

Breaking the Vicious Circle: Mapping and Addressing Gaps in Information Literacy across the Educational Cycle

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Agenda

- About the National Library of Technology in Prague (NTK) and its academic services
- Mapping IL gaps via workshops/webinars and consultations
- Addressing IL gaps
- Case studies
- Conclusions and future plans

About the National Library of Technology

- Public academic library under the Czech Ministry of Education, Youth and Sports
- Situated within STEM university campus: over 90% of our 25,000 registered patrons are students/instructors/researchers
- We provide academic services to students, instructors, researchers, and the general public



Our Academic Services

Tutorials and other educational materials

- Video tutorials, research guides, subject guides, [STEMskiller](#)

Workshops and webinars

- Sessions for university students and PhDs, researchers, pre-arranged/contracted workshops for high schools (HS)
- Sample topics: searching and evaluating information, citing, academic writing, academic integrity

Consultations

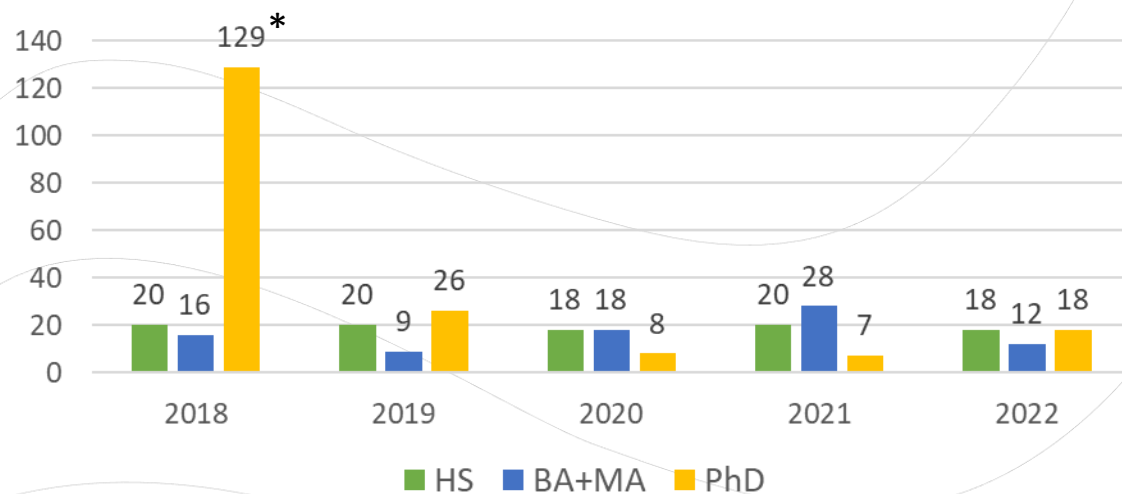
- Individual or group consultations focused on any issue connected with academic writing, research, publishing (typically Bachelor and Master theses)

Inputs for Our IL Support

- NTK's location within both physical space and education system as a "competitive advantage"
- Mapping of individual queries of students and researchers via meticulous documentation and data collection helps us identify and address common gaps in IL across the educational cycle
- Feedback from patrons, internal review processes, sharing of experience across our support team
- Involving patrons in designing NTK's information services (research surveys, feedback, internship and employment opportunities)

