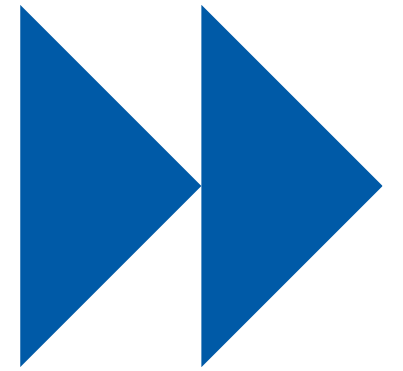
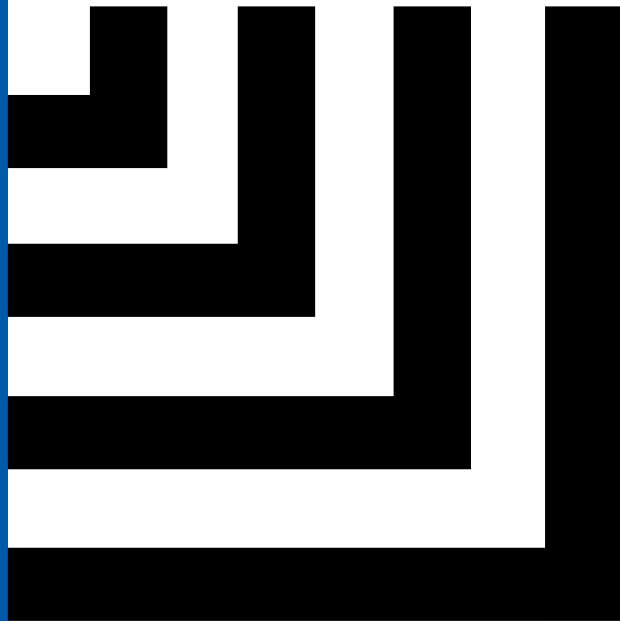




Design-Based Education: what, why and how?



Prof. Dr. Migchiel van Diggelen





Outline

- Welcome and objectives
- Question formulation
- DBE: history, future and why
- DBE: what?
- DBE: education and why?
- DBE: how?

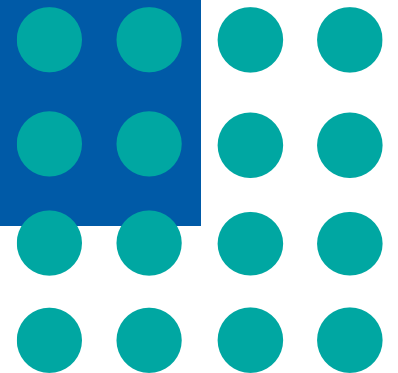


Objectives

Providing insight in what DBE entails

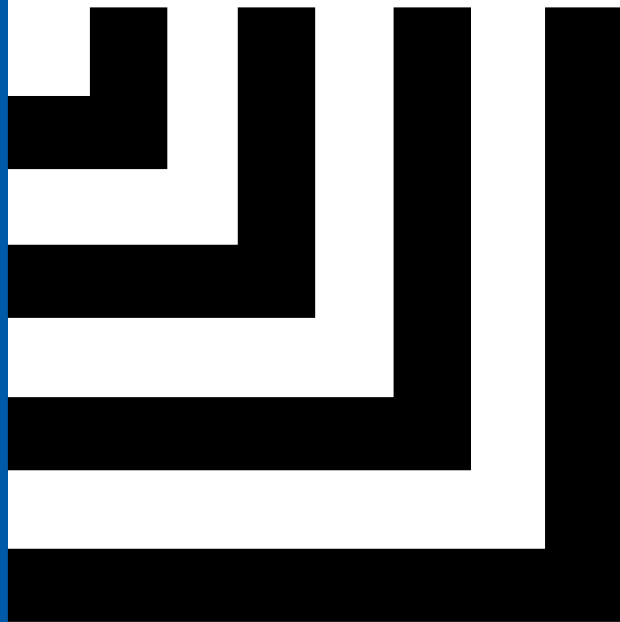
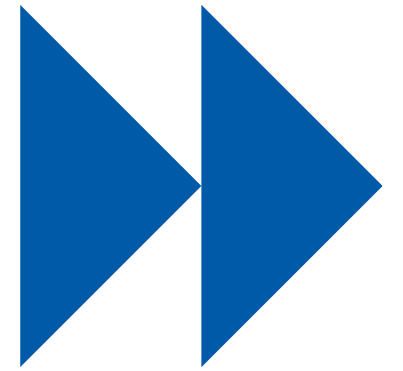
Answering your questions

