

# LEARNING BY CHALLENGE

## THE – Teaching Health Economics

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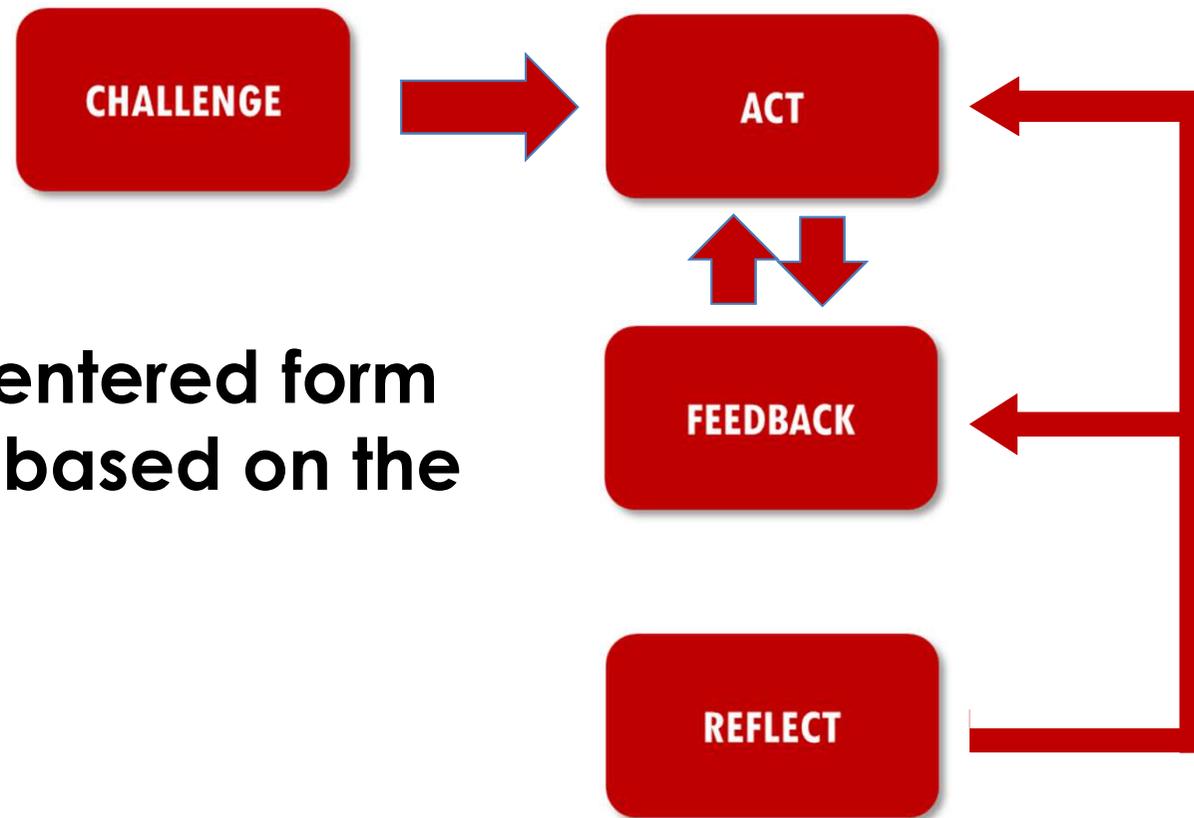
# Learning by Challenge

- **Basic structure**
- **Three good-practice-examples**
- **Four steps of the approach**
- **Objectives/Embedding**
- **Making learning visible**
- **Summary**



# Basic structure

**This student-centered form of teaching is based on the four steps ....**



# Three examples – in a nutshell

- **“Noricum”**

Strategic role-play: Students develop in the role of different stakeholders a new health care system for a phantasy country in a political process of negotiations and legislations.

- **OECD-Conference**

Students create in small research groups their individual research question, do the research, write their first research papers, go through a review process and finally present the paper on a university internal conference. All done on the base of the OECD-health data.

- **24-hours-challenge**

Students support a company in entering a new foreign market including analyzing the company as well as the target market, developing a market access strategy and a suitable detailed action plan – within a time frame of 18 to 24 hours.



