# CAVTL Commission on Adult Vocational Teaching and Learning Summary of emerging themes December 2012

# **CAVTL**

# Commission on Adult Vocational Teaching and Learning

# Summary of emerging themes

### Introduction

- 1. Announced in *New Challenges, New Chances* in December 2011, the Commission on Adult Vocational Teaching and Learning has been tasked with raising the quality, and improving the outcomes and impact, of adult vocational teaching and learning for learners and employers.
- 2. Overall, the Commission's terms of reference are to:
  - articulate the features of excellent adult vocational teaching and learning;
  - review a range of pedagogical approaches;
  - investigate the role of technology;
  - explore how the best colleges and providers work with employers; and
  - develop a sector-owned framework to enhance the quality of adult vocational teaching and learning.
- 3. The Commission was launched in July 2012, and is due to report in March 2013. This summary of emerging themes is a progress update to the FE and skills sector and partners on what the Commission has learned so far, at the mid-point of its work. It is not an interim or draft final report we are not yet at that stage. Rather, it is a summary of emerging themes, and invites further comment and debate over the winter to inform what we hope will be a genuinely independent and sector-led report. It is based primarily on the Commission's first three visits which included two large engineering businesses. The study of other key sectors and vocational areas will be an important part of the Commission's work over the winter (see 'More to do' para 48 below).
- 4. Following a brief background note on the Commission, this update is in three parts:
  - Part A setting the scene describes some of the contexts for the Commission's work;
  - Part B emerging themes outlines five emerging features of excellent vocational teaching and learning;
  - Part C more to do identifies areas the Commission will pursue over the winter.

# Background

5. The Commission has approached its work in an innovative, consultative and transparent way. Appointed through an open process, nineteen commissioners reflect the breadth

and diversity of vocational teaching and learning. In addition, partners and advisers are extending the reach and depth of the work. The Commission is deliberately not Westminster based. Central to its approach is a programme of visits to observe excellent vocational teaching and learning in action; to listen to learners, teachers and trainers, and employers and trade unions; and to reflect on the characteristics of effective practice both in the UK and overseas – working from practice to theory.

- 6. Commissioners are committed to taking account of the views of learners, teachers, trainers, researchers and employers at all stages of their work. Each of their six planned meetings includes a visit to see different examples of adult vocational teaching and learning in action and to hear from learners, their tutors and employers about how excellent teaching and learning is created and managed.
- 7. In addition to the six commissioners' meetings, the Commission's programme of work involves:
  - a range of seminars with teachers, trainers and teacher educators; and learners, employers, professional associations and learning technologists;
  - online discussions; and
  - a rigorous review and synthesis of the evidence base, including literature reviews; calls for evidence from practitioners in further education and skills, and industry; and commissioned research.
- 8. As this update is published, commissioners have had 4 of their 6 meetings/visits, 4 of the planned 7 seminars have taken place, and work is underway to review the over 200 pieces of evidence so far submitted to the Commission. The Commission is committed to taking an evidence-based approach and will not, therefore, be drawing conclusions until the process of enquiry is further forward and we have systematically reviewed the available evidence. This summary indicates progress to date, identifies what seem to us at present to be emerging issues, and invites further comment and reflection to inform the Commission's final recommendations.

# Part A: Setting the scene

9. This is a Commission about the future – of people, businesses, our economy and society. This future is dependent on our capacity to harness the collective ambition and effort of everyone in order to develop a new generation of 'home grown' highly skilled people to drive our future prosperity and well-being. We know that this country has world-class examples of vocational teaching and learning - we need to build on this expertise and replicate it more widely.

# Growth, pipelines and partnership

10. The students and apprentices that commissioners have met so far have been inspirational. Their teachers, trainers and supervisors are, often quietly, infusing them with confidence, belief, an ability to perform in their current role, and a desire to keep progressing –

professionally and personally. The colleges, providers and employers with whom they work and learn are creating environments in which they are supported to take responsibility for their own learning and performance, and to understand that risking failure is a part of success.