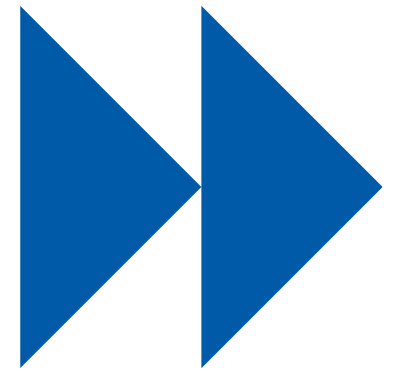
If time permits: providing insight in what DBE asks from a teacher



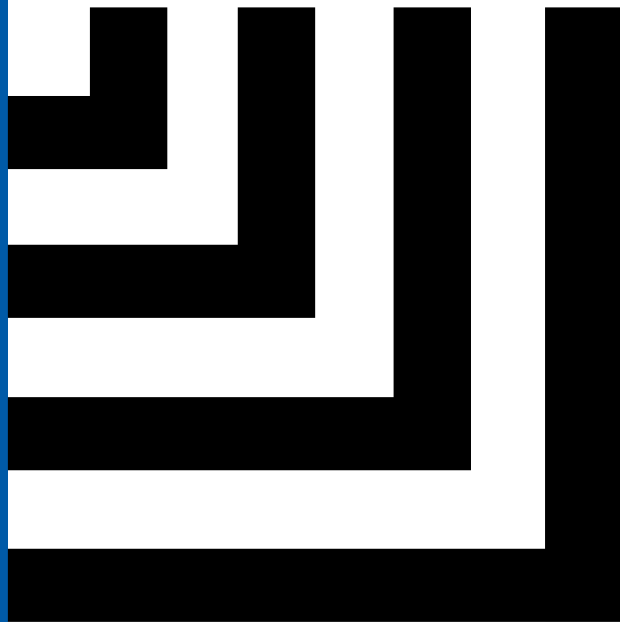


**Type in the chatbox: which
question you would like to
have answered in this
workshop?**





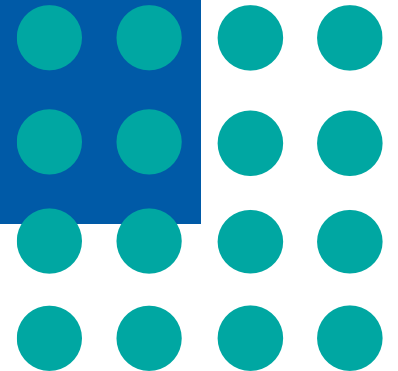
DBE: history, futur and why?



The background of the slide features a photograph of the NHL Stenden building, a modern structure with large glass windows and a prominent sign that reads 'NHL STENDEN'. The building is situated behind a green lawn and some shrubbery.

History

- A merger organisation: NHL Stenden
- Building on what is known: creating new traditions
- Frontrunner in theory and practice
- Anticipating the future: transition proof education



A hand is shown interacting with a futuristic, glowing blue digital interface. The interface features a large, circular, glowing blue sphere in the center, surrounded by various icons and lines, suggesting a complex digital system or network. The background is dark, making the glowing elements stand out.

Anticipating trends in society

Digital Transformation

Sustainability

Demographic Changes

Glocalism and connectivism

Broad prosperity

Knowledge and information widely available

....





Industry 4.0 vs Industry 5.0

Industry 4.0 vs. Industry 5.0

Industry 4.0	Industry 5.0
Smart automation	Human-machine collaboration
Focus on efficiency	Focus on customization and creativity
AI-driven decision-making	Human-centered innovation
Optimizing productivity	Sustainability and ethics

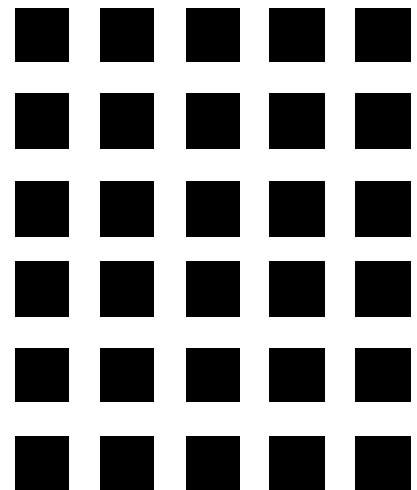
<https://research-and-innovation.ec.europa.eu/research-area/industrial-research-and-innovation/industry-50>





