

**Graduate School** 

## **Co-Authorship Form**

This form is to accompany the submission of any thesis that contains research reported in coauthored work that has been published, accepted for publication, or submitted for publication. A copy of this form should be included for each co-authored work that is included in the thesis. Completed forms should be included at the front (after the thesis abstract) of each copy of the thesis submitted for examination and library deposit.

This form should be completed by a co-author, not by the student.

Please indicate the chapter/section/pages of this thesis that are extracted from co-authored work and provide details of the publication or submission:

The conference paper titled "Exploring Virtual Reality (VR) to Foster Attention in Math Practice—Comparing a VR to a Non-VR Game" has played a pivotal role in shaping Chapter 2 (Background) of this PhD thesis, influencing every section within it. Moreover, it influences Section 4.6 in Chapter 4 (Methodology). Furthermore, its impact extends to Chapter 6 where it significantly informs each Section concerning US2: 6.2, 6.4, 6.5, 6.8 and 6.9.

Reference: Belter, M., Lukosch, H., Lindeman, R. W., Wu, Y., & Steinicke, F. (2023, July). Exploring Virtual Reality (VR) to Foster Attention in Math Practice—Comparing a VR to a Non-VR Game. In International Conference on Human-Computer Interaction (pp. 3-16). Cham: Springer Nature Switzerland.

Please detail the nature and extent (as a percentage) of contribution by the student: Meike designed and executed the second user study, collected and processed all data and wrote the majority of the article. The co-authors contributed to the design of the game used in this study (Wu), provided feedback the design of the game and the user study (Lukosch, Lindeman), and guided through the user study set-up (Steinicke). All co-authors provided feedback on the written draft of this article, which Meike presented at the conference. Meike's work on this publication was 85%.

## **Certification by Co-authors:**

If there is more than one co-author then a single co-author can sign on behalf of all

The undersigned certifies that:

- The above statement correctly reflects the nature and extent of the student's contribution to this co-authored work
- In cases where the student was the lead author of the co-authored work, they wrote the text

Name: Heide Lukosch Signature: Heide Lukosch Date: 23/08/2023