- 11. We have witnessed enormous pride by students, teachers and employers in vocational education and training done well, accompanied by a real seriousness of purpose. UK growth will be limited without genuine respect and support for the status of technical and practical work, and the teaching and learning that underpins it. Vocational training is about much more than 'sitting by Nellie' or just doing the job. Work requires knowledge, skill and the nurturing of expertise; so too does vocational teaching and learning. We recognise the sector's responsibility for continually improving teaching and learning. However, we believe that it must be part of a wider endeavour to increase demand and support for high quality vocational education and training amongst employers, parents and the wider public.
- 12. A strong vocational education and training system is an essential platform for our future prosperity, with the twin goals of (a) providing initial routes into work; and (b) through-career development. Over 70% of the people in work now will be in work in 20 years, and with the nature of work changing rapidly and an ageing workforce, opportunities for progression, updating and re-training will be vitally important, for individuals, families, communities, and the economy. And for the one million young people not in education, employment or training, strong vocational education and training with close links to work offers purposeful activity in the short term and realistic prospects for the future.
- 13. Economic growth is often held back by skills shortages and skills gaps, particularly in supply chains. In the initial stages of recovery from a recession, larger companies may recruit experienced workers from supply chain companies, in order to meet new orders, restricting longer term growth overall. Now is the time to invest in the 'pipeline' so that strong colleges and providers with good employer partnerships can prepare people for future skilled employment.
- 14. For example, Rolls-Royce's partnership with Derby College and the GTA<sup>1</sup> Training 2000, is providing training not only for Rolls-Royce apprentices in the East Midlands, but also for those working in other local firms, and young people hoping to secure placements in the engineering and manufacturing industry. It is a mixed economy model, based on trust and a strong public/private partnership.
- 15. In another example, Bridgwater College's experience of working with EDF Energy was that whilst EDF could not fund the training of people they did not yet employ on the nuclear new-build at Hinkley Point, they were very keen to work with the College to ensure the training it provided was relevant to the manufacturing processes EDF were adopting, so that prospective employees were well placed to secure jobs. EDF's joint capital

<sup>&</sup>lt;sup>1</sup> Group Training Associations are employer-led associations formed to support the workforce and business development needs of SMEs in a local area. They also provide large employers with the training they need in different areas of the country, and support them to build capacity in their supply chains.

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investment in facilities at Bridgwater College further underlined their commitment to a long term public/private partnership with the local community.

# The nature of vocational teaching and learning

- 16. Taking vocational education and training seriously means understanding and valuing it in its own terms. The disciplines of academic teaching and learning provide an important but not sufficient platform for excellent vocational teaching and learning. Crucially, vocational education and training is dependent on the **real work context**. Tests may be assessed, exams passed, but the ultimate goal is the ability to perform in the workplace.
- 17. The development of the **skills and knowledge that combine to form occupational expertise** is at the heart of vocational education and training. One of the higher level apprentices we met at Rolls-Royce had chosen the apprenticeship route over a place at Cambridge University because he *'enjoyed hands-on engineering'* and wanted to combine working in a cutting edge environment with the chance to study to degree level. Becoming an expert is not a one-off activity. It takes practice for a skill to become routine, and sometimes a willingness to experience and learn from failure to become truly successful. There may be fixed points (qualifications) along the way, but occupational expertise continues to develop and deepen with experience.
- 18. Central to occupational expertise are work-related **attributes** these include the ability to communicate with people at all levels, problem solving, showing enthusiasm and commitment, and working in a team, to name but a few. Where we have seen these developed effectively it has been as part of a deliberate approach to establishing behaviours as part of an overall strategy for vocational teaching and learning. This has involved teachers and trainers with a real understanding and experience of work, setting clear work-based expectations, acting as role models, and creating environments that provide both tacit and explicit encouragement to particular ways of working and being. In these expansive environments<sup>2</sup>, neither students nor teachers have been overloaded with external assessment regimes.
- 19. But to limit the vocational to 'hands-on' activity is to misunderstand its essence. **Knowledge** (and its application) is critical, whether it's learning about anatomy as part of health and beauty programmes (for one apprentice we met in this area, learning the Latin terms was the most challenging part of her programme); maths for foundation degrees in nuclear engineering (a young woman at Bridgwater told us of her ambition to work in the control room at the nuclear generating plant and how maths and science made more sense in context 'every year it gets easier and easier'); or analysing test results using digital technologies in veterinary studies for future farmers.
- 20. A key challenge in vocational teaching and learning is how to integrate **theory and practice**. As one of the land based students we met on the farm at Bridgwater College

