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Few studies out there

- Existing learning environment with teams – social dimension
- Self-directed learning competences
- Project competences – learned to structure collaborative processes
- Lab access has been a real problem

2

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/350135636>

Problem-based Learning during the COVID-19 Pandemic: Can Project Groups Save the Day?

Article in Communications of the Association for Information Systems - February 2021
DOI: 10.17788/CAIS.1942

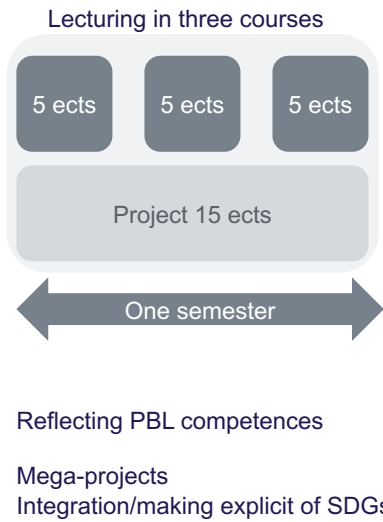
CITATIONS
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3 authors:

 Christian Ravn Haslam Aalborg University 12 PUBLICATIONS 5 CITATIONS SEE PROFILE	 Sabine Madsen Aalborg University 22 PUBLICATIONS 83 CITATIONS SEE PROFILE
 Jeppe Agger Nielsen Aalborg University 73 PUBLICATIONS 393 CITATIONS SEE PROFILE	

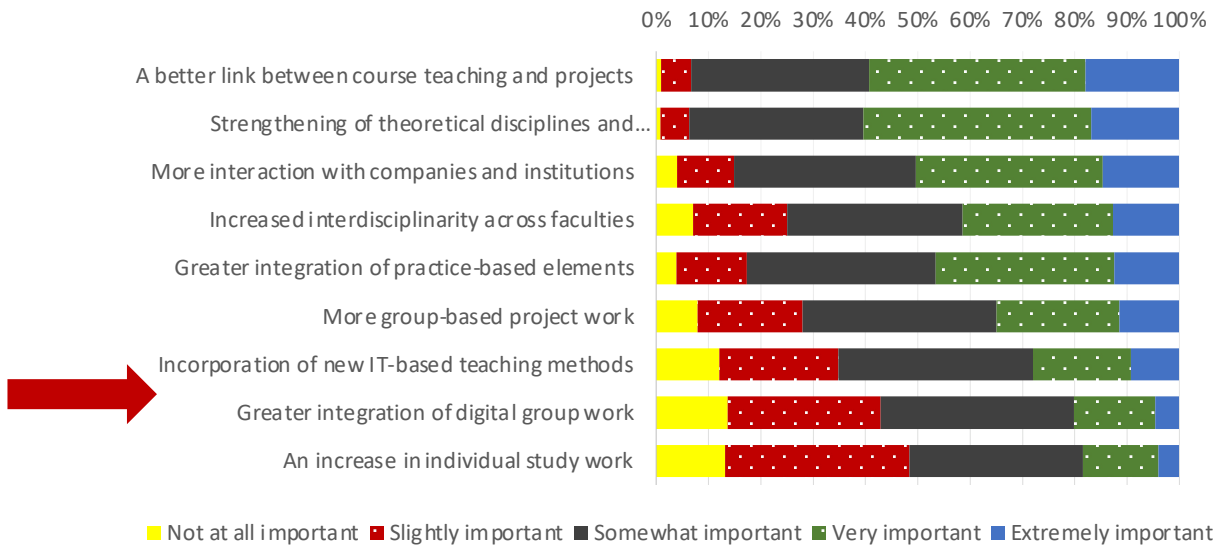
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From where we came



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2018: Which of the following elements do you think should be important priorities in the development of the AAU model of the future? All respondents (N: 910 - 918).

