

# Critical Reflection of an Experimental Didactic Design

for the Course "Information Systems 1"  
for Business Administration Bachelor

**Didactic Forum 2019**

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Didactic Forum 2019





## Agenda

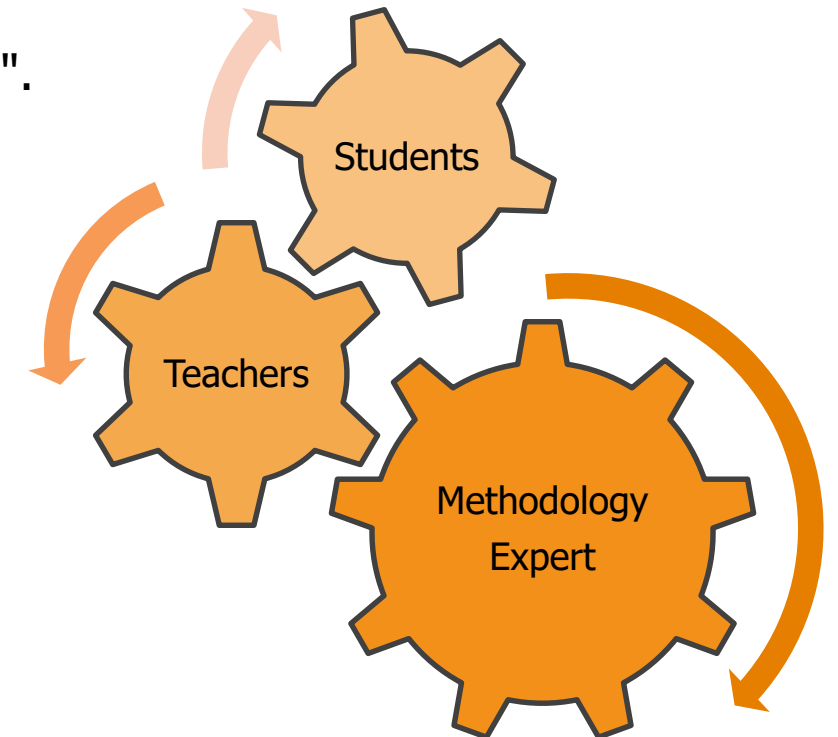
- Requirements & Challenges
- Constructive Alignment
- Didactic Concept
- Setting for the Cases
- Course Structure
- Critical Reflection





## Introduction

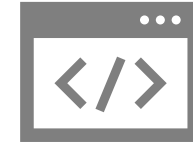
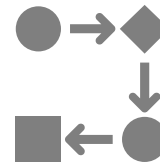
- **Business information systems** (BIS) is becoming increasingly important in non-IT jobs – Part-time
- Starting from the challenges of digital transformation, this didactic concept is trying a **new constructive alignment** for the introductory module "BIS for Business Administration Bachelor".
- The methodical implementation followed the principle of **Problem-based Learning**
- The reflection is based on **three different** views:
  - Students
  - Teachers
  - Methodology Expert





## Requirements

- An independent study guide lists **48 professions** in nine Industries with corresponding job profiles
- They are all subject to digital transformation.



