

The Study Activity Model SAM – Enhancing Active Learning?

Exploring Teaching for Active Learning in
Engineering Education (ETALEE) 2015

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Agenda

- 1) The Study Activity model SAM
- 2) Applying SAM to your own teaching, incl.
 - a) categorisation and quantification
 - b) reflection on results
 - c) reflection on usability
 - d) reflection on implications
- 3) Poster presentation
- 4) Discussion of activities
- 5) Evaluation and summing up



Intended learning outcomes

After this session you (i.e. the participants in this hands-on session) should be able to:

- Describe and discuss the Study Activity Model (SAM)
- Apply the model to your own teaching
- Identify and evaluate the implications of using the model



1. THE STUDY ACTIVITY MODEL



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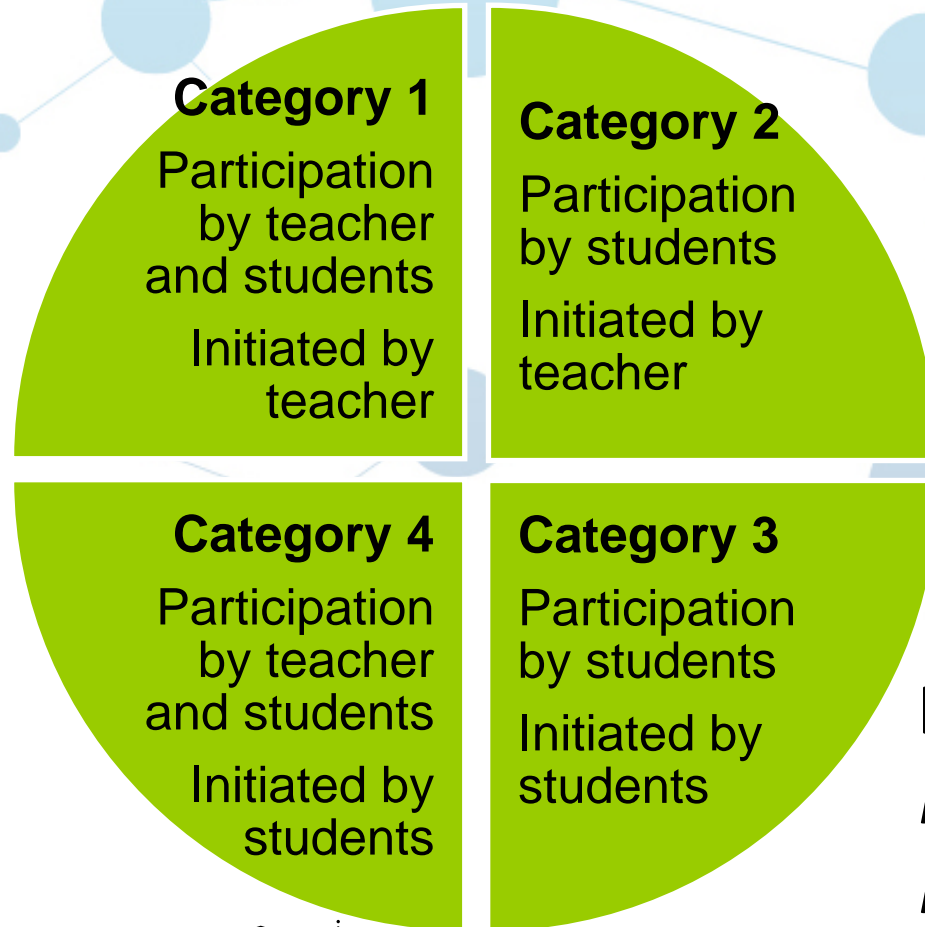


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The Study Activity Model (SAM)

Developed by:
University
Colleges
Denmark



Keywords:
Participation
Initiation



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The Study Activity Model (SAM)

Purposes:

- A political response to demands for increased study intensity
- Visualise the diversity of legitimate study activities
- Enable educational planners to plan a programme, a semester or a module to include different types of study activities
- Clarify and align expectations between teachers and students
- Sharing knowledge between educational programs and institutions about didactics and educational planning.



Imperative Programming, 5 ECTS

- Short lectures
- Short videos
- Live coding on screen or blackboard
- Oral exam
- Total C1 = 14 hours ~10%

Category 1

Participation of teacher and students
Initiated by teacher

Category 2

Participation by students
Initiated by teacher

- Group assignments using Arduino
- On campus programming workshops
- Developing exam program
- Total C2 = 60 hours ~43%

Category 4

Participation by teacher and students
Initiated by students

Category 3

Participation by students
Initiated by students

- Teacher consultancy
- Total C4 = 20 hours ~14 %

- Individual home work
- Project related programming
- Developing exam program
- Total C3 = 46 hours ~33 %



