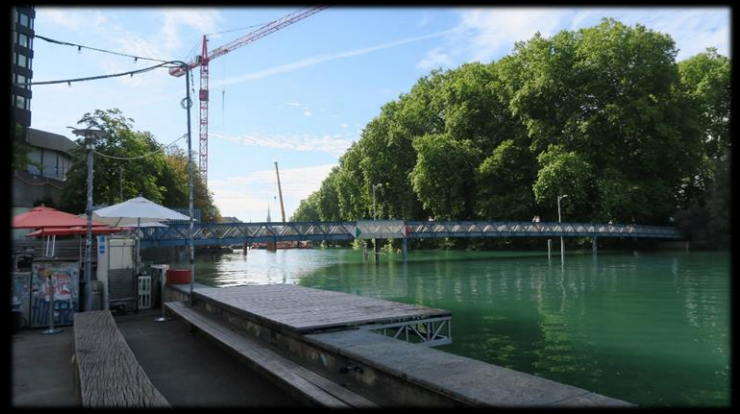
Our bounds

Excursions

Events and small tours

Water in the city of Zurich

- Teaching fund project 2020: Self-guided excursions about water in the Swiss cities of Zurich and Baden
- Development started in February 2020
- First application in June 2020 (instead of group excursion that was not possible due to covid)
- Up to now visited by about 400 students



Water in the city of Zurich

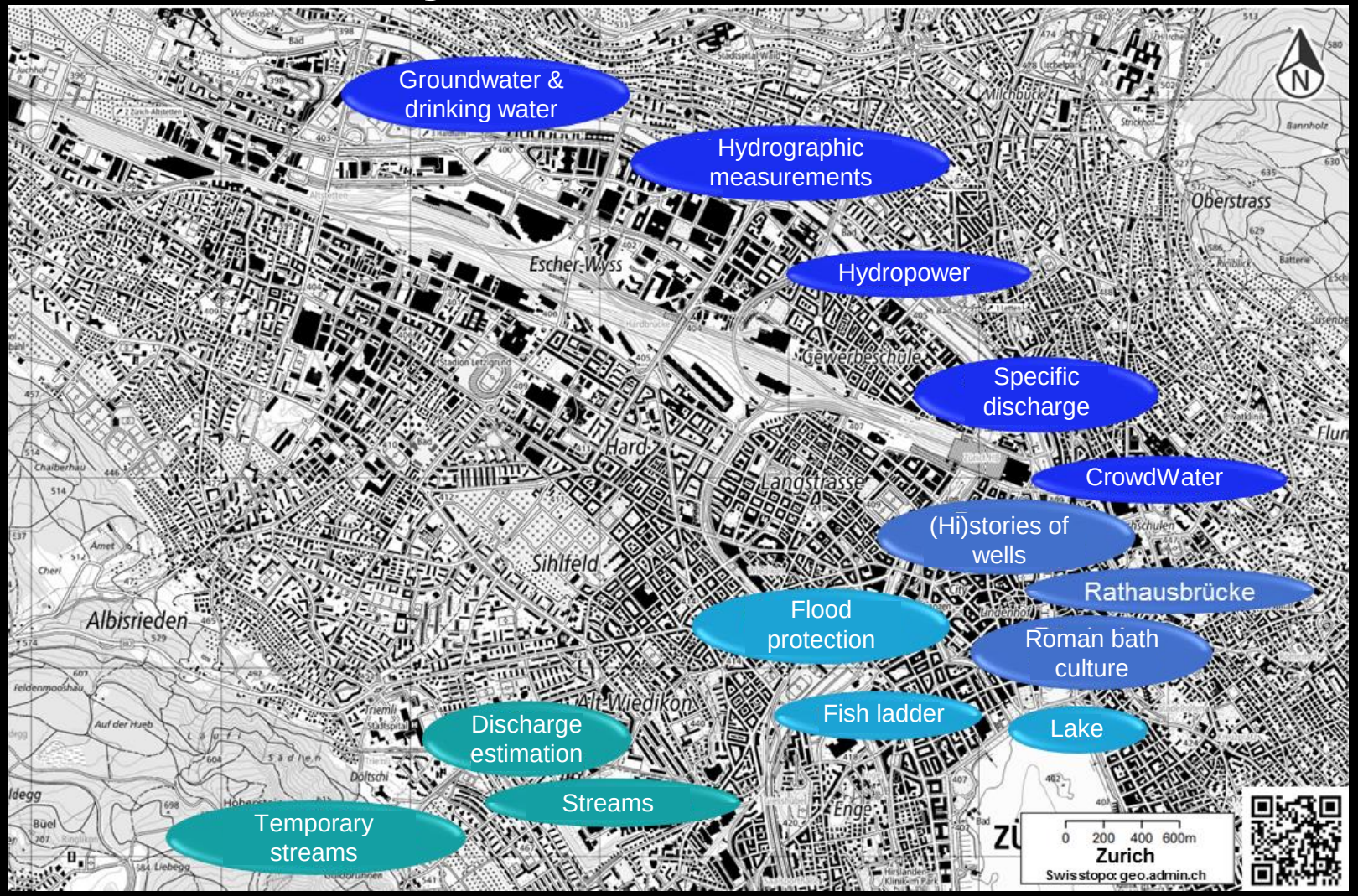
Reasons for a self-guided smartphone-based excursion