<sup>&</sup>lt;sup>2</sup> Fuller A and Unwin L (2008) *Towards Expansive Apprenticeships*, London: Teaching and Learning Research Programme

commented – 'I could learn about veterinary somewhere else, but it wouldn't come across as well as hearing it from a vet with his hand up the cow's backside'. At Rolls-Royce, the emphasis is on developing 'deep knowledge' to underpin higher level skills: we heard that improving the interaction between theory and practice is critical if we are to take full advantage of the UK's scientific strength through improving its application within manufacturing industries.

- 21. **Practical problem solving and reflection on experience** is a third dimension of vocational learning. At BAE Systems, year one apprentices learn to undertake a systematic review of mistakes and quality errors in the training workshop at the end of each day a practice that prepares them for the production line where health and safety is the absolute priority. At Rolls-Royce the value of experimentation and innovation has been recognised in the development of what are known as 'industrial sandpits' (manufacturing research centres). While risk and failure must be minimised on the production line, the 'sandpit' model 'liberates people from the traditional norms and constraints of the production line' and is encouraging trial and error learning to develop 'deep expertise' in order to shape the future of manufacturing. Simulated contexts in colleges/providers are also important, not only in pipeline terms, but because they create the space for trial and error learning that is central to vocational education and training, though approaches necessarily differ in different vocational areas in hairdressing, for example, there is less room for mistakes even in the training salon.
- 22. Fourthly, vocational teaching and learning is most effective when it is **social**, taking place through interactions with other people. 'Communities of practice' feature strongly, with more experienced members of the community providing a 'scaffold' to support newcomers to develop the skills, knowledge and wider capabilities that make up a particular occupation. Research with organisations in the public and private sectors shows that is through collective learning to share and solve problems that 'transformation' is achieved ie that both individuals and the contexts in which they are working change as a result of the learning.
- 23. These four elements: occupational expertise and work-related attributes, development and application of knowledge, practical problem solving and reflection, and social/collective learning, are inter-related. It is through good vocational teaching and learning (either in a college/provider or in a workplace or through a combination of both) that teachers and trainers bring the four dimensions together within the dynamic context of work.

# Part B: Emerging themes

24. The Commission's approach is to work from practice to theory. After each visit so far, commissioners have spent time reflecting on what they have learned, to begin to identify the features and characteristics of excellent vocational teaching and learning and what might be transferable. This section summarises six emerging themes from their first three visits.

# That our vocational education and training system should be characterised by learning programmes with a 'clear line of sight to work'.

