Work-based learning and assessment - links with Further Education and the role of apprenticeship schemes - Jessica Ball (work-based assessor) and Nick Backstrom (Cogent skills)

Jessica Ball introduced the importance of considering chemistry education in its wider context and that ultimately, the role of educators is to provide their students, at all levels, with the skills and knowledge they need to prepare them for work. As well as job-specific skills, employers are often looking for other ‘soft skills’, needed for most jobs, such as creativity, the ability to make decisions, team working and problem solving. Young people with no career history may sometimes find it difficult to be able to show they have some of these more generic skills but chemistry, being one of the more practical subjects can provide a foundation for linking skills and knowledge.

Most people who handle and work with chemicals are not chemists but they will all need some form of training and knowledge, including cleaners, healthcare workers and those who deal with waste chemicals. For some, it may only need to be fairly generic and others may need more specialist knowledge and skills. Work-based training and assessment is relevant in many industries and at all levels and school, college and university chemistry has a role in providing the basic principles and skills which will be built on in the workplace.

There are number of routes in which learning can be delivered in the workplace but increasingly the new apprenticeships, traineeships and foundation learning are gaining popularity as a pathway into a careers, including those requiring chemical skills. Work-based qualifications can provide evidence to an employer, or potential employer, that a person has already demonstrated the skills and knowledge that they are looking for and often students undertaking a traineeship or apprenticeship can secure permanent employment on completion.

Nick Backstrom, of Cogent Skills, provided details of the apprenticeship frameworks and the links to further education covering the chemical and related industries.

In the breakout sessions, the full range of chemical skills and knowledge was considered from basic to advanced, covering the chemical and related industries and other workplaces. The view that the need for chemical knowledge and skills is all about chemical and pharmaceutical industries and lab work or getting higher level formal academic qualifications was challenged. The three activities covered:

1. Identifying where chemical skills and knowledge would be needed in various industries at any level including construction, agriculture, utilities (gas, electricity, water, waste) and healthcare
2. Looking at examples of vocational qualification ‘units’ where chemical skills and/or knowledge are assessed from Level 1 – Level 4
3. Looking at examples of job vacancies, identifying levels/ entry requirements and salaries for those in a work-based learning environment