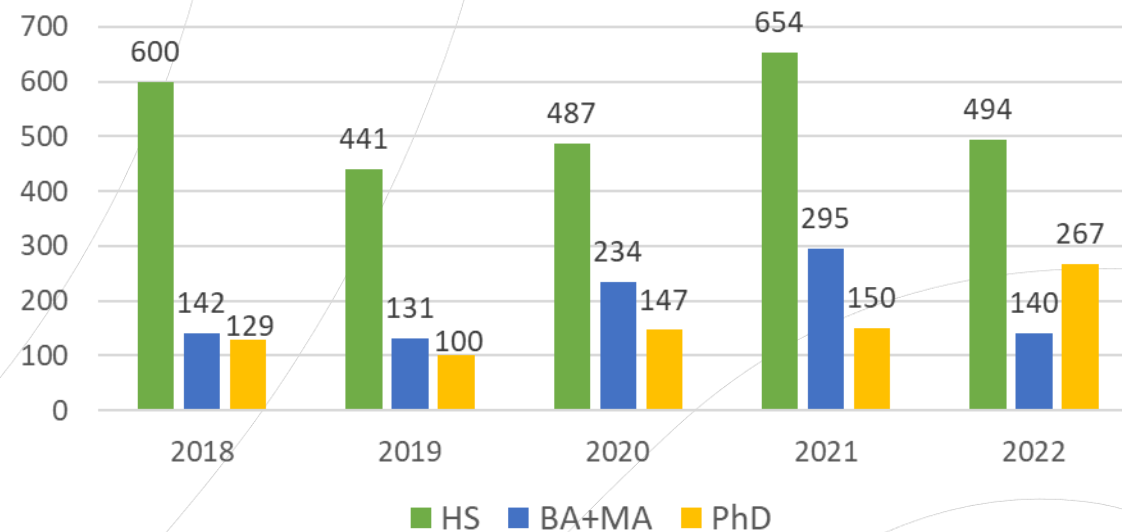
Workshops and Webinars (W+W) – Overview

Number of workshops and webinars by year and level of study



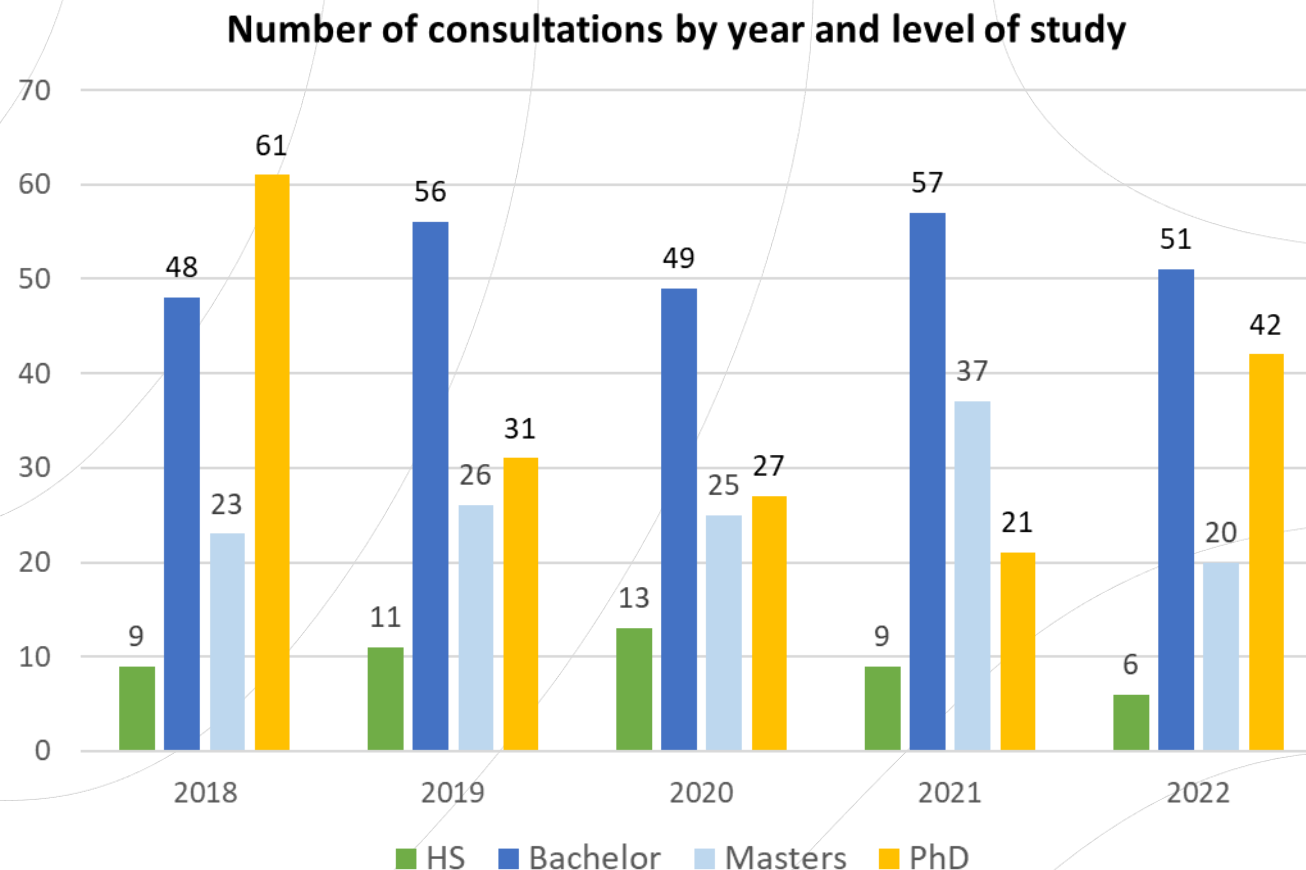
*Discrepancy caused by several semester-long PhD courses