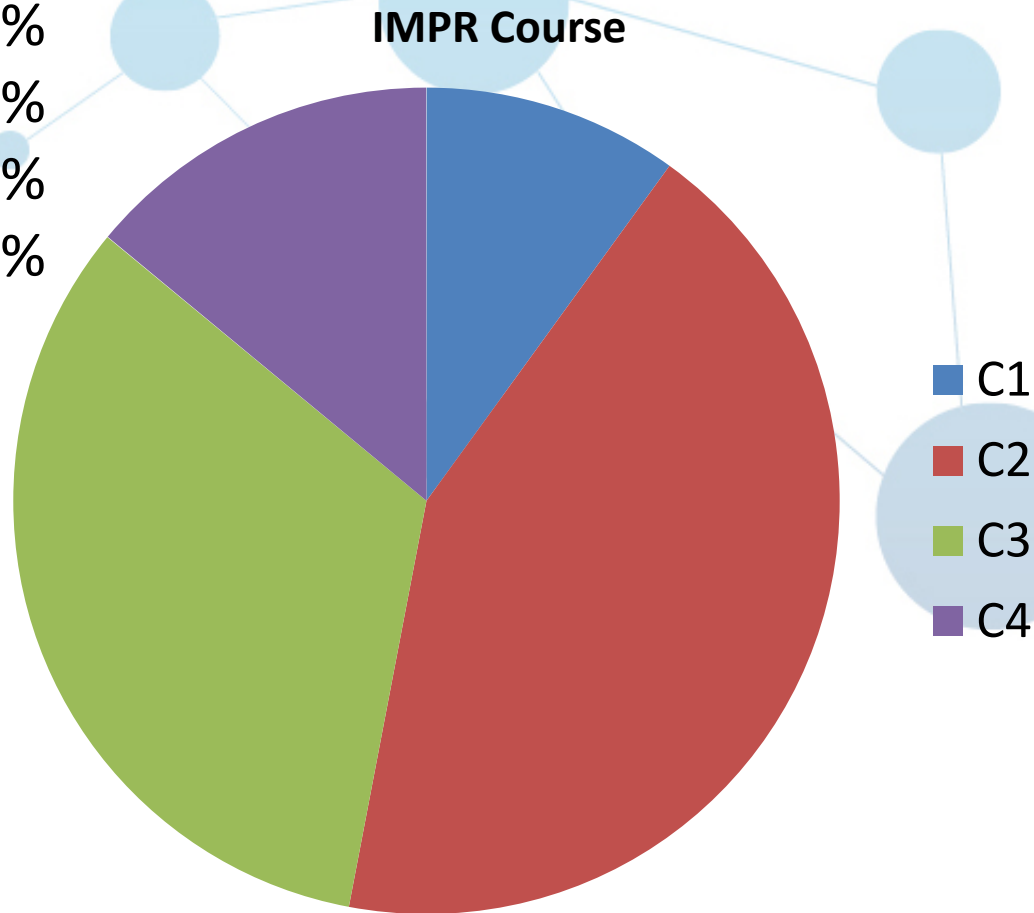
Our 'method'

- Count/estimate the amount of hours used for study activities in categories C1, C2 and C4
- Add the three numbers together
- Subtract the sum from the ECTS measure (1 ECTS = 28 hours) to get C3



Imperative Programming, 5 ECTS

C1: 14 hours ~ 10%
C2: 60 hours ~ 43%
C3: 46 hours ~ 33%
C4: 20 hours ~ 14%



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2. Applying SAM to your own teaching

- All activities take place in cross-institutional groups á 3 persons – please find 2 persons from other institutions than your own
- All activities are focused on the use of SAM



Activity 2a: Categorisation and quantification

- Three roles: Interviewer; interviewee; interpreter.
- Topic of interview: The study activities in your teaching
- Three rounds of interviews
- Ten minutes per interview, total 30 min

Activity 2b: Reflection on results

Reflect on and discuss the results of activity 2a:

- Were there any surprises?
- Were there any striking similarities or differences?
- What could be underlying causes of similarities/differences (semester/type of module etc.)?
- Max. 3 minutes

Activity 2c: Reflection on usability

Discuss the usability of SAM:

- To which extent did you find it easy/difficult to categorise?
- To which extent did this categorisation give you any information that was new/surprising/useful?
- Max. 4 minutes.

Activity 2d: Reflection on implications

Discuss the implications of using SAM as a method to describe study activities, teaching and learning.

- What might be likely benefits – and for whom – of using this model?
- Max. 4 minutes

3. Poster presentation

Please prepare a poster with

- the results of the above 4 activities, i.e.
- the SAM categorised teaching examples as well as
- short statements from each of the 3 discussions.
- Max. 5 minutes

3. Poster presentation (cont)

- Please hang your poster on the wall
- Make sure that one person is present at your poster to answer questions
- Take turns standing by your poster
- Max. 10 minutes



4. PLENARY DISKUSSION



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Topics for discussion ... (7 minutes)

- Reflection on results...
- Reflection on usability
- Reflection on implications



5. EVALUATION AND SUMMING UP



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Evaluation 1: LOs + show-of-hands

After this session you (i.e. the participants in this hands-on session) should be able to:

- Describe and discuss the Study Activity Model (SAM)
- Apply the model to your own teaching
- Identify and evaluate the implications of using the model

To which extent were these learning outcomes achieved?

Evaluation 2: Post It

- Please write on the three Post-Its one or two keywords/short statements as answers to the following three questions:
 - What was good in this session?
 - What was not very good in this session?
 - What should be changed in this session?
- Please post your Post-Its on the wall/board as you leave the room

Summing up ...

“Active learning increases student performance in science, engineering, and mathematics”, Freeman et. al. Proceedings of National Academy of Sciences

<http://www.pnas.org/content/111/23/8410.full>

- a luta continua !

Thank you very much for
your attention !

Any comments or questions are
welcome at:

clauss@plan.aau.dk or
mona@plan.aau.dk



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