

Learning Analytics Supporting the Work of Guidance Professionals

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Abstract

Higher education institutions are increasingly interested in using learning analytics as part of their education programs. By focusing on practical perspectives and highlighting notes from the field, this paper describes how learning analytics could benefit the work of guidance professionals and what kind of perspectives should be considered in the institution-wide adoption of a learning analytics dashboard in the context of guidance. Recent research suggests that the meaningful use of learning analytics largely depends on its systematic incorporation into institutional processes and educational practices. Moreover, there is a need for guidance professionals to identify its potential and challenges, share best practices, and reflect on their experiences related to its use. Both understanding the potential of learning analytics and using the analytics appropriately lay the foundation for effective and meaningful student support.

Keywords: e-learning; learning analytics; learning analytics dashboard; higher education; guidance; guidance professionals.

Introduction

Learning analytics provides higher education institutions with an innovative means to support students' learning processes (Schumacher & Ifenthaler 2018) and to foster their growth towards professional expertise (Kleimola & Leppisaari 2022). In the past decade, there has been a particular interest in the use of learning analytics dashboards to improve teaching and learning, and to help students to achieve their educational goals (Park & Jo 2015; Susnjak et al. 2022). Such analytics applications have also appeared promising when used in the field of guidance to facilitate educational decision-making (Gutiérrez et al. 2020), when used to support an active dialogue between guidance professionals and students (Charleer et al. 2018; De Laet et al. 2020), and when used to promote students' self-regulated learning processes (Kleimola et al. 2025). However, there is little evidence to suggest that learning analytics applications are widely used in the guidance work of higher education institutions. Thus, more information is needed in order to consider how different analytics tools can be deployed and utilized in the context of guidance.

The Potential of Learning Analytics in the Context of Guidance

Learning analytics is commonly defined as “the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs” (Conole et al. 2011, para. 4). *Learning analytics dashboards*, on the other hand, are practical applications of learning analytics that are used to generate analytics insights in various educational settings. In general, they can provide information about one or multiple students, as well as their learning processes and learning environments, by combining and presenting specific indicators in a visualized form (Schwendimann et al. 2017).

Learning analytics dashboards can be designed and implemented for various purposes and targeted at both students and teachers (Verbert et al. 2013). For instance, such analytics applications can provide descriptions of students’ progression on a course (Susnjak et al. 2022) or insights into their study performance on a broader study path. Furthermore, they can be used to provide information about students’ behavioral patterns, statuses, interactions, and performance (Park & Jo 2015). In recent years, learning analytics dashboards have also contributed to the work of guidance professionals whose task is to provide comprehensive support to students during their studies. These professionals can be, for example, study counsellors or teacher tutors who guide students on their study path. With the help of analytics data and technologies, it is possible to promote guidance that supports students to progress purposefully in their studies and develop as learners (Kleimola et al. 2025). Moreover, learning analytics dashboards have been found to benefit guidance situations where students and guidance professionals collectively reflect on various learning and study-related issues based on analytics data (e.g. Charleer et al. 2018; De Laet et al. 2020; Kleimola et al. 2025).

However, in order for learning analytics dashboards to be a functional part of education, their use should be connected to institutional processes and pedagogical practices (Kleimola et al. 2025; Wise 2014). Furthermore, it is important for guidance professionals to understand what kind of everyday guidance situations these analytics applications are suitable for and how they can best contribute to student support. Without a close link between learning analytics and educational practices, the potential of learning analytics applications as support tools remains limited (Kleimola et al. 2025).

The Introduction of a Learning Analytics Dashboard: The Case of the Centria University of Applied Sciences

The use of learning analytics dashboards has recently become a growing area of interest in many educational institutions (Susnjak et al. 2022). It has also attracted attention in the Centria University of Applied Sciences (UAS), in Finland, which has launched an organization-wide initiative to systematically utilize learning analytics in its operations. One of the key objectives is to encourage its guidance professionals to make use of a learning analytics dashboard acquired from a private vendor for the Centria UAS. By making use of the analytics application, the teacher tutors and study counsellors in the Centria UAS are considered to have better opportunities to design and implement well-targeted guidance that

effectively meets the needs of a particular student or a student group. With the help of the analytics dashboard, the guidance professionals can monitor students' progress on both an individual level and a group level, and thus, the professionals can gain important information about the studies of students who are on schedule, ahead of schedule, or behind schedule. By using analytics data and technologies, it is possible to design and make appropriate interventions that help students to progress in their studies as planned and increase their expertise. Such analytics-based interventions could also encourage students to successfully complete their studies, which is an important goal in the context of Finnish higher education (see Finnish Government 2021).

