# Evaluation of the Complete Learning Environment of the Second Semester

Kristine Lysnes*
Anders Husebø*
Harald Åge Sæthre**

*Department of Mathematics
**Faculty of Mathematics and Natural Sciences
University of Bergen, Norway

# How do we evaluate?

- Evaluations of specific courses.
- Programme evaluation by use of external Programme censor.

# So how can we learn about…

-challenges our students experience that lies outside one specific course?

-how the different courses influence each other positively/negatively and work together to form a complete semester?

# Aim of project

- Give the Department a tool to identify the challenges students experience.
- When we know the challenges, we can use this information to make changes to ensure the students a good learning environment and to ensure they see the purpose and maintain their motivation for further studies.

# A good learning environment

- The students should as much as possible experience that the courses they study in the same semester work toghether, both practically and academically.
- The students should not meet unneccesary practical hindrances to achieve optimally.

Ultimately, we hope to reduce the high drop-out rate our Bachelor's programme in Mathematics have the first year.

# The bachelor programme in Mathematics at UiB

- Few students
  - 20-30 start each year.
  - Highest drop-out rate between 2nd and 3rd semester.
  - After 3 years approx 50% drop-out
- Sense of belonging to Department/fellow students?
  - Little contact between Department and bachelor students.
  - First year Math-courses: typical 200-400 students in each course.

# 1st year Bachelor students

- Not all bad. The Faculty have several activities the first semester:
  - Smaller classes of students belonging to the same Bachelor's programme.
  - Students taking the same courses are placed in the same excercise/data/seminar groups.
  - Student driven social activities in the beginning of the 1st semester ("Fadderuke")
- These activities are only during the 1st semester
- Student organisations

# Selection of students for the focus group

- Bachelor in Mathematics, second semester students.
  - They have 3 strongly recommended courses (30 ECTS).
  - We only invited the typical second semester students.
  - Ended up with 16, 11 showed up.

# Selection of students for the focus group

- Bachelor programmes with many students should do a random selection.
- 10-20 students is our recommendation for a focus group.

# Invitation

- E-mail and SMS
  - «I did not intend to meet, but when I reiceved several e-mails I though that this was important and something I was expected to attend»
  - «I felt pressured to attend, because you had to respond to the e-mail with a reason for not attending»
- And food


# Invitation

- Important to write why they are selected to reiceve the invitation.
  - Especially if you have to make a selection of students and they know a fellow student who did not get this invitation.
    - «I wondered why I reiceved this e-mail. Does it really apply to me? And will all students in my programme attend?»

# Some results

- The students had a very positive reaction to being asked for advice.
- We got both additional and completely new information compared to traditional evaluation methods.
- We cannot trust the results from the course evaluation completely.
  - How do the different courses influence each other?

➡ Use the results to improve course evaluations.

# Some results

- The web pages were important when choosing place of study.
  - «I considered studying at a different University, because they had much better web pages where it was much easier to find information»

➡ We have done massive changes to the Department's web page.

- Before coming here they thought the only/most likely carreer was to be a math teacher.

➡ We have created a «Carreer portal» with examples of jobs our previous students have now.

# Some results

- Some of the positive things with our study programme were not known to all students:
  - The flexibility: easy to change Bachelor programme or to take courses belonging to other Departments and Faculties.
  - The mentor programme of the Dept. of Mathematics

➡ We must inform better!

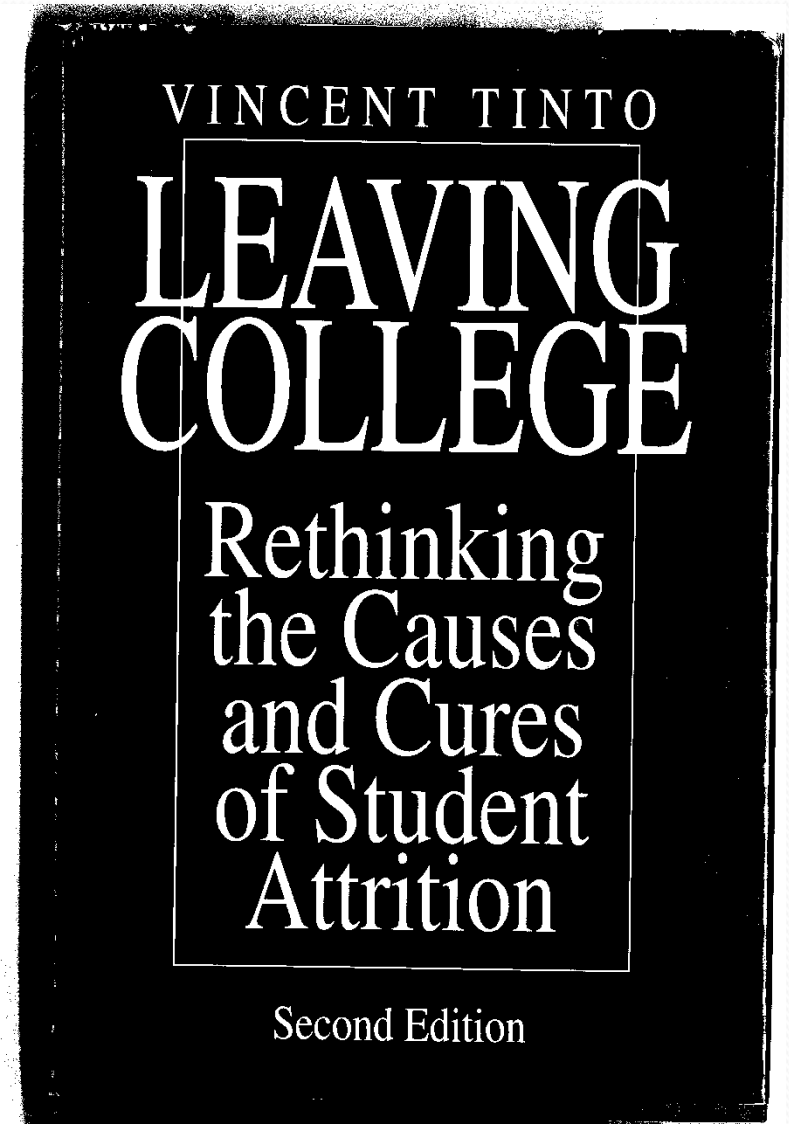
# What questions should we ask?

# Questions for the focus group

- There will not be enough time to ask all relevant questions.
- Open questions.
- One and one theme/subject at a time.
- Chronologically.
- Not only questions about the study/University.

# Tinto's model

- Wants the students to complete and have success in their studies.
- Keep drop-out rate to a minimum.




**Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition*, *2nd Edition*, Chicago: University of Chicago Press**