- Nobody is standing in the back of the group
- Use of different media types (more difficult in group excursions)
- Direct feedback on exercises and tasks
- No submission and correction of reports required
- Flexible time planning and execution

Water in the city of Zurich

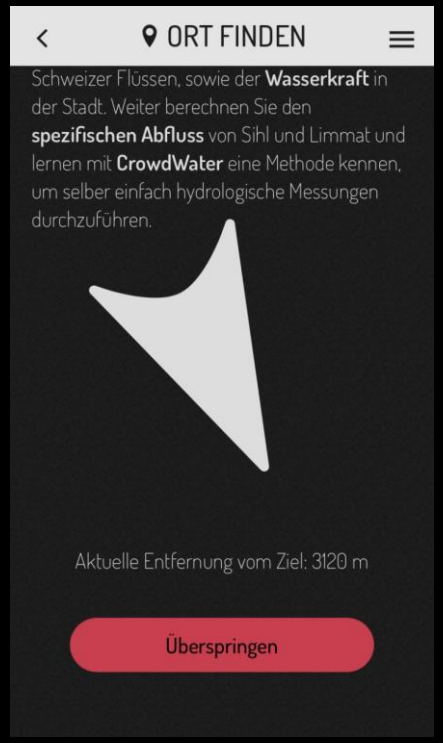
- Four sections, four possible points to start
  - Streams in the city, temporary streams, discharge estimation
  - Lake of Zurich, Schanzengraben, fish ladder, surface water protection act, flood protection
  - Wells, Roman bath culture, important bridges
  - Groundwater and drinking water, hydrometry, hydropower
- About 7 hours (1-day excursion)
  - Individual breaks possible
- Available for the public

