OUTSTANDING TEACHING, LEARNING AND ASSESSMENT TECHNICAL SKILLS NATIONAL PROGRAMME

Case study on project led by Harlow College

Managed by

In partnership with
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DEVELOPING OTLA FOR MANAGERS IN ENGINEERING, MANUFACTURING AND CONSTRUCTION

Overview of Project

This Project was devised by Harlow College as a response to a series of challenges facing both the education sector and the industry sectors of Engineering, Manufacturing and Construction. It is predicated on a belief that if the education sector works more effectively with industry that it is possible to produce quality future employees, who are well educated and trained in the most up-to-date theories and technologies.

Influencing factors were that:

- Engineering, Manufacturing and Construction are South East Local Enterprise Partnership (SELEP) key sectors and undergoing profound growth in Essex;
- Essex must recruit 13,500 more engineers to fill emerging roles and those vacated by an imminently retiring workforce;
- Engineering, Manufacturing and Construction employers report difficulties in recruiting people into jobs from entry level to high skilled occupations.

However, there are serious weaknesses within the skills sector when it comes to the delivery of programmes in Engineering, Manufacturing and Construction. Largely the teaching of theory across these curriculum areas is didactic and dull. College Managers report that they have no systematic way of providing up-to-date industry training experience for their staff. It is not standard practice for teachers of these subjects to undertake upskilling within their specialist skills areas as part of their continuous professional development and there is also a shortage of qualified staff entering the Skills Sector from these industries.

In trying to tackle these issues it also has to be recognised that there has been no noticeable investment in pedagogical approaches for these sectors in recent times and there are no professional exchange networks across Essex for teachers in these disciplines. This is now particularly significant as new changes to technical diplomas, apprenticeships and into the future the Sainsbury reforms, places a greater emphasis on examined assessment and end point assessment for students studying these subjects. This is an area in which teachers of Engineering, Manufacturing and Construction have little or no experience. Therefore professional development and sound pedagogic approaches are essential for student success.

We are continuing to respond to [our] skills challenges by developing new and innovative solutions, and by delivering our existing programmes, in order to achieve our mission 'to build the most productive and responsive skills system in the country'.

SUZANNE JUDE
FORMER CHAIR
ESSEX EMPLOYMENT AND SKILLS BOARD
This OTLA Project is therefore geared towards two main goals:

a) Upskilling of practitioners within their own specialist fields of expertise;
b) Challenging them to develop more innovative practice within the classroom that will prepare both they and their students for a different pedagogy with the future introduction of T-Level and new Apprenticeship Standards.

**Partners of Harlow College**

The following colleges began this Project as partners with Harlow College:

- Chelmsford College*
- East Kent College*
- Colchester Institute
- Epping Forest College
- Herts Regional College
- College of North East London (CONEL)
- PROCAT
- SEEVIC College
- South Essex College

*Chelmsford College and East Kent College later withdrew from the Project due to resource issues.

**Project Reach**

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<th>Category</th>
<th>Number</th>
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<td>Educational organisations</td>
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<tr>
<td>Manager Practitioners</td>
<td>31</td>
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<td>Staff disseminated to</td>
<td>103</td>
</tr>
<tr>
<td>Students impacted on by Project</td>
<td>1147</td>
</tr>
<tr>
<td>Employers involved in Project</td>
<td>22</td>
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</table>

The Essex Employment and Skills Board (ESB) was also kept informed of the activity of this Project as was the South East Local Enterprise Partnership via The Skills Advisory Group. The Director of the Federation of Essex colleges (FEDEC) was seconded to the Project as Project Lead.
As a LEP, we have been pleased to deploy our skills capital funding to help ensure that colleges have the facilities and equipment to respond to shortages in sectors such as construction and engineering. We recognise the fundamental role of skills in achieving economic growth across our priority sectors. Alongside physical infrastructure, it is crucial that support such as Continued Professional Development, employer partnerships and collaborate working is facilitated.

