Swissport Maths Aviation Project

Craven College

LEAD CONTACT
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EMPLOYER
Swissport Ltd

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Teach Too
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 work with employers to develop vocationally contextualised maths materials and develop employers’ pedagogical skills to enhance company in-house training
- To develop aviation students’ maths skills in the vocational context needed for employment
- To enhance the direct line of sight to possible aviation careers and employment opportunities for students
- To further embed a Teach Too culture within both the aviation sector and the maths department of the College.
Project description

Maths crucially underpins many functions in airport and aircraft operations; it is a safety critical industry where getting calculations wrong can mean the difference between life and death. The purpose of this project was to ensure students understood the importance of maths and to encourage them to develop the required skills for the industry.

Working together, curriculum staff and employees of Swissport Ltd developed a collaborative programme of study to develop maths skills using the work related context of aircraft load control.

Phase one of the project was delivered by the College GCSE/Functional skills tutors. This was to ensure that the students had the basic maths principles required. Phase two built on this foundation by introducing the line of sight to work involving maths used in aviation. Swissport Ltd staff delivered 5 sessions to 56 participants from the point of view of a ground handler with responsibility for aircraft load control.

The sessions covered applied maths in the context of safe aircraft loading within industry standard parameters i.e. weight and balance, fuel payload, pax (passenger) numbers, hold and cabin baggage weight, cargo weight, distribution and safe configuration of a range of aircraft types and holds using weight, surface and area calculations. The sessions were totally industry based, including completion and checking of documentation required to dispatch an aircraft. The students used maths to complete activities within the load controller’s daily job role and further explored the implications of incorrect calculations and poor recording. This was achieved by use of examples from air crash investigations.

College staff supported and mentored Swissport Ltd staff through every stage of the process of planning and delivering the 5 sessions. Following each session the Swissport Ltd tutor completed a written evaluation with actions points to take forward to the next session. This support and mentoring from an experienced College tutor developed the delivery skills of Swissport Ltd employees, which was the desired outcome for Swissport Ltd who were keen to improve the delivery of in-house training within the company.
Positive impacts

- Students were motivated by the real world context and developed confidence in use of maths though the use of the real industry situation
- Students’ understanding of the need for maths in aviation and an understanding of the implications of getting it wrong were enhanced
- Curriculum staff were up-skilled in industrial knowledge and current practice
- There was enhanced motivation of maths staff and an enthusiasm to look at similar ways of delivery in other curriculum areas within the College
- Curriculum staff developed coaching and mentoring skills through supporting Swissport Ltd staff to develop training skills
- Other industry linked curriculum areas were able to draw on the Teach Too delivery model to better prepare students for the workplace
- There was an opportunity to “give something back” to an employer that was already involved with the College, through skills development of the Swissport Ltd training team in the planning and delivery of sessions. This will further enhance in-house training within the company.
Key learning points

- Ensure the “two way street” of benefits are identified explicitly to the partners involved prior to project inception; benefits for the provider and benefits for the employer need to be mutually understood.

- Build a mutually supportive relationship so that each other’s needs are understood, and ensure that this is flexible enough to react to the workload and issues of partners at differing points through the process.

- Consider how best to frame the experience for the students, how to introduce the experience in the context of their course, their aspirations and skills development in maths.
Recommendations for developing employer partnerships

- Taking time with the employer, at a senior level, to “build the case” for the project, so that they are clear about the benefits of the project, and continue to be involved when other priorities may take precedence.

- Be clear about what each partner needs to contribute – there needs to be specific objectives for all parties.

- Understanding and balancing the priorities of all organisations in differing sectors i.e. industry and education.

- There needs to be a clear benefit to the employer for their input. In this case it helped the company develop the skills of the in-house training team.

Links and contact details

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