THE COLLEGE OF PHARMACEUTICAL SCIENCES, AN INQUIRY-BASED UNDERGRADUATE HONOURSPROGRAMME FOR THE TRAINING OF PHARMACEUTICAL SCIENTISTS

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OBJECTIVE

The aim was to develop a bachelor programme with a focus on training for the discovery and development of innovative drugs, fostering high-end learning, higher-order thinking skills, self-regulated learning and creativity of students.

DESIGN

Conceptual framework curriculum design

Research-based
Student focused with an emphasis on research processes and problems
Inquiry based learning
Learning driven by questions and complex realistic problems
Authentic context
Learning environment reflecting the future profession (pharmaceutical research)
Autonomy
Room for personal imitative, freedom of choice
Scaffolding
Right amount of teacher support at the right time

- 10-week courses
- Theoretical exam 6-7 weeks
  - high level of understanding
- IBL-activities:
  - authentic (group) assignments
  - criteria professional field

Model of the Inquiry process (based on Justice et al, 2002).

ASSESSMENT

Evaluations show that the IBL-based curriculum strongly motivated students and succeeded in teaching them essential research skills. Students learn and perform at a high level, indicated by the level of their products, like contribution as first or second author to published research papers. The experiences of the teachers is positive.

Student comments

"Good team work is the key to success"
"You don't need lectures to learn"
"Do research before you start something, think outside the box"
"Talking to other groups often leads to new insights"
"I learned how to work with other people, time management, better knowledge of the scientific field and how research is carried out"
"Using my creativity, for example to determine our own research methods"

CONCLUSION

The inquiry-based curriculum is successfully implemented and is experienced positively by the students and the teachers.

REFERENCES

Meijerman et al (2017) *Currents in Pharmacy Teaching and Learning*, 8:905-919;
Justice et al (2007) *Innovative Higher Educ*ation, 31(4):201–214, .