Advanced Engineering and manufacturing skills and knowledge transfer

Nelson and Colne College

LEAD CONTACT
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EMPLOYERS
Hycrome Europe
JD Engineering

PMP Utilities
NR Automatics Engineering
Introduction to Teach Too

**Teach Too** is an ETF-funded project delivered in partnership by UCL Institute of Education and the Association of Employment and Learning Providers (AELP). Deriving from a key recommendation of the Commission on Adult Vocational Teaching and Learning (CAVTL) Report in 2013, it sets out to explore and evaluate different models of collaborative activity between employers and providers at practitioner level, in the co-design, delivery and assessment of vocational education and training programmes. Project findings show that these collaborative partnerships have produced significant short and medium-term benefits for employers, providers and learners, and enrich and strengthen local economies and communities.

**Jay Derrick** Director of Teacher Education (post-compulsory), UCL, Institute of Education

Project aims

- To develop employers’ understanding of, and involvement in, the teaching and assessment of trainee engineers
- To promote and stimulate collaborative working relationships between practicing engineers/employers and College teaching and assessor teams
- To create a shared responsibility for curriculum delivery and design
- To create opportunities for professional development and updating of knowledge/skills of staff in Engineering through partnership/networking and back-to-the-floor activities.
Project description

Vocational Education and Training is changing: employer engagement in curriculum planning, delivery and assessment is becoming a mandatory feature of many qualifications. This project fostered employer engagement within advanced engineering and manufacturing curriculum areas, focusing on skills and knowledge transfer between employees and college staff.

This project involved engineers from a cross section of advanced manufacturing businesses in East Lancashire and staff from Nelson and Colne College.

The engineers from the East Lancashire businesses were supported to become skilled assessors allowing them to fully understand and undertake workplace assessments of apprentices. Staff from the College were provided with professional development opportunities to update their knowledge and skills of current practices in advanced manufacturing businesses. This included an exchange of highly insightful ideas and advice from employers regarding the design of assessment methods, as well as employers contributing to lessons, providing equipment and being involved in projects.
Positive impacts

- Students’ interaction with practicing engineers has increased their understanding of how engineering theory relates to actual practice in the real world.
- An increased number and variety of work experience placements have been made available to students resulting in a higher number of interviews and apprenticeship job offers.
- Assessment practice in Engineering is being transformed. Employer assessors have undertaken insightful assessment of apprentices, resulting in improved on-the-job performance from apprentices and increased progress on their programme.
- Teaching practice has been enhanced by the introduction of interesting and thought provoking activities and content including: visits and involvement from employers and engineers, state of the art equipment (such as 3D printers) and real-life examples of engineering in practice.
- Working with employers has resulted in the introduction of a new full time programme for students seeking apprenticeships (where employers can offer mid-year opportunities without impacting College success rates). This new programme is tailored to the apprenticeship framework and the particular skills needs of employers who have sponsored the course. Plans for a more responsive employer training offer are underway.
- Improved communications and closer relationships between College staff and employers has informed the College’s design of its new Engineering facility and the purchasing of equipment.
Key learning points

- There needs to be a thorough check of employers’ ability to commit to such projects - when, where, how long, how often etc. and planning needs to be around their commitments. Not all employers have time to get involved and some are keen until they realise the actual time needed and drop out when under pressure.

- Practicing engineers are not interested in becoming teachers and managers and owners are also reluctant to let their staff become teachers. Assessor training is a better option as they can see clear business benefits.

- The curriculum team need to be reassured that this new way of working is not a threat to them. The biggest challenge has been introducing something which requires commitment and time when time and staff resource is short. There is a tendency to ‘slip back’ to previous delivery practice, particularly when time pressure is high.
Recommendations for developing employer partnerships

- Do not assume what employers will be prepared to get involved in: recognise College priorities are not always the same as employers’ priorities. Consider the needs of all parties.

- Finding mutual goals is important; this can be established by listening to employers’ needs and concerns, then finding a way of getting them to understand the College perspective. Involving students in conversations was found to be an excellent way of achieving this.

- Consider which employers are most likely to be good partners, for example employers who are already known for investing in their staff (or for attending college events and initiatives), employers new to taking on apprenticeships (as they may want to better understand the process) and smaller employers thinking about possible new income streams.

- Good communication is key to success. Email provides a record of conversations (and is often a more accurate record of what people remember has been agreed) but face to face communication is the best way of building effective partnerships. A regular event, such as an Employer Advisory Board, is a good way of ensuring commitment and involvement.

Links and contact details

- [https://www.youtube.com/watch?v=egN5gEBshzo#t=14](https://www.youtube.com/watch?v=egN5gEBshzo#t=14)

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