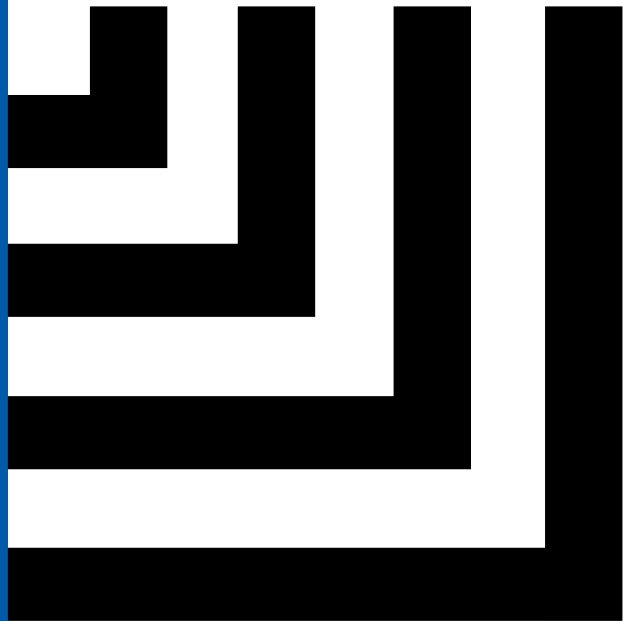
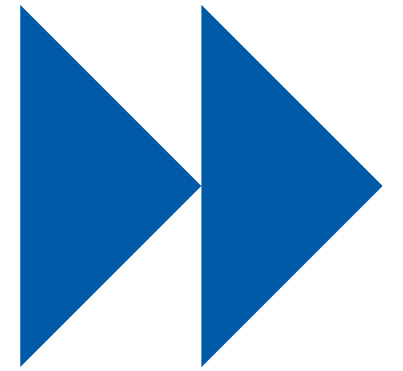
Historical perspective

- From problem-based learning to design-based learning
- Various concepts prevalent; project, challenge, design..
- NHL Stenden; Design-Based Education – concept





DBE: what?

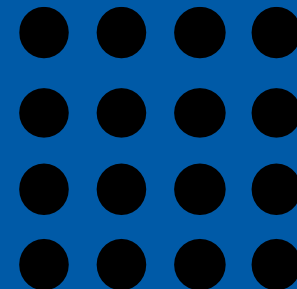




NHL
STENDEN



DBE facets



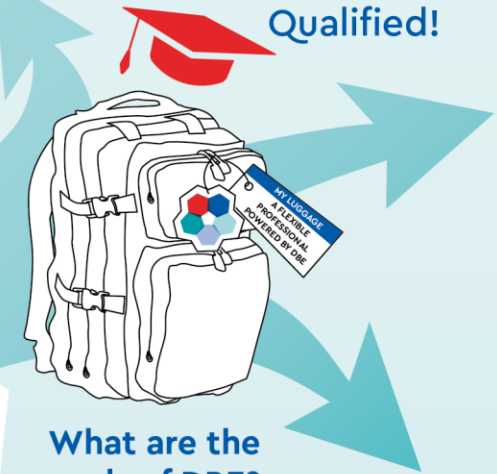
Design Based Education

DBE is a contemporary educational concept developed by NHL Stenden. Programmes have been implementing DBE since the merger in 2018.

What are the characteristics of DBE?

DBE consists of 5 related facets and some specific educational choices.

- Learning outcomes with room for personalisation;
- Coherent modules (units) of 15 or 30 ECTS;
- Working a lot on practical issues and professional products;
- Frequent feedback and less assessments.



Qualified!

What are the goals of DBE?

What are the goals of DBE?
We want to educate inquisitive, critical, innovative, reflective and self-aware professionals who collaborate beyond the boundaries of their own discipline. Who are able to find solutions to complex problems and contribute to regional and international transformational challenges.



Know more?

- DBE SharePoint



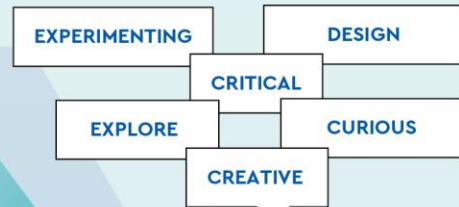
Design thinking

Why do we want it?

The world around us faces many complex challenges where a design-oriented approach helps in finding possible solutions.

What do we do?

- Students dive into increasingly complex real-life issues;
- Students empathise, design solutions and try them out;
- Students use existing knowledge and justify their choices;
- We offer space to experiment and learn from experiences.



What does the student learn?

Students develop into inventive professionals who investigate issues and come up with innovative solutions through a design-oriented approach.