Adam Bryant, Managing Director, 
South Essex Local Enterprise Partnership

One of the skills challenges in Essex is ensuring that training provision meets the needs of local businesses, ensuring that residents have the necessary skills to access local employment opportunities. ECC very much supports the ETF AoC Outstanding Teaching Learning and Assessment Project for Managers in Engineering, Manufacturing and Construction, particularly as these are key sectors within the county. This project clearly helps to increase employer engagement with providers and offers an opportunity for Essex training providers to work more closely together, therefore helping to contribute to the employer led skills system that we are looking to achieve in Essex.

Tristan Smith, 
Essex Employment and Skills Board Secretariat & Commissioner for Employability 
& Skills, Essex County Council

Aims of the Project

The aims of this Project were:

- To raise awareness of the Sainsbury Review and of the implications of the planned introduction of T-Levels;
- To stimulate planning activity within colleges in order for Essex colleges to be prepared for the introduction of T- Levels;
- To increase the numbers of employers from the Engineering, Manufacturing and Construction sectors involved directly with their local college;
- To stimulate dialogue between colleges and local employers;
- To bring together peer practitioners from across Essex, (and also London and Hertfordshire);
- To create a learning environment for that practitioner group away from their base college;
- To deliver CPD that would result in questioning, experimentation and reflection on skills, knowledge and professional practice;
- To put in place a methodology that would allow for dissemination of new knowledge and ideas to a much larger cohort of staff and ultimately students;
- To raise the levels of teaching practice within participating colleges beyond ‘dull’ and ‘didactic’;
- To begin to develop concepts of innovation and imagination into the manager practitioner group.
Project Methodology

At the commencement of the Project, each of the partner colleges put forward between one and three managers or aspiring managers (manager practitioners) from their Engineering, Manufacturing and Construction Teams. At the Project Launch meeting, held in April 2017, the members of the Harlow Project Team and the OTLA Peer Support Advisor, met with these representatives. This first session was an introduction to the Project and was used to fully appraise the manager practitioners of:

- The OTLA Project Programme and the ETF Professional Standards Framework;
- The rationale for launching the Project across the Engineering, Manufacture and Construction sectors;
- The aims of the Project;
- The intended outputs and outcomes;
- The roles of the participants i.e. the Harlow Project Team, the Peer Advisor and the Manager Practitioners;
- The significance of the T-Level to their future curriculum development.

Twenty one manager practitioners attended the induction session from ten different colleges, including Harlow College. During this induction session each were given a copy of the Participant Handbook which laid out the programme of continuous professional development (CPD) that had been planned for the Project. At the same session, manager practitioners were introduced to, and trained to use, two digital resources that they were asked to employ within the Project; Slack and Padlet. All Manager Practitioners also completed the on-line Professional Standards Survey.

The CPD programme consisted of five workshops plus the induction event and a final consolidation event:

1) Understanding technical and theoretical skills with a particular focus on interactive pedagogical approaches;
2) The use of new technologies in the engineering, manufacturing and construction sectors;
3) Building FE sector capacity and expertise in employer responsive excellence and developing the capacity of providers to support each other in the innovative and continuous improvement of their services to employers. Sharing good practice on a Padlet wall;
4) New approaches to curriculum design. Building capacity for collaboration, innovation and continuous improvement;
5) Problem based learning.

The workshops took place in May, June and September. The consolidation event took place at the end of October. The subject matter of the workshops was agreed in advance of delivery with a forum of employers brought together by Harlow College. Workshops were delivered by managers of staff development, senior managers from
participating colleges, employers from the three sectors and a manager from one of the other organisations involved in Phase 1 of the OTLA Project. At the completion of each workshop, manager practitioners completed anonymised feedback sheets.

The model that this CPD programme was based on was that of interactive workshops for the manager practitioners with an understanding that whatever was learnt at the workshop would be shared by the manager practitioner with her or his staff and fellow managers. The workshops were designed to allow for freedom of interpretation in order for the manager practitioners to best match new ideas and knowledge with current practice.

Manager Practitioners were asked to record the actions that they took immediately after each workshop. It was suggested that such activity might be:

- Dissemination of materials and/or information to colleagues;
- Production of new teaching resources or amendment of existing resources;
- Ideas for new curriculum delivery;
- Use of new theories in classroom practice;
- Building of links with new employers.