Number of participants by year and level of study



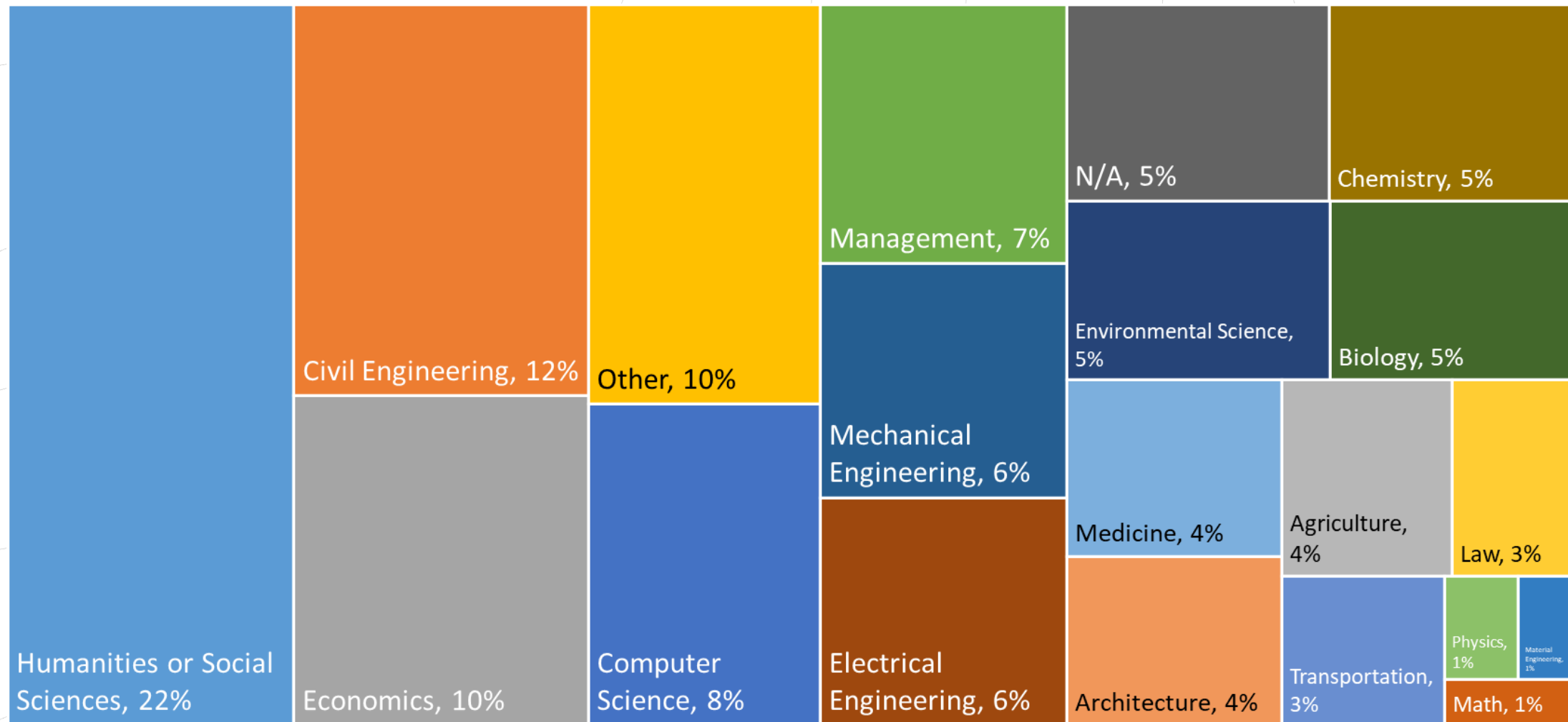
Consultations – Overview

- 622 consultations with students and PhD candidates in 2018–2022
 - 48 with HS students
 - 261 with BA students
 - 131 with MA students
 - 182 with PhD candidates