## CHALLENGE

This approach starts with an ambitious and complex task, which is ***a very demanding challenge*** for the students, which requires the students' full attention

### ➔ Some potential criteria or elements for a challenge

- ❖ Longer phases without teachers' intervention, reconfirmation
- ❖ High level of freedom
- ❖ No textbook solution
- Comprehensive task over a whole term
- Completely new type of task never faced by the students
- Time pressure
- Multidisciplinarity



# Challenge-Act

ACT

## ➔ Students

- ... face a task they never faced before, so they have to search for how to start
- ... have to find their own way
- ... have to consider critically their solutions, approaches, strategies
- ... have to tackle with insecurity, frustration, with facing dead ends, running out of time
- ... have to tackle with insecurity, unstructured problems
- ... have to tackle with frustration, with facing dead ends



# Challenge – Act: High level of freedom as core element

- ➔ ... created by
  - no/minimal intervention of the instructors
  - no reconfirmation by teachers
  - nothing like a standard solution students should/could try to achieve
  
- ➔ ... creating
  - space for creative thinking
  - necessity of critical thinking
  - some degree of uncertainty on the students' side
  - a kind of IKEA-effect, identification with their “own” work
  
- ➔ ... limited by a clear framework of rules
  - ... counterbalanced by comprehensive feedback



# Challenge – Act: a clear framework setting limits to the freedom

- a clear assignment of tasks, rules of the game
- a clear defined organizational framework
  - detailed time schedule
  - clear concept of marking
  - transparent learning objectives
  - given and explained in advance  
(avoid any changes during the project!)
- some times restrictions to the approach or the volume of the work to be delivered

**Clear boundaries** of the playing field limit the high degree of freedom



” In the absence of adequate feedback, efficient learning is impossible and improvement only minimal also for highly motivated subjects. “

*Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993).* The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100 (3), 363-406.



## FEEDBACK

The high level of freedom is counterbalanced by a **comprehensive feedback by the instructors on the students' performance**

### ➔ Other forms of feedback

Teachers seeing what students learnt, kept in mind, can transfer into praxis from what they learnt in the previous semesters

Where possible different forms of feedback between student(group)s is integrated

Feedback of students on the course may help to improve it



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### ➔ Some remarks/recommendations

- Crucial to recognize effort and value students invested
- Feedback on the levels of content, process, and self-regulation
- Analysis of students' work, preparation of feedback and marking -> complex, time-consuming, individual



## REFLECTION

*„Reflection: Turning Experience into Learning“* Boud

At the end a very important step to reconfirm the lessons learned is a reflection of students on the whole project

### ➔ **Some remarks/recommendations**

- on a personal, individual level
- not too much time between end of course and reflection
- not part of the marking ...
- ... but part of the course
- not made „for the teacher(s)“ ...
- ... but may help making learning visible



# Why are we doing this?

## Multiple objectives

### Often the most obvious objectives

- expertise knowledge in the respective special topic
- knowledge transfer
- combining different perspectives, disciplines

### ... but also skills like

- team building and team work
- problem solving
- cope with phases of frustration

### ... and as a **core objectives**

giving students a playing field for exercising **creative, critical, and independent thinking, as well as for self-reflection**



It is important to note that critical thinking  
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considered, in the absence of knowledge; nor  
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necessarily sufficient. People must be able to  
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effective and worthwhile. They need  
something *about* which to think critically. “

*Bonney, C. R. and R. J. Sternberg (2011).  
Learning to think critically. Handbook of Research on Learning  
and Instruction. R. E. Mayer and P. A. Alexander. New York,  
Routledge: 166-196 also with reference to other authors like  
Halpern, Grant, Sternberg*