The suggested method of recording this activity was via a Padlet wall. Manager practitioners were expected to keep their individual Padlet wall constantly updated and to allow access to it for the OTLA Project Team and their fellow manager practitioners. Slack was to be used as a means of communication between this group. Throughout the Project, and at the conclusion of each of the workshops; the Project Team would encourage reflection by the manager practitioners on what they had learnt from a session and how that knowledge would impact on their professional practice.

In addition to the delivery of five scheduled workshops it was recognised by the Project Team that each manager practitioner had individual CPD requirements that needed to be addressed in order to achieve overarching Project outcomes. Manager practitioners were therefore given the opportunity to choose a work shadowing placement to be undertaken during the summer vacation period. The length and nature of the placement was decided by the manager practitioner and her or his line manager, in accordance with their existing professional development plans. The two stipulations made by the Project Team were that manager practitioners then had to report on how the work shadowing opportunity had a) Improved their technical expertise; b) how it would impact on their ability to better teach their subject in the future.

Manager practitioners welcomed this opportunity and undertook a variety of work shadowing placements. For those manager practitioners who were by education and training, practitioners within the industry sectors of Engineering, Manufacturing and Construction, all chose to spend their time within a company where they were able to update and enhance their own skills base.
Colchester Institute

A manager practitioner with responsibility for Motor Vehicle provision at the College attended a work shadowing session at a local company specialising in Motor Vehicle engineering, Safeguard SVP Ltd. This work shadowing opportunity was aimed at building up a closer relationship with this particular company for the benefit of Colchester Institute students. As a result of the work shadowing, the company agreed to present regular talks to and meet with students of Motor Vehicle Engineering at the College, which could lead to future work experience opportunities or even future employment for them.

The second manager practitioner visited an engineering company with a focus on Profile Manufacture, FlaktWoods. His aim was to understand how to use support systems for specific machinery so that he could go on to upskill his colleagues and from there create innovative teaching sessions around business improvement techniques.

Harlow College

Two of the manager practitioners undertook work shadowing at Stansted Airport. This was partly at the request of the Airport as it wanted Harlow College to create a template training plan for all of their future apprentices based around a portfolio of assessment.

‘I am working with Stansted Airport companies to identify the changing roles for their apprentices specifically, how these have been affected by the introduction of new technologies’.

K. Nunn, Manager Practitioner
Harlow College

Herts Regional College (HRC)

The manager practitioner from HRC with a background in the construction sector, chose to work at Walpole Construction Ltd, a company where he learnt how to put a conservation Velux window into a 16th century property. This new knowledge will be put to good use in the modification of existing teaching materials to incorporate guidance on non-standard construction techniques.

PROCAT

The two manager practitioners from PROCAT chose to work within an Electrical and Gas Testing company. The owner of the company welcomed this overture from PROCAT as he felt that the level of knowledge held by students coming to his company from colleges was not up to industry standards. A real benefit from this work shadowing opportunity was that the same employer has offered to go into PROCAT to teach the Testing and Inspection elements within their courses.
South Essex College (SEC)

The manager practitioner with a background in Engineering chose to work at Steelcraft UK Ltd, a company that specialises in design, fabrication and installation for the construction and building sector. This placement was organised in order that the manager practitioner could gain more knowledge of welding techniques to better support his lecturing staff and students around the new Apprenticeship Standard in Welding.

*During the work shadow I followed all operations and processes starting from the release of official drawings to final protective coatings. As the nature of the business is in the civil engineering sector, it has given me the opportunity to extend my knowledge in interpretation of civil structural drawings.*

H. Singh, Manager Practitioner
South Essex College

The final component of this Project was another bespoke opportunity for the participating colleges. Each college was given an allocation of Project funding to pay for a specialist(s) to come into their college and deliver a training event to them and their lecturing staff across the Engineering, Manufacturing and Construction Teams. Again, the stipulation was that this additional CPD event had to work towards the outcomes of this Project and impact on as many teaching staff as possible.