Know more?

- SharePointpages about Design Thinking
- SharePointpage DBE-kit



Thanks to the feedback from users, we have developed a better solution.

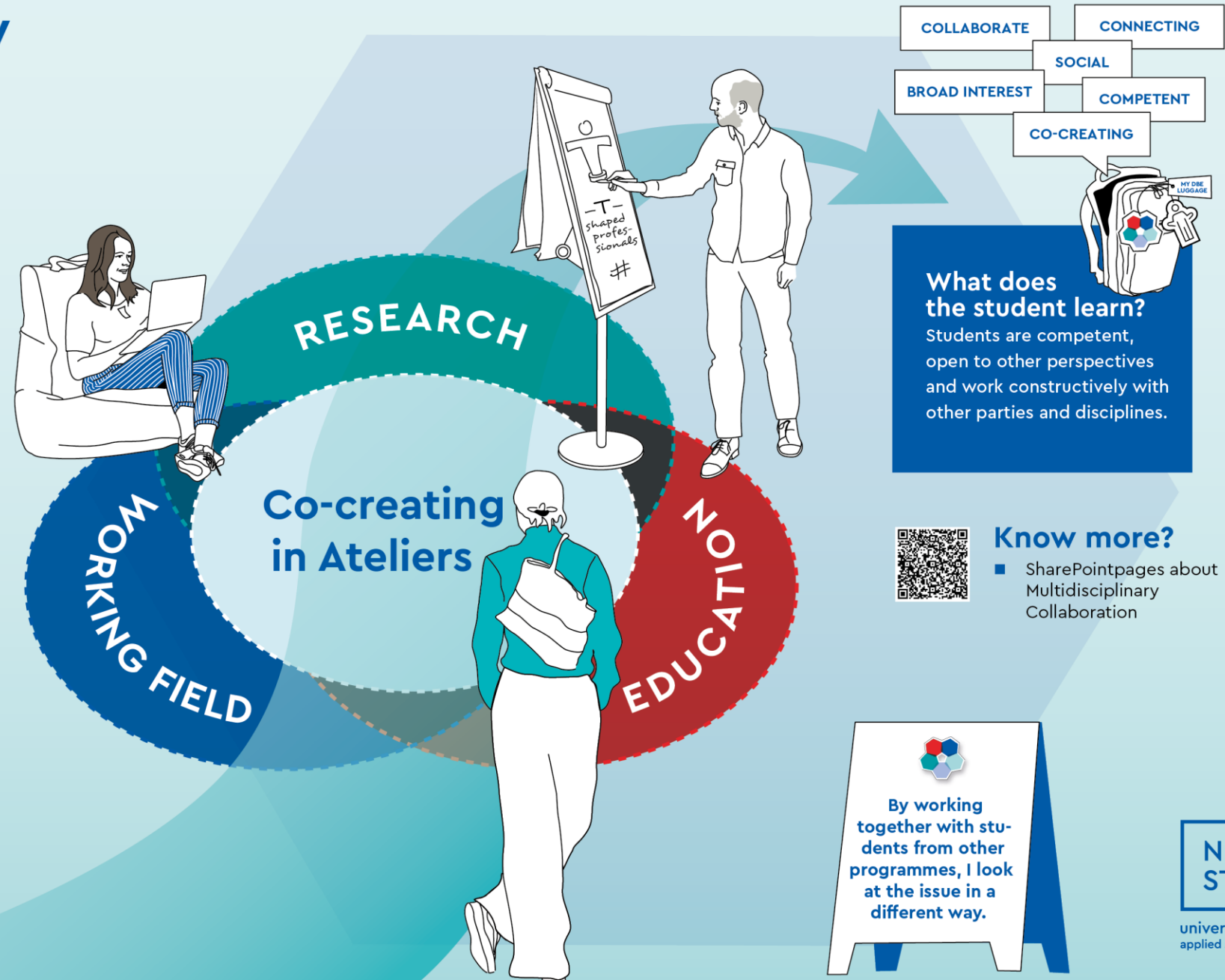
Multidisciplinary Collaboration

Why do we want it?

Constructive cooperation between various parties and disciplines is needed to invent solutions to complex challenges.

What do we do?

- Students work on real-life issues and professional products;
- Students work together with students from other programmes;
- Students look at an issue from various perspectives;
- We work together in ateliers and learn from each other.



COLLABORATE

CONNECTING

SOCIAL

BROAD INTEREST

COMPETENT

CO-CREATING

MY DBE LUGGAGE

What does the student learn?