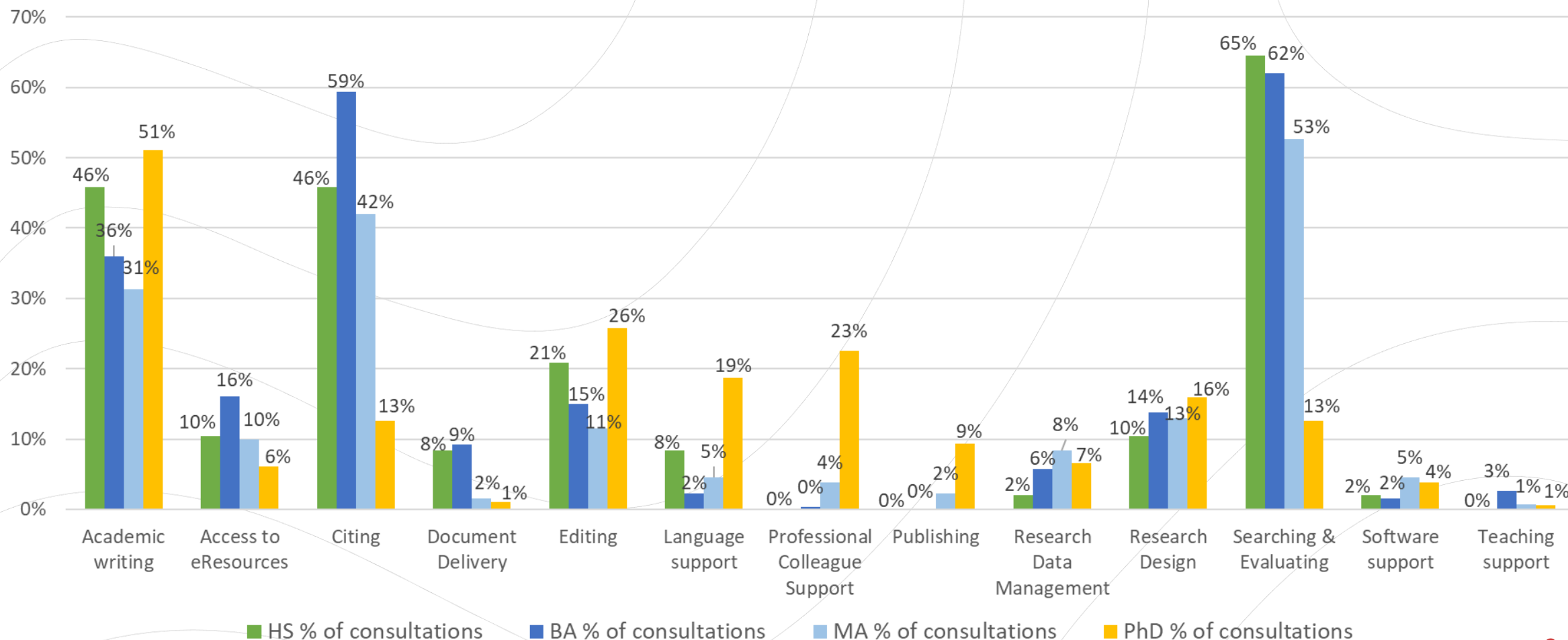
Mapping the Gaps – Consultations

Fields of study



Mapping the Gaps – Consultations

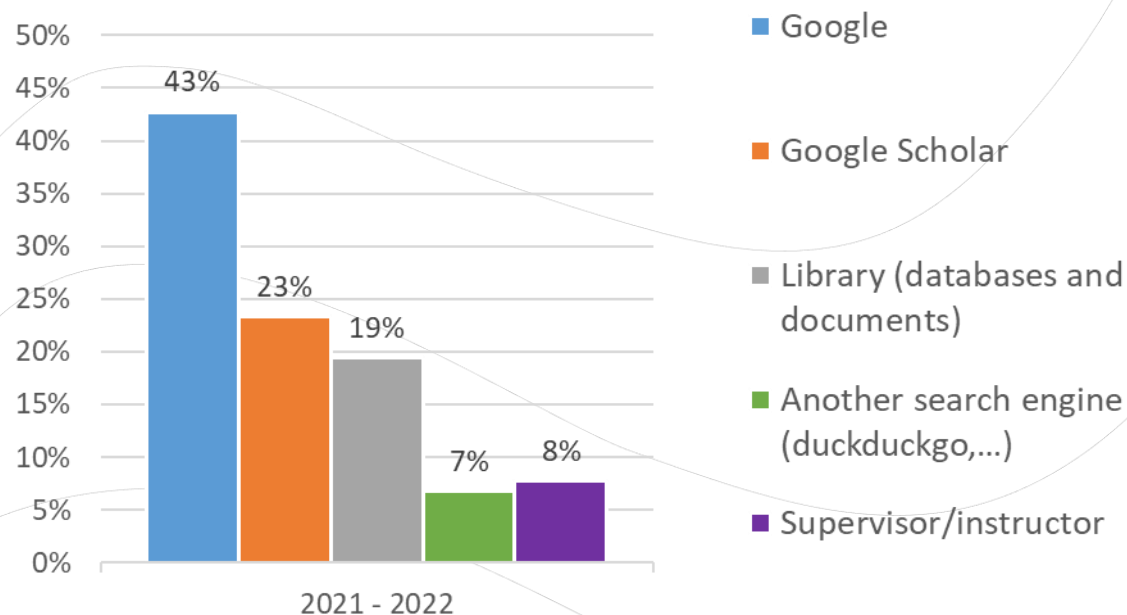
