

CORRECTION

Open Access



Correction: How are primary school computer science curricular reforms contributing to equity? Impact on student learning, perception of the discipline, and gender gaps

Laila El-Hamamsy^{1,2*} , Barbara Bruno³, Catherine Audrin⁴, Morgane Chevalier⁴, Sunny Avry², Jessica Dehler Zufferey² and Francesco Mondada^{1,2}

Correction: International Journal of STEM Education (2023) 10:60

<https://doi.org/10.1186/s40594-023-00438-3>

Following publication of the original article (El-Hamamsy et al. 2023), it was noticed that partially uncorrected page

proofs were mistakenly published. The original article (El-Hamamsy et al. 2023) has been corrected and the publisher apologises to the authors and readers for the inconvenience caused by this error.

Below is a table of corrections which have been implemented in the original article.

The original article can be found online at <https://doi.org/10.1186/s40594-023-00438-3>.

*Correspondence:

Laila El-Hamamsy
laila.elhamamsy@epfl.ch

¹ MOBOTS Group, EPFL, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

² LEARN, Center for Learning Sciences, EPFL, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

³ Computer Human Interaction in Learning and Instruction (CHILI) Laboratory, EPFL, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

⁴ University of Teacher Education (Haute Ecole Pédagogique) Vaud, Lausanne, Switzerland



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

Section	Originally published text	Corrected text
Sub-heading under 'Study 1: student learning and the link with what teachers from the CS-schools implemented'	Methodology	Methodology (study 1)
Sub-heading under 'Study 1: student learning and the link with what teachers from the CS-schools implemented'	Participants and data collection	Participants and data collection (study 1)
Sub-heading under 'Study 1: student learning and the link with what teachers from the CS-schools implemented'	Analysis methodology	Analysis methodology (study 1)
Table 2, rows 3–7	[blank]	El-Hamamsy et al. (2021b)
Sub-heading under 'Study 1: student learning and the link with what teachers from the CS-schools implemented'	Results: the impact of teaching CS on student learning	Results: the impact of teaching CS on student learning (study 1)
First paragraph of the 'Student learning and the influence of the CS-education received (study 1b)' section	(...) see "Participants and data collection") are available	(...) see "Participants and data collection (study 1)" are available
Sub-heading under 'Study 2: student perception, the link with what teachers from the CS-schools implemented, and correlations with performance	Methodology	Methodology (study 2)
Sub-heading under 'Study 2: student perception, the link with what teachers from the CS-schools implemented, and correlations with performance	Participants and data collection	Participants and data collection (study 2)
Footnote Table 6	Please note that the survey also included items pertaining to the usage of robots and tablets but that these are not investigated in the present article	Please note that the items pertaining to the usage of robots and tablets are not investigated in the present article
Sub-heading under 'Study 2: student perception, the link with what teachers from the CS-schools implemented, and correlations with performance	Analysis methodology	Analysis methodology (study 2)
Second bullet-point list of the 'Results: perception, the influence of what was taught since the start of the year on perception, and the link with performance (study 2)' section	Finally, employing SEM on the model in Fig. 7 (see "Analysis methodology") meets the fit requirements (...)	Finally, employing SEM on the model in Fig. 7 (see "Analysis methodology (study 2)") meets the fit requirements (...)
Last paragraph of the 'Results: perception, the influence of what was taught since the start of the year on perception, and the link with performance (study 2)' section	(...) see Fig. 8 in "Analysis methodology") to see how performance is influenced by perception and demographics indicates that there is no significant link (see Table 7)	(...) see Fig. 8 in "Analysis methodology (study 2)" to see how performance is influenced by perception and demographics indicates that there is no significant link (see Table 7)
Table 7, row 1	Percentage} (/100)	Percentage (/100)
Sub-heading under 'Study 3: student perception between CS-schools and schools where teachers were not yet trained to teach computer science'	Methodology	Methodology (study 3)
Sub-heading under 'Study 3: student perception between CS-schools and schools where teachers were not yet trained to teach computer science'	Participants and data collection	Participants and data collection (study 3)
Sub-heading under 'Study 3: student perception between CS-schools and schools where teachers were not yet trained to teach computer science'	Analysis methodology	Analysis methodology (study 3)
References	El-Hamamsy, L., Zufferey, B. B. J. D., & Mondada, F. (2023a). Dataset for the evaluation of student-level outcomes of a primary school Computer Science curricular reform	El-Hamamsy, L., Bruno, B., Dehler Zufferey, J., & Mondada, F. (2023a). Dataset for the evaluation of student-level outcomes of a primary school Computer Science curricular reform [Data set]. Zenodo. https://doi.org/10.5281/zenodo.7489243

Published online: 02 November 2023

Reference

El-Hamamsy, I., Bruno, B., Audrin, C., Chevalier, M., Avry, S., Zufferey, J. D., & Mondada, F. (2023). How are primary school computer science curricular reforms contributing to equity? Impact on student learning, perception of the discipline, and gender gaps. *Int J STEM Educ*, 10, 60. <https://doi.org/10.1186/s40594-023-00438-3>

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.