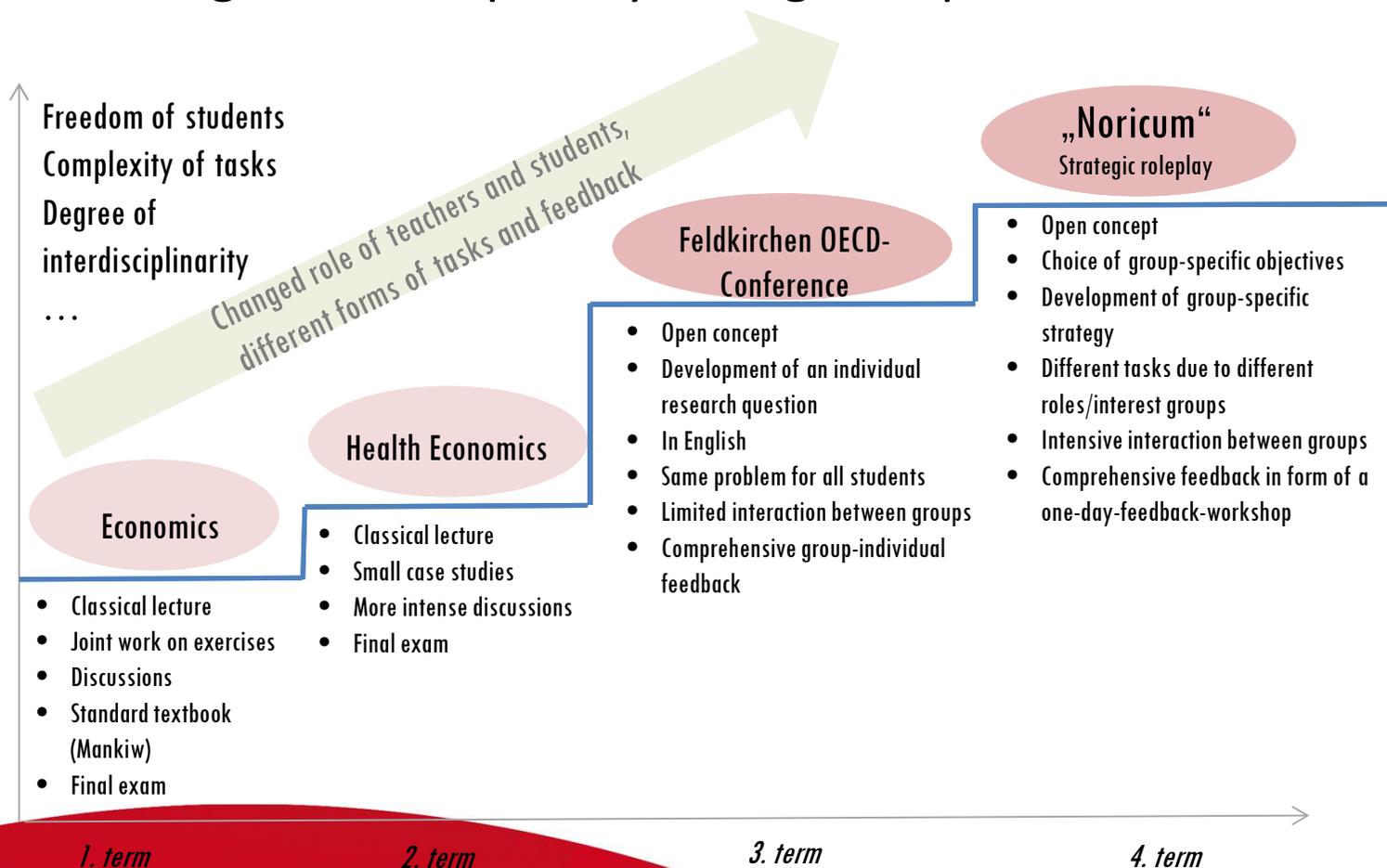


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# Embedding in the curriculum of a study programme is decisive for success

Knowledge in respective topics is necessary to make critical thinking, interdisciplinary acting, etc. possible



” The major message, however, is that rather than recommending a particular teaching method, teachers need to be evaluators of the effect of the methods that they choose. “

*Hattie, J. A.C. (2011). Visible Learning for Teachers: Maximizing Impact on Learning. Routledge.*



# Making learning visible

- ➔ Results (e.g. developed health care system for Noricum, research papers at OECD-conferences)
  - make visible, what students did learn in the previous courses, how they can **transfer** this into practice
  - make visible, for basic courses as well as on the whole curriculum, **what may be missing**
- ➔ making visible, what students learned by the respective challenge approach
  - > complex, especially e.g. for independent, critical thinking
  - hints by the final students' statements at the end of the projects or by reflections
  - but: This is not really systematic and unbiased



## Demanding **challenge**

no interaction by teachers

-> high level of **freedom**

counterbalanced by **comprehensive feedback**

built on the **expertise** of the teachers

-> opportunity to practice **independent and critical thinking**

based on knowledge from earlier courses

⇒ makes **learning visible** ...work in progress

## **challenge for the future**





**Thank you for  
your attention!**

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