Common areas of help



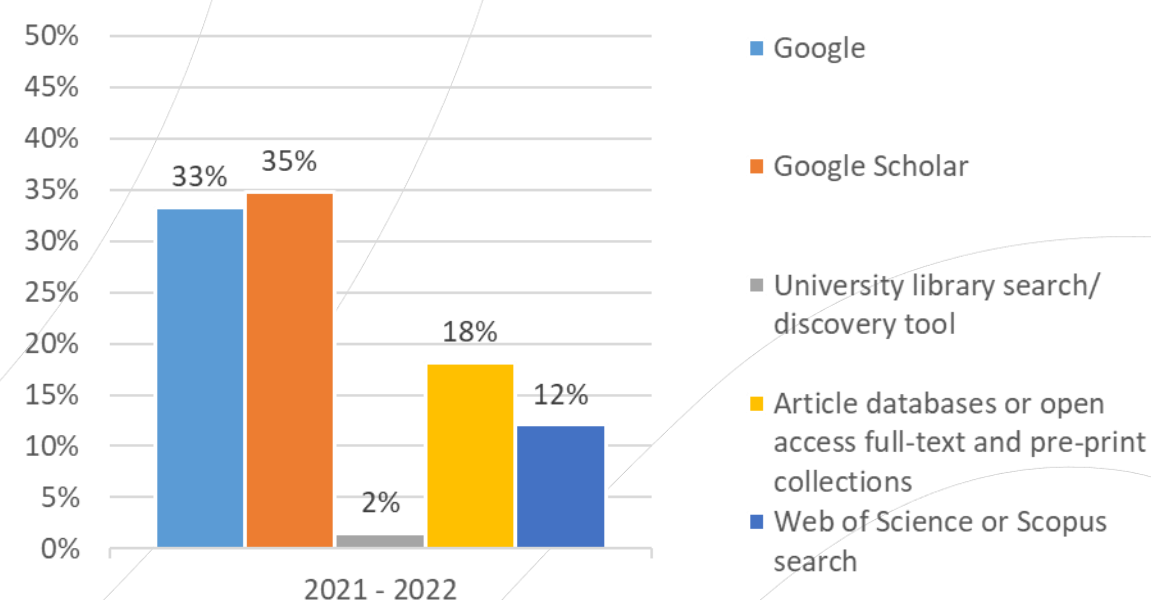
Mapping the Gaps – W+W

Where do you go first when searching for information?

