Reflection and training for a Zero Outage Culture

End of Research-Project Report

Zero Outage
INDUSTRY STANDARD

EYECUTIVE SUMMARY

It is the interpersonal competencies that are intertwined, fuzzy and complex such that assessing them explicitly poses a challenge and calls for creative approaches. Nevertheless, there is no doubt that their presence or absence is decisive for an organization's functioning, particularly in critical situations. In this context, this project aimed to contribute to building an environment and organizational culture for minimizing outages, focusing on interpersonal skills. This was approached through fostering reflective practice and designing workshop-, training-, and life-long learning concepts targeted at building and strengthening interpersonal competencies considered crucial for populating a zero outage culture. These were, in particular (intercultural) communication, team-leadership interaction, agile management, and reflective practice by individuals as well as in teams.

The team-leadership interaction aspect of the project was based on an elaborate, scientifically well-founded framework (Haselberger 2019; Haselberger and Motschnig, 2018) targeted at improving team-leadership interaction by self-organized reflection on the one hand and interpersonal sharing in small, moderated teams (in so called "flow-session") on the other hand. The project had prioritized interpersonal competencies and job profiles from the ZOIS model, studied the applicability of the open-source rhea.framework (https://rheafmwk.io) to strengthen these competencies, and suggested resources and training scenarios for approaching a Zero Outage culture. Different to the preceding project "Soft Skills for IT People" where the target audience were employees from operations and maintenance, this project focused on middle management.

Key findings from accompanying research on promoting soft skills in academic courses and the consequent long-term effects were described in a scientific article and published at the international IEEE Frontiers in Education Conference 2020 (Motschnig, Silber & Švábenský, 2020). In a nutshell, most students responded that, in the long-term perspective, the course had helped them in communicating with their colleagues at work (as well as in their private lives) and contributed to their active interest in sharpening their soft-skills.

Besides the academic contributions that provide a scientific basis for the practical project activities, a workshop with representatives of the ZOIS PEOPLE-stream was organized, an interview was given, and a three-module soft-skills training termed

"Experiential learning in leadership" was designed in cooperation with ZOIS and in part tested with representative participants. One round of testing the whole training is going to be conducted with participants stemming from organizations associated with ZOIS as well as students. The feedback received will be analyzed and flow into upcoming trainings and activities.

Core Facts

Start of the project: 01/04/2020

End of project: Scheduled: 31/12/2020. Extended with agreement by all parties to: 28/02/2021 (reason: Testing of the whole training with representative participants is scheduled for February 2021)

People involved from the University of Vienna, Faculty of Computer Science:

- Renate Motschnig (Head of Research Group CSLEARN – Educational Technologies & Project Lead & Trainer in Soft Skills trainings)
- David Haselberger (Researcher, post-doc level)
- Thomas Spielhofer (Coach, PhD-Candidate, researcher)
- Michael Silber (Researcher, Masters student)

People involved from ZOIS

- Klaus Reile (NetApp & Representative of ZOIS-PEOPLE Stream)
- Michael Mayr (Hitachivantara & Representative of ZOIS-PEOPLE Stream)
- various

Activities and Major Project Outcomes

Published paper:

Motschnig, R., Silber, M., Švábenský, V. (2020). How Does a Student-Centered Course on Communication and Professional Skills Impact Students in the Long Run? Proceedings of the 50th ASEE/IEEE Frontiers in Education Conference (FIE), October 21-24, Uppsala, Sweden and online.

Slides communicating the major outcomes of the research that was in part supported by

Interview about Soft Skills (26/06/2020)

Coordination Workshop to align inputs for the Soft Skills II Training; 17/07/2020,

Open Case online-unit with volunteers from ExactPro to react to their expressed wish to practice more on listening and problem solving. Done also in preparation for Module 1 of the Soft Skills Training II on "Experiential Learning in Leadership". 07/09/2020;

Workshop for advancing the shared vision of the project between the representatives of the ZOIS PEOPLE-track (Michael Mayr and Klaus Reile) and the responsible researchers of the Faculty of Computer Science at the University of Vienna. 23/09/2020)

Educational resources for introducing the Open Case setting, the Rhea-framework for reflecting upon team-leadership interaction, and the 2agendas@work framework and have been developed and provided to ZOIS. All educational materials elaborated as part of this project are available to ZOIS and the University of Vienna.

New individual elements and modules of the training have been "tested" with volunteers from ExactPro as well as with Klaus Reile and Michael Mayr. A first complete training-workshop series on "Experiential Learning in Leadership" consisting of three modules was offered (for free) in February 2021.

Interview: Renate Motschnig and David Haselberger gave an interview on the results of the training workshops on Feb. 26th.

References

D. Haselberger (2019). The Person Principle in the Unified Process – A Design Science Research Study on Supporting Performance-Related Leadership Interactions in ICT Project Teams. Doctoral Dissertation, University of Vienna.

D. Haselberger, R. Motschnig (2018). Computer Science students' experience of reflecting on Team Leadership – A case study of a student-centered course on communication. IEEE Frontiers in Education Conference (FIE), October 3-6, San Jose, California, USA.

Motschnig, R., Silber, M. and Švábenský, V. (2020). How Does a Student-Centered Course onCommunication and Professional Skills Impact Students in the Long Run?, in Proceedings of the 50th IEEE Frontiers in Education Conference (FIE '20). Uppsala, 2020. DOI: 10.1109/FIE44824.2020.9273962.

Appendices

Appendix 1:

Scientific paper and corresponding slides

Appendix 2:

Training Concept for MANAGEMENT

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