- 25. A 'clear line of sight to work' is a significant factor in vocational teaching and learning, for both students/apprentices and teachers/trainers. It is a powerful motivator for learners, impacting positively on their engagement with their learning; and is a key source of genuine credibility for tutors. At BAE Systems, for example, both the apprentices and we, the commissioners, could see the 'end product' the jets being built and then flying overhead we could all really see what the development of expertise was all about. That fact of students being able to see and visualise the results of their work seems to be a key characteristic of high quality vocational learning.
- 26. Having up-to-date knowledge of what's happening in workplaces is vital if vocational teachers are to have credibility with their students. Commissioners saw inspiring examples of this at Bridgwater College: a tutor on a furniture making course who introduced into his teaching local knowledge about the 200+ furniture makers in the area; a hairdressing tutor working every Saturday in a local salon; and students working a rota to milk cows on the college farm (run as a commercial business) at 5am each morning.
- 27. A number of the students and apprentices that commissioners have spoken to have emphasised the importance of having a job. In uncertain economic times, the debt prospect associated with a traditional higher education route appears to be influencing some to choose a more direct route to skilled work. What has been interesting is how this seems to be much more than an instrumental choice. There is real pride in becoming a professional, a growing sense of responsibility which extends to the world beyond the workplace, underpinned by a strong sense of professional and personal identity, and wellbeing. And many of these young people have realised that a vocational route does not close the door to getting a degree. Working and learning provides a very attractive pathway.
- 28. For adults, the tangible opportunities for work, as a result of re-training or updating are important. For example, we have seen the opportunities in Bridgwater for people out of work since the closure of the plastics industry 15 years ago to train at the college for new jobs with EDF Energy; the college's links with a new distribution centre; and its partnership with Mulberry (Design) Ltd which is building a new factory in Bridgwater with the college responsible for handling the associated recruitment to new jobs. The college sees its role as supporting local people to access skilled work through strong partnerships with local employers. The public funding and qualifications regime does not, however, always align with this ambition: this is something the Commission will look at over the winter (see Part C: More to do below).

# Specialist vocational teachers and trainers should be at the heart of the system, trusted to develop partnerships and curricula with employers; supported as dual professionals.

- 29. Teachers and trainers with both current vocational expertise and a wide pedagogic repertoire a dual professionalism are at the centre of strong vocational education and training programmes. Their continuing links with their professional domain enables them both to work in partnership with employers (either through internal relationships between training and operational teams in workplaces, or between colleges/providers and employers); and to bring their teaching alive with the language and imperatives of real work. It also gives teachers and trainers authority when assessing students' work at the Commission's seminar on feedback and assessment we heard how important it is for vocational assessments to be based on students' competence to do a job, as well as to achieve qualification standards.
- 30. Many of the teachers and trainers who commissioners have met have appeared to be in the background, rather than the foreground of students and apprentices' learning. They have created learning environments which balance instilling students with the behaviours of work with allowing them time to practise their skills through a supported process. Tutors' challenge is to introduce theoretical knowledge to underpin practice this is done during practical sessions and also in classroom settings the latter means vocational teachers have to be able to manage both the workshop-style environment and the classroom style environment. They also have to be able to link these with what may be concurrent experience in the workplace.
- 31. Teachers and trainers coming in from industry have to add to their existing skills new ones such as classroom management and lesson planning. At Bridgwater, the college (like most) uses observations to monitor new teachers' practice so they can learn and develop quickly from feedback provided by experienced colleagues so this models what the teachers do with their students. The pedagogical expertise involves learning how to make sure all students are engaged, to use formative assessment, to make lessons participative and, crucially, to get students working together just as they would in the workplace. At Rolls-Royce, company trainers work alongside tutors from Derby College and the GTA, Training 2000. The model has been designed to enable them to learn from each other with the overall goal of empowering apprentices to become strong vocational learners and workers.
- 32. Just like their students, teachers and trainers need time (on and off the job), encouragement and support to nurture their own professional expertise. They need to see what cutting edge vocational teaching and learning looks like and have a chance to try out new ideas. And they need spaces within their workplaces (colleges, training providers, GTAs etc) to share ideas, solve problems and learn collectively. At the Commission's seminar on the role of technology, for example, we heard about Birmingham Met College's approach to encouraging teachers to experiment with new technologies for themselves before developing new teaching and learning approaches with students. And over the winter, we will learn more about research aimed at supporting teachers and

trainers to judge the effectiveness and cost-effectiveness of a range of blended pedagogies.

