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Work-Based Learning in Welded Structure Inspector education

iQVet project, WP3, Siófok, Hungary

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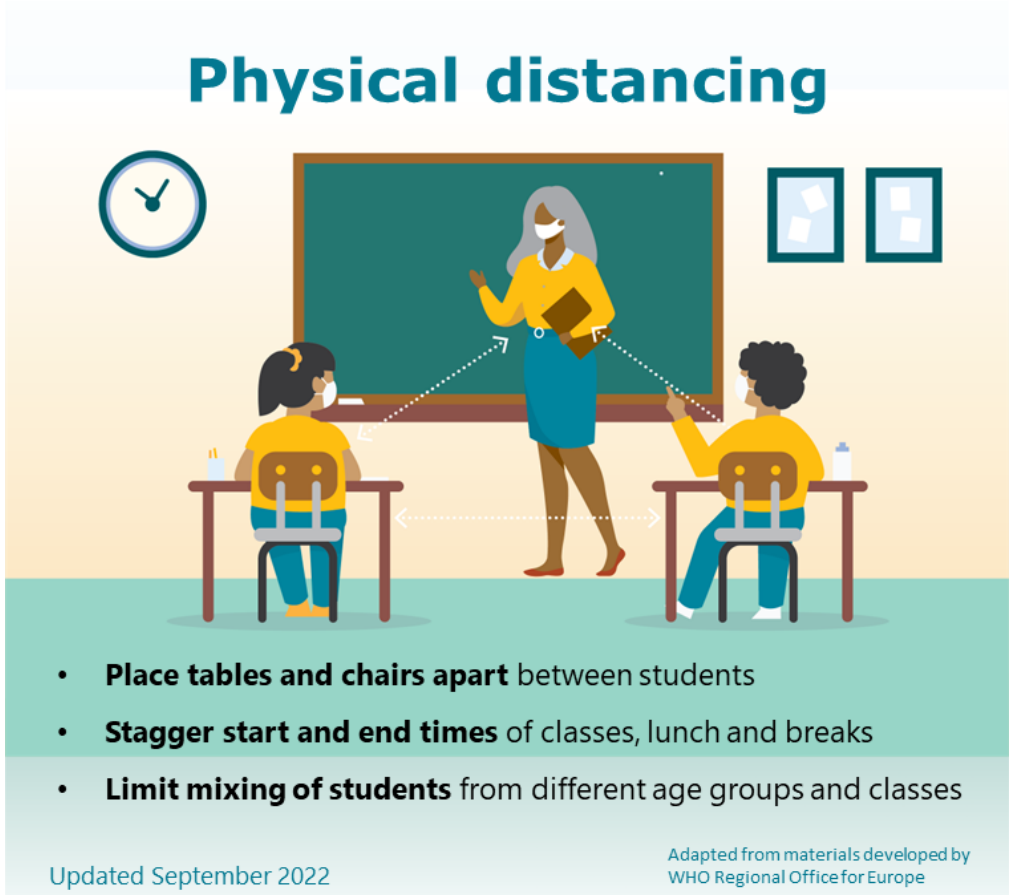
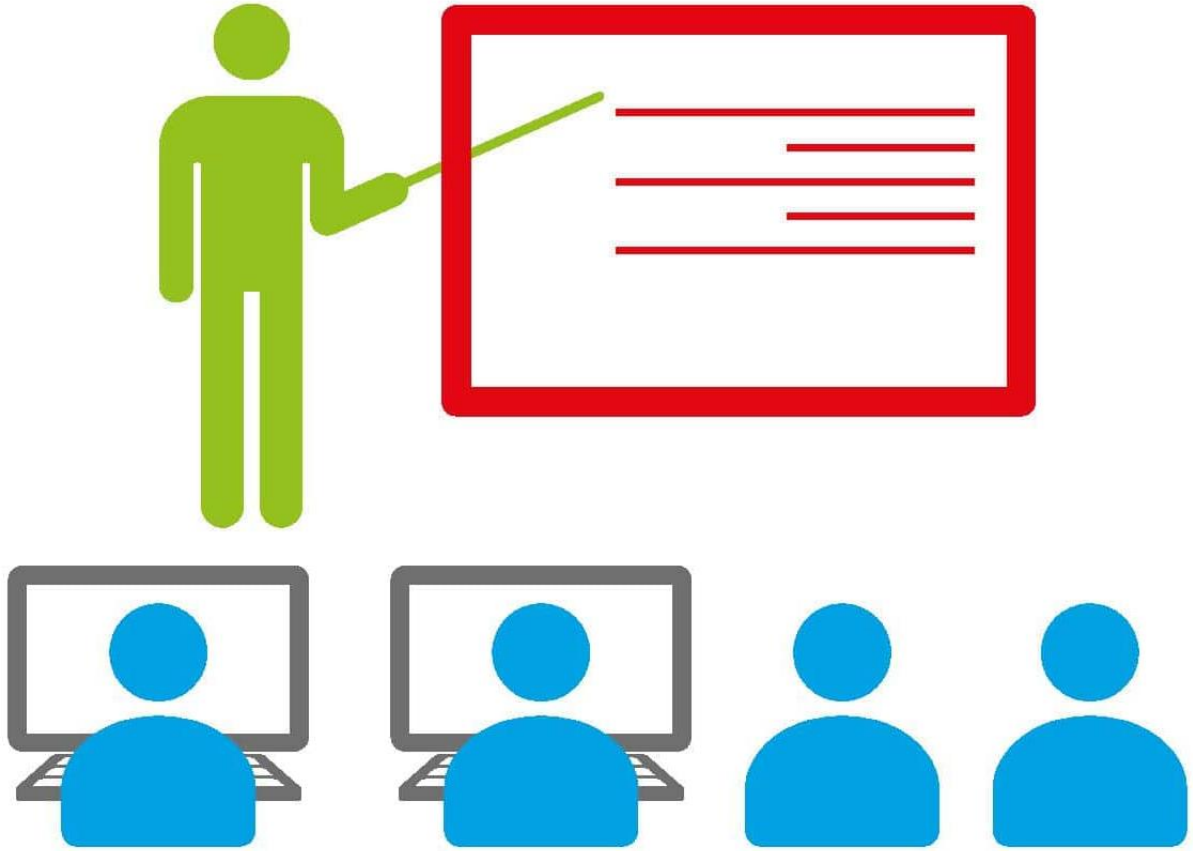
Development of educational methodologies