**PROCAT**

The two manager practitioners organised for Honeywell to come to the College to provide training on their controls and wiring plan systems. This session was provided for both lecturing staff and students.

South Essex College (SEC)

IPECO, an international company that designs and manufactures aircraft seats and other components, visited the Engineering team at SEC to share industrial standards for soldering and installation. As well as offering this CPD session at the College, the Head of Training and the Head of the Electronics Division of IPECO, approved the work of SEC’s Engineering Apprentices.

**Project Outputs**

- The production and delivery of a bespoke training programme that provided cost-effective support for individual practitioners and facilitated dissemination to a larger number of practitioners;
- The production of Padlet walls that demonstrate an array of different activities and reflections by the practitioners that are available for the peer group to view;
- The establishment of a working group of peers, ready to share information, ideas and practice with each other.
**Project Outcomes**

- Manager practitioners from a number of colleges across Essex, Hertfordshire and London are now fully aware of the nature of T-Levels and are beginning to prepare their staff for their future introduction;
- The participating colleges have begun to build relationships with new employers that they had not previously worked with;
- Staff and managers from these colleges have gained skills in subject related technologies through work shadowing and can now teach a broader range of practical skills across their curriculum areas;
- New teaching methods have been introduced to the manager practitioners and there is evidence that both they and their colleagues are experimenting with these different methods;
- There is now an enthusiasm for collaboration amongst manager practitioners and there have already been examples of managers visiting each other and sharing specialist equipment and resources.

**Project Impact - Providers**

- Improved teaching practice;
- Staff who are aware of and preparing for T-level introduction;
- Staff and managers have acquired additional subject specific skills and knowledge to share with colleagues and learners;
- A network of practitioners has been agreed upon.

The overall impact to the college has been good. In some areas of the Construction department, the information that has been gained by attending the OTLA Project has helped to build the confidence of some students and get them more involved in their programmes of study. It has also had a positive impact with teaching and learning as it has encouraged some lecturers to take a key role in setting up project/problem based learning with has rekindled practice more common in industry. It has also had a positive impact with some employers. This is due to better communication practice with the companies by the college. These improved communication channels will hopefully lead to work placements for some of our full-time learners. Hopefully through dissemination from the OTLA workshops, teaching staff are also aware of how T-levels will start to affect teaching and assessment methodologies.

*P. Dabbs, Manager Practitioner*
*Herts Regional College*

**Project Impact - Employers**

- Have had an opportunity to meet managers from their local college and share their views regarding curriculum content and design;
- Have had an input into what the CPD programme would cover;
- Have had the chance to show managers from their local college the nature of the technology and equipment that they are using and to make clear the needs that they have of future employees who may be trained by the local college.
**Project Impact - Practitioners**

- Have had the opportunity to network with colleagues from other colleges;
- Have been given the chance to experiment with new ideas and concepts through the workshops and after;
- Have been given the chance to choose their own preference for skills updating and to work within companies that they may otherwise have been hesitant to make contact with;
- Have had a framework to base CPD sessions on for their colleagues;
- Have learnt new ways of sharing and presenting information.

'At the start of this Project I had just become the manager for the whole STEM area including Engineering. My understanding of the subject area and teaching and learning needs was limited. Through attending the OTLA sessions, I have developed a comprehensive and much more thorough understanding of the direction in which TLA in Engineering needs to move. Through support from colleges on the OTLA Project, I have been able to effectively cascade the information provided through the Project Group to my own team which has resulted in an Engineering Department who are more reflective about their own TLA practices and willing to move forward with these. Through discussion with the executive leadership team at the college, we have put a much bigger focus on working closely with local employers to ensure our delivery meets their needs and allows them to have an input on the Engineering curriculum. This has resulted in improvements in achievement and TLA throughout the course of the Project which will continue.'

*J. Parker, Manager Practitioner*  
*SEEVIC College*

Manager practitioners were asked to complete the ETF TLA survey at the start of the project and again towards the end of the project. Analysis of survey outcomes at the start and finish of the project show an improved average score for each section.

