# Thank you for inviting me

### CV

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- Teaching associate professor (no research) at IVØ (Department of Business and Economics)
- Course Responsible for the course Finance on BSc in Economics and Business Administration.
- MSc. Mathematics and Economics and MSc. Rhetoric and Communication.
- SDU since 2008. Previous jobs: Own business, Ministry of Finance, Slagelse Business School (before the merger with SDU in 2007)

# "Boosting student work efforts – Mission impossible?"

Pedagogical and didactic considerations on how to boost the student work efforts in Finance within BSc in Economics and Business Administration

(Erhvervsøkonomi HA )

Presentation: Mission impossible, IMM, June 12, 2018 Kenneth Schultz Major challenge in Finance (and maybe in other courses?):



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## • History

- Until 2007 we had the same Finance bachelor course on Business Administration, Economics, and Mathematics Economics.
- In 2008 we developed a Finance course solely targeted Business Administration.

#### • Changes in 2008

- Less mathematics.
- More focus on detailed projections of cash flows.
- Closer connection to Financial Accounting.
- Less option pricing.

**PS:** We remained the same main subjects at a sufficient professional and taxonomy level to ensure necessary competences for all the graduate programmes.

#### • Changes in 2016

- 7 mandatory activities during the semester (every second week) with the purpose to increase the student work effort (increasing extrinsic motivation).
- Written exam in at set place (5 hours).

#### • Changes in 2017

 Due to a lot of cheating relating to the mandatory activities in autumn 2016, we made the set up in 2017 more cheat proof.

# • Changes from 2018

- Financed has now become a joint course across campuses and teaching languages. From autumn 2018 the two major 10 ECTS courses (one DK and one UK) will be almost identical on all campuses.
- All 5 ECTS DK and UK courses will be based on a joint subset of the 10 ECTS course.
- Joint E-learning across all campuses. Using Adobe Connect (webinars) to carry out a number of joint on-line exercise lectures at the same time on all campuses securing strong alignment across campuses and increasing intrinsic motivation.
- From Autumn 2018 approx. 800-900 students will follow the joint Finance course with the same the same academic content and the same subject workflow.

- Main Hypothesis: Increasing work effort increases learning outcome
- Some of the constraints on teaching and exam
  - Low intrinsic motivation among students (most students state that the course just has to be done with)
  - The culture among students: In general very low work effort among students (when asked themselves (evidence is strong) they state that they approx. only study half time) – most severe constraint.
  - Weak mathematical skills
  - Finance is considered as the most challenging course on their bachelor
  - Low intake grade of the students at smaller campuses,
  - Structural challenges in Slagelse.
    - A very high share of students, that are not ethnic Danish
    - A very high share of the student live in the Copenhagen area and commute to Slagelse reinforcing low attendance to classes.
  - Structural challenges in Odense:

20% of the students with most interest in quantitative subjects choose to be enrolled in the (more challenging) Finance course in Economics.

## How to deal with the constraints

First and foremost we accept (at least in the short and medium run) the constraints we cannot change and focus on what we can change.

Mission impossible: What cannot be changed in the short run is:

- > The mathematical skills of the students
- > The low (average) intrinsic motivation of the students.

Intake policy across campuses

Mission possible: What we can change is:

> Increasing the student work efforts by means of extrinsic motivation

#### **Mission possible**

## How do we boost student work efforts in Finance?

- Many exam activities: 5 part-exams distributed evenly throughout the term. MCQ-test integrated with a traditional assignment. 4 out 5 must be passed.
- Designing part-exams to make them cheating-proof.
  - Randomization.
  - Gross pools of problems, where the actual problem given to the student is drawn from a large gross pool.
  - A tight time constraint on the MCQ-test (duration is 1 hour)
  - Synchronization. All student (approx. 800) have to take the test at the same time (and within 1 hour).
- Activating learning: Exercise-class are based on the students preparing for the exercises. The students own work effort is a significant basis for what is taught in the exercise class. In exercise class students must finalize their problem solving of the weekly given exercises. The instructor will not go through the solutions on the blackboard (passive learning) but will give personal assistance to those students who have questions about how to solve the problems.
- Very strong alignment between exercises and exam problems. Facit to all exercises are handed out in advance (no need to give up in advance). Guiding solution (including Excel design) in pdf handed out after exercises. Solution in pdf requires the student himself to create his own excel sheet which are required at the exams.
- Use of E-learning. 4 exercise webinars during the semester to ensure a strong alignment across campuses. It strengthen the intrinsic motivation of students across campuses when subjects goals (cf. goal description) are communicated in the same way to all.

#### • Results so far

- Last evaluation from students (response rate: Slagelse: 20%, Odense: 50%):
  - Work effort: High score (approx. 4)
  - Attendance to general lectures: Very high score (> 4,5)
  - Attendance to exercise lectures: Very high score (> 4,5)
  - Satisfaction: (medium score: 3-4)
- My personal experience:
  - The work effort on average for all students (including the ones not participating in the evaluation) is still somewhat below 10 ECTS (270 working hours/year – 15 hours per week during lecture weeks)
  - Attendance on average for all student groups is increasing but it is still to low
    - General lectures Slagelse: 40-50%. Exercise lectures Slagelse: Approx. 60% (explicit registration has been undertaken)
    - General lectures Odense: 60-70%. Exercise lectures Odense: Approx: 60% (explicit registration has been undertaken)
- Exam performance relating to autumn 2017:
  - Exam results in 2017 compared to 2016:
    - Odense: Increased performance
    - Slagelse: Status Quo

# What is then impossible?

Structural matters and characteristics applying to the intake of students e.g. in Slagelse makes it Mission impossible to increase significantly the work effort of many of the students at this campus.

Mission impossible to increase work effort substantially alone through increasing extrinsic motivation if intrinsic motivation is very low and below some threshold.

## Some preliminary conclusions on mission possible?

- Accept that low intrinsic motivation cannot be increased in the short run and instead increase the extrinsic motivation. The marginal costs of increasing intrinsic motivation by means of individualization, differentiation, tutorial, supervision etc. exceeds marginal benefits in learning outcome and faculty revenue.
- Activating learning. Give students responsibility for their own learning.
- Very strong alignment between lectures exercises and exam.
- Increase the fight against cheating by designing the sub-exams and final exams in a structural way so cheating is made difficult. If it is easy to cheat, cheating will be widespread. If cheating is widespread the trustworthiness and respect of course will be low and this will have negative spillover effects on the trustworthiness of the study programme and faculty. Intrinsic motivation will drop if cheating is widespread.
- Progression in the part-exams. To boost extrinsic motivation a decreasing progression is considered (from "high" to "lower" difficulty) to get the students accustomed to work hard from the start.

# • Other recommendations

- Re-consider intake policy on programme level (Faculty policy), i.e. change the characteristics of the intake of students.
- ➤Accept that structural matters and characteristics of the various student groups can make it very difficult to increase work effort – some students just don't care<sup>(3)</sup>.
- ➢Use E-learning in large joint courses to ensure a strong alignment across campuses. It will strengthen the intrinsic motivation of students across campuses if all are "treated" equally.