The Centria UAS aims to introduce the learning analytics dashboard to its guidance professionals in stages. First, the dashboard is tested by a team of experts in different fields—such as student administration, IT, guidance, and pedagogy—with the aim of ensuring the functionality of the dashboard and preparing appropriate guidelines and instructions for its implementation. After that, it is piloted by a smaller group of guidance professionals, namely teacher tutors and study counsellors. Their task is to take advantage of the dashboard in various guidance situations and report observations related to its use. Furthermore, they are expected to record examples of using the analytics application to support their work and share best practices with others. Finally, the pilot group's observations are collected and used as a basis for planning the introduction of the dashboard and the related training for the entire group of guidance professionals in the Centria UAS.

In the context of wider institutional adoption, the purpose is to comprehensively train all guidance professionals in the use of the dashboard and to provide them with grounds for its meaningful utilization. It is important to create a common understanding of what is meant by learning analytics and how it relates to student support. The use of the dashboard is also approached in the light of recent studies and practical case examples. The aim is to particularly consider what kind of guidance situations and practices the dashboard would best serve and how it could be applied in a pedagogically meaningful way. Additionally, the guidance professionals are asked to reflect on how the use of analytics can be linked to the relevant theories of learning and guidance. Thus, the use of the dashboard is approached not only from a technical perspective, but also from a pedagogical point of view, the importance of which is highlighted in literature (e.g. Seufert et al. 2019; Wise 2014). The guidance professionals will also be encouraged to make use of the dashboard as a part of their work in a variety of guidance situations, for instance, when meeting with individual students and discussing their personal study plan, when looking for alternative routes for students to complete their studies, or when promoting students' learning processes. In addition to the individual level, guidance professionals can also monitor and interpret analytics data at the group level. Moreover, the dashboard can be used to address the situations of student groups and discuss them, for example, between guidance professionals and training managers, thus providing new ways to develop educational processes and guidance practices.

The guidance professionals are asked to provide continuous feedback on the use of the dashboard and related guidance practices. In order for the dashboard to comprehensively benefit the work of the guidance professionals, it is necessary to explore and identify its possibilities and limitations. There is also a need to investigate if the use of the learning analytics dashboard promotes student support. To create such an understanding, professionals in the field of guidance play a key role.

In addition to the guidance professionals, the dashboard is also introduced to education management and those responsible for degree programs in the Centria UAS in order to facilitate their decision-making. Moreover, the purpose is to harness analytics data and technologies for students in order to support their learning. In line with literature (e.g., West et al. 2020; Schumacher & Ifenthaler 2018), it is considered important that students are actively involved in joint development work and that the use of learning analytics applications is promoted through collaboration between various stakeholders.

In the Centria UAS, the effective use of learning analytics is generally considered a strategic activity. Strengthening analytics-related expertise has been also included in the strategic action plan for teaching (see Centria UAS n.d.). Tsai and Gašević (2017, p. 236) consider it essential that higher education institutions develop and update specific learning analytics policies “and make them relevant to institutional contexts and all related stakeholders.” This can help educational institutions gradually move from small-scale learning analytics pilots to a wider adoption of learning analytics and thus reach the wider potential of learning analytics.

Conclusions

The large-scale deployment of learning analytics is in its initial phases in many higher education institutions (Clark et al. 2020), and the evidence on its successful implementation is generally scarce (Ferguson et al. 2016). Moreover, it cannot be assumed or taken for granted that all guidance professionals will automatically use learning analytics applications in their work—even if they are easily made available to them. Therefore, it is increasingly important to provide guidance professionals with comprehensive training and opportunities for collective reflection on the opportunities and challenges of analytics data and technologies. Consideration should also be given to what kind of changes and reforms are needed in the processes of education and guidance when such applications are introduced and developed. Thus, when introducing learning analytics, it is necessary to focus on how to develop education and guidance as a broader, systematic whole.

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