University students



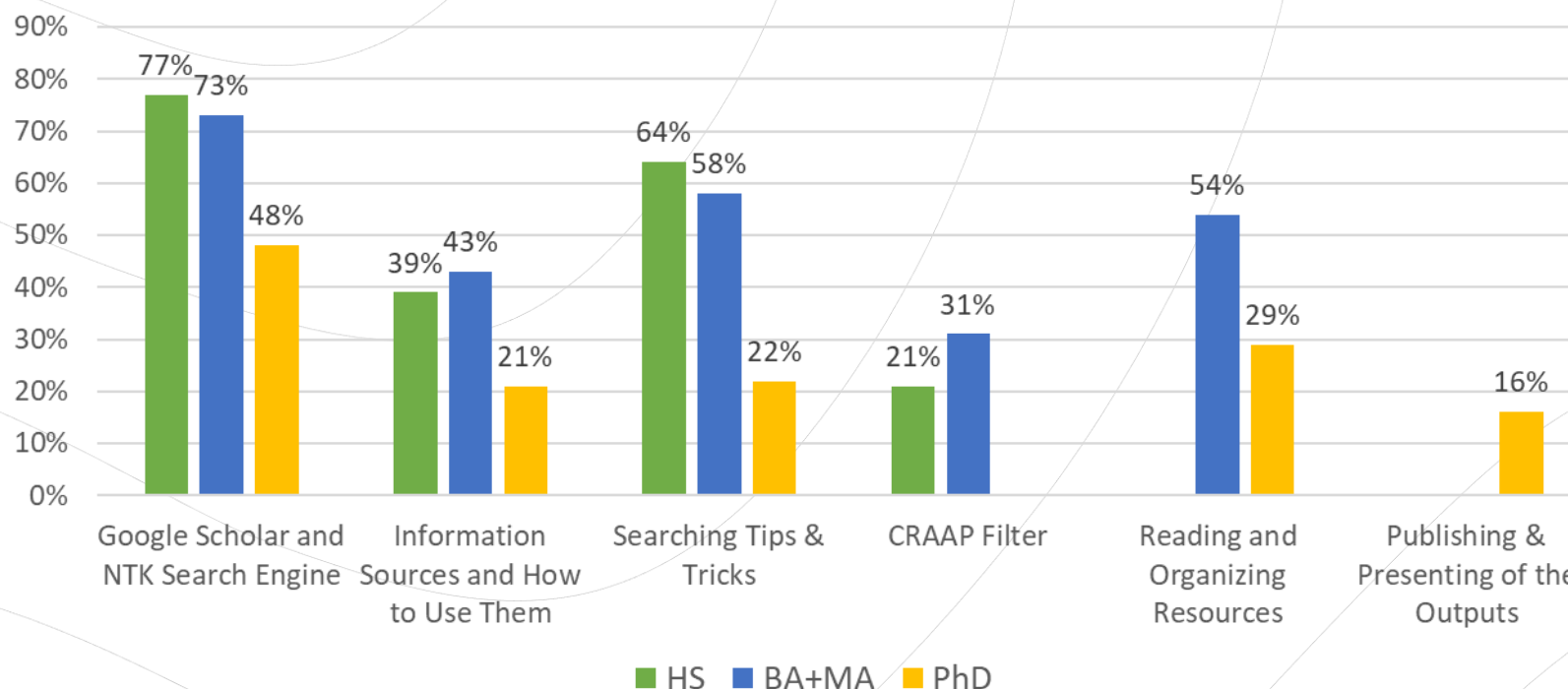
PhD candidates



Data from questions asked during the webinars

Mapping the Gaps – W+W

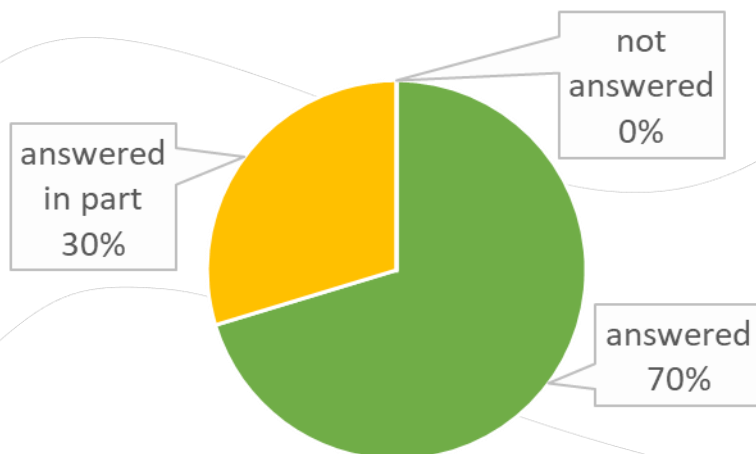
What was the most useful topic?



