

Tracking the Integration of Research Data Management and the Electronic Laboratory Notebook Chemotion into Chemistry Curricula

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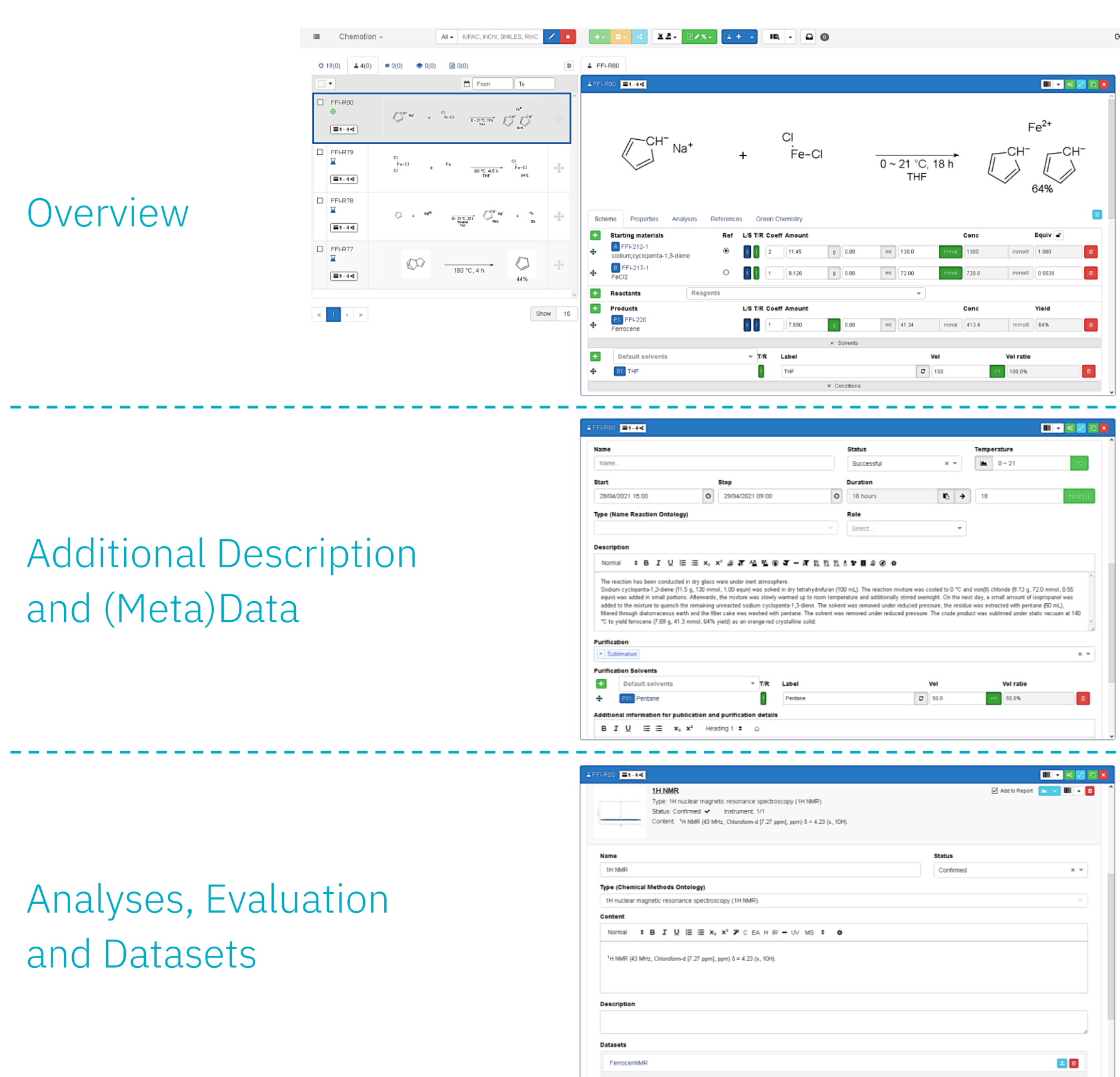
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ELN and RDM Implementation

- **Hands-on experience:** Fifth semester Bachelor students synthesize ferrocene during a lab course and use the ELN Chemotion for **seamless digital documentation**.
- Students are taught the **basic concepts of RDM** in an additional learning unit including a final test.
- Integration of the topic into existing concepts saves the need to develop entirely new curricula.