Water in the city of Zurich

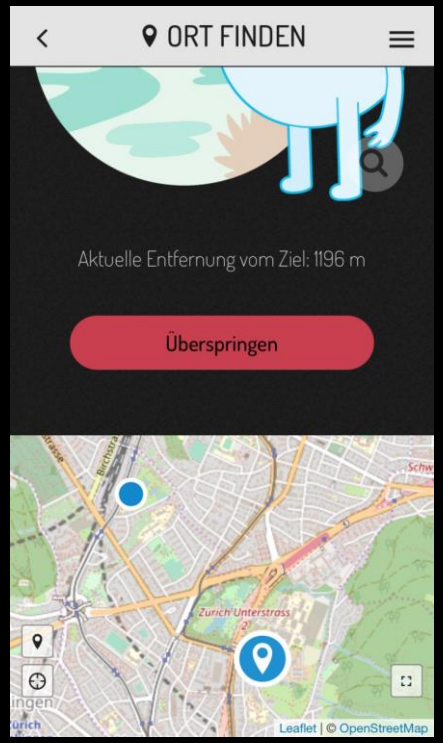


Possibilities: Find locations

With a directional arrow plus the distance from the target

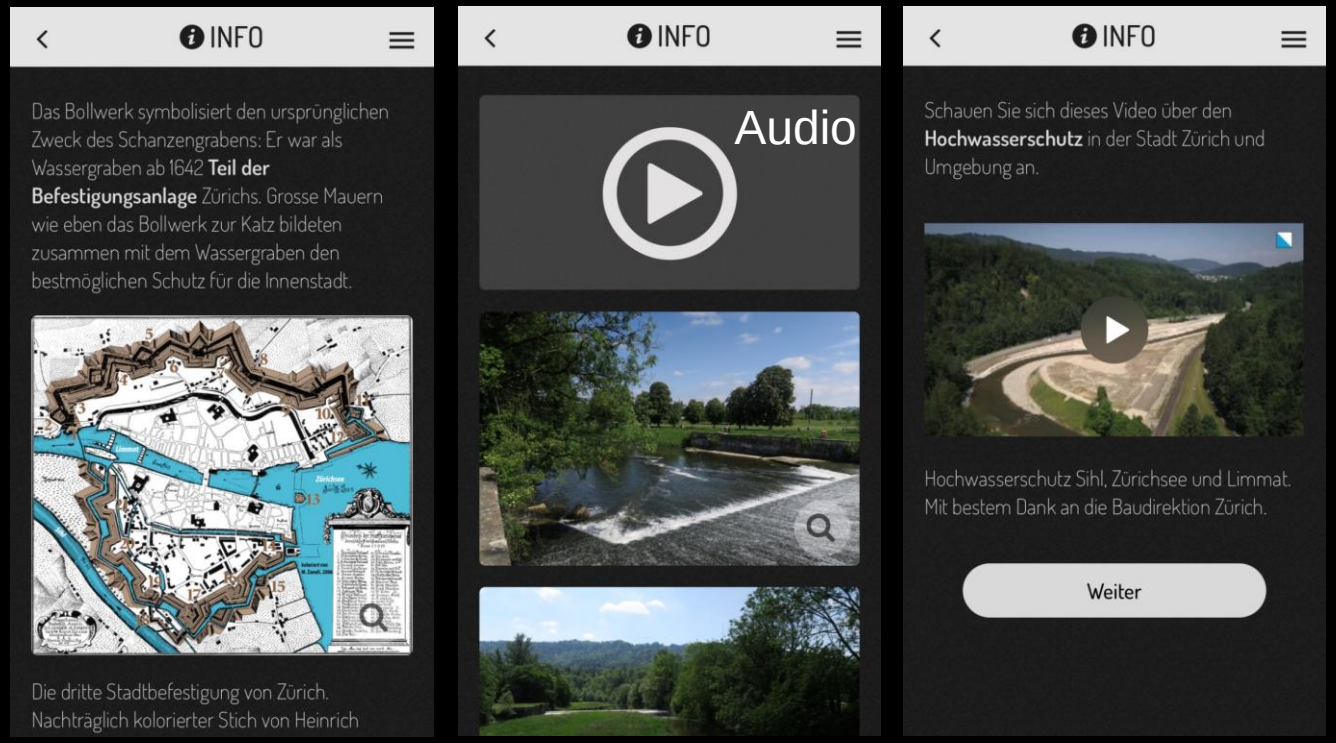


With a map plus the distance from the target



Possibilities: Texts, pictures, audio and video

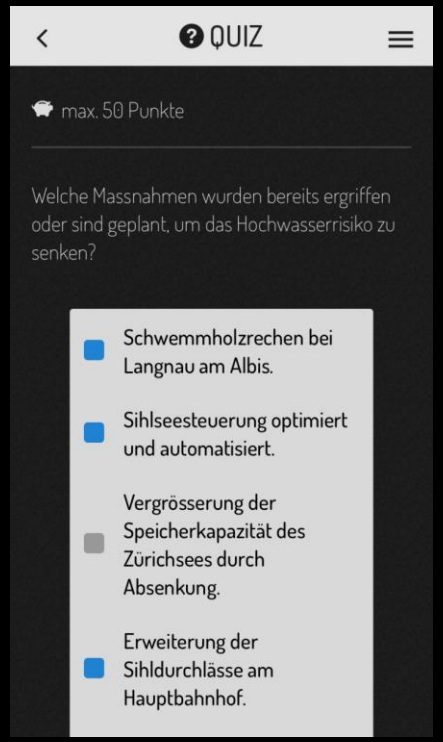
Easy to implement using a media folder for different file types



