Implementation of Project-Oriented and Problem-Based Learning POPBL

Egon Moesby
Head of Studies,
Vice Chair of UNESCO Chair in PBL,
Aalborg University, Denmark
http://personprofil.aau.dk/107218
http://www.ucpbl.net/


Problems start somewhere
The potentials of a projects

For success: Join the forces!

Various models for cooperation with regional practice

Project work within the University

Project work within the University, but with strong ties to industry which could mean visiting the industry often or stay there in short periods

The work is done mainly WITHIN practice But owned and supported by the University

Completely working within the practice Product owned by the company, learning outcomes are owned by the University

University

Regional Practice

Formalities

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Students contact with practice
(Medicine not included)

Have you during your studies made any projects with practice (industry/Institution/organisation etc.)

<table>
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<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
<th>Percentage (Valid)</th>
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<td>63.5</td>
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<tr>
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<td>36.5</td>
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<tr>
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<td>121</td>
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<tr>
<td>Total</td>
<td>1970</td>
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</table>

Note:
Does not include projects based on e.g. a “thought-out” practice problem, etc.

Drop-outs
A strong resource factor – not losing regional growth potentials

Key figures for Bachelor level – comparison between DK Universities, 2005.

<table>
<thead>
<tr>
<th></th>
<th>% Finished normal time</th>
<th>% Finished normal time + 1 year</th>
<th>% Still active</th>
<th>% drop-outs</th>
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<tbody>
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<td>KVL</td>
<td>Tek/nat</td>
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<td>51</td>
<td>17</td>
</tr>
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</table>

DTU – Danish Technical University not listed.

Source:

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Examples of AAU impact on regional development

- Within telecommunication, Aalborg University researchers had a great impact on the improvement on the local mobile phones manufacturers by support of "brain Ware";
- Recently Aalborg University researchers have developed a "on for all" antenna to be used in telecommunication equipment. This will likely be a new second wave for telecommunication;
- Alumni from Aalborg University established a company (UJTRA) which developed lifting devices for the wind mill industry. They work now both locally and globally;
- The company Logic Magic was also established by alumni from Aalborg University and is a company making production control software. Half of the developing staff (80 engineers) are from the university;
- A secondary locally spin of is the fact, that the 14.000 students and round 8.000 paid persons at the university calls for a very high number of local and regional persons and companies to support the institution widely;
- Finally, the projects in general are very important as they are giving valuable input to the local, regional and nationally companies in form of results developed in the project setup.
International examples

• Siam University in Thailand: Reduced the length of the IMBA from 15 to 12 months by using the project model. This gave the university better planning and annual intake, and the students came back to work earlier. A win situation for all parties;

• Tec de Monterrey, campus Hermosillo: The project method gave new impact to new development and new possibilities for entrepreneurs by taking local problems and develop projects based on these problems. Further, it was such a success as the parents took active part in the projects as well, and came with valuable input. And in the end, they also wished to be present at the exam, and after the students exam, they even wanted to discuss the projects and solutions further. One of the projects was on how to recycle polystyrene into building materials and another was about using evaporation from water on the roof to cool buildings.

Project and people management

Quality of engineering and technical skills

Contact and working relations to industry

Innovative and creative skills

Knowledge of business-life and -economy

Overall quality of education

Source: Nyhedsmagasinet Ingeniøren, nr 13, 2004