Documentation in the ELN



Teaching RDM to students early on in their studies is key for a sustainable RDM integration in academia. Incorporating the topic into existing concepts as a hands-on experience is facile, fast, and helps to engage students and attract their attention.



Publication:



NFDI4Chem:



Survey Framework

- A survey among the students was conducted to **track the implementation** and to **improve teaching materials and concepts**.
- Survey tool: SoSci Survey (www.sosicisurvey.de)

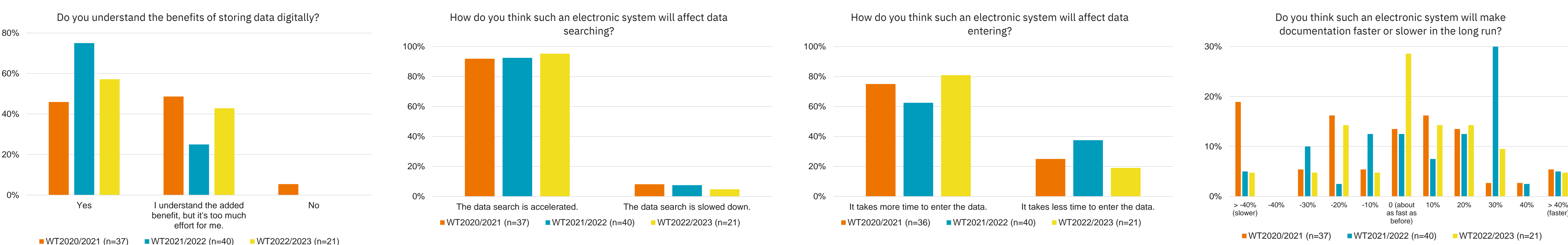
Survey Response Rate

- Winter term **2020/2021**: 34% (38 of 111 students)
- Winter term **2021/2022**: 34% (42 of 123 students)
- Winter term **2022/2023**: 28% (22 of 80 students)

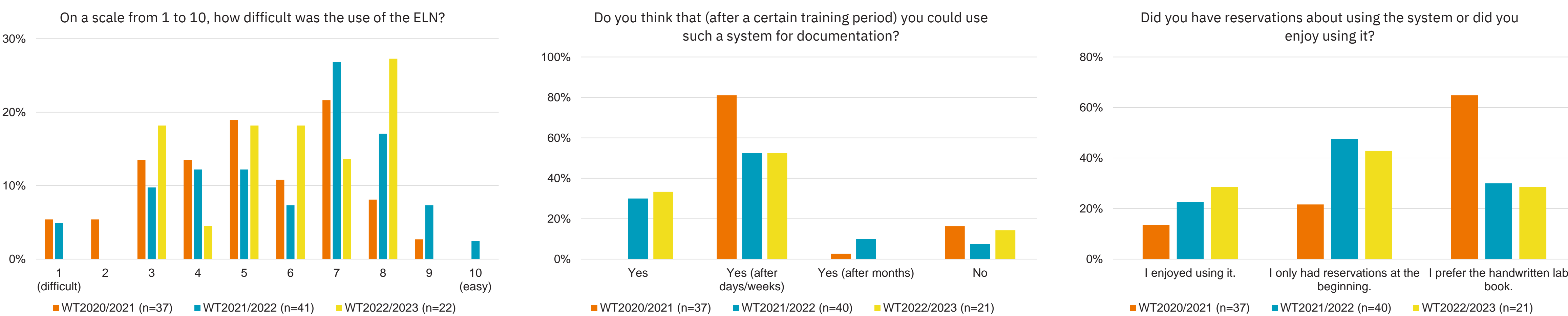
Survey Outcome & Lessons Learned

- Overall, the survey results show a **growing awareness of RDM** and a **higher acceptance towards ELNs** among the students.
- Students largely agree on the **benefits of digital documentation** and a **general need for content on RDM**.
- Students' opinions strongly differ when it comes to their experiences using the ELN during the lab course.
- The results highlight the **urgent requirement for a stronger integration of teaching RDM** into curricula at an early stage of studies already.