Students are competent, open to other perspectives and work constructively with other parties and disciplines.



Know more?

- SharePointpages about Multidisciplinary Collaboration



By working together with students from other programmes, I look at the issue in a different way.

Personal Leadership

Why do we want it?

Our dynamic society increasingly requires professionals who know how to hold their own, take responsibility and be proactive.

What do we do?

- Students learn more and more about their own qualities and beliefs;
- Students formulate learning goals and make choices in their (study) career;
- Students ask for feedback and receive appropriate coaching;
- We offer students choices and pay attention to personal and professional development.



What does the student learn?

Students develop into self-confident people who know their own qualities, are proactive and know to hold their own in a changing world.



Know more?

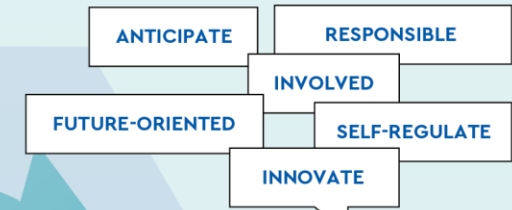
- SharePointpages about Personal Leadership



Why do we want it?

What do we do?

-



What does the student learn?

Students develop into self-learning and responsible professionals who contribute to a better world.



Know more?

- SharePointpages about Sustainable Education



I increasingly know what I want to commit to and how I will go about it.

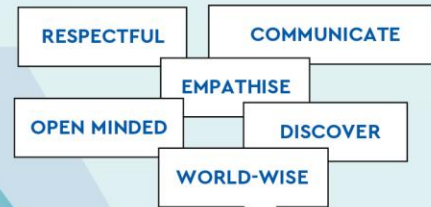
International & Intercultural

Why do we want it?

The working environment is increasingly international and intercultural, where it is important to be open to other views and make use of diversity.

What do we do?

- Students work on international and/or intercultural issues;
- Students are open to other perspectives, norms and values;
- Students acquire international and/or intercultural experiences;
- We create a safe learning environment where there is room for differences and diversity is benefited from.



What does the student learn?

Students develop into global citizens who respect others, other cultures and views and can cope in a variety of situations.



Know more?

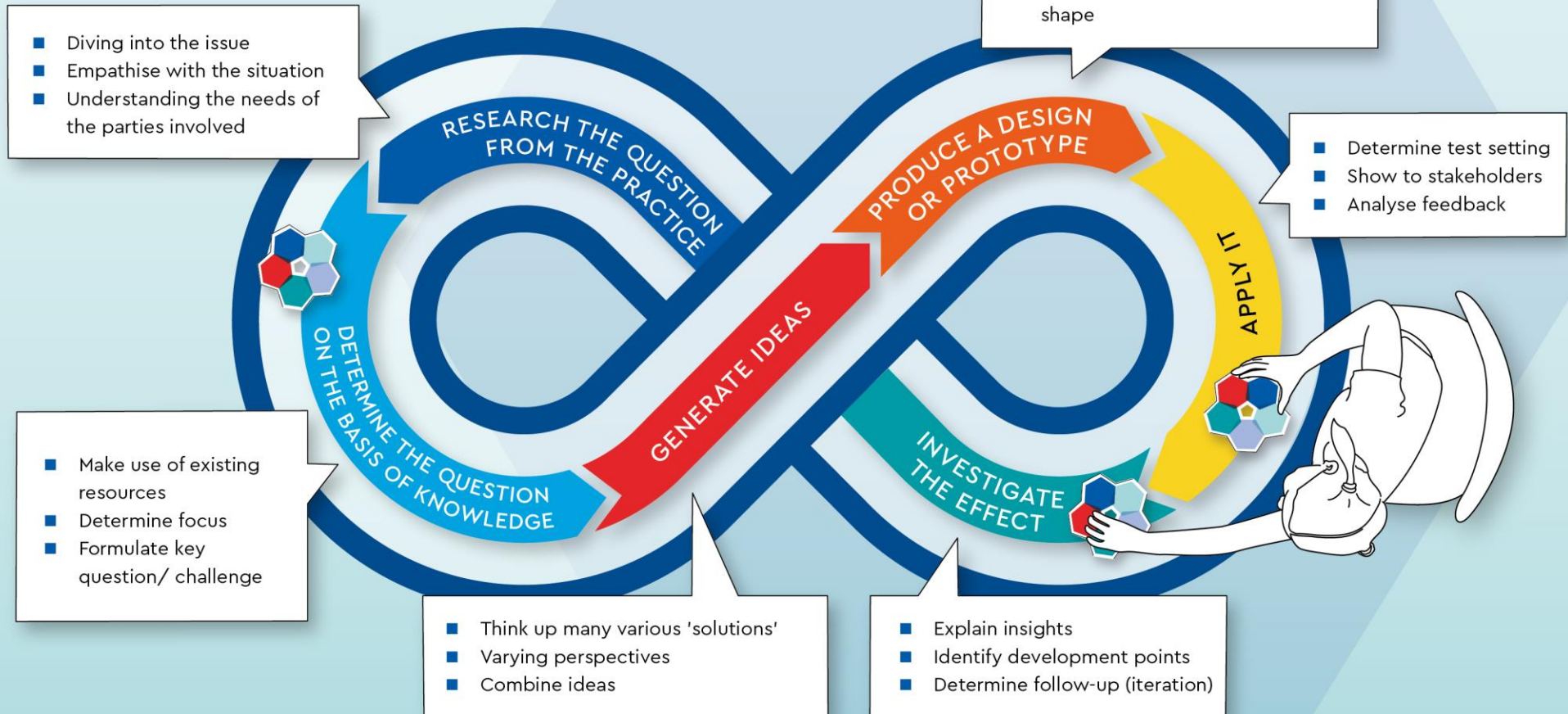
- [SharePoint](#) pages about International & Intercultural