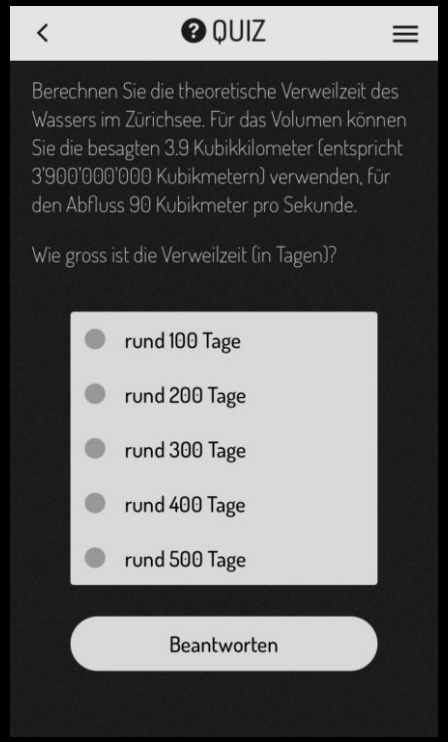
Possibilities: Quizzes

Different types of questions

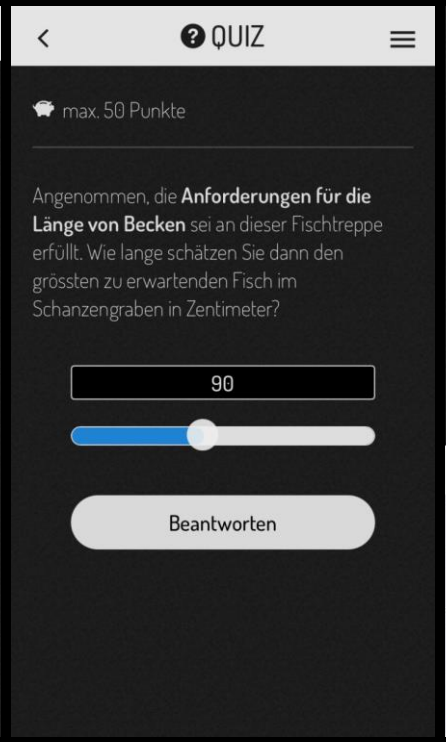