➤ **Business Administrators become part-time computer scientists**



## Challenges

Overcome students passivity

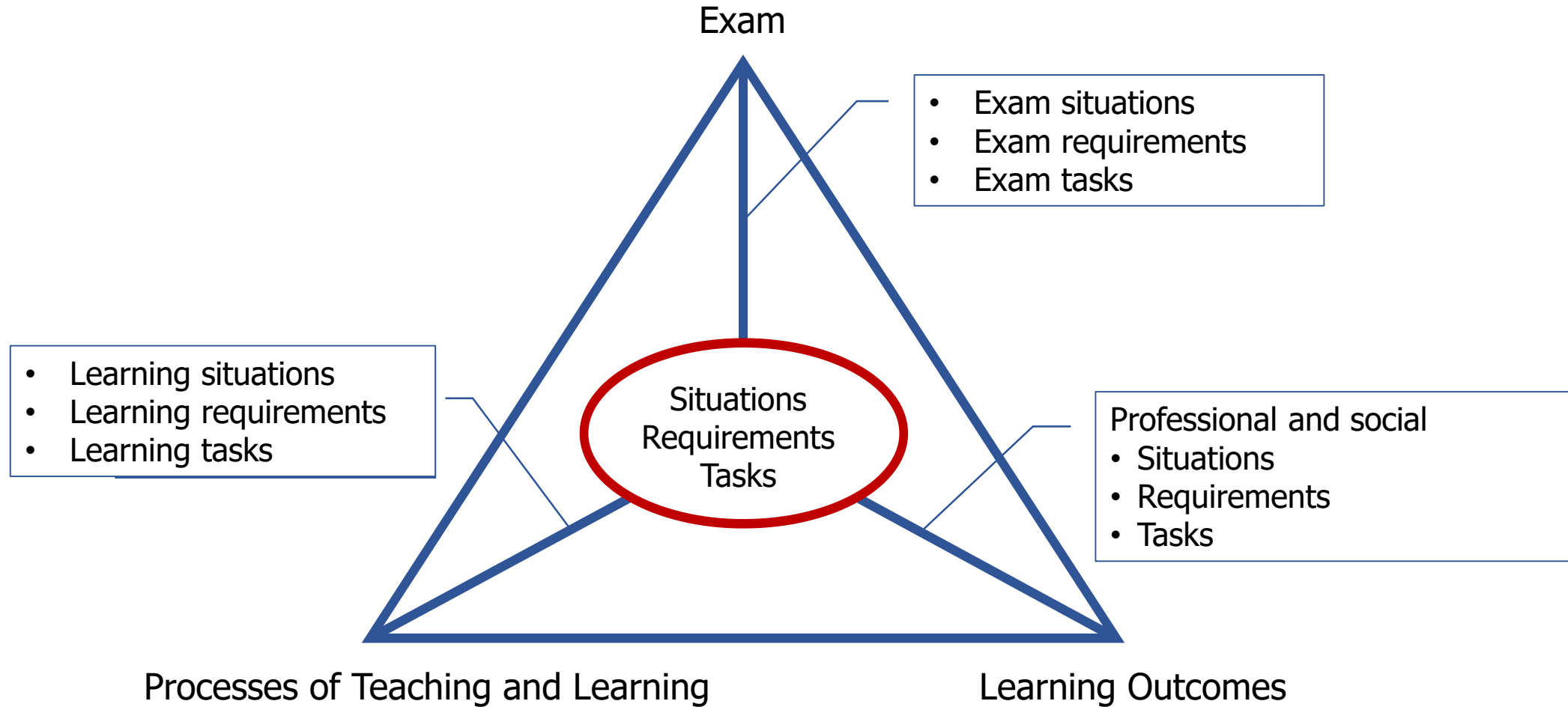
What do you even talking about?



What exactly should we memorize now?