By working
with students
from different
backgrounds,
I learned a lot
about myself.

Phases of DBE

Inspired by various models of Design Thinking, we have developed phases of DBE where design, research and learning intertwine. The phases can be repeated several times (iterations). For each situation, determine the starting point, sequence, number of iterations, etc.



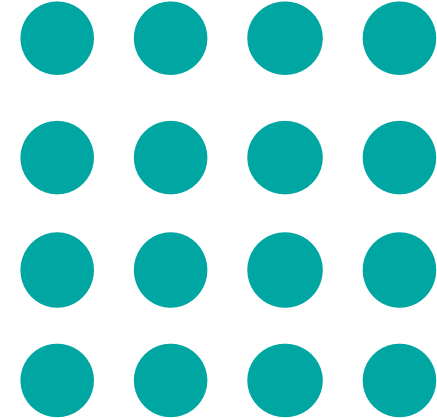
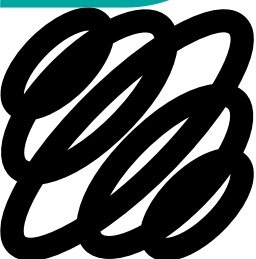


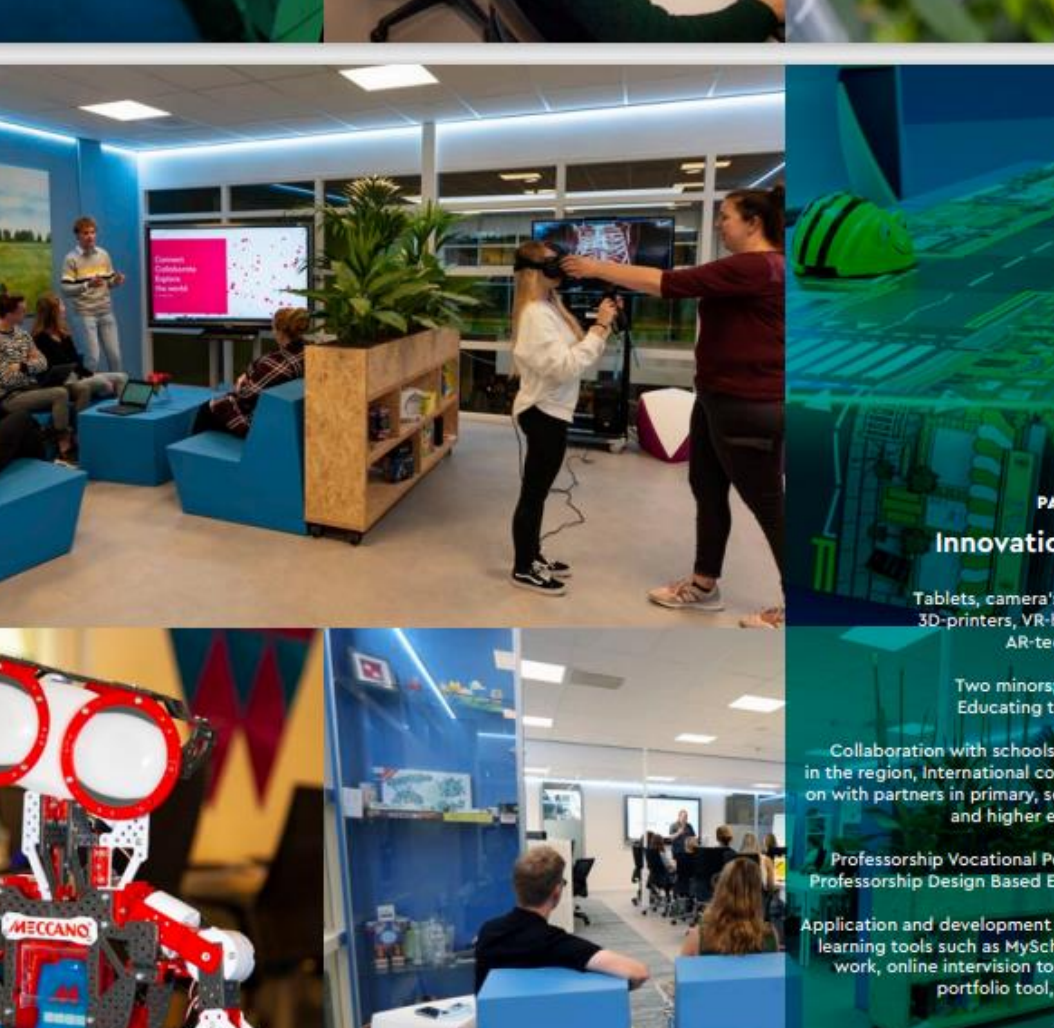
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STENDEN