33. At Bridgwater, teachers' approaches to working with employers in order to design curricula and maintain their professional knowledge were widespread and varied. In one example, there was a strong sense of the college farm acting as the 'development arm' of the local farming community. In another, there is a proposal to take problems encountered on the proposed nuclear construction site at Hinkley Point off-site and down-size them to the Construction Skills Centre nearby which has the same geological conditions and with machines and tools replicating those on the main site. Problems would be solved by Tier One contractors, EDF Energy engineers and College specialist trainers working together these would then be applied back on site. Both examples suggest the college is valued by local employers for its technical support for research and innovation. Perhaps this could be an area of differentiation between outstanding and good vocational provision?

# The skills and experience of adult learners are respected and incorporated in effective vocational teaching and learning

- 34. Creating learning environments that enable students and apprentices to take ownership of their learning is a key feature of effective vocational teaching and learning. Speaking to apprentices and students, commissioners have been struck by their very clear sense of purpose and by the responsibility they are taking for their own learning, increasingly enabled by technology.
- 35. At Bridgwater College, for example, commissioners heard about Ford apprentices 'teaching' their tutors about new techniques they are learning on the job. The tutor explains how the theory relates to the new techniques, making fresh connections between theory and practice, and always relating back to the ultimate goal of vocational teaching and learning effective performance in the workplace. There is, perhaps, a continuum, with the complete newcomer/novice learner at one end, and the mature, experienced adult at the other. The latter may be brushing up their skills but might know almost as much as the tutor. Where technology is concerned, young adults increasingly know more. Either way, the teacher needs to be sensitive to, and to use, their current experience.
- 36. Teachers and trainers are vocational learners too. We all tend to use those methods we have ourselves experienced as learners, so it is important that the professional development of teachers and trainers models what we know to be effective approaches especially those that respect and use their skills and experience.

# Industry-standard facilities and equipment are critical – particularly given the ways in which technology is transforming work

37. Establishing physical environments that are as close as possible to real work conditions is a critical dimension of effective vocational teaching and learning. Teachers and trainers at Bridgwater College described the concept of the 'live environment' where health and

- safety matters just as in the workplace, but also where it is important to have some fun as in the best workplaces.
- 38. Technology is transforming work, and so it follows, vocational teaching and learning. It is perhaps more obvious in engineering and manufacturing industries: at Rolls-Royce for instance, 3D printers are used in pre-production by students designing new components to speed the learning process (trial models of their designs for can be printed in just two hours). In a different example, all apprentices have access to their own and each others' learning plans and progress charts via screens around the apprenticeship academy and their tablets. We heard how, if one of them is finding a particular piece of work challenging, they can quickly see from this who has already done it and go to them for advice.
- 39. But technology is also impacting in very different sectors. At the college farm in Bridgwater, for example, commissioners witnessed a class in the cattle shed, in which students on year 2 of a BTEC National programme were learning how to scan a pregnant cow using ultra-sound. The data was being captured and transmitted to the classroom for later analysis. Technology is also used to monitor the health and nutrition of cattle in fact the leading edge practices at Bridgwater have caught the attention of the BBC Countryfile team.
- 40. This work is made possible by investment in industry-standard equipment and facilities. At Bridgwater that (co)-investment has been a commercial decision, often taken in partnership with local employers. Collaboration with EDF Energy, for example, has resulted in new Energy Skills Centre on the college's main site and a Construction Centre nearby the site of the nuclear new-build at Hinkley Point. EDF employees and apprentices have benefited, as have other local employers and learners, including those training for prospective roles at a new local distribution centre. It has been a 'win-win' arrangement for local businesses and the community, made possible by the sustained strong leadership of the college and expert vocational teachers and trainers, though restrictions on access to funding for such investment is limiting how colleges and providers can respond to demand.