# Constructive Alignment





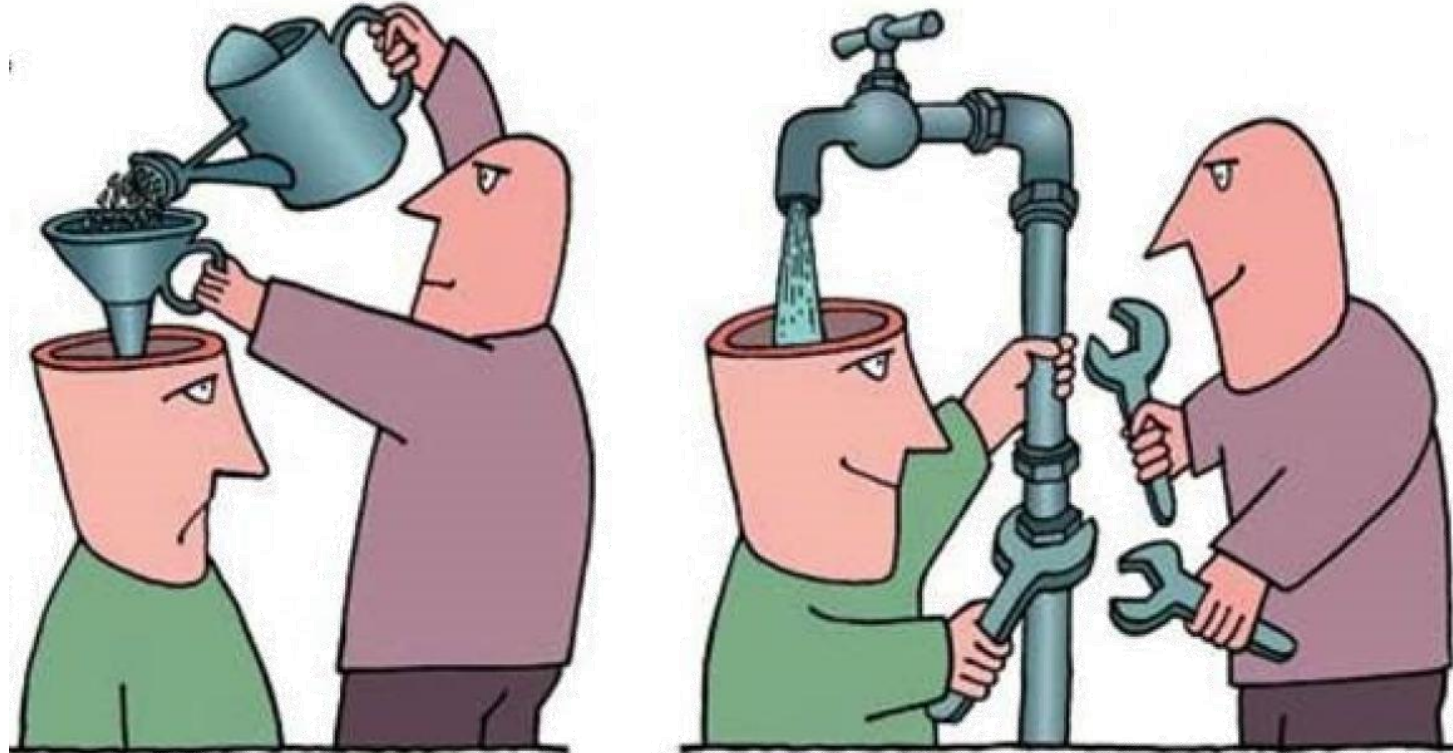
## Didactic Requirements and Concepts

- **BIS\_Req1:** Design competence at the interface between BA and IT
- **BIS\_Req2:** Orientation in the potential design space

Concept	BIS_Req1	BIS_Req2
Textbook-based introductory lecture in BIS		
Teaching of a programming language, e.g. Basic		
Office applications, especially Excel, Access		
Case study based introduction to ERP systems, e.g. SAP		
Lecture on IT trends and business IT alignment		
Project-based system analysis and technical modeling		



## Problem-based Learning (PBL)



<https://www.eur.nl/en/essb/information/admitted-students/introduction-package/problem-based-learning-system>





## Didactic Concept of the Course

- Entry Test
- Problem-descriptions
- Final test



- PBL guide
- Tutoring videos
  - PBL Basics
  - Teamwork
  - 7-jump process
- Reflection sheets