Ateliers







www.cvds-nhlstenden.com

Contact
cvds@nhlstenden.com

PASSPORT
InnovationLab

Tablets, camera's, robots,
 3D-printers, VR-headsets,
 AR-technology

Two minors; iMinor &
 Educating the World

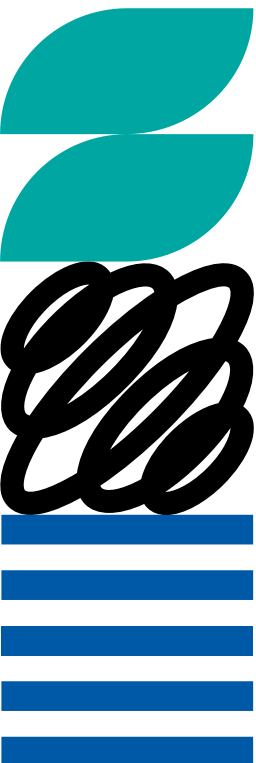
Collaboration with schools network
 in the region, International collaborati-
 on with partners in primary, secondary
 and higher education

Professorship Vocational Pedagogy,
 Professorship Design Based Education

Application and development of digital
 learning tools such as MySchoolsNet-
 work, online interview tool, online
 portfolio tool, UDL tool

Website
Innovationlab.nhlstenden.com

Contact
innovationlab@nhlstenden.com



PASSPORT

Inclusive Community Lab Fryslân

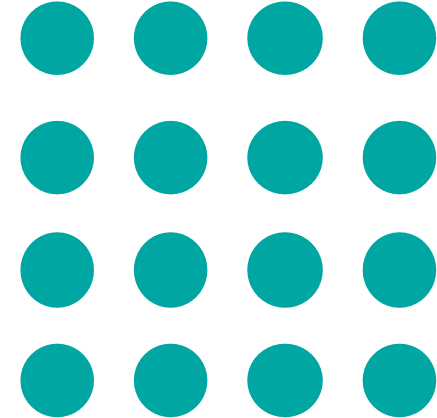
Students of the academies
Social Studies, International
Business Administration and
Economics & Logistics

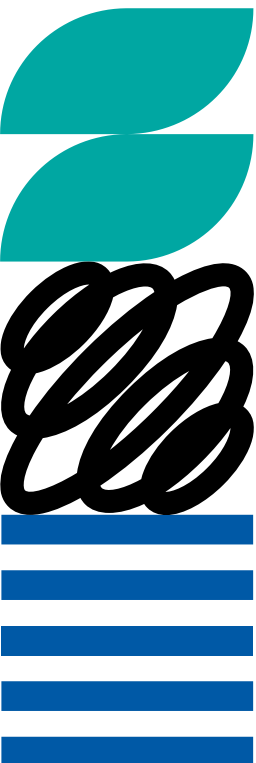
Clients from the working field

Collaboration with several
professorships like: Social Quality,
Early Childhood, Digital Innovation
in Healthcare and Welfare,
TalmaProfessorship, Futureproof
Entrepreneurship, etc.

