



Sustainable Sydhavn

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"... and I think it's awesome how you have a problem that you... yes, well, you have to solve or at least try to. I think it's extremely exciting, and a great way to work... and I find it interesting to figure out that it is indeed a problem." -AAU Student

Purpose

The aim of the project is to bridge the students Problem-Based Learning processes with real-life issues in the local community around Aalborg University in Copenhagen.

Problem-Based Learning (PBL) shares common characteristics with education for sustainability through the principles of interdisciplinary, collaborative, contextual and experiential learning, problem orientation and self-directed learning (Guerra, 2017). Universities as institutions can play a significant role in driving urban sustainability processes through stakeholder partnerships (Trencher, et al., 2013,2014). Considering these perspectives, the purpose of this study is to investigate how applying PBL principles in university involvement with community stakeholders may foster sustainability in education and potentially for community development as well, although this latter point was not fully realized in the project.

"I experienced the project as a valuable and necessary initiative making Aalborg University in Copenhagen a greater asset for the local community. The students' approach to the collaboration has been exemplary." - Local partner GivRum

"It becomes more than something you study when you are immediately able to collaborate with someone who is a trained professional in a field you might find yourself working within in the future." - AAU student

Findings

It is found that there are learning perspectives but also tensions in the alignment of expectations between students and community stakeholders in a collaborative PBL environment. It is found that students highly value the insights and relevance that come with being embedded in a real-life problem in the local community, and it is found that students have been able to reflect comprehensively about the role of a being a planner in a changing environment as exemplified by the South Harbor District. Also taking into considerations, that students navigate the field between being academics, and being influenced by stakeholder interests and expectations - this balancing between university and practice needs further support in PBL learning processes.



"Our understanding of sustainability has become more nuanced since the beginning of the process since it's been something we've worked with on a more complex level. What is sustainability? Does this differ depending on which local partner we work with?" - AAU student

Design and Methodology

The study involved a cohort of students in Urban, Energy and Environmental Planning at Aalborg University in Copenhagen during the course of 1st semester of the Bachelor of Science program in engineering. In this timeframe, PBL based student projects were carried out in partnership with stakeholders in the city's South Harbor District to investigate sustainability in community development and learning.

Prior to the start of the semester, preparation of the semester took place among supervisors (teaching staff), and preparatory desk analyses were conducted such as a stakeholder analysis and a review of previous student reports. Community stakeholders in the South Harbor District were then consulted and engaged to identify their interest in participation in the adapted PBL model.

After the semester, an evaluation was carried out with the community stakeholders who participated in the adapted PBL model, as well as with the supervisors and the students who were involved in the semester.



During the semester, focus group interviews were carried out with students in the early phase of the students' projects, and a 'status seminar' was held in which project partners from the community participated in giving feedback on the students' work especially concerning problem analysis and framing. Additionally, meetings were held with representatives from each of the student groups during the course of the semester.

References:

Guerra, A., 2017. Integration of sustainability in engineering education: Why is PBL an answer?. *International Journal of Sustainability in Higher Education*, 18(3), pp. 436-454.
Trencher, G. P., Yarime, M. & Kharrazi, A., 2013. Co-creating sustainability: cross-sector university collaborations for driving sustainable urban transformations. *Journal of Cleaner Production*, Volume 50, pp. 40-55.
Trencher, G. et al., 2014. University partnerships for co-designing and co-producing urban sustainability. *Global Environmental Change*, Volume 28, pp. 153-165.