



Users' perceptions of adopting new technologies as a guide for tailored learning analytics tool deployment in HE

Amanda Sjöblom, Aalto University, amanda.sjoblom@aalto.fi, @sjoblom_amanda
Anni Silvola, University of Oulu, anni.silvola@oulu.fi, @ASilvola
Jiri Lallimo, Aalto University, jiri.lallimo@aalto.fi, @JiriLallimo

Objectives: How deployment processes can be used to support LA tool adoption

We examined the factors that HE staff associate with new learning analytics (LA) tools, what they viewed to be successful ways of introducing them, and what can hinder learning and using new tools. LA tools need to support pedagogical practices, and to achieve that we need to improve tool deployment and support, to enhance their usability and approachability. The key aim is to provide insights to LA deployment processes to better support HE staff in their primary tasks, and to aid in integrating new tools to existing pedagogical practices.

Methods

Data collection in Finnish HE institutions (N=99). Teachers and services staff.

Background information:
• teaching/administrative role, STEM/non-STEM field, university/applied university
• ICT-self-efficacy
• General use of ICT

Quantitative questions:
• Experiences with LA tool deployment (3 questions, 7-point Likert-scale)
• Experience of training materials (2 questions, 7-point Likert-scale)

Qualitative questions:
• Aspects that make training material useful
• Challenges with new LA tool adoption

Quantitative analyses

Experienced quality of LA tool deployment was positively correlated with ICT use; $r(97) = .363, p < .001$.

Experienced importance of training material for deployment was negatively correlated with ICT self-efficacy; $r(97) = -.342, p < .001$.

Qualitative analyses

The aspects that make training materials useful:



1. Pictures and videos to make the instructions more concrete.



2. Both a quick guide and detailed instructions, allowing exploration according to interests.



3. Examples of how the tools could be used in relation to the users' specific tasks.



4. Role-specific step-by-step guides.



5. Good thematic structures.



6. Communication between users, developers and support.

Five key challenges:

tools themselves as the key challenge (1), the quality or nonexistence of support or instructional materials (2), lack of communication between users and developers (3), tools could not be tailored to suit their needs for teaching, advising or administration (4), new tools generally meant a higher workload (5).

Outcomes

If deployment of new LA tools lacks a critical evaluation of the required support, there is a risk that tools and training do not match the pedagogical and work practices, or account for effects on users' workload. Based on careful stakeholder-centered evaluation and development of the tools and practices, LA tools and deployments can be improved, potentially increasing impact and acceptance.