# Deep knowledge must underpin higher level vocational skills

- 41. The ability to connect theory and practice is a key dimension of all vocational education and training. For higher level vocational learning, the importance of 'deep knowledge' is clear. It is knowledge that 'requires practice in addressing complex problems in a work context' and is 'difficult to teach in classrooms alone'. For the manufacturing sector, it is the knowledge that holds the key to the future development of the industry the knowledge that will transform innovation into application.
- 42. Both at BAE Systems and Rolls-Royce, there is a strong emphasis on investing in apprentices as future leaders, based on a recognition that leaders need to understand the business from bottom to top to have 'deep knowledge' of how it works. At Rolls-Royce, 20% of senior managers started as apprentices. There is significant investment in

individuals, tangible evidence of talent management in practice, and a commitment to supporting the ambitions of people within the business.

# Culture and context are key, with significant implications for leaders of learning.

- 43. The importance of establishing and sustaining, through effective leadership at all levels, a positive learning culture within organisations, is a key factor in effective vocational provision. Leadership practice that has a genuine commitment to teaching and learning at its core, combined with significant attention to detail, and a strong sense of pride in the achievements of students, apprentices, teachers and trainers, characterises the provision commissioners have visited so far both in workplaces and in colleges.
- 44. Strong leaders establish a clear and durable vision (for Exeter College it is 'to be recognised as outstanding by the local community') which provides stability against the continuous buffeting from policy changes and empowers teachers and trainers to maintain a 'relentless focus' on quality teaching and learning one principal described how 'over a number of years, and a number of cycles, the culture gets deeper and deeper, clearer and clearer'. They continuously review the balance between empowerment and accountability within their institutions giving teachers and trainers space to innovate, to design and develop curricula, build productive partnerships with employers, and develop their own professional practice and careers within supportive frameworks of performance management.
- 45. Colleges and providers that reflect good work and learning practices ('expansive environments') for their employees find that this helps them to model vocational learning environments for their students, and reinforces positive partnership working with employers. One of the challenges for colleges and providers offering provision in a range of vocational areas is to encourage the creation of different work and learning environments within an institution, so that these reflect the culture and habits of different occupations, whilst continuing to provide a strong institutional identity that all students and teachers are proud to be associated with.
- 46. Strong leaders also have a clear sense of the overall role and purpose of their organisations to serve employers and the local community. They encourage a responsive approach, through distributed leadership, which enables workplace learning organisers to develop effective partnerships with colleges and providers, and vice versa. Partnership is an adaptive process. It also involves the capacity to take risks and so strong leaders work closely with their boards and governors so that risk-taking is a managed and shared endeavour. To do this effectively requires appropriate levels of autonomy. *New Challenges New Chances* has offered some freedoms and flexibilities, but over the winter the Commission will explore features of the current system that continue to inhibit effective teaching and learning (see Part C: More to do below).

## Part C: More to do

- 47. At the mid-point of the Commission's work, commissioners have identified that there is more to do. Five areas in particular will be priorities over the winter:
  - having so far explored what is effective in vocational teaching and learning, we will focus on how to support teachers and trainers in being effective;
  - we will explore whether and how the qualifications framework inhibits excellent vocational teaching and learning for adults;
  - we will further consider how technology can support effective vocational teaching, learning and assessment;
  - following a short trip to Denmark in October, we will review a broader range of the international evidence on vocational education and training; and
  - to extend the range of the Commission's enquiries we will explore the diversity of the industries and occupations served by vocational education and training, the different motivations of a wide range of learners, the differences between initial, and continuing/re-training, and the differences between large and small employers, and the between types of providers – large and small.

# Supporting teachers and trainers to be effective

- 48. Commissioners have identified a need to:
  - further explore the importance of the teacher-learner relationship at the heart of quality vocational teaching and learning;
  - further explore the role of leaders/managers in the sector;
  - examine the nature of professional identity in different vocational sectors;
  - capture the voices of teachers and trainers;
  - understand what contributes to learners' ownership and enjoyment of their learning;
  - consider the development needs of trainers in industry;
  - explore the contribution of workplace mentoring to vocational teaching and learning;
  - consider how to promote closer connections between teaching and work, including encouraging more vocational practitioners into teaching roles.