For problem solving

- Literature
- Lecture slides
- E-lectures
- Exercises
- Self-tests

- Scheduling
- Planning of rooms
- Tutoring
- Votings
- Hints



## Narrative Setting for the Cases: BFV AG

### Medium-sized rental company for construction vehicle

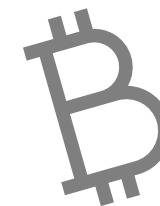
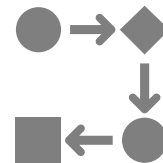
- Dynamically growing, located in south Germany
- About 300 employees, 60 of them in the headquarters
- 14 subsidiaries in Germany, 6 abroad
- Owner: Private-Equity-Company
- 2 executive board members:
  - 1) Sales and Finance
  - 2) Assets and Technology
- Management structure:
  - at headquarters: head of departments, group leaders
  - in the subsidiaries: store managers, group leaders





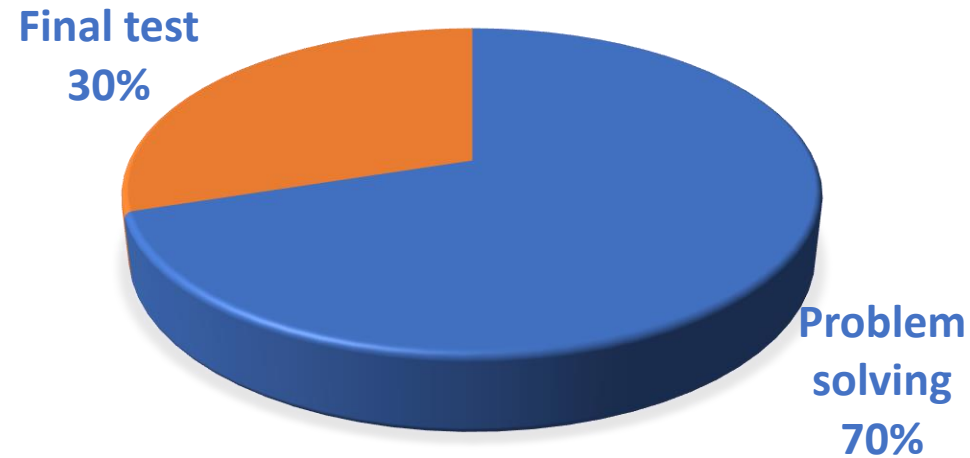
## Case Topics

Shortcut	Subject
<b>AIP</b>	Agile IT project management
<b>DFW</b>	Digital forms and workflows
<b>DFR</b>	Digital professional rules
<b>ERX</b>	E-invoicing and XML formats
<b>BDI</b>	BigData and Internet of Things
<b>MMI</b>	Human and machine and intelligence
<b>BCF</b>	Blockchain and FinTech





## Examination



### ➤ **Defence of problem solutions**

The problem solutions and the documentation of the sources, the development process and the interim results (5 x 14 = 70 P.) are evaluated

### ➤ **Final test**

Includes 30 questions on all seven problems (30 P.) – in Moodle.

➤ **Both parts of the exam** have to be passed independently, the grade is aggregated.



