

The State of Learning Analytics in Europe

- Executive Summary -

1. Context

In our first executive summary published in October 2016, we identified six challenges that higher education faced regarding the adoption of learning analytics based on 23 empirical studies. One of these challenges is the limited availability of policies that are tailored for learning analytics-specific practice to address issues of privacy and ethics as well as other challenges. We believe that it is of great importance that institutions adopt learning analytics under clear guidelines that are grounded in cultural, social, economic and political contexts specific for each institution and are based on existing best practices for learning analytics and learning theories¹. Therefore, the SHEILA project team is working on a policy development framework to assist European universities to become more mature users and custodians of digital data about their students. To achieve this goal, we have carried out a series of activities that solicited input from a wide range of stakeholders to understand the current state of adoption and issues necessary to be covered in an institutional policy for learning analytics. This input was collected through a group concept mapping study with learning analytics experts, a survey about institutional readiness, and interviews with senior leaders in higher education institutions in Europe. The findings of these activities are summarised below.

2. Methodology

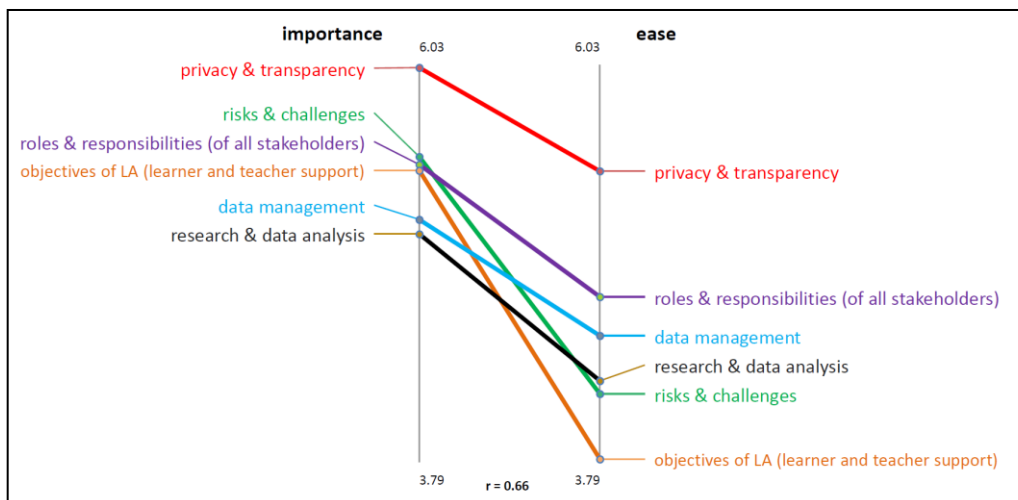
The group concept mapping (GCM) activity comprised three phases – brainstorming, sorting, and rating, which took place between August and November 2016. Sixty-five people from all over the world took part in the brainstorming phase, thereby generating 99 statements in response to the prompt – “an essential feature of a higher education institution's learning analytics policy should be...” Seventy-five learning analytics experts were invited to participate in the sorting and rating stages, of whom 30 completed the sorting activity, 29 completed rating by “importance”, and 25 completed rating by “ease of implementation”. In addition to GCM, a comprehensive survey was distributed widely to European higher education institutions, of which 46 from 22 countries responded (response rate: 15%). This activity lasted from September 2016 to February 2017. In parallel to the survey, 64 interviews were carried out between August 2016 and February 2017, and 51 higher education institutions across 16 countries took part in this activity.

3. Group Concept Mapping (GCM)

The group concept mapping study identified six key themes that should be included in an institutional policy:

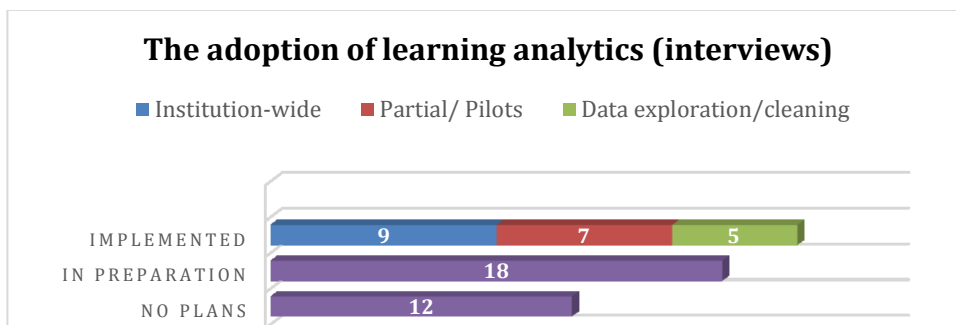
- Privacy and transparency
- Roles and responsibilities
- Objectives of learning analytics
- Risks and challenges
- Data management
- Research and data analysis

The results show that topics about “privacy and transparency” are considered as both the most important and easiest to address, whereas “research and data analysis” is comparatively less important than other themes and “objectives of learning analytics” is less easy to address than other themes. The overall scores of the importance-ranking are higher than the overall scores of the ease-ranking.