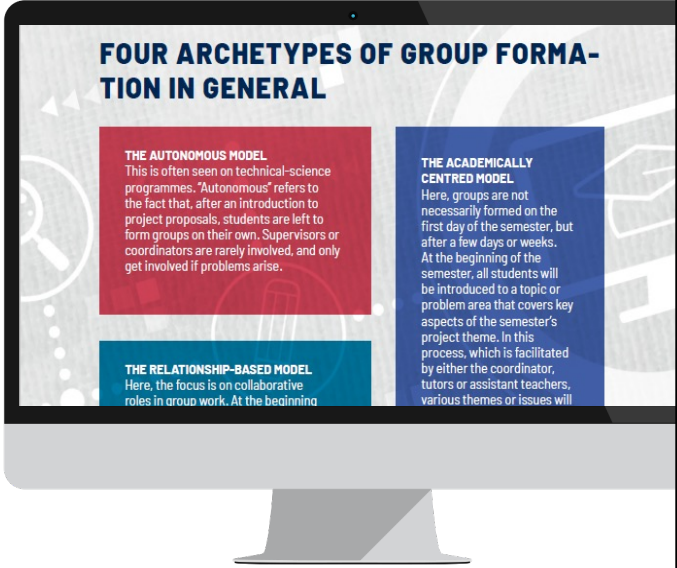


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<https://vbn.aau.dk/da/publications/online-group-formation-guidelines-2> 5

Three very different semesters

- Spring 2020: chock – no systems in place but the students started out physical
- Autumn 2020: experiences – systems in place and the students started out physical
- Spring 2021: experienced and skilled – the students started out with digital formation of the project teams



FOUR ARCHETYPES OF GROUP FORMATION IN GENERAL

THE AUTONOMOUS MODEL
This is often seen on technical-science programmes. "Autonomous" refers to the fact that, after an introduction to project proposals, students are left to form groups on their own. Supervisors or coordinators are rarely involved, and only get involved if problems arise.

THE ACADEMICALLY CENTRED MODEL
Here, groups are not necessarily formed on the first day of the semester, but after a few days or weeks. At the beginning of the semester, all students will be introduced to a topic or problem area that covers key aspects of the semester's project theme. In this process, which is facilitated by either the coordinator, tutors or assistant teachers, various themes or issues will

THE RELATIONSHIP-BASED MODEL
Here, the focus is on collaborative roles in group work. At the beginning

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Methods

- Collected data from Sep 2020-Jan 2021
- Teachers
 - 15 focus group interviews – 60 participants
 - Nvivo
 - Thematic analyses
- Students
 - 8 focus group interviews - 35 participants
 - Other sources – minutes from evaluation meetings etc.
 - Thematic analyses



AALBORG UNIVERSITET

EVALUERING AF DIGITALT UNDERSTØTTET LÆRING PÅ AALBORG UNIVERSITET I 2020

UNDERVISER- OG STUDENTERPERSPEKTIVER PÅ UNIVERSITETETS NEDLUKNING SOM FØLGE AF COVID-19

Lykke Brogaard Bertel, Niels Erik Ruan Lyngdorf og Thomas Andersen

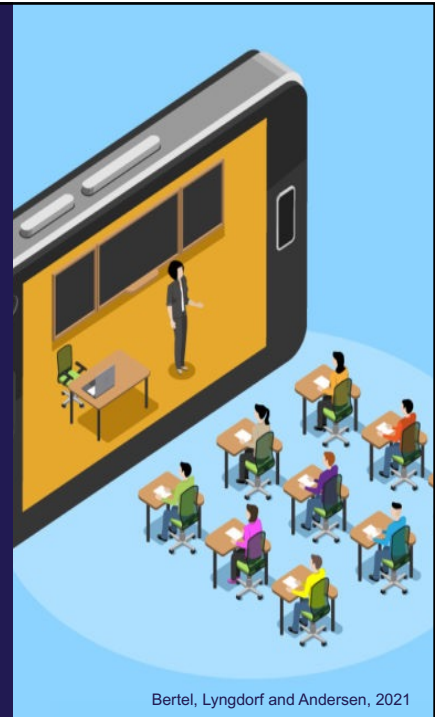
United Nations Educational, Scientific and Cultural Organization | AALBORG UNIVERSITY | Aalborg Centre for Problem Based Learning in Engineering Science and Sustainability under the auspices of UNESCO

Bertel, Lyngdorf and Andersen, 2021

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Digital lecturing during a pandemic period

- ▶ Digital emergency education ≠ digital learning
- ❶ The primary challenges are less involvement, poorer opportunities for interaction, and lack of feedback
- ❷ The teaching has been teacher-centered and characterized by handover, and several of the activities of the study activity model have not been carried out during the period
- ❸ There are also positive experiences, for example with a flipped classroom, but the development of active learning digitally requires resources (time and skills) and teachers have experienced being very alone.