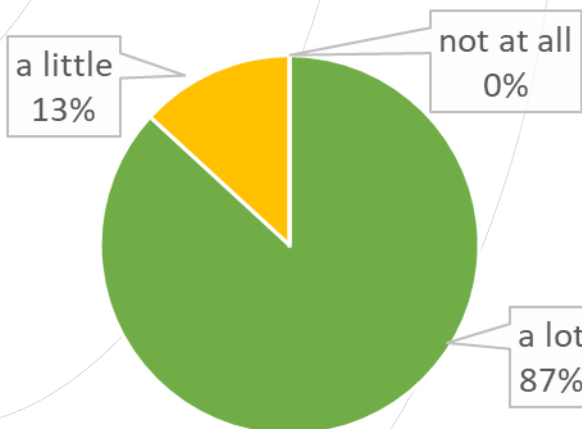
Data from feedback forms, 2021–2022

Feedback Results

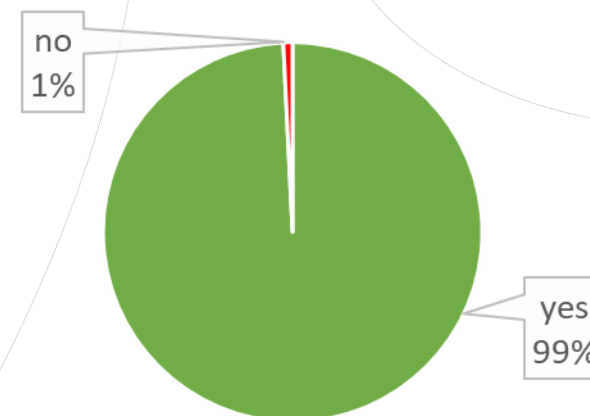
During the consultation, my questions were:



The consultation has improved my understanding:



I would recommend NTK's consultation services to my friends and colleagues:



Consultations 2018–2022

W+W: Improvement of understanding

On average (1=poor, 5=excellent), years 2021–2022:

- High school students **4.2**
- University students **4.4**
- PhD candidates **4.1**

Addressing the Gaps

Common threads

- Poor knowledge of information resources and (advanced) searching techniques
- Citation issues: style and methods and integrating (in-)direct citations into text
- No knowledge of citation managers
- Difficulties with academic writing in general

Solutions

- Implementing "basic" topics into more advanced information support
- Implementing more advanced topics into HS information support
- Sessions for university students, instructors, researchers
- Collaboration with (HS) teachers, sharing of good practice
- Providing support for transitions between education levels

Case Study #1 – Transition to University

Who: A high school student in their final year applying to university

Task: To write a bachelor's thesis proposal as a part of the university admission process

Problems: The student had never written anything like this and did not know what it should look like

Solution: An NTK employee helped the student with searching and evaluating information, citing, academic writing, and structure of academic text

Case Study #1 – Transition to University

Areas of help:

- Searching and evaluating resources
- Citing
- Academic writing
- Structure of academic text

Recommended information sources:

- Google Scholar
- Library catalogs
- NTK citing tutorial
- University theses

NTK employee's comment: *My help consisted both in some very basic advice (write in paragraphs, not in bullet points), and in helping with the structure of the project and the future thesis, searching for appropriate information sources, and citing (mainly websites).*

Case Study #2 – Transition to PhD

Who: A graduate student in their final year applying to a PhD program

Task: To write their own research proposal as a basis for the admissions process

Problems:

- The first draft rejected by the supervisor for not being a scientific research, but an application project (analysis of communication on social media of one specific company)
- The student did not know the difference between a diploma project and a research proposal or how to define research goals and a preliminary research proposal

Case Study #2 – Transition to PhD

Solution: An NTK employee showed the student how to search for dissertations and scientific articles focused on a similar topic and also several resources related to scholarly communication and methodology.

- Dissertation repositories: [ProQuest Dissertations & Theses](#)
- Scientific articles on Web of Science sorted by number of citations
- Tips for searching (how to use keywords and filters)

NTK employee's comment: *The discussion mainly focused on the differences between a diploma and a dissertation thesis and its emphasis both on generalization and on the novelty and contributions to scientific knowledge.*

Conclusions and Future Plans

- Increase and cultivate the practice of academic writing at Czech high schools via further collaboration with available/interested stakeholders
- Increase the focus of our IL activities for HS teachers
- Collect longitudinal data to support our hypothesis that better IL instruction at HS provides benefits for both university studies and future careers
- Continue providing academic skills support (including IL courses) for all educational levels and the general public

NTK

50°6'14.083"N, 14°23'26.365"E
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Ready for Questions

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[Education and Research Support](#)