Multiple choice



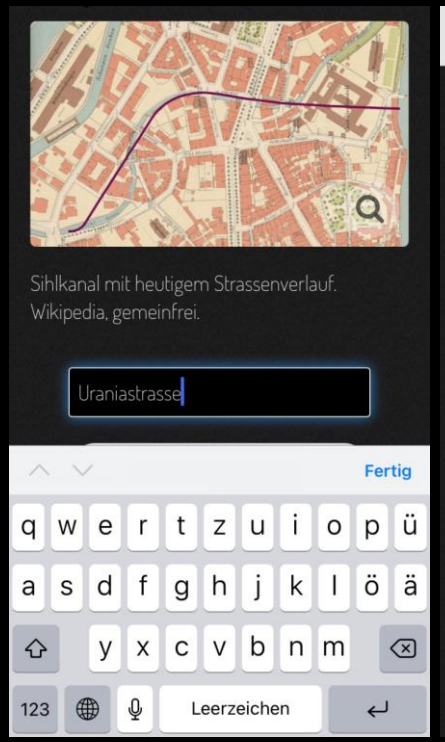
Single choice



Number estimate



Text



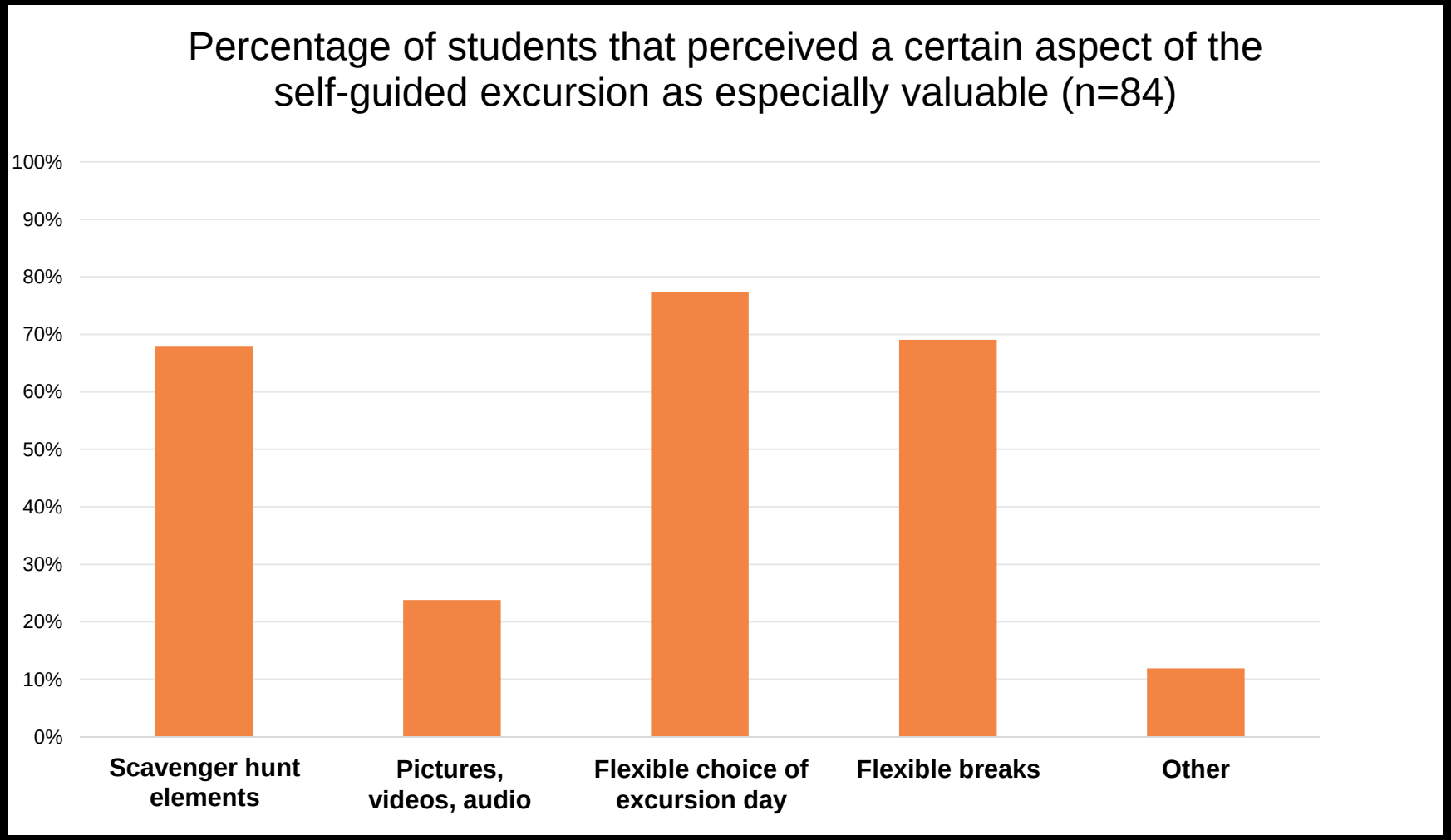
Sort list

Feedback from students

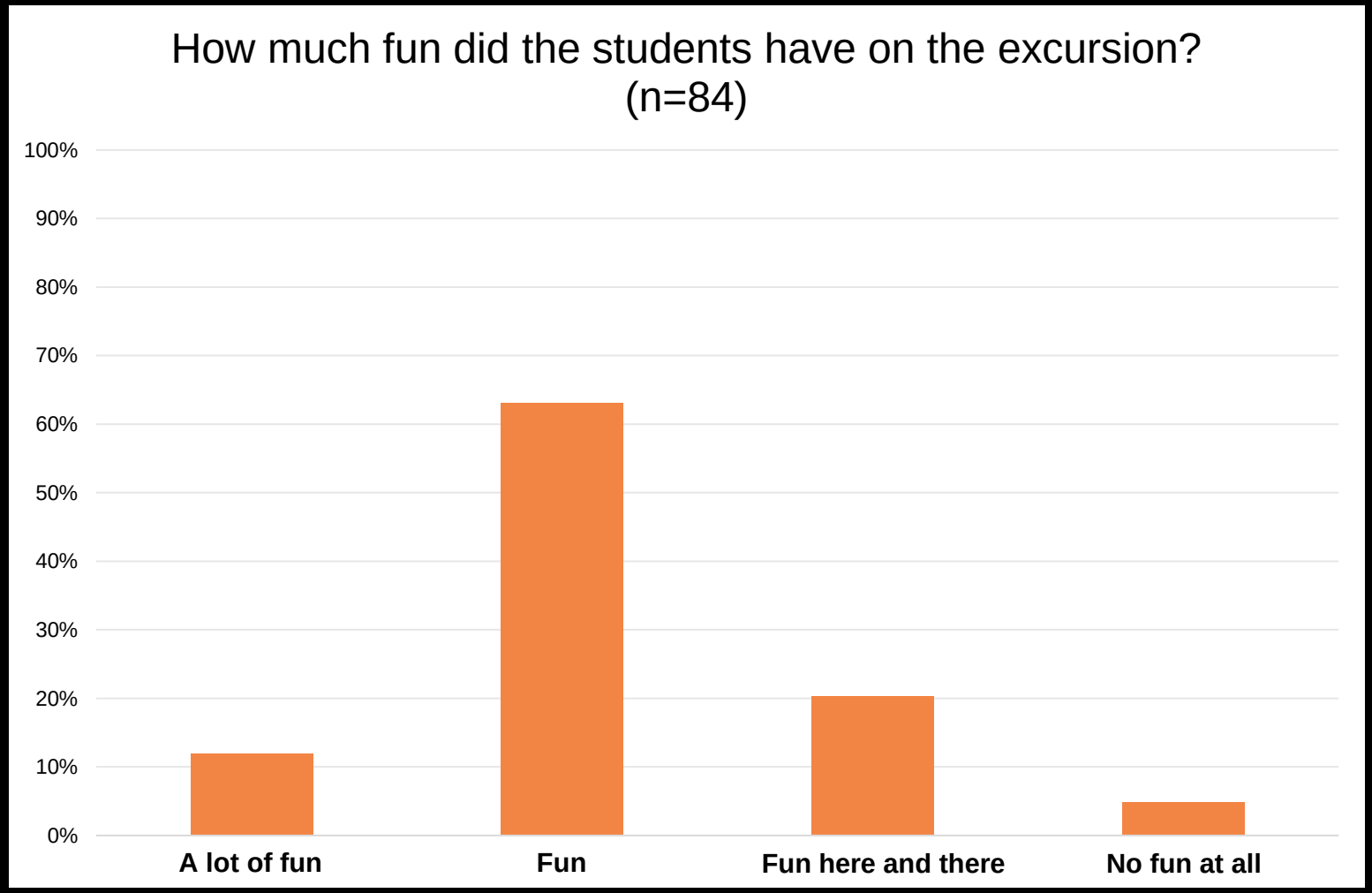
Positive feedback:

- Flexible schedule
- Independent thinking
- Innovation and variation
- Intuitive use of the app
- Fun thanks to gamified elements

Feedback from students



Feedback from students

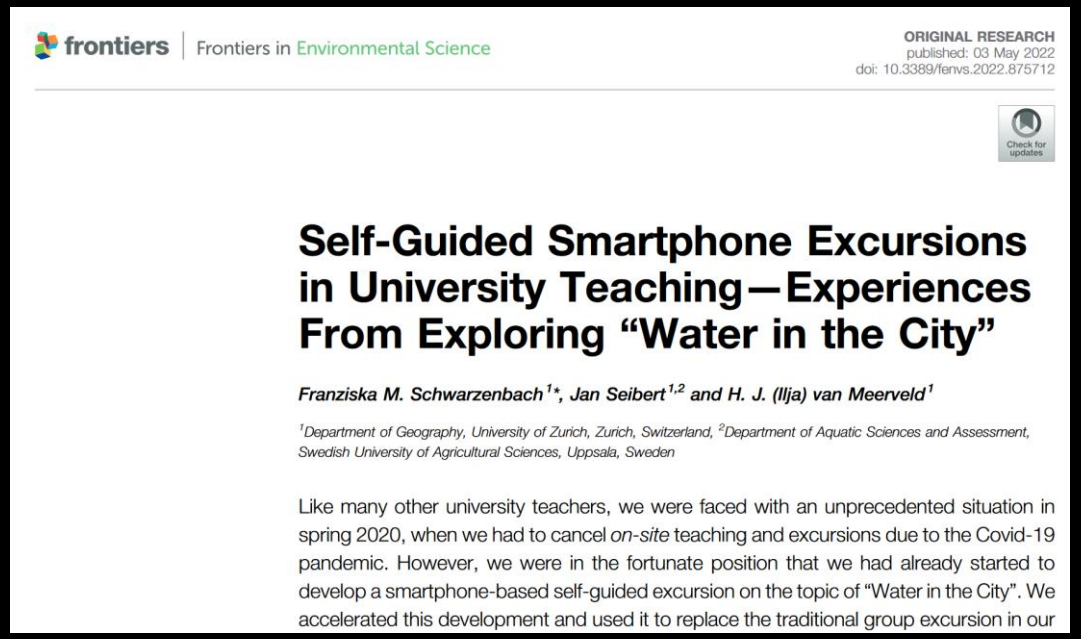


Feedback from students

Negative feedback and corresponding improvements:

- A lot to read on the display
  - Long text additionally as a pdf
- Difficulties to find the way
  - A lot of pictures showing the right way

- Issues with the GPS on the smartphone
  - Instead of finding the location, one can upload a picture of the corresponding location
- A lot of time required, exhausting, tired feet, …
  - Clearer statement on time requirements, walking distance and gear (good shoes, …)



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Check for updates

Self-Guided Smartphone Excursions in University Teaching—Experiences From Exploring "Water in the City"

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Like many other university teachers, we were faced with an unprecedented situation in spring 2020, when we had to cancel *on-site* teaching and excursions due to the Covid-19 pandemic. However, we were in the fortunate position that we had already started to develop a smartphone-based self-guided excursion on the topic of "Water in the City". We accelerated this development and used it to replace the traditional group excursion in our

https://www.frontiersin.org/articles/10.3389/fenvs.2022.875712/full

Schwarzenbach F. M., Seibert J. and van Meerveld H. J. (2022) Self-Guided Smartphone Excursions in University Teaching—Experiences From Exploring "Water in the City". Front. Environ. Sci. 10:875712. doi: 10.3389/fenvs.2022.875712

More information on the Zurich excursion

https://www.geo.uzh.ch/en/units/h2k/Learn-about-water/Excursion-Water-in-Zurich-.html