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Summary

Design Thinking helps VETstudents analyse practical issues in depth and develop innovative solutions. This white paper explains why Design Thinking is a strong fit for VET education, outlines the process, and offers tools teachers can apply right away. The method is already being successfully implemented across three VET institutions and nine locations, fostering collaboration and shared learning between students, teachers, and professionals.

Design thinking in VET: a structured approach to Challenged Based Learning

Introduction

In VET is a growing need for students who are not only skilled but also have an inquisitive and critical attitude. Inquiry-based learning helps students to respond better to changes in their future field of work. Design Thinking offers a powerful framework for this: a structured method that helps to analyse practical issues in-depth and develop innovative solutions.



Why Design Thinking suits VET

VET students are practical and strongly end-user oriented. At the same time, they tend to jump quickly from a problem to a solution. Design Thinking helps them to slow down this process and make more conscious choices. Three elements make this method particularly suitable:

- 1. Empathy and perspective-taking: students learn to truly understand the enduser.
- 2. Visual and practical thinking: structures such as the fishbone diagram help with problem definition.
- 3. Iterative working: students learn to test and adjust hypotheses based on practical experience.

Design thinking connects perfectly within forms of Challenged Based Learning.



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Design Thinking in VET has seven phases, adapted to the educational context:

- Foundation Laying the foundation: introduction to Design Thinking and research skills.
- 2. Empathise Understanding the end user through personas and empathy map.
- 3. Defining the problem Analysing the problem using a fishbone diagram, among others.
- 4. Generate ideas Brainstorming and out-of-the-box thinking.
- 5. Prototyping Creating and testing fast, simple models. (Evaluation
- 6. Testing & adjusting Reflecting and improving based on feedback.
- Evaluation Looking back on the process and results, including poster presentation to practice partners.

In VET, the structure and ability to step back in the process is especially essential. Students learn that it is important to look 'underwater' and find the real cause of a problem, rather than just focusing on symptoms.

Recommendations for teachers and educational developers

As a VET teacher, do you want to apply Design Thinking in your lessons? Then start with small, practical steps:

- 1. Use the fishbone diagram to teach students to look deeper.
- 2. Have students create an empathy chart before they define a problem.
- 3. Work in short cycles: idea-generation, testing and improvement.
- 4. Involve practice partners and let students present their findings.
- Provide a continuous learning line, so that students are introduced to Design Thinking.

Practical application

At DC Terra, Noorderpoort, and Alfacollege, Design Thinking is already being successfully implemented in both VET and practice-based courses. Students work for 18 to 20 weeks on a real-world research question provided by practice partners, during which they learn to reflect and make adjustments in a structured way. Alumni report that this method supports their transition to universities of applied sciences and the workplace. They approach issues more critically and engage more proactively in quality improvement processes within their field.



Conclusion

Design Thinking provides a powerful framework for inquiry-based learning in VET. It aligns with the way VET students learn and helps them bring depth and innovation to their subject matter. With the right tools and a structured approach, teachers can start using Design Thinking in their teaching practice tomorrow.

Want to know more? Contact <u>Care About IT</u>.



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