# The relationship between vocational qualifications and excellent teaching and learning

49. The Commission's focus is on how to raise the quality of adult vocational teaching and learning. However, our work to date has suggested that some elements of the wider vocational education and training system - including the vocational qualifications framework - can inhibit teachers' and trainers' ability to achieve excellent teaching and learning and respond effectively to employers' needs. The Commission will explore these, including through understanding how a range of vocational qualifications has been developed and who has been involved in the process in order to explore the relationship between the design and development of qualifications and vocational teaching and

learning practice. We will also seek to understand better the interactions between 16-18 and 19+ vocational learning.

# The role of technology

50. There are two strands to the Commission's work on technology: (a) the transformational impact of technology on vocational practice and therefore on teaching and learning; and (b) how it is transforming vocational teaching, learning and assessment through online/digital resources and support. For the latter in particular, one area of interest is how new technologies and blended pedagogies are stimulating new thinking about the organisation of learning and the implications for curriculum development, management and review.

### International

51. The Commission is committed to learning from international evidence on vocational teaching and learning, in order to identify key features, strengths and weaknesses of other systems. One thing is already clear: effective vocational education and training is difficult to achieve and maintain. The literature from other countries stresses that there are no easy or simple solutions and that strong systems – like the one we saw in Denmark – require continuous work to maintain and improve them. Commissioners hope that by understanding our problems in the context of the challenges faced by other countries, we will gain some new perspectives on the issues.

# **Extending the range**

52. This progress update is based primarily on the first three visits commissioners have made. It identifies some starting points, but also acknowledges the diversity of learners and employers that the sector serves, and the need to understand this as broadly as possible to inform the Commission's final report. Further visits and seminars are planned; and the evidence will be reviewed and gaps identified – either to be addressed by the Commission, or as the basis for future research.

The Commission welcomes comments on its progress update and areas for further exploration. These should reach us by 25 January 2013.

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December 2012

## Six commissioners' meetings/visits

June 2012 – BAE Systems, Lancashire - an opportunity to meet apprentices, their tutors, graduate trainees and senior managers many of whom themselves had started as apprentices;

September 2012 - Bridgwater College, Somerset - to enable commissioners to explore a range of different vocational areas, and effective partnership working with employers.

November 2012 – Rolls-Royce, Derby - to hear about Rolls-Royce's approach to developing highly skilled technicians through apprenticeships and planned progression, and explore the key features of vocational training leading to progression to higher level skills development.

December 2012 – with the Princes Trust, Hackney and Kennington – to consider the key features of vocational programmes that support young adults to re-engage in education, training and the world of work; and explore the roles of the third sector, offender learning and support for learners with learning difficulties and disabilities.

January 2013 – with the Royal School of Artillery, Wilshire – to explore the end-to-end approaches to training and education in the Royal Artillery, in the military context, from initial recruitment to ongoing and next career development.

January/February 2013 – additional visits to a small work-based learning provider of business administration/ICT programmes; and to a workplace learning provider of health and social care.

### Seven seminars on cross-cutting themes

The Commission is holding a series of seven seminars on cross-cutting themes to inform its evidence base and final report and recommendations.

The themes for the seven seminars are:

- Feedback and assessment in learning and role of curricula and qualifications (Oct 2012);
- The role of technology as both a driver and enabler of vocational teaching and learning (Oct 2012);
- Leading learning (Oct 2012);
- The re-emergence of technicians, with a focus on STEM (Nov 2012);
- Initial teacher training and continuing professional development (Jan 2013);
- Embedding English and maths in vocational programmes led by Institute for Learning (Jan 2013);
- Higher level vocational learning (Feb 2013).