SHEILA

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Teacher and Student Perspectives on Learning Analytics

- Executive Summary -

1. Context

The SHEILA project was launched to support higher education institutions to develop learning analytics policies that are tailored to meet individual institutions' unique contexts and ensure the responsible and effective use of student data. The project adopts a participatory action research approach and the Rapid Outcome Mapping Approach (ROMA)[1] to develop a policy framework that is based on data collected through direct engagement with key stakeholders. In our previous executive summary[2], we have presented key elements of a learning analytics policy and the state of learning analytics adoption from experts' and institutional leaders' perspectives. We found that most institutions in Europe were at an exploratory stage without a defined strategy or monitoring framework for learning analytics. We also observed that issues around "privacy and transparency" were the most important and easiest to address through a policy. In this new executive summary, we present teaching staff and student perspectives, focusing on their interests, expectations, and concerns about learning analytics.

2. Methodology

The consultations with teaching staff and students were carried out using survey and focus group methods between 2016 and 2017. The staff survey was carried out in 4 institutions, in the UK, Estonia, Spain, and the Netherlands, with a total number of 210 responses, whereas the student survey was carried out in 6 institutions in the aforementioned countries and Ireland, with a total number of 3,053 responses. The survey was designed to measure ideal expectations (what users desire) and predicted expectations (what users expect in reality) of learning analytics[3]. Both exploratory and confirmatory factor analyses were applied to validate the survey. In addition, 16 staff focus groups and 18 student focus groups were carried out in 4 institutions, which allowed us to have in-depth conversations with 59 teaching staff and 74 students in total. The focus groups were designed to explore participants' perceptions of ethics and legitimate purposes of data usage, their experiences with learning support and teaching delivery, and their interests and concerns about learning analytics. A thematic content analysis was adopted to explore the aforementioned themes.

3. Staff perspectives

From conversations with teaching staff, we observed a strong interest in using learning analytics to get an overview of students' learning progress and their engagement with learning materials. The motivation here is to improve students' learning experiences and adapt the curriculum to meet learners' needs. For example, the Spanish and UK focus groups desired to know the 'usefulness' of resources and students' preferences. The Estonian focus groups expressed an interest in enabling personalised support to second language speakers, and the Dutch focus groups showed an interest in evaluating the workload of students. While the survey results align well with the abovementioned findings, the UK sample highlighted an expectation of guidance on how to access data about students, whereas the Spanish sample showed a high expectation of providing students with

profiles about their learning. An interesting finding from the survey data across all samples is the consistently low expectation and low desire for teaching staff to have an obligation to act on data that shows a student at risk of failing or under-performing. The key concerns about learning analytics raised by focus group participants could perhaps explain this phenomenon:

- Teaching staff have limited capacity
- Learning analytics is sensitive to ethical and privacy issues
- Learning is hard to define or measure

A common struggle that teaching staff share is a heavy workload, which leads to a reluctance to embrace a new technology that is perceived as time-consuming. This includes a demand on time to learn to use a tool, the difficulty to wade through information, and the expectation of providing personalised support to a big cohort of students. In addition, the fact that learning analytics makes use of data that is constantly collected from students for the purpose of providing better educational services inevitably raises concerns such as intruding upon privacy, profiling students, and taking away student agency. Finally, learning analytics can only capture and present a partial picture of learning, which leads to questions about its effectiveness in informing decisions, its applicability to different subject areas, and its risk of prioritising algorithms over teaching professionalism.

4. Student perspectives

Both the survey and student focus groups show that students were particularly concerned about ethical and privacy issues. Data access, security and anonymity appeared to be the top concerns for students. In particular, the students were averse to any form of data collection that might put students under surveillance or produce stereotypes as a result of data being made available to teaching staff. Nevertheless, there was a strong interest in using learning analytics to enhance student experience, particularly in areas such as the provision of timely feedback, easy access to digital resources, and personalised learning support. In addition, students valued face-to-face conversations with tutors and lecturers, which was believed to be a solution to several identified issues such as missing information about off-line learning activities and misinterpretation of data. A common finding across survey and focus groups with both teaching staff and students is the low expectation of teaching staff's obligation to act when students are found to be at-risk of failing or underperforming. The majority of participants in student focus groups also expressed low interest in using learning analytics to alert teaching staff about individual students' performance. One student from the Dutch focus groups pointed out that it is not the teachers' responsibility to 'save' every student in higher education, as opposed to the need to do so for school children who are still developing decision-making skills. In general, it was believed that the implementation of learning analytics should not diminish students' learning responsibility , but promote the development of self-regulated skills instead.

5. Implications for learning analytics implementation

Our findings suggest that both teaching staff and students have strong interests in using learning analytics to address existing challenges in learning and teaching. However, several concerns raised by these stakeholders will need to be addressed strategically so as to move towards wider and sustainable implementation of learning analytics. We highlight four important areas of work:

1. Tool development
2. Policy development
3. User-centred implementation
4. Communication with primary stakeholders

First of all, a learning analytics tool needs to increase teaching efficiency in addition to effectiveness, so as to increase buy-in from teaching staff. This means the tool has to be easy to operate, quick to present information that is easily understandable, and should save staff time as they go about their daily practices. Secondly, a sound policy needs to be in place to guide the use of learning analytics, especially to address ethics and privacy issues, such as data access, security, and anonymity, which have been consistently raised as top concerns. Thirdly, the implementation of learning analytics needs to respect the agency of both students and teaching staff, especially

when it comes to receiving and offering interventions. While learning analytics may be capable of identifying at-risk students, not every student would appreciate interventions to be undertaken, nor does every teacher have the capacity or see the need to undertake such procedures. Finally, given that learning analytics is susceptible to ethics and privacy issues, having effective communication with primary stakeholders about the purpose and process of collecting and using data for learning analytics is especially important. This includes raising awareness of existing policies and improving the accessibility of these policies.

6. Future activities

The SHEILA team will be launching a MOOC on the systematic adoption of learning analytics in higher education. This is currently scheduled for September 2018. The SHEILA team will also publish the full version of the SHEILA framework for learning analytics policy and strategy development in higher education by the end of September 2018. A paper explaining the development and use of the framework was published in the proceedings of the 8th International Learning Analytics and Knowledge Conference (LAK'18)[4].

7. Become an associate partner

SHEILA is committed to collaboration and cooperation with other organisations and initiatives in supporting the adoption of learning analytics in higher education. Please register interest here:
https://esn.org/SHEILApartners

8. Contact

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[3] Whitelock-Wainwright, A., Gašević, D., & Tejeiro, R. (2017, March). What do students want?: towards an instrument for students' evaluation of quality of learning analytics services. In *Proceedings of the Seventh International Learning Analytics & Knowledge Conference* (pp. 368-372). ACM.

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