

Guideline universal design

Sheet 17: The digital learning environment



What? ^{1,3}

A **digital learning environment** (DLE) offers educational content and organization of learning processes. The DLE facilitates the interaction between the process of learning, the communication needed for that learning and the organization of learning. An accessible and inclusive digital learning environment makes differentiation possible and meets the needs of a diversity of students.

Why and for whom? ²

A digital learning environment can act as a **means of inclusion**:

- Overview** | A DLE provides a quick overview of all information related to the course.
- Respond quickly** | There is the possibility to react, interact and review all information quickly.
- One learning environment** | The creation of a single learning environment simplifies the overall experience.
- Individual learning path** | There is the possibility to set up individual learning paths.
- Control** | A DLE releases information based on scores, time, or review status of an item.
- Individual settings** | There is a choice to release individual information per individual (e.g. recording of lesson).
- Multimedia** | There is a possibility to offer multimedia (e.g. record your voice and offer slides).
- Notifications** | Notifications can be offered in an individual way of your choice (e.g. text messages, via the DLE itself, via e-mail).
- Individual preferences** | The DLE settings are often very individually adjustable according to preferences (e.g. icons, font, much or little text).

Tips & Tricks ^{1, 2, 3, 4}

- ❑ **Integration** | Ensure that all systems are integrated smoothly. Students indicate that they often have to log on to (different) platforms before they can collect all the necessary information (e.g. administrative platform, webmail, DLE, intranet, etc.). This can be a threshold.
- ❑ **Accessibility issues** | Report accessibility issues to the responsible services.
- ❑ **Version history uploads** | Offer students the opportunity to submit new versions of an assignment via the digital learning environment as long as the deadline has not passed.
- ❑ **Facilities** | Ensure that facilities such as extra time during assessment can also be allocated to the student within the digital learning environment.
- ❑ **Structure** | Ensure a good and logical structure of the course, ideally there is a standardization of the structure.
- ❑ **Logic** | Ensure a logical placement of elements and avoid unnecessary elements.
- ❑ **Accessible documents** | Ensure that documents on the DLE meet the accessibility guidelines (see also sheet 11: PowerPoint and sheet 12: PDF and Word).
- ❑ **Meaningful name** | Give all documents a meaningful name.
- ❑ **Reporting** | Be consistent in the use of the DLE for reporting to students: always via the DLE, always via e-mail or always via e-mail and the DLE, etc.

What are the most common **accessibility problems**?

- Limited visual input for the blind and visually impaired.
- Limited auditory input for the deaf and hard of hearing.
- Accessibility problems regarding operation (keyboard, mouse, on-screen keyboard, screen reader with speech synthesis or braille rule).

What are possible **solutions**?

- ❑ **Wayfinding** | Make sure finding the way and knowing where you are on the site is easy. Recognisability is very important for visually impaired and (deaf) blind people. This is not just about naming and logo.

- **Alt text** | For images and infographics, provide a description (alt text). An alt text is invisible to regular students and forms an alternative text form to people who cannot see the image.
- **Subtitles and audio description** | With movies, make sure that users can access information in multiple ways. Think of subtitles (deaf and hard of hearing), audio description (blind and visually impaired) and an explanatory text.
- **Interactive components** | Interactive components must also be accessible. For example, think of reaction fields, polls (to vote) and surveys.
- **Navigation** | Provide good navigation options with an alternative mouse control. People with visual impairments also use speech, braille or magnification programs to operate a website or mobile app. They can also use special screen reading software for this.
- **Visually impaired** | For visually impaired people, use of color, contrast and magnification are important.
- **Check accessibility** | Use the Accessibility checker on the DLE if present. An Accessibility Checker is built into some DLEs (e.g. Canvas). This reports the accessibility issues present and offers help with correcting them. All documents that are placed on the DLE can be checked for accessibility. For every document that is screened, all accessibility issues are reported (e.g. no use of layout styles, lack of alternative text) and solutions are offered.

Know more?

- [Learn more about the Ally tool](#) (Blackboard) here. This tool checks all documents placed on the DLE for accessibility and offers solutions or applies them automatically. Alternative versions of each document are automatically created (HTML version, epub versions that are more readable on tablet and smartphone, mp3 file, braille file, etc.).

In practice

“There is a wide range of different channels for students. We are working on one portal page on top of Blackboard. This contains all the courses and also the administrative pages. The intention is that all platforms should come there. Students then have all sources, but only one access to them.”

“With the new version of Blackboard, everyone had to set up their material according to a certain structure, so that everyone uses it in the same way. You can now see that very beautiful courses are often made.”

“We have switched to Canvas. We provide supporting material and developed a learning path for teachers to get started with.”

References

¹ Droste, J. (2003). *Het kiezen van een elektronische leeromgeving: Advies 2003*. 's-Hertogenbosch: CINOP.

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³ Steunpunt Inclusief Hoger Onderwijs (2017). *Universeel ontwerp [onuitgegeven intern document]*. Gent: Steunpunt Inclusief Hoger Onderwijs

⁴ Kelly, Anna M., and Padden, Lisa (2018). *Toolkit for Inclusive Higher Educations Institutions: From Vision to Practice*. Dublin: UCD Access & Lifelong Learning