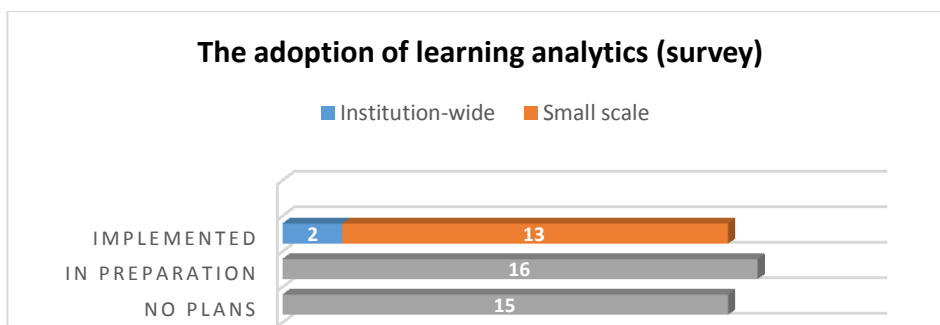


4. Survey and interviews

At the time of the interviews, 21 out of 51 institutions were already implementing centrally-supported learning analytics projects, 9 of which had reached institution-wide level, 7 partial-level (including pilot projects), and 5 were at data exploration and cleaning stage. Meanwhile, 18 institutions were in preparation to roll out institutional learning analytics projects, and 12 did not have any concrete plans for an institutional learning analytics project yet.



The equivalent question in the survey revealed that 15 institutions had implemented learning analytics, of which 2 had reached full implementation and 13 were in small scale testing phases. Sixteen institutions were in preparation for learning analytics projects, and 15 were interested but had no concrete plans yet.



The results show that the survey could reach institutions more widely, including more institutions that were at a relatively early stage of the adoption of learning analytics. Both interviews and the survey attracted institutions

that were interested in learning analytics, and over two thirds of institutions in both activities had either implemented learning analytics or about to do so.

5. Drivers and motivations

The interviews identified three common aspects of internal drivers for the adoption of learning analytics:

- Learner-driver: to encourage students taking responsibility for their own studies by providing data-based information or guidance.
- Teaching-driver: to identify learning problems, improve teaching delivery, and allow timely, evidence-based support.
- Institution-driver: to inform strategic plans, manage resources, and improve institutional performances, such as retention rate and student satisfaction.

In addition, various external drivers have been identified, including the results of external evaluations or audits and obligations to provide quality reports.

An equivalent question (multiple choices) in the survey provided 11 options for motivations specific to learning and teaching. The results identified five top drivers:

- To improve student learning performance (16%)
- To improve student satisfaction (13%)
- To improve teaching excellence (13%)
- To improve student retention (11%)
- To explore what learning analytics can do for our institution/ staff/ students (10%)

While the top four motivations coincide with the common drivers indicated by interview participants, the fifth driver has also been mentioned by several interview participants. These interviewees expressed that their institutions were taking an experimental and exploratory approach towards learning analytics. However, there was an uncertainty about the return of investment in these institutions given that the contextual relevance and benefits of learning analytics were still unclear.

6. Strategies and evaluation

Many institutions involved in the interviews have not defined clear strategies for learning analytics, whereas those that have implemented centrally-supported projects or planned to do so often initiated learning analytics under wider digitization strategies or teaching and learning strategies. Similarly, in response to the survey question – “does your institution implement learning analytics under any strategic framework,” about half of the institutions that have implemented learning analytics indicated that they did not have a clear strategy to work towards the goals of learning analytics (46.7%) while a fifth were in the process of developing a strategy (20%), and an equal proportion of institutions (20%) had developed a strategy for learning analytics or adopted a strategy developed for other projects.

Given that most institutions were in early stages of implementation, few had defined an evaluation framework. A large number of institutions involved in interviews indicated that they had not reached the stage of considering evaluation yet, while a small number of cases suggested that learning analytics would be used as a means to achieve their institutional key performance indicators. Similarly, the survey showed that only 27% of institutions that have implemented learning analytics have developed success criteria.

7. Conclusion

The findings show numerous higher education institutions that are either observing the development of learning analytics or have engaged with it practically. This activity is in its infancy and most institutions are at an exploratory stage without a defined strategy or monitoring framework. However, early adopters are likely to scale up the culture and encourage dialogues around learning analytics among researchers and practitioners.

8. Current activities

The SHEILA research team is currently undertaking surveys and focus groups with both students and teaching staff in four higher education institutions in Europe to understand expectations of primary stakeholders regarding learning analytics services.

9. How to get involved?

The SHEILA team is in the process of identifying associate institutional partners who are interested in collaborating on the development of their institutional learning analytics policies by using the results of the SHEILA project. Collaborations are planned to commence in early 2017. Enquiries about possible involvement are welcome.

10. Contact

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¹ Tsai, Y. S., & Gasevic, D. (2017, March). Learning analytics in higher education---challenges and policies: a review of eight learning analytics policies. In Proceedings of the Seventh International Learning Analytics & Knowledge Conference (pp. 233-242). ACM.