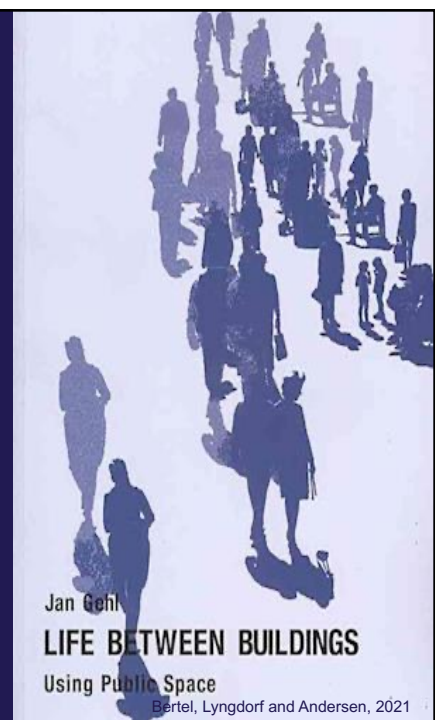


Bertel, Lyngdorf and Andersen, 2021

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PBL-model – agil?

- PBL is a highly adaptive model in terms of collaboration, content and methods.
- Digital learning spaces have complemented the physical ones, but attention to the value of the physical space,
- Project supervision has become more flexible and efficient, but constant availability also means more inquiries about big and small
- Experienced students have been able to quickly adapt to a new world and have been independent, creative and solution-oriented,
- It has been a challenge to introduce the Aalborg model and support PBL digitally in the first year of study.



Jan Gehl

LIFE BETWEEN BUILDINGS

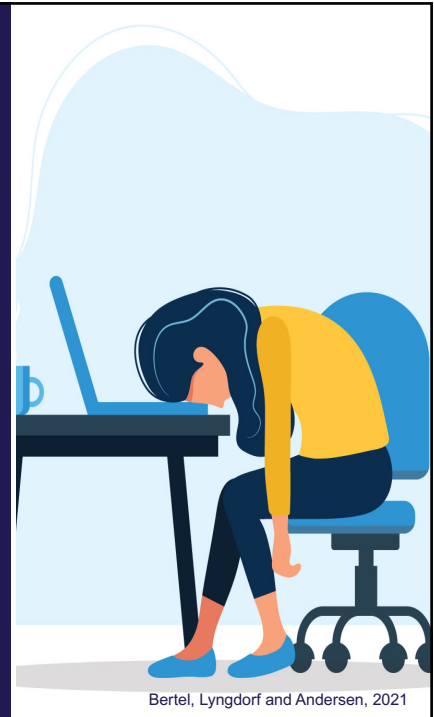
Using Public Space

Bertel, Lyngdorf and Andersen, 2021

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Well-being and learning

- Well-being has been hard hit throughout the period.
- For teachers, increased working hours and insecurity were a challenge in 2020.
- Clearer announcements about teaching in 2021 have been received positively, but well-being is still challenged.
- The students' well-being and motivation suffer from a lack of structure in everyday life and social interaction. Several initiatives have been launched (digital social events, groups of friends, etc.) and it is received positively.
- The project group has an important social function, and the students have prioritized the group in their social bubble at the expense of, for example, family.
- Conflict solving in groups is far more difficult.
- The sense of community, the connection to the study and the identity as a student are challenged.
- There is a concern among both teachers and students about dropouts.



Bertel, Lyngdorf and Andersen, 2021

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Perspektives

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- Expectations about the future:
 - The PBL model can be hybrid, but it is also the most difficult format - and requires resources
 - Flexibility vs. Identity - the study as secondary?
 - The importance of the physical space in digitally supported learning and PBL
 - Desire for more targeted sparring and support: Problem-based competence development



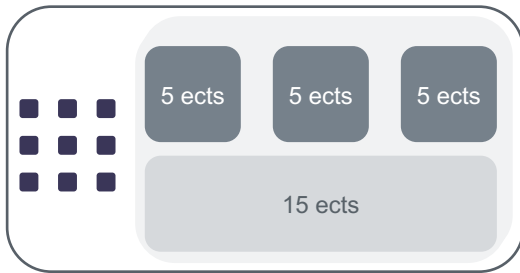
UNDERVISERE PÅ AAU: POSITIVT STEM T OVER FOR ONLINE UNDERVISNING

Bertel, Lyngdorf and Andersen, 2021

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Digital mini modules for supporting projects/ micro credentials

We came from



Stoustrup, 2021