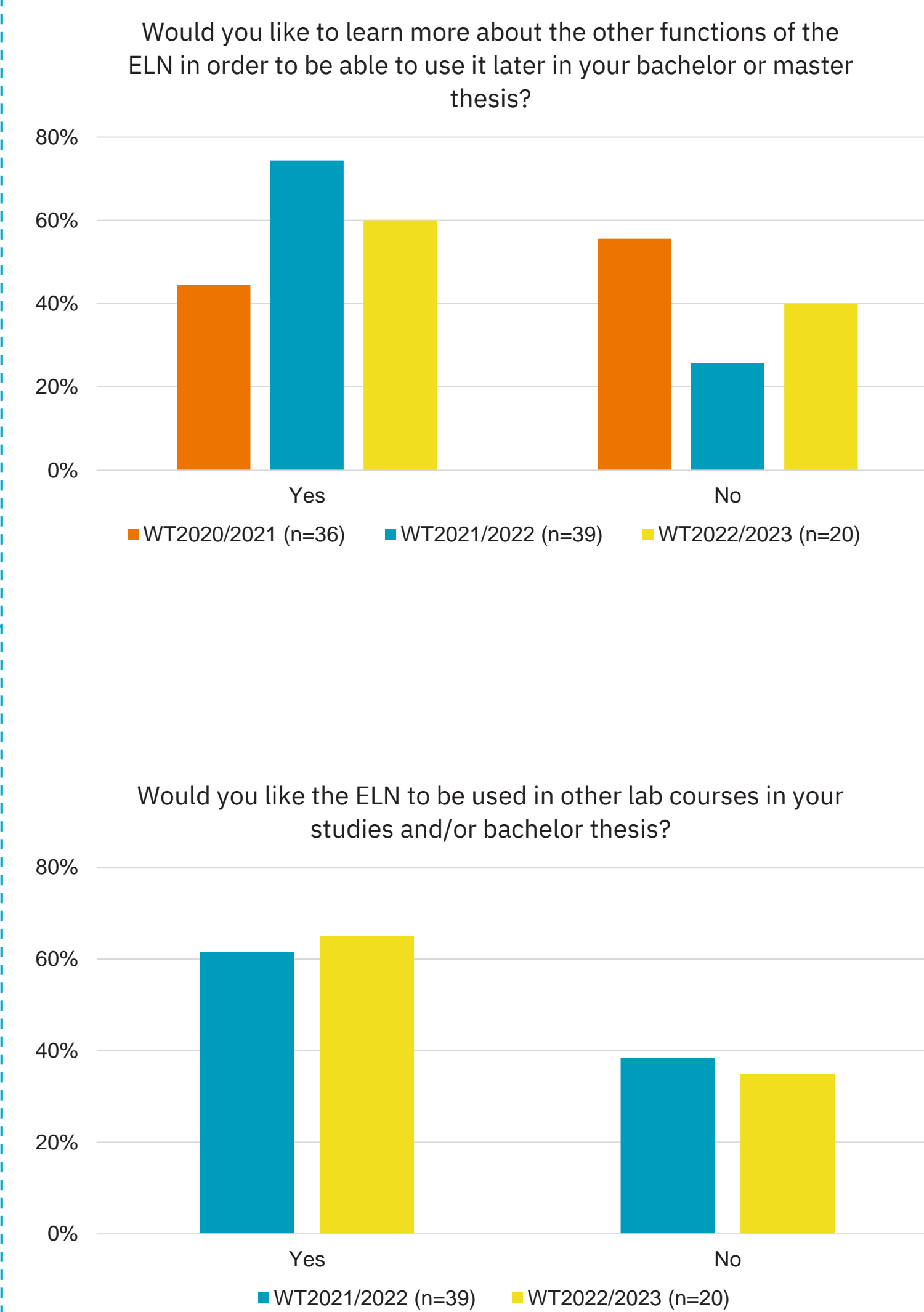
Benefits of Digital Documentation



Using the ELN Chemotion during the Lab Course



Use of the ELN in Further Studies



Learning Unit on Research Data Management

