



RĪGAS TEHNISKĀ
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PROJECT BASED LEARNING AS A TEACHING AND LEARNING METHOD IN HIGHER EDUCATION

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JEL Classification I21, I23, L73, L74, O33, Q51, Q56.

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Background

- Traditional academic methods for studying are well researched and effective for general studies.
- For studies of applied sciences, there is a need to provide specific knowledge for the time and learning efficiency.
- One of **innovative** methods is **Project Based Learning (PBL)**.

This method enables provision of intensive training to assure **insights** of specific **technical aspects or methods**.

Hyphotesis

- Project Based Learning (PBL) can be applied to assure deep understanding of a topic and working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem or challenge.

Methods and Research focus



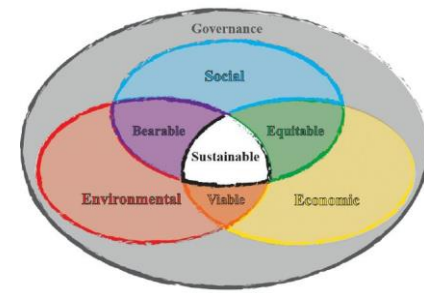
- Authors used literature overview to reflect **PBL theoretical framework**
- Benefits include such crucial aspects as:
 - interdisciplinary tasks,
 - student-centred learning,
 - real life problems and group work.
- Using PBL, tasks can be scaled to align learning objectives with student skills and time frame, like technical **design of hybrid engineered timber buildings**

Results and Benefits

Research results show that use of PBL helps to

- increase **motivation**,
- involve students into the **profession**,
- provides **elasticity to respond** to current needs for analysis and demands,
- an **active learning** method as solutions might differ from group to group for the same task.

Application



- Method can be **applied** to seek for **conceptual solutions** for the use of perspective technologies, like aiming to reduce concrete use ratio in building.
- Applying PBL, **tasks can be aimed to** design **construction elements** of renewable resources as timber or timber products, like cross laminated timber (CLT), while **maintaining needed** construction **parameters** and promoting transition to more **sustainable** construction practices.

Example intensive training for design and training of Hybrid timber building

Hybrid timber project September 2021

Thanks for Attention!



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