

7 Things to Know About Mobile Learning Analytics

Scenario

Bruce Robertson, CEO of a commercial real estate and property management firm, wants to provide instruction to his 50 employees about how to save money in their 401(k) plan which the company provides. He knows that savings rates are particularly low with his employees, so he hires an outside instructional design firm, M. New Learning, to create a program to teach employees about their benefits and how to save their money.

Robertson and the lead instructional designer Samantha Waters meet to discuss the objectives. After several months of analysis and design, Samantha provides a complete design for the new program which entails a blended learning environment of face-to-face seminars and online learning modules. Central to the entire program is using the employees' mobile devices and a custom built application to provide learner support for meeting savings goals and also to report back to Robertson on the effectiveness of financial wellness instruction.

1. What is it?

Mobile learning analytics is the use of mobile devices in instruction to both support learners and measure results of learning activities and/ or student behaviors. Data retrieved from mobile devices can then be used to make adjustments in instruction or learner support.

2. Who is your target audience?

Instructional designers, corporate trainers, educators of all levels, school administrators, and business leaders seeking to improve learning for specific types of students or employees.

3. How does it work?

Learning analytics, in general, measures data of learner behaviors during and after instruction. Johnson, et al. (2016) describe learning analytics evolving in three stages: reporting results from instruction, diagnosing learner problems, and anticipating individual learner needs. Mobile learning analytics supports learners by sending prompts in the form of text messages or other SMS (Short Messaging Service) delivery systems in order to support the learner achieve the objective. Furthermore, learner behavior can be recorded through applications installed on the mobile device,

providing a “collection and analysis of traces that learners leave behind” (Greller & Drachsler, 2012, as cited in Tabuenca, Kalz, Drachsler, & Specht, 2015, p. 54).

4. Who's doing it? & Why is it significant?

A wide variety of universities, community colleges, and businesses are using learning analytics to analyze results and make adjustments in instruction. Developments in learning analytics are significant because according to Mike Alcock (2015) “data can date quickly” and therefore learning analytics allow instructors to identify problems and make adjustments quickly and effectively (Alcock, 2015). By using mobile learning analytics, organizations can collect data, deliver it to Learning and Development teams, and deliver personalized instruction (Alcock, 2015). Finally, businesses are looking to adopt more mobile technologies because of frustrations with existing LMS platforms in order to increase social and mobile applications (Wentworth, Werder, & Benjamin, 2016), delivering another medium with which to collect learner data and then improve instruction.

5. What are the downsides?

As with many new technologies and learning strategies, research related to learning analytics and mobile learning is still sparse. Furthermore, mobile devices are personal and can vary from individual. Large scale learning deployments can be difficult with a variety of mobile devices. Also, younger learners appear more comfortable using learning content on a mobile device than older learners (Prensky, 2003 as cited in Howland, Jonassen, & Marra, 2012, p. 41). Therefore, it is unclear whether learning analytics will work for learners of all ages.

6. Where is it going?

Learning analytics via mobile devices will become increasingly a part of the overall thrust towards adaptive, student- centered learning. SMS delivery of learner support appears to promote self-regulation for learner behavior (Goh, Seet, & Chen, 2012, as cited in Tabuenca, Kalz, Drachsler, & Specht, 2015, p. 54) and can greatly help learners achieve objectives by prompting them to take a specific action (Tabuenca, Kalz, Drachsler, & Specht, 2015, p. 59). As mobile applications improve their data collection and analytical capabilities, instructional designers within organizations will be able to provide more effective and efficient instruction.

7. What are the implications for your target audience?

Instructional designers, corporate trainers, educators, school administrators and business leaders must understand how to utilize the ubiquity of mobile devices to improve learning and measure

results. Because of the proliferation of mobile devices, the potential for instruction to reach a large audience, support learners in their learning, and collect data about behaviors offers significant potential to improve learning outcomes.

References

Alcock, M. (2015). Using mobile learning tools to gather learning analytics. Retrieved from: <https://elearningindustry.com/using-mobile-learning-tools-gather-learning-analytics>

Howland, J.L., Jonassen, D., Marra, R.M., (2012). Meaningful learning with technology (4th ed.) Boston, MA: Pearson.

Johnson, L., Adams Becker, S., Estrada, V., Freeman, A. (2016). NMC horizon report: 2016 Higher education edition. Austin, Texas: The New Media Consortium.

Tabuenca, B., Kalz, M., Drachsler, H., Specht, M., (2015). Time will tell: The role of mobile learning analytics in self-regulated learning. *Computers & Education*, 89, 53-74.

Wentworth, D., Werder, C., Benjamin, N. (2016). 2016 learning technology study. Brandon Hall Group, Inc.