Working on social impact
in a vital region

Contact
ellen.de.bruin@nhlstenden.com





PASSPORT
**Centre of Expertise
Water Technology**

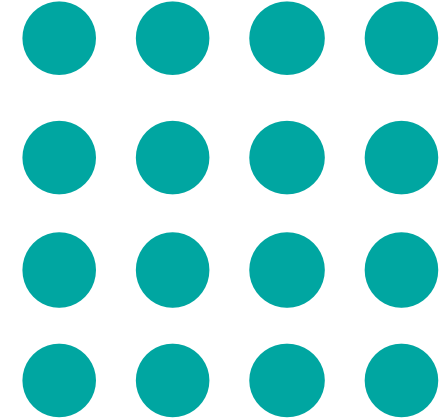
Students NHL Stenden
and Van Hall Larenstein

Part of WaterCampus,
Collaboration with a.o.
Wetterskip Fryslân, Vitens,
WLN, Landustrie, Paques

Applied research,
product development
and research facilities for
the working field

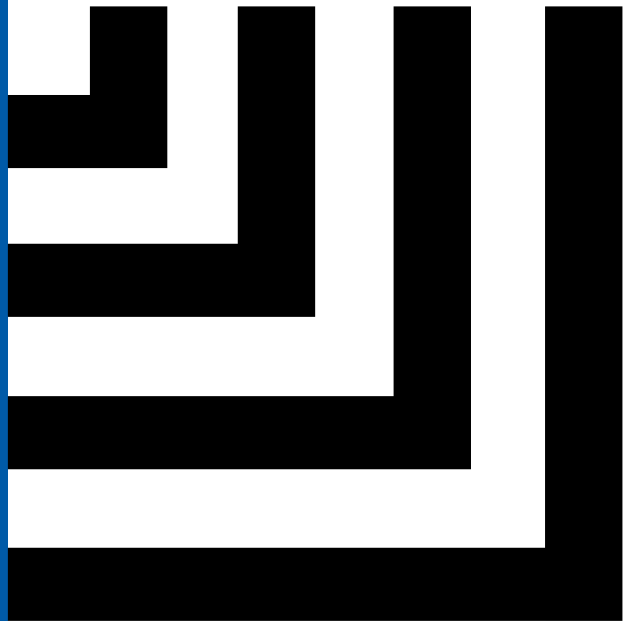
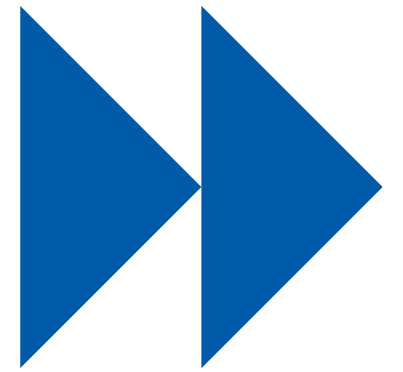
Website
www.cew.nl
www.waterapplicatiecentrum.nl

Contact
m.trilsbeek@cew.nl





DBE: why?



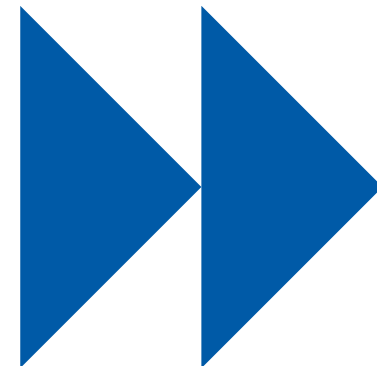


Why?

- Future: Every professional is a designer
- Embedded in recent ideas on learning and instruction
- Stronger connections with practice
 - Addresses intrinsic motivation
 - Activating
 - Meaningful and deep learning
 - Better transfer to other situations?



DBE: how?



DBE team model Tasks and activities

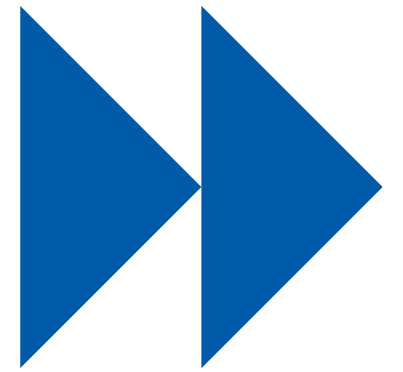
Blue
impact on society, industry, and research
Green
execution of education
Red
innovation of education
Orange
learning with - and from - each other



Assen and Van Diggelen, 2023



Answering your questions





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Thank you for your attention!