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<th>Survey sections</th>
<th>Average score at start</th>
<th>Average score at end</th>
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<tr>
<td>Professional values and attributes</td>
<td>4.43</td>
<td>5.00</td>
</tr>
<tr>
<td>Professional knowledge and understanding</td>
<td>4.43</td>
<td>4.56</td>
</tr>
<tr>
<td>Development of professional expertise and skills</td>
<td>4.00</td>
<td>4.50</td>
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The most noticeable improvements were for the following questions:

- How effective are you at maintaining and updating knowledge of your subject and/or vocational area?
- How effective are you at maintaining and updating your knowledge of educational research to develop evidence-based practice?
- How effective are you at applying theoretical understanding of effective practice in teaching, learning and assessment drawing on research and other evidence?
- How effective are you at evaluating your practice with others and assessing its impact on learning?
- How effective are you at maintaining and updating your teaching and training expertise and vocational skills through collaboration with employers?
- How effective are you contributing to organisational development and quality improvement through collaboration with others?

**Project Impacts - Learners**
- Will now have the opportunity to learn practical skills that may not have been deliverable prior to this Project because of lack of staff knowledge;
- Will have access to a wider employer base because of the additional employers that have been involved in this Project;
- May have the opportunity to access more advanced equipment than before through sharing of resources across colleges;
- Will be taught by staff who have been further developed through participation in this Project.

A massive improvement in students’ satisfaction rating from low <50% in November 2016 to >90% in June/July 2017.

- Level 3 Engineering Year 2 – Improvement in Value Added – 4 from a 6.
- Level 3 Engineering Year 1 – Increase in achievement rate by 9% and improved Value Added (2 from a 5).
- Level 2 Engineering – Doubled achievement rate from 2015/16.

J. Parker, Manager Practitioner  
SEEVIC College

Learners are benefitting from new question and answer skills learnt by teachers which have improved teaching practice. Learners are employing higher order analytical thinking skills.

M.Wylds, Senior Link Manager  
CONEL

**Project-led Changes**

**PROCAT**

**Induction week 2017/18**
PROCAT made the decision this year to approach Induction week using more relevant trade skills in the sessions alongside the usual ice breaker tasks that have been used in previous years. The result was better than we had hoped for with the students getting to grips with using tools and learning specific trade related tasks which many of the students have since been able to replicate on site with their employers – this has resulted in positive feedback from both employers and students alike.

**CPD with Project Involvement**
We can report that there is a clear increase in CPD sessions which are now regularly timetabled into the working week. The CPD sessions are now being cross-referenced with the information taken away from the OTLA workshops. Staff are required to implement new strategies for the following week and report back on results in the next CPD session. The impact has been a more open approach to sharing resources across the
Seevic College

**Business Enterprise Development Role**
As part of the college’s overall strategy a new role has been proposed which will support staff with co-ordinating with businesses and developing students’ entrepreneurship and subject specific language and skills. I have discussed this with the relevant ELT manager and the information from the OTLA Project will be used to further develop this role in terms of engaging closely with employers, allowing them to be involved in future curriculum development.

J. Parker, Manager Practitioner

In discussion with the CPD manager, it has been arranged for a specialist consultant in Student Led Learning Companies to support the Engineering Department in developing a learner company. The aim is for students to learn more through employer/client led engagement, tasks and live briefs improving skill development and industry specific work skills; tackling issues with insufficient engineering based work placements.

Consultant, Student Learning Company

Towards Outstanding Teaching, Learning and Assessment

Harlow College

**Linking the OTLA Project to full-time students**
I was looking for tasks and activities that could be used with our full-time students to help prepare them for transition to employment. The Level 2 work readiness programme aims to get students ready for an apprenticeship within one year. A runway light unit and a baggage carousel have been donated to the college for all our students to practice on. The employers recognise that the more students are exposed to this equipment, the more likely they are to consider a career at the airport. Students are taught to use this equipment in the first term ready for their work experience in term two.

K. Nunn, Manager Practitioner

Herts Regional College

**Quality Improvement**
So far the OTLA Project has had a positive impact as learners are now currently involved in different projects around the curriculum areas. Also CPD has been carried out with staff with the information gained through the OTLA Project. This has been completed since the Project started.