Face-to-face driver blended learning

In this method, the instructor gives the instructions, which she/he **supplements** with digital tools.

In parallel, the main part of the teaching is done **by the teacher**, who gives a presentation to the whole group.

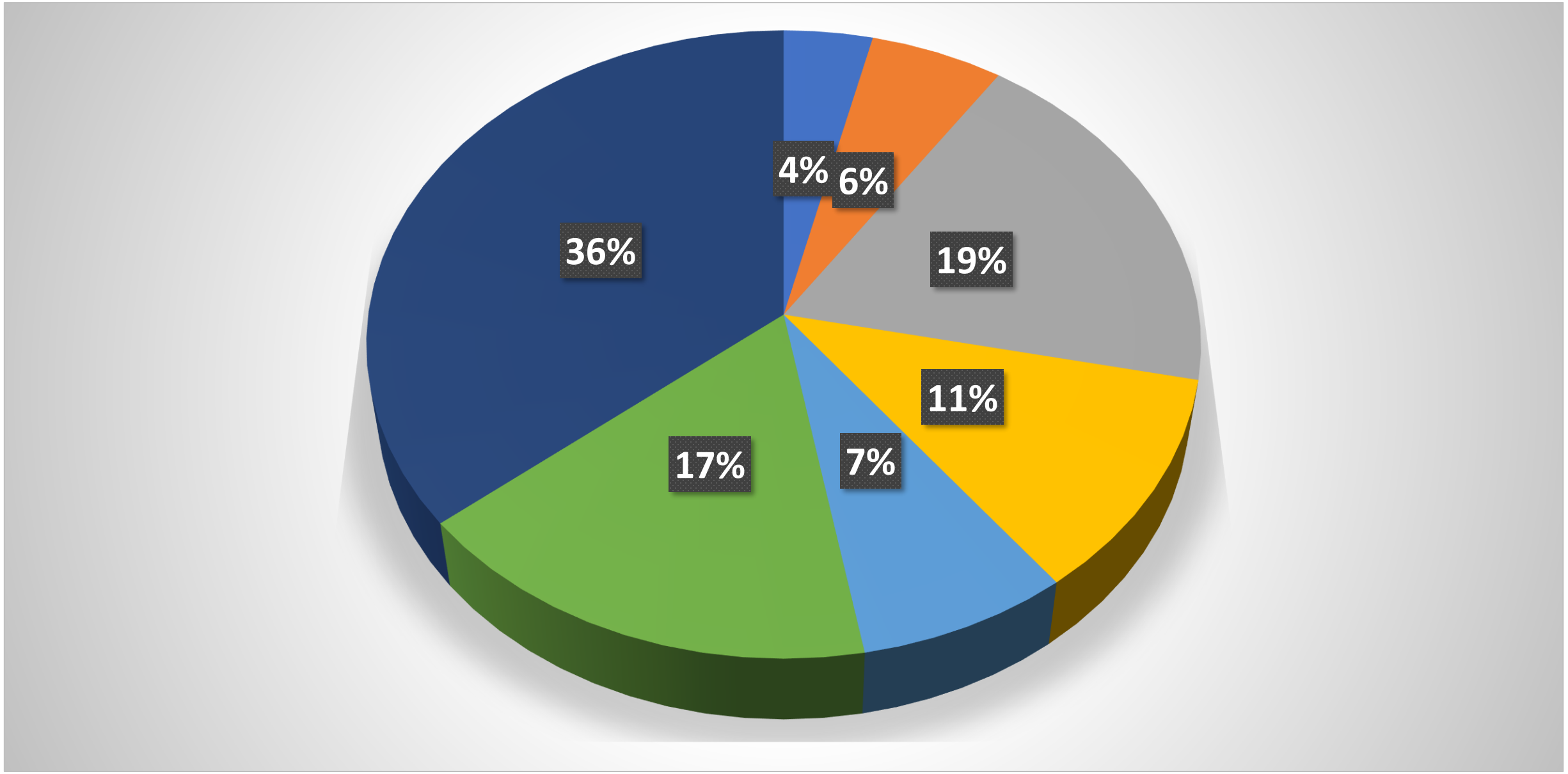


Work-based Learning

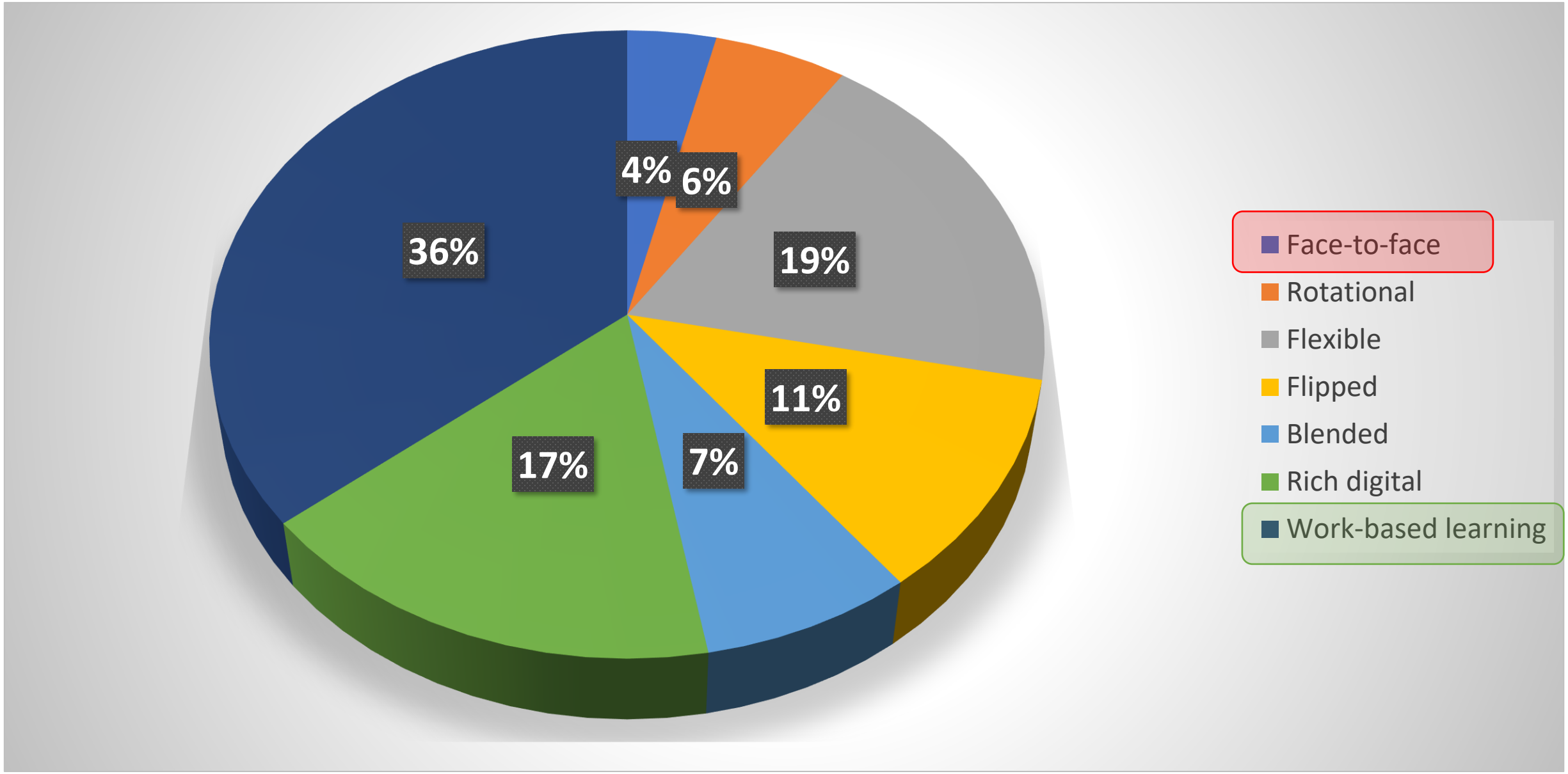
It provides students with **real workplace experience** where they can apply their scientific and technical skills and develop their employability.

Work-based learning deliberately combines theory with practice.

Why work-based learning?



Why work-based learning?



Work-based Learning in Inspector Courses

Personal interviews, face-to-face

CU1: Introduction, prior knowledge

CU2: Contract, design

CU5: Economy

CU7: Destructive testing

CU8: Surface protection

CU10: Exam

Online teaching and monitoring, through an LMS

CU3: Inspection plan

CU4: Production documentation

CU6: Non-destructive testing

CU9: Delivery documentation

Hands-on practical examples, work-based learning in the classroom or on-site

Work-based Learning in Inspector Courses – Key elements

1. Goal: teach inspection technologies
2. Groups in maximum 3-6 people
3. Parallel with theoretical basics
4. Individually creating and inspection plan of a welded structure according to a drawing (own product is preferred)
5. Evaluation together with the help of the tutor
6. Microcredential

Work-based Learning in Inspector Courses – Example

Summary

- Constant development in the STEM education is required
- Blended learning methods gained serious attention regularly
- Among blended methods work-based learning is one of the most preferred teachnig method among engineering students
- In the Welded Structure Inspector course WBL can be realized in multiple competence units
  - Example: the desing of the inspection and testing method of a real welded structure
- The evaluation is discussed together with the teacher
- After successful completion the student gets a microcredential in the mastered CU

Thank you for your kind attention