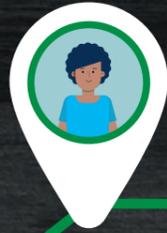


FOLLOW THE DIGITAL FOOTPRINTS OF YOUR STUDENTS WITH LEARNING ANALYTICS



START

- ✓ **Part of the learning design process.** Through the design process of your teaching, you will be thinking about the information that learning analytics can provide in each phase so that you can mentor your students as effectively as possible.
- ✓ **Time.** In many cases, data will not be easily accessible or it will need some serious editing before you can use it. Consider in good time what data is available and what information this can yield.
- ✓ **Specific questions.** Decide exactly what information you want to collect. This is important for IT developers who will be working with lecturers to design the learning analytics system: benefit from each other's expertise in this area.
- ✓ **Legal and ethical.** Learning analytics needs personal data. Use of personal data is covered by dedicated legislation. Consult legal specialists and the faculty's Ethics Committee for advice on the correct handling of data.
- ✓ **Accessible IT infrastructure.** Without suitable software and hardware, the application of learning analytics will prove rather difficult.
- ✓ **Trust.** Take the time to familiarise lecturers and students with the system. Demonstrate the added value of learning analytics and be transparent about what data you use and how you use it.

ROUTE

1. **Decide:** Decide which question you want to answer. Then decide what data you will need to find the answers.
2. **Collect:** Choose methods that are in line with the learning outcomes and vary the methods used. Focus on describing knowledge and skills.
3. **Analyse:** Analyse the collected data yourself, use a smart algorithm, or a combination of both.
4. **Report.** This often involves large volumes of information, which is why it is so important to make things visual. A dashboard offers quick insight into the information.
5. **Intervene.** Use the information to answer your question and to take action.

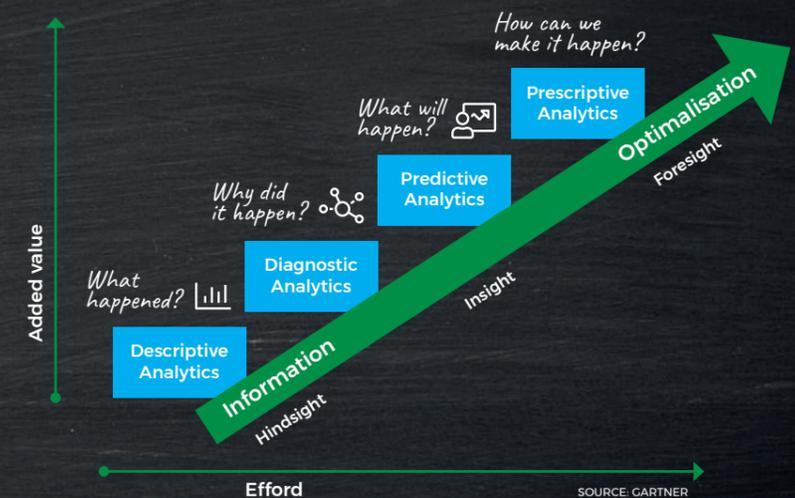


Scan the code to view the animation about learning analytics.

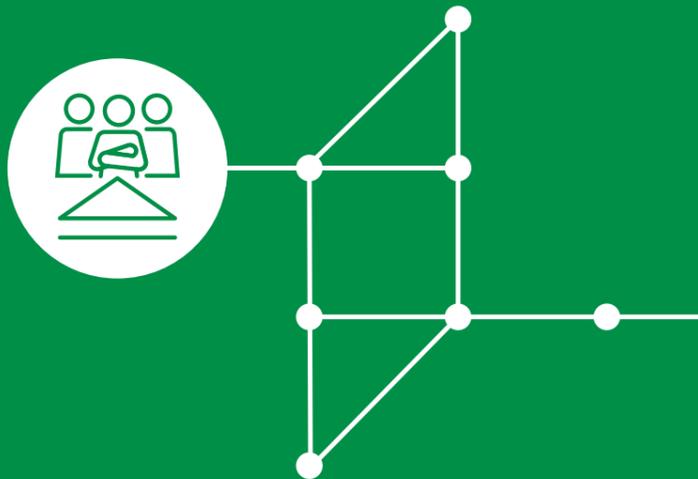
END

You can study the students' digital footprints in a variety of ways:

- ✓ **Describe:** describe what you see. Example: which students follow a particular study programme and what grades do they obtain?
- ✓ **Explain:** ascribe meaning to what you see. Example: why do certain students score lower than other students? When does this happen? And why at that particular time?
- ✓ **Predict:** make a forecast based on what you see. Which students have a higher or lower chance of successfully completing the study programme?
- ✓ **Advise:** give advice based on what you see. Example: if a student fails a subject in the first teaching period, invite them to make an appointment to see a study adviser.



Learning analytics is the collection, analysis and reporting of data about students and their context, with the aim of understanding and improving student learning and the environment in which it takes place.



Benefits of learning analytics

- ✓ **Customisation:** Lecturers receive real-time information, enabling them to respond to students' learning needs and provide targeted feedback.
- ✓ **Self-regulation:** Students gain more insight into their learning process.
- ✓ **Curriculum improvement:** The insights may help improve the quality of courses and study programmes.

Have you already started using learning analytics?

We have developed a field lab, which helps you learn how to integrate learning analytics into your own teaching practice. The work package for this field lab can be downloaded from www.versnellingsplan.nl/english.

If you have any questions, please feel free to let us know! docentprofessionalisering@versnellingsplan.nl



Acceleration plan
Educational innovation
with ICT

Facilitating professional
development of lecturers

Four characteristics of learning analytics data:

1. **Large volume:** There is a large volume of data, both structured and unstructured.
2. **High variety:** There are many types of data from a variety of systems.
3. **High speed:** The data is visible (almost) in real time
4. **High value:** The data holds significant added value for lecturers and students in terms of the content of the study programme.

Want to know more?

Read more about learning analytics:

Avella, J. T., Nunn, S., Kanai, T., & Kebritchi, M. (2016). Learning analytics methods, benefits, and challenges in higher education: A systematic literature review. *Online Learning*, 20(2), 13-29. files.eric.ed.gov/fulltext/EJ1105911.pdf

Clow, D. (2013). An overview of learning analytics. *Teaching in Higher Education*, 18(6), 683-695. [dx.doi.org/10.1080/13562517.2013.827653](https://doi.org/10.1080/13562517.2013.827653)

Greller, W. & Drachsler, H. (2012). Translating Learning into Numbers: A generic Framework for Learning Analytics. *Educational Technology & Society*, 15(3), 42-57. www.researchgate.net/publication/234057371_Translating_Learning_into_Numbers_A_Generic_Framework_for_Learning_Analytics

Van den Bogaard, M., Drachsler, H., Duisterwinkel, H., Knobbout, J., Manderveld, J., & De Wit, M. (2016). *Learning analytics in het onderwijs: Een onderwijskundig perspectief*. Utrecht: SURFnet. Geraadpleegd via www.surf.nl/files/2019-04/rapport-onderwijskundigperspectief.pdf

Van Trigt, M. (2019). *Hoe data de kwaliteit van het onderwijs kunnen verbeteren*. Utrecht: SURF. www.surf.nl/files/2019-05/Whitepaper-Hoe-data-de-kwaliteit-van-het-onderwijs-kunnen-verbeteren-2019.pdf