## Team Roles



Each team 8 students



Discussion Lead



Record Keep

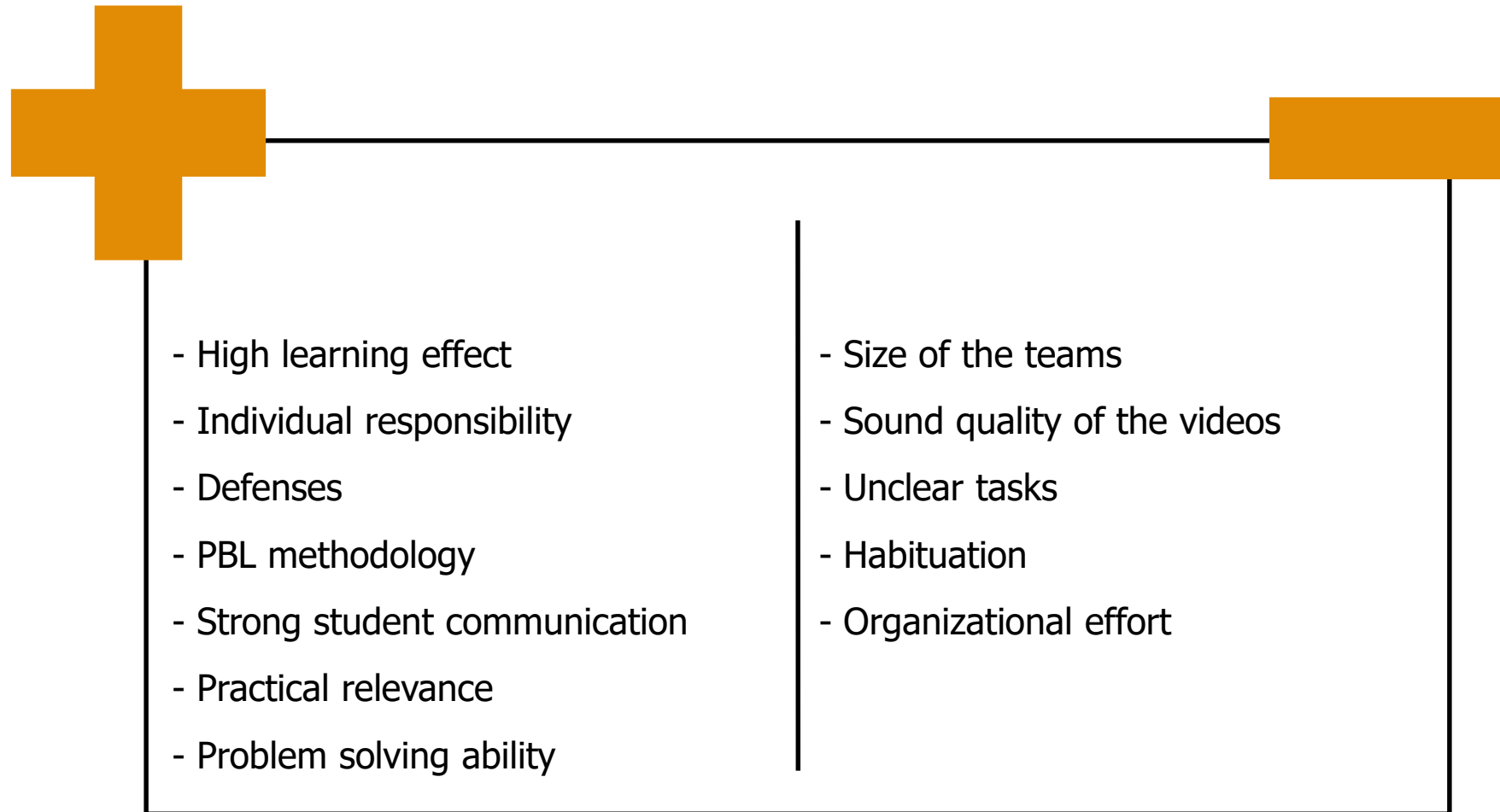


Media Documentary

Rotation of responsibility in each phase



## Critical Reflection – Feedback by Students





## Self Reflection and Experts View

- **Difficulties** at the start of the course
  - **Freedom and creativity** was unusual and **overwhelmed** the students
  - After each defense, students **dealt directly with the new case** – the introduction was not always optimal
- 
- **Very popular - Big Data and Internet of Things**
  - **Very unpopular - Digital Forms and Workflows**
- 
- ✓ Method expert and consultant gave a very **positive feedback**
  - ✓ Successful **confirmation for the PBL** approach





## Conclusion



- New didactic approach requires **more resources** in **teaching capacity, spaces and equipment**
- Students have to **adapt** to the **unfamiliar situation**
- Huge **planning, coordination and support** effort
- ✓ Big step away from "**repeat the learned**" to "**independently developing creative solutions under uncertainty**".

### Feedback from a student:

"The topics of digitalization we had covered, are invaluable to our future professional practice. I had no idea and also fear of contact with this topic. By working independently on this, I now dare to deal and have fun with it."



**Thank you for your attention.**

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