

Submission to the European Commission Public Consultation on the Review of Key Competences for Lifelong Learning

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IRELAND'S NATIONAL SKILLS STRATEGY 2025² explicitly identifies a number of challenging objectives for the education sector, including (p. 11),

- Education and training providers will place a stronger focus on providing skills development opportunities that are relevant to the needs of learners, society and the economy.
- The quality of teaching and learning at all stages of education will be continually enhanced and evaluated.

The same strategy document notes that *'the only constant in life is change and that means we need a strategy which is flexible enough to respond to a rapidly changing environment'* (p. 7).

The Irish Enquiry/Problem Based Learning Network welcomes the above challenges and recognises the importance of integrating key skills development opportunities into all higher education study programmes if the graduates of these programmes are to realise their full potential in a rapidly changing workplace. While it is impossible to anticipate every future societal skill requirement, there are nonetheless certain critical and enabling skill-sets the demand for which will always be strong. These include, for example, information skills, communication skills (written, verbal, ICT & multimedia), teamwork, problem-solving and project management skills.

The OECD [Hoidn 2014] carried out a comprehensive review of Problem Based Learning (PBL) and came to the conclusion that *'overall, the PBL curriculum was found to have a more positive impact on student learning than more traditional programmes, particularly with regard to interpersonal skills like communication and teamwork, and student engagement'* (p. 30).

While many higher education institutions highlight the importance of such skills in their curricula and related literature, they often fail to effectively integrate opportunities for the development of these skills into their study programmes. Reasons often cited for such failures include faculty themselves never having received formal training in teaching and/or assessing such skills, faculty reluctant to move outside their 'comfort zone', little or no incentive from the institution to integrate such learning outcomes, not reflected in university rankings, pressure on faculty to focus more on funded research and publishing.

Barrows (1996) looked at the then growing use of PBL in medical education and beyond and identified significant variation in how it was applied. In fact, he noted that *'all these approaches to problem-based learning represent such a wide variety of methods that now the term has far less precision than might be assumed'* (p. 5). De Graaff & Kolmos (2003) also looked in detail at a number of universities at which PBL has been used extensively for many years and identified three common characteristics of the PBL models in use at these universities. These characteristics are:

- Programme or Curriculum Structure

Each study programme is structured into a logical series of thematic semesters.

- The Learning Process

Students work in groups and each group has a facilitator.

- Assessment

'Assessment drives learning' and close alignment of the assessment methodologies with the programme learning objectives is a key characteristic of fully integrated PBL.

De Graaff and Kolmos (2003) cite the absence of such alignment as *'one of the classic mistakes made when changing to PBL'* [p.659]. If important key competences are to be effectively fostered, then this importance needs to be reflected in the

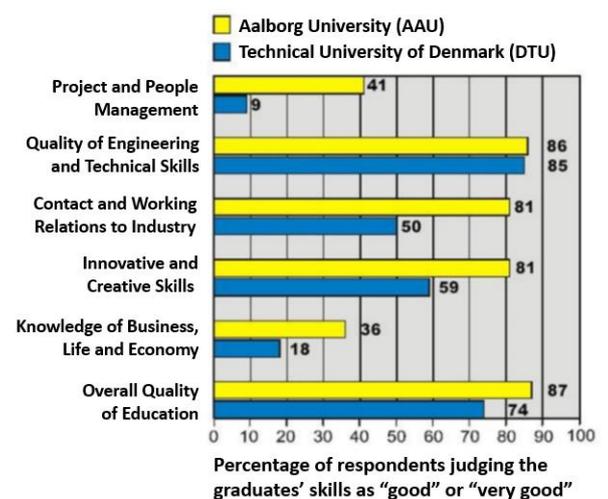


Figure 1. PBL vs non-PBL comparative study [IFO 2004] [Kjærdsdam 2004]

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² https://www.education.ie/en/Publications/Policy-Reports/pub_national_skills_strategy_2025.pdf

assessment methodology. Fundamental to this alignment of assessment methodology with programme learning outcomes is the percentage allocation of marks to the programme components. In a fully integrated PBL programme, project work accounts for 50% of the students' time and this percentage is also allocated to the project assessment [Moesby 2004]. Despite the above findings, De Graaff notes that many universities which were implementing PBL were only allocating around 20% of the student time and marks to project work. This relatively low percentage effectively devalues the importance of key competence development in favour of an 'overstuffed curriculum' [De Graaff 2003 – p. 661] and significantly reduces the opportunity for students to actively engage in the application of taught content to the project(s) with which it is supposedly associated.

Figure 1 above shows the findings of a PBL versus non-PBL comparative study. This study was in fact one of the most longitudinal (30 years) and comprehensive higher education studies ever taken and is often referred to as 'the Aalborg Experiment' [Kjersdam 1994]. Aalborg University was established in 1974 and operated a fully integrated PBL education model from day one. This comparative study was carried out by independent consultants, Institutet for Opinionsanalyse (IFO), in cooperation with the Danish magazine Ingenioren in which the directors of human resource management at 487 companies which employed graduates of the two universities were asked to rate the graduates under the six skills categories shown. The DTU education model is a conventional one as shown in Figure 2 in which a

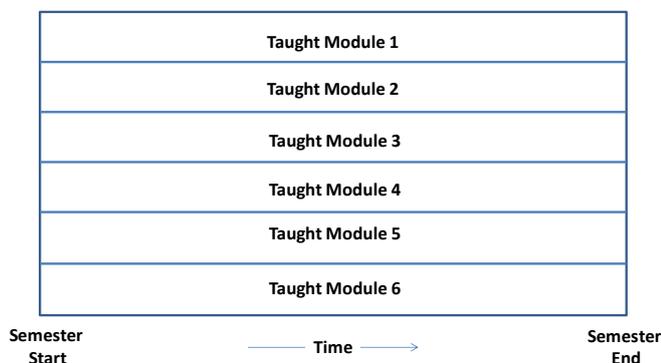


Figure 2. Conventional Programme Semester

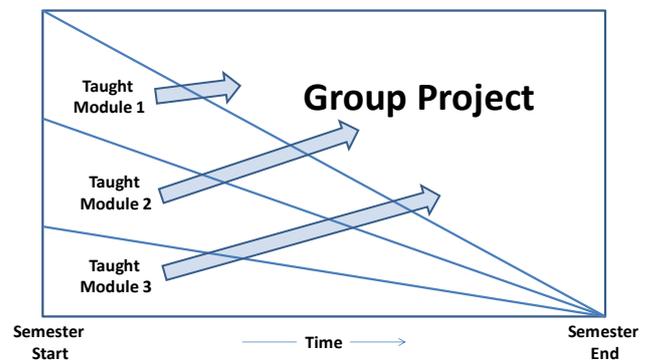


Figure 3. An Integrated PBL Programme Semester

typical programme semester involves six taught modules running in parallel with each module having its own end-of-semester exam. Without the semester having a central theme of the programme discipline, learning is often fragmented with no obvious connection between topics covered in the separate modules. By way of comparison, Figure 3 shows the corresponding structure of a fully integrated PBL semester. The key features here are:

- The semester is front loaded with 3 taught modules and the group project work increases throughout the semester as shown.
- The 3 taught modules and group project are all directly related to a central theme of the programme discipline.
- The taught modules still have written end-of-semester exams worth 50% of the overall marks. The other 50% is allocated to the group project which is assessed via a group project report and individual interviews.

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