**Curriculum planning & delivery**
Due to the OTLA Project, some student activities are now going to be more project based which is linked to the session completed on Problem/Project Based Learning. This has been adopted on several programmes throughout the Construction department.

P. Dabbs, Manager Practitioner

Procat

**Employer visit**
Honeywell came in to deliver a training session to PROCAT’s Level 3 Plumbing students on their systems. The learners’ feedback was generally
positive and they stated that they found the session a good supplement to what the teaching staff deliver at the college.

Impact on staff using technology
The use of various technologies has increased during 17/18. Neopod and Kahoot have been a great success. These technologies have engaged learners in different ways. Kahoot is about new questioning techniques. Neopod learners can access all learning materials at any time of the day. This means that if a learner has missed, or wants to recap a session, the resources are there for them at a touch of a button.

R. Pendleton & I. Rist, Manager Practitioners

SEEVIC College

Upskilling and qualifications for staff
E-learning CPD – It has been agreed through the CPD manager that a CPD day will focus on ‘E-learning technology team 17/18’ to upskill engineering staff in this area to allow students to access information through a wider variety of sources improving engagement and increasing students’ IT skills. Engineering staff will be encouraged to attend a BETT fair to share their experiences with E-Learning and improve their engagement with ILT in the classroom.

International Links
Skype conferences with a German manufacturing company – VS- will be arranged to allow students to access the global engineering picture. The College will also look into a school partnership with the British Council to further engage students with the bigger international picture of engineering.

Enrichment – Trips and visits
In discussion with ELT it has been agreed that there will be a calendar of sector related events, including conferences, exhibitions, and employer fairs made available to allow engineering staff to arrange more offsite trips and visits to improve students’ awareness of opportunities after completing their course as well as to better engage students. Through discussion with ELT it has been agreed that we will look at providing all engineering students with a First Aid qualification to make students more work ready and employable after completing their course.

Schemes of Work and Planning
Staff are incorporating more problem based learning style assignments into their SOWs. There is now increased employer engagement through the organisation of more trips for students. We are working with local Engineering and STEM ambassadors to bring work place knowledge to the classroom. A STEM ambassador from Ford’s Engineering Management sector came into the college and delivered a presentation to the Team on how they could use ambassadors. Further plans have been made for him to return to deliver some CAD based CPD.

J. Parker, Manager Practitioner

Upskilling the Workforce

Colchester Institute

Feedback from work shadowing
The work shadowing undertaken will contribute to the development of the department and bring up to date the knowledge required to keep delivery relevant. This process has provided me with an opportunity to observe up to date work practices that show how other motor vehicle technicians work and what their roles include. It has also helped me to gain a deeper knowledge and understanding of other roles and functions within the motor
vehicle industry. Following on from this CPD opportunity, I have reported my findings back to the delivery team and as a team we are looking at options related to how the syllabus is currently being delivered to learners, so that we are able to reflect, plan and develop the current working practices. We aim to develop more inspiring teaching and learning practice. From this we can debate and review the way we plan, deliver and assess learners at all levels to ensure that they are better ready for work in the future.

K. Doo, Manager Practitioner

Industrial placement at Flaktwoods of Colchester
Overall during my work shadowing opportunity, I gained a valuable insight into some new technology which I am now investigating to instigate into our new curriculum. I am hoping to use the newly acquired skills with Radan to implement this system software in our delivery to not only improve on teaching and learning practice but to support local companies by providing the industrial training that they may require for lean manufacture in the future.

S. Steward, Manager Practitioner

Harlow College

OTLA Project Report
I decided to carry out my summer placement with Vero Software. My reason for this choice was due to the fact that in March 2017 we opened our new Advanced Manufacturing and Engineering Centre at Harlow College (HAMEC). The plan for our new Centre is to offer units that are more closely linked to the needs of the employers that we work with. In turn this will better prepare us for the introduction of T-levels which requires strong links with employers.

T. Stokes, Manager Practitioner

PROCAT

Outcome of work shadowing
The day consisted of various elements of testing domestic installation. The main gain for Ricky and Ian was that they acquired new skills and knowledge to pass onto their colleagues at PROCAT. The Director of ‘3092’ stated that there is a lack of knowledge from the students coming out of colleges currently but that this new work shadowing activity will tackle this problem for the future. Another benefit of the work shadowing was that the Director of ‘3092’ has offered to teach the Testing and Inspection elements of the course being delivered at PROCAT.

R. Pendleton & I. Rist, Manager Practitioners

SEEVIC College

Redesign of Area
The STEM area including Engineering, is scheduled for a redesign. Staff have begun looking at other centres and employers to gain an insight into modern Engineering workshops to better replicate these for student learning experiences.

TIP in Engineering/STEM
The College Teaching and Learning Management Team have recently advertised for a Teaching and Learning Improvement Practitioner who will be able to work closely with the Engineering Team in continuing the work started from the cascading of TLA practices from the OTLA Project.
Staff Development

Regular learning walks to observe Engineering tutors have allowed me to develop a clearer picture of strengths and areas for improvement. These are recorded on a central college log accessed by the Head of Teaching and Learning. As a result, action plans have been developed for some staff and additional support from a Teaching and Learning Improvement Practitioner have been put in place. One member of staff has started a Diploma in Teaching to develop his own practice. The Head of Maths has run additional support sessions for Engineering staff who want support with their Maths to better support students in lessons.

J. Parker, Manager Practitioner

Teachers now need to take more time to search for pre-designed activities and resources shared through on-line platforms as we have seen through the OTLA Project, that a little sharing can go a long way.

M. Wylds, Senior Link Manager, CONEL

Implementing the Skills Plan

There are three main areas to this Project that have helped to align it to the aspirations of the Post-16 Skills Plan:

1. It focused on three main industry sectors of key significance to the SELEP region’s economy i.e. Engineering, Manufacturing and Construction;
2. It focused on improving the involvement of employers in the work of the departments of Engineering, Manufacturing and Construction;
3. It focused on preparing managers and teaching staff for the introduction of T-Levels by asking them to consider the changes to the curriculum that will occur as a result of their introduction and to make some early adjustments.

SEEVIC College

Curriculum design – future proofing to meet SELEP needs

The Team is working with the ELT in looking closely at LEP priorities, other local offers and employers’ needs as well as at potential T-Levels. This is being used to help us redefine our current offer to make it unique and specific – allowing our students to become rounded individuals who are work ready and able to step into future employment gaps in the sector.

Change of Examination Board

After a review of local employers’ needs using the SELEP Report, the Engineering Team have changed awarding bodies. The units offered and delivery methods available, allow for more scope and flexibility in what the Team can offer students in terms of skills development.

J. Parker, Manager Practitioner
Lessons Learnt Through the Project

- The benefits of collaborative working rather than competitive working;
- How the building up of professional relationships between employers and members of teaching staff can result in real examples of employer engagement where employers are prepared to give time to colleges to share their views and expertise;
- The imperative to constantly upskill teaching staff but to make that CPD experience enjoyable and to take the fear out of it for college employees;
- How effective professional development can be if delivered via peer groups that generate enthusiasm and a sense of achievement;
- Stated outcomes and outputs may not always be achieved but they will invariably be replaced by a surprising other!

Legacy

This Project has brought together a group of like-minded practitioners from the curriculum areas of Engineering, Manufacturing and Construction. It has demonstrated to them the advantages of working with colleagues from across other organisations to the extent that there is now a real desire to continue to work together.

The Federation of Essex Colleges has a proven track record of launching and running Professional Exchange Networks which have now morphed into Peer Support Groups (PSGs). These groups operate for Apprenticeship Provision, the Study Programme, English and Maths. It is now intended that a PSG will be set up for Engineering, Manufacturing and Construction.

Additionally, through the strong working relationship between Essex Colleges, Essex County Council and the Essex Employment and Skills Board, the OTLA Project is going to be used as a launch pad for another initiative. Plans are being drawn up to create a model of collaborative working between Essex Colleges and Essex based Engineering companies, through the conduit of the ESB. Colleges will be identifying areas of the Engineering curriculum that they require specific industry input into, where only the knowledge and expertise of employees of cutting edge companies will suffice.

Reflection and Conclusion

The Project Aims

This Project identified ten aims that it wanted to achieve. At the time of writing this Case Study evidence would suggest that eight of those aims have been realised. The two final aims of the Project ‘To Raise levels of teaching practice within participating colleges beyond ‘dull’ and ‘didactic’ and ‘to begin to develop concepts of innovation and imagination into the manager practitioner group’ are still a work in progress. These aims of
course, are significant in terms of moving towards outstanding teaching, learning and assessment for all participating colleges - the core aim of this Project.

Whilst there is some evidence that manager practitioners and their staff are experimenting with new teaching methodologies, it is to varying degrees across organisations and even across departments within those organisations. It has also not been possible to measure the impact of the Project on teaching and learning through data on lesson observations. The Project Team had hoped that colleges would have been able to supply data on grades or evaluations of lesson observations and/or ‘walk throughs’ of participating staff both before the commencement of the Project and during the Project. Unfortunately it has not been possible to obtain this data.

Further evidence of impact of the Project in relation to teaching and learning should be:

- Raised levels of student success;
- Raised retention levels;
- Raised student satisfaction levels;
- Improved punctuality at sessions, both theory and practical;
- Improved grading of Departments/Faculties of Engineering, Manufacturing and Construction within College’s Self-Assessment Reports.

Such data will not be available until the end of the 2017/18 academic year. Whilst the Case Study reports an example of where a college believes that success levels in 2016/17 have been positively impacted upon by staff involvement in the Project, it would be difficult to claim such improvements are solely the result of that involvement. The Project Team will, however, be liaising with participating colleges towards the end of the academic year to request data on at least some of the key performance indicators listed above in order to see whether these two final aims have impacted significantly or not on learners.

The Project Outputs

Whilst the Project Team believe that the outputs achieved by the Project have been of significant benefit to the participants, it is acknowledged that the strategy to use Padlet walls and Slack as the only means of recording activity and sharing good practice has limited the sharing of that information to the participating colleges only. The Padlet walls are private to the individual manager practitioners and are only shared between their peer group. They were intended as a place where participants in the Project could share their ideas, successes and failures and ask for support. As such they were never intended for
sharing more broadly.

However, the Adobe Spark interactive power-point brings together the best parts of the Padlet walls. This will be shared publicly at the National Conference and will be offered by Harlow College as a resource to be placed on the ETF website.

Additionally, there is much that the manager practitioners would like to share with colleagues across the sector about their experiences of being part of this Project. Several have already expressed interest in speaking at the National Conference in March 2018, by which time there should also be more evidence of ‘impact’ on their staff and learners.

**The Project Outcomes**

All of the participating colleges were asked to provide feedback to the Project Team of the impact of this Project on their departments/faculties of Engineering, Manufacturing and Construction. Without exception, all stated that:

- Their managers and staff were now aware of the Skills Plan and of the future introduction of T-Levels;
- They have made relationships with employers that they had not previously worked with;
- The manager practitioners had benefitted from having the opportunity to choose how they wanted to upskill;
- They have begun to introduce some new teaching methods although the degree of take up by staff does vary across colleges;
- There is a desire to continue to work collaboratively with other providers.

In summary, the Project Team believe that the Project has set in motion a movement amongst managers of Engineering, Manufacturing and Construction within participating colleges, to improve the experience of their learners. Currently that movement is gaining momentum at different levels dependant on the energy and drive of their manager practitioners. The time frame over which this Project ran across academic years, did create a ‘start’, ‘stop’, ‘start’ pattern of activity which undoubtedly slowed down the Project’s momentum. It is however hoped that across a full academic year, activity will build and spread across our colleges and that there will be tangible evidence available by the summer of 2018 that this Project has indeed contributed to the improvement of teaching, learning and assessment across parts of Essex, Hertfordshire and London.

Project outcomes